



320120219P

Report type:	Phase I Appraisal (Desk Study)
Site:	Altham Pumping Station, Burnley Road, Burnley
Client's Agent:	JWPC Ltd
Client:	Waterboy Ltd
Ref:	GRM/P5667/DS.1
Date:	November 2011

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1 INTRODUCTION

1.1 PREAMBLE

GRM Development Solutions Limited (GRM) has been appointed by JWPC Ltd (Client's Agent) on behalf of Waterboy Ltd (Client) to undertake a Phase I Site Appraisal (desk study).

The desk study and site inspection form Phase I of the assessment and allow the geotechnical and geo-environmental setting of the site to be determined and the identification of areas of particular concern that require targeted investigation. Subsequent Phase II works, if required, would comprise an intrusive ground investigation, geotechnical testing, chemical analysis, assessment and recommendations. The information gained from any subsequent Phase II works would be used to refine the conceptual model for the site and determine the most cost effective development solutions.

The Client proposes to demolish the existing pumping station and construct a new pumping station to extract water for bottling. The plans provided by the client (presented in Appendix A) indicate that the development site will be mainly covered by hard standing with only limited areas of soft landscaping.

The Client has not made GRM aware any specific potential development hazards.

This desk study is intended to provide information that will assist decision making by identifying and recommending possible solutions to ground engineering and contamination issues.

GRM Standard Limitations of Reporting are provided on the back cover of this report.

1.2 OBJECTIVES OF THE PHASE I SITE APPRAISAL

The Client's specific requirements were to carry out a Phase I Site Appraisal in accordance with the supplied quotation. The principal aims of these were as follows:

- a) Obtain information, from easily accessible sources, about the soil and groundwater conditions within the area of the site.
- b) Determine the possible ground related geotechnical and contamination hazards within the site boundaries that may affect the proposed development.
- c) Provide preliminary development recommendations.
- d) Provide advice on further works (Phase II Investigation) required for the cost-effective reduction of risks to the development and procedures likely to satisfy regulators.

Whilst every effort has been made to pre-empt the likely requirements of the Local Authority and the Environment Agency, they are likely to have specific requirements that will need to be discussed and addressed at a later date.

2 PHASE I - DESK STUDY AND SITE OBSERVATIONS

2.1 INFORMATION SOURCES

The following sources have been used for the identification and assessment of potential ground hazards:

- Relevant British Standards.
- British Geological Survey (BGS) Geology Map Scale 1:50,000 Sheet 68 'Clitheroe'
- Historical Ordnance Survey (OS) Maps.
- Environmental Data Report (GroundSure Ltd).
- Coal Authority Mining Report.
- Environment Agency Website: <http://www.environment-agency.gov.uk/>
- DEFRA/Environment Agency R&D Publication CLR documents and DoE Industry Profiles.
- Building Research Establishment (BRE) Digest BR211, 'Radon: Guidance on protective measures for new buildings', 2007.
- HPA and BGS Publication HPA-RPD-033, 'Indicative Atlas of Radon in England and Wales', 2007.
- CIRIA C665 'Assessing risks posed by hazardous ground gases to buildings', 2007.
- BRE Special Digest SD1 'Concrete in Aggressive Ground', 2005.
- Client supplied information including site location.

Other technical references used throughout this document are detailed in the text.

2.2 SITE DESCRIPTION

2.2.1 Geographical Setting

The site is located to the north west of Burnley Road 750m south of the centre of Simonstone Village, approximately 7km west of Burnley town centre. The National Grid Reference (NGR) for the approximate centre of the site is SD77332. A Site Location is provided in Appendix B.

The site covers an area of approximately 0.35ha and comprises a rectangular shaped plot. The north eastern, north western and south western boundaries are mainly formed by undeveloped land, although there are industrial type buildings directly north of the site and the Calder Vale Works are located 165m north. The south eastern boundary is marked by Burnley Road and two residential properties.

2.2.2 Site Description

The site is generally level and a large brick built building surrounded mainly by hard standing occupies the central area of the site; to the south of the building the ground surface is rough broken hard standing that is partially vegetated. There are occasional trees surrounding the site.

It is assumed that the site is connected to mains services. Overhead electricity cables cross the southern section of the site.

A selection of general site photographs is presented in Appendix B.

Significant features:

Existing structures – deepened foundations. Existing substructures – deepened foundations, hazard for foundation excavation. Trees – deepened foundations if shrinkable strata are present. Existing services – may require disconnection/diversion.

2.3 HISTORICAL DEVELOPMENT OF THE SITE

A review of the available historical Ordnance Survey (OS) maps gives an insight into the development of the site and can highlight potential hazards. Extracts of the maps reviewed are provided in Appendix C. The features noted are summarised below.

The site is undeveloped on the earliest available map (1891-1892); however, by 1912 the site is occupied by the 'Altham Bridge Pumping Station' which comprises a large centrally located building (still present) along which chimneys and tanks. Generally the site remains unchanged till the present day, although the tanks and chimney are not labelled from the 1950s onwards.

The area surrounding the site was generally undeveloped prior to 1912, the exceptions being Burnley Road and small scale residential and farming properties to the south. The map for 1912 shows Calder Colliery directly to the northeast of the site and the two residential properties that form part of the south western boundary have been built. Apart from slight alterations to Calder Colliery and its tip the surrounding area remains generally unchanged until the 1950s after which works buildings are shown to the east and west of Simonstone Lane to the north of the site. The River Calder is present less than 50m east of the site.

Previous work by GRM in the area confirmed that the works building to the north of the site was first developed and used for the manufacture of glass screens for televisions, although more recently it has been used for the manufacture of stainless steel products.

Significant Features identified on OS Maps:
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Former colliery – potential coal workings Colliery spoil tip – potential source of contamination and ground gas Made ground associated with former use – potential source of contamination and ground gas. River Calder – potential receptor Made ground – deepened foundations, upgraded floor slabs Substructures associated with former buildings – foundation deepening, breaking out.

2.4 ANTICIPATED GEOLOGY

The site is reported to be underlain by superficial Alluvium (associated with the River Calder). Locally Glacial Till is present at surface and may well be present below the Alluvium. The Glacial Till is likely to comprise gravelly clay and the Alluvium is likely to comprise a mixture of clays, silts, sands and gravels.

The solid geology is reported to comprise strata of the Pennine Lower Coal Measures which generally comprise mudstone, siltstone and sandstone with subordinate coal seams. The Arley Mine Seam is shown to sub-crop below the superficial deposits to the north of the site. The local dip is not shown on the geological map but given the local stratigraphy it is assumed to dip to the southwest and as such the Arley Seam is highly likely to be present under the site. No faults are shown to affect the site. As the site has previously been developed it is likely that made ground deposits will be present.

There are two onsite borehole records held by the BGS (presented in Appendix D) these have been reviewed along with shaft records for the adjacent Calder Colliery; these indicate superficial deposits comprising clay and gravel to depths of 14.5-15m over coal measures strata comprising mainly mudstone. The Arley Mine Coal Seam is recorded to be present at depths of 17.5-22m below the site and is noted as around 1.5m thick.

Significant Features identified from geological data:
Variable deposits (Alluvium) – deepened foundations, upgraded floor slabs
Coal – potential geotechnical hazard

2.5 HYDROGEOLOGICAL INFORMATION

No detailed information regarding the depths to groundwater is available but it is likely to be subject to seasonal variation. The Environment Agency has classified the Alluvium and the Coal Measures strata as Secondary A Aquifers; the Glacial Till beneath the Alluvium is recorded as unproductive strata. The site is not recorded to be within a groundwater protection zone; however, the onsite borehole is classed as a potable groundwater abstraction. There are a further two abstractions (process water) located 459m north east of the site.

Significant Features identified from hydrogeological data:
Secondary A aquifers – potential receptor
Groundwater abstraction – potential receptor

2.6 HYDROLOGICAL INFORMATION

The River Calder is present less than 50m east of the site; however, the site is not in the flood zone. The River Calder is classed as 'fairly good' with regard to both biological and chemical quality. There are four surface abstraction licenses within 1km of the site; these are located 999m from the site and as such are not considered to be potential receptors.

Significant Features identified from hydrological data:
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River Calder – potential receptor

2.7 MINERAL RESOURCES

The Coal Mining Report (presented in Appendix E) indicates that the site is in the likely zone of influence from workings in one seam of coal at 280m to 320m depth which was last worked in 1931; any ground movement from these coal workings should have stopped by now. These workings are at sufficient depth not to pose a risk to the site.

The report highlights the presence of coal shaft within 20m of the site, this is the shaft associated with Calder Colliery noted on the historical maps. The report indicates that the shaft was capped with a reinforced concrete cap in 1982; given the date of treatment it is considered that its position indicated on the plan attached to the report is accurate and as such the shaft does not pose a risk to the site.

The report does indicate that the site is in an area where the Coal Authority believes there is coal at or close to the surface which may have been worked at some time in the past. These comments relate to the Arley Mine Seam. As set out in section 2.4 this seam is indicated to sub-crop to the north of the site and as confirmed by the on site borehole records is present at shallow depth below the site and has insufficient rock cover; therefore, there is the potential for unrecorded mine workings in this seam to pose a risk to the site and probe drilling will be required. The risks can be summarised as follows:-

Recorded Workings – Negligible
Unrecorded shallow workings – Moderate to High
Opencast workings – Negligible
Recorded Mine entries – Negligible
Unrecorded Mine entries – Low
Spontaneous combustion – Low

The risk posed requires further investigation so that it can be better quantified. This should comprise of a comprehensive ground investigation including probe drilling. Following this appropriate mitigation measures such as grouting or the use of engineer designed foundations can be specified as appropriate.

Potential Mineral Hazards:

Arley Mine Seam at shallow depth – geotechnical hazard
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2.8 ENVIRONMENTAL INFORMATION

Environmental database information has been acquired from GroundSure. There is a considerable amount of data and not all of it is relevant to this appraisal. The full report is presented in Appendix F, but in summary the following features, not covered elsewhere in this report, are identified:

- There are a number records relating to environmental permits, incidents or registers within 500m of the site; all of these are off site and are considered not to pose a risk to it.
- There are three recorded pollution incidents off site, none are considered to pose a significant risk.
- There are eleven records relating to waste sites within 1km of the site; these include off site land fills and waste transfer sites. A historical landfill is recorded on the former TV screen site to the north, this is noted as accepting inert, industrial, liquid sludge waste.
- There are a number of entries relating to current land use within 250m of the site; these include the on site works and a number of low risk operations off site.

Significant Features identified from Environmental data:

Former landfill onsite – potential source of ground gas and contamination
Industrial land use on site – potential source of contamination

2.9 ARCHAEOLOGY

Archaeological information has not been sought as part of this desk study and has not been identified as an issue by the Client. Some Local Authorities require at least an initial archaeological appraisal for development sites. GRM can undertake such appraisals if required.

Archaeological investigations occasionally reveal ground-related problems from ancient times (prior to the 1st Edition OS maps) which can occasionally cause foundation and contamination development hazards.

Archaeological Hazards:

Not researched

2.10 INVASIVE PLANT SPECIES / ECOLOGY

Ecological issues can have a significant effect on developments. GRM is not a specialist in this topic and has not conducted such a survey. However, GRM endeavour to report easily recognisable issues such as Japanese Knotweed, Giant Hogweed, badger sets etc, when seen on site.

Invasive Plant Species / Ecological Hazards:

None

2.11 RADON GAS

The Health and Safety Executive (HSE) requires that if radon concentrations in air exceed 400 Bqm⁻³ in the workplace then mitigation measures may be required to reduce levels. This assessment can only be accurately carried out by undertaking measurements.

The level of 400 Bqm⁻³ in the workplace is considered to be analogous to the level of 200 Bqm⁻³ in the home, due to the reduced exposure time in the former.

The NRPB-W26: 'Radon Atlas of England and Wales' (2002) has now officially been superseded. However, while the new atlas contains revised maps, the previously provided tables of data are not included. Until this regional/local data has been republished (pending) NRPB-W26 (2002) will continue to be used, as it is the only readily accessible source of data available for assessing the risk posed by radon to commercial/industrial developments

NRPB-W26 indicates that the average radon concentration in dwellings in the Ribble Valley Borough Council area is 47Bqm⁻³, with a highest value of 450Bqm⁻³. No measurements have been undertaken in the BB12 postcode area.

"BR211 Radon: Guidance on protective measures for new dwellings" indicates that no radon protection measures are required for new residential dwellings in the area. Therefore, it is considered that no protection measures will be required for the proposed industrial/commercial development.

Radon Hazard:
None

2.12 CONTAMINANTS OF CONCERN

The desk study has revealed that the site has been developed since the around 1900 with a water pumping station; there is not a specific DoE Industry Profile for the identified land use and as such experience of similar sites has been used to determine the potential contaminants of concern for the site.

Asbestos and PCBs are listed in the vast majority of profiles. PCBs are listed as the profiles expect electricity substations and switch boxes on all industrial sites, none are present on site. There is the potential that asbestos containing materials could have be mixed up with made ground, following the demolition works. Analysis for asbestos and/or petroleum hydrocarbons should be undertaken if visual evidence of such contamination is encountered within the ground during the development.

There are contaminants that are generally tested for as a matter of course as their prevalence on brownfield sites is renowned. These include:

- Arsenic
- Cadmium
- Chromium
- Lead
- Mercury
- Selenium
- Copper
- Nickel
- Zinc
- Phenols
- cyanide (total)
- pH
- Water soluble sulphate
- Speciated PAH (polycyclic aromatic hydrocarbons)

2.13 SUMMARY OF IDENTIFIED SIGNIFICANT FEATURES

Potential hazards have been identified in earlier sections and are now summarised in tabular form, with their consequences and possible risk management actions.

Potential Hazard	Potential Consequence	Action
Live underground services	Excavation hazard	Disconnection or diversion
Overheard cables	Site height restrictions	Discussion with electricity company
Shallow coal	Drill and grout treatment	Ground investigation
Former structures and substructures	Deepened foundations, upgraded floor slabs	Ground investigation
Variable low strength soils (Alluvium)	Deepened foundations, upgraded floor slabs	Ground investigation
Shallow ground water	Excavation hazard / low bearing capacity, upgraded floor slabs	Ground investigation
Secondary A Aquifers	Potential receptor	Ground investigation, chemical analysis and risk assessment
River Calder	Potential receptor	Ground investigation, chemical analysis and risk assessment
Past use, onsite made ground	Potential source of contamination and ground gas	Ground investigation, chemical analysis and risk assessment
Former landfill (sludge beds)	Potential source of contamination and ground gas	Ground investigation, chemical analysis and risk assessment
Colliery spoil tip	Potential source of contamination and ground gas	Ground investigation, chemical analysis and risk assessment

3 PHASE I CONCEPTUAL MODEL

3.1 POTENTIAL SOURCE – PATHWAY – RECEPTOR

The consideration of contamination is based upon the principles of risk assessment using the source-pathway-receptor model to establish the presence, or potential presence, of a pollutant linkage.

To create a risk, contamination must have the potential to cause harm to susceptible targets or receptors such as humans, the water environment or the built environment. The potential for harm to occur requires three conditions to be satisfied to form a pollutant linkage:

- The presence of substances that may cause harm (SOURCE),
- The presence of a target which may be harmed (RECEPTOR),
- The existence of a plausible migration route between the source and the receptor (PATHWAY).

In the absence of a plausible pollutant linkage there is no risk. Where a linkage is identified, for contamination not to pose a risk to the identified receptors, it must be broken.

The site has been developed since the approximately 1907s and has always been used as a pumping station. Local land uses have included collieries and television screen manufacturing. Given the history of the site significant contamination is unlikely; however, localised low level hotspots may be present. The likely contaminants of concern are listed in section 2.12. Potential sources of ground gas have been identified (onsite made ground, landfill and colliery spoil) and at this stage the risk of such is considered moderate. The site is to be redeveloped as a commercial pumping station for bottled water with only limited amounts of soft landscaping and as such any contamination is unlikely to pose a significant risk to end users.

The primary human health receptors are end users and construction workers (construction and maintenance phases). The primary pathways of concern include dermal contact with contaminated soil and soil dust (greatly reduced to lack of soft landscaping), the ingestion of contaminated soil and soil dust, indoor and outdoor inhalation of ground gas and soil vapours, and migration of contamination into water supply pipes. At this stage due to the past site use and the nature of the proposed development the risk to end users is considered low.

For controlled waters, the Secondary A aquifers and the surface water features are considered the primary receptors and the primary pathway to them would be through infiltration and leaching. At this stage due to the past site use the risk to controlled waters is considered low.

For construction materials, the primary receptors are water supply pipes, buried concrete and buildings (if explosive gases, e.g. methane, build up to potentially dangerous concentrations). The primary pathways of concern are direct contact leading to degradation of pipe materials, acid and/or sulphate attack on buried concrete, and the migration of ground gases. At this stage, it is considered that there is a low risk to construction materials.

The pollutant linkage model is illustrated in detail on the following page.

3.2 POLLUTANT LINKAGE MODEL

HUMAN HEALTH			
Potential Source	Potential Pathway	Potential Receptor	Potential Solution
Contaminated made ground associated with former use.	Indoor and outdoor inhalation of soil dust, ingestion and dermal contact with contaminated soil and soil dust (reduced to general lack of soft landscaping).	End users and construction workers.	Capping of soft landscaped areas.
Ground gas associated with onsite made ground and natural strata.	Inhalation.	End users of the completed development.	Basic gas protection measures.

CONTROLLED WATERS	
Contaminated made ground associated with former use.	Secondary A Aquifer and surface water features.
	Source removal.

CONSTRUCTION MATERIALS		
Contaminated made ground associated with former use.	Migration of contamination through leaks and joints, degradation of pipe materials.	Water pipes.
Acidic ground conditions and/or elevated levels of sulphate.	Direct Contact.	Burred concrete.
Ground gas associated with onsite made ground and natural strata.	Migration in to building.	Buildings.
		Appropriate concrete specification.
		Basic gas protection measures.

4 CONTAMINATION/REMEDATION RECOMMENDATIONS

The risk of ground contamination is considered moderate and prior to development a ground investigation will be required, the scope of which is outlined in Section 6; However, at this stage based on the desk study information available it is considered that allowance be made for the following:

- 600mm capping in all soft landscaped areas.
- Upgraded water pipes (protecta line or similar).
- Removal of hotspots that pose a risk to controlled waters.

5 PRELIMINARY GEOTECHNICAL ASSESSMENT

The Client has indicated that the proposed development will comprise the construction of a new pumping station, It is assumed that this is likely to be a portal frame structure. Should the development proposals be other than those stated above then the comments and recommendations below may require revising.

It should be noted that the following comments and recommendations are based on the findings of this desk study which may not give a true indication of a soils actual engineering properties (i.e. stability, mass structure etc). Prior to development a ground investigation will be required to confirm the initial recommendations outlined below, the scope of which is outlined in Section 6. However, at this stage based on the desk based information available it is considered:

- The ground conditions are likely to comprise varying amounts of made ground over loose granular and soft cohesive superficial alluvium deposits; where Glacial Till is present the superficial deposits may be stiffer clay. Coal Measures strata should be present at depths of around 14m begl.
- Allowance should be made for the removal of existing substructures in the area of the proposed buildings.
- Providing deep made ground and/or soft or loose materials are not present the site may be suitable for the use of traditional trench or pad foundations.
- Providing deep made ground and/or soft or loose materials are not present the site may be suitable for the use of ground bearing slabs; however, at this stage allowance should be made for excavation and re-compaction of near surface soils below the proposed floor slabs
- Overly aggressive ground conditions are not expected and standard concrete should be suitable.

6 **FURTHER INVESTIGATION**

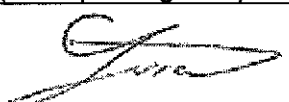
A Phase II ground investigation is recommended to determine more accurately the effect of the identified hazards on the development. Initially, this should include:

- A window sampling, trial pits and/or cable percussive borehole investigation to confirm ground conditions and collect samples for analysis.
- Chemical analysis of soils followed by risk assessment so that the risk to human health and controlled waters can be determined.
- Gas monitoring to assess the risk posed by ground gases.
- Rotary borehole investigation to confirm the presence or otherwise of unrecorded shallow coal workings below the site.
- Geotechnical soils testing of the founding strata to assess its strength and suitable grades of buried concrete.

Following your review of this document, a copy of it should be submitted to the Planning Department of the Local Authority for comment and approval prior to any ground investigation works being undertaken, as this is often a condition of planning.

7 **CONCLUSIONS**

This desk study assessment has shown the site is likely to be suitable for the proposed development, assuming compliance with all the recommendations contained within this report.

Document prepared by	 Chris Storey BSc PGDip FGS (Principal Engineer)
Review and Approved by	 Chris Jerram FGS CGeol (Director)
When required in-house geological geotechnical environmental structural and civil staff helped to produce this document	

NOTES ON LIMITATIONS

General

GRM Development Solutions Limited has prepared this report solely for the use of the Client and those parties with whom a warranty agreement had been executed, or with whom an assignment had been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from GRM Development Solutions Limited; a charge may be levied against such approval.

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Phase I Environmental Audits/ Desk Studies

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site and meetings and discussions with relevant authorities and other interested parties. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, GRM Development Solutions Limited reserves the right to review such information and, if warranted, to modify the opinions accordingly. It should be noted that any risks identified in a Phase 1 report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Phase II Environmental Audits (Contamination Investigations)

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, ground and groundwater conditions to allow a reasonable risk assessment to be made. The objectives of the investigation have been limited to establishing the risks associated with potential human targets, building materials, and controlled waters.

The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to the areas unoccupied by the building(s) on the site and by buried services. A more comprehensive investigation may be required if the site is to be redeveloped as, in addition to risk assessment, a number of important engineering and environmental issues need to be resolved.

For these reasons if costs have been included in relation to site remediation these must be considered as tentative only and must, in any event, be confirmed by a commercial adviser.

The exploratory holes undertaken which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. The number of sampling points and methods of sampling and testing do not preclude the existence of localised "hotspots" of contamination where concentrations may be significantly higher than those actually encountered.

The risk assessment and opinions provided, inter alia, take in to consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

Phase II Geo-environmental Investigations (Combined Geotechnical and Contamination Investigations)

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, geotechnical characteristics and ground and groundwater conditions to provide a reasonable assessment of the environment risks together with engineering and development implications. If costs have been included in relation to site development a commercial adviser must confirm these.

The exploratory holes undertaken, which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions apparent at the site for each of the exploratory holes. There may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report.

The comments made on groundwater conditions are based on observations made at the time the site work was conducted. It should be noted that groundwater levels will vary owing to seasonal, tidal and weather related effects.

The scope of the investigation was selected on the basis of the specific development proposed by the Client and may be inappropriate to another form of development or scheme.

The risk assessment and opinion provided, inter alia, take into consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.



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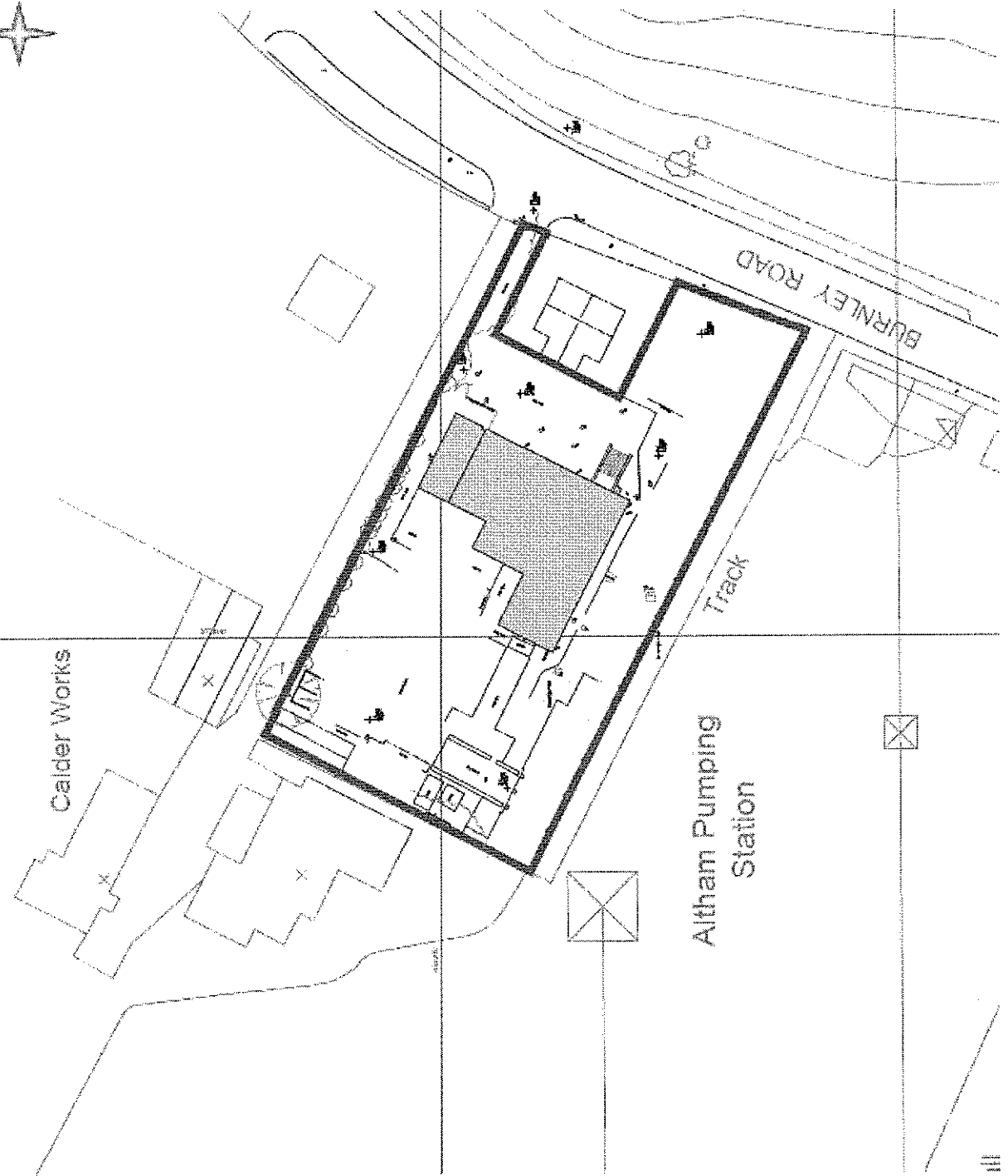
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CLIENT:

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PROJECT:

**Altham Pumping Station,
Burnley Road, Altham**

TITLE:

Proposed Development Plan

SCALE@SIZE:

NTS

ISSUE:

FINAL

DESIGN/DRAWN:

CRS

DATE:

11/2011

PROJECT No:

P5667

DRAWING No:

Figure 1

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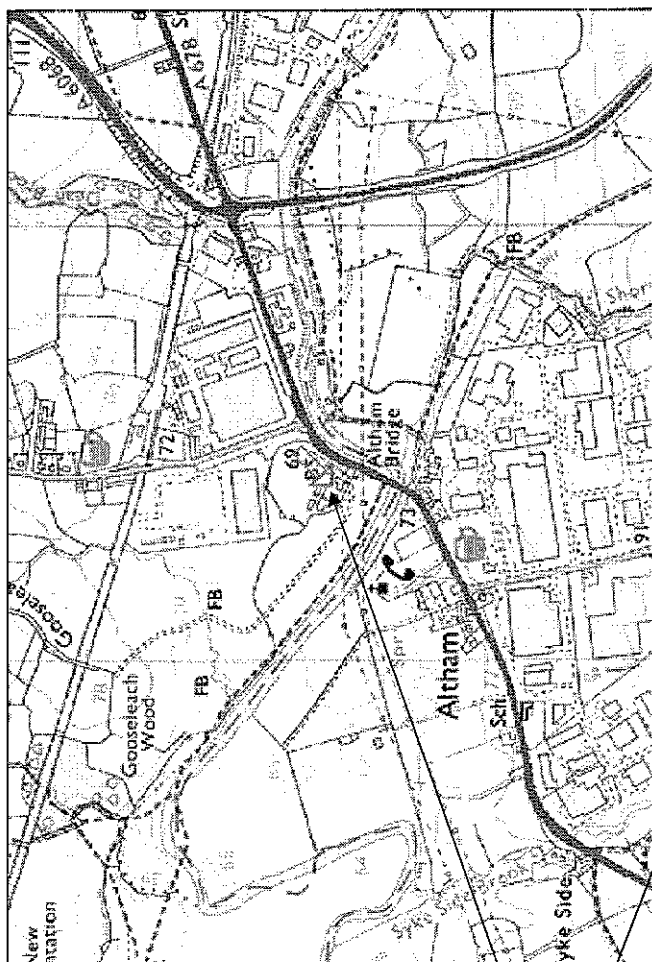
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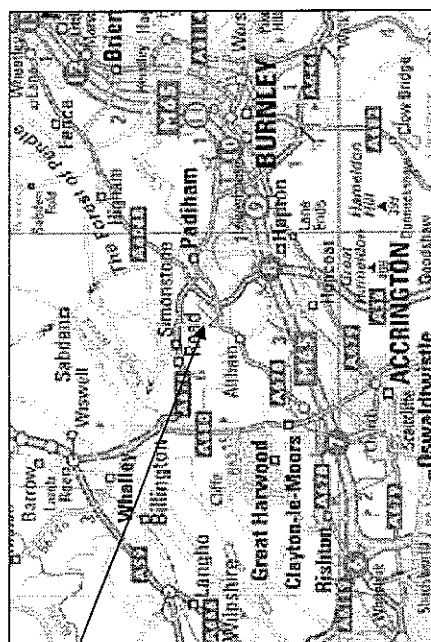
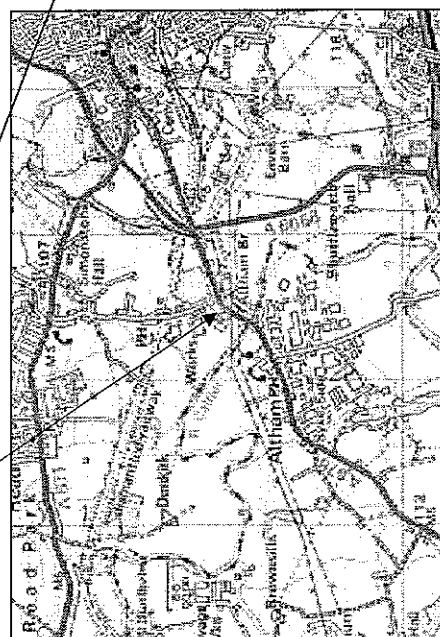
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Approx Site Location



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CLIENT:

Waterboy Ltd c/o JWPC Ltd

PROJECT:

**Altham Pumping Station,
Burnley Road, Altham**

TITLE:

Site Location Plan

SCALE/SIZE:

NTS

ISSUE:

FINAL

DESIGN/DRAWN:

CRS

DATE:

11/2011

PROJECT No:

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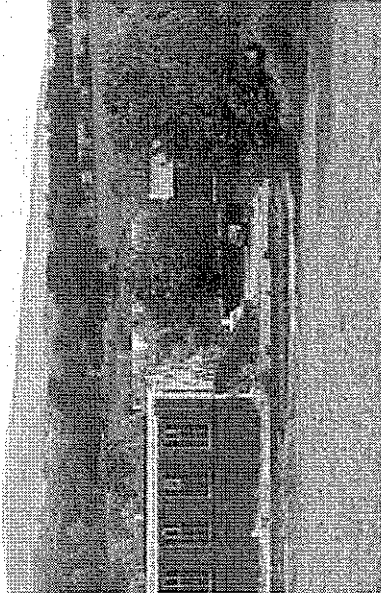
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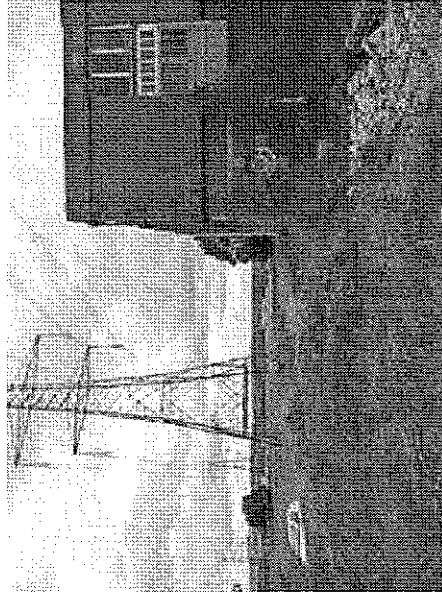
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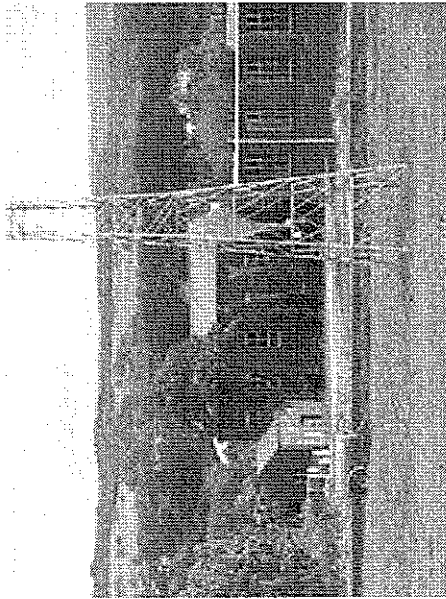
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Photograph 2



Photograph 4



Photograph 1



Photograph 3



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CLIENT:

Waterboy Ltd c/o JWPC Ltd

PROJECT:

**Altham Pumping Station,
Burnley Road, Altham**

TITLE:

General Site Photographs

SCALE(S):

NTS

ISSUE:

FINAL

DESIGN/DRAWN:

CRS

DATE:

11/2011

PROJECT No:

P5667

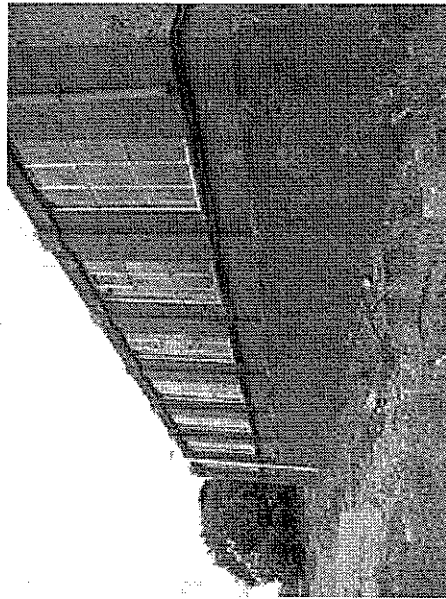
DRAWING No:

Figure 3

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Photograph 5



Photograph 6



Photograph 7



Photograph 8

DO NOT SCALE

NOTES:



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Burton-on-Trent, Staffordshire
Tel: 01293 551 249 Fax: 01293 211 968
E: info@grm.co.uk W: www.grm.co.uk

CLIENT:

Waterboy Ltd c/o JWPC Ltd

PROJECT:

**Altham Pumping Station,
Burnley Road, Altham**

TITLE:

General Site Photographs

SCALE@SIZE:

NTS

ISSUE:

FINAL

DESIGN/DRAWN:

CRS

DATE:

11/2011

PROJECT No:

P5667

DRAWING No:

Figure 4

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NOTES:



Photograph 10



Photograph 9



Photograph 11



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CLIENT:

Waterboy Ltd c/o JWPC Ltd

PROJECT:

**Altham Pumping Station,
Burnley Road, Altham**

TITLE:

General Site Photographs

SCALE@SIZE:	NTS	ISSUE:	FINAL
DESIGN/DRAWN:	CRS	DATE:	11/2011
PROJECT No:	P5667	DRAWING No:	Figure 5

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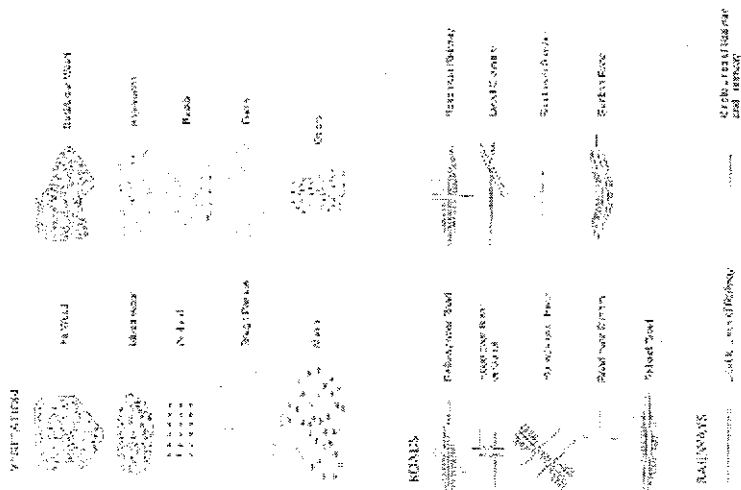
Tel: 01283 551249

e.info@grm-uk.com

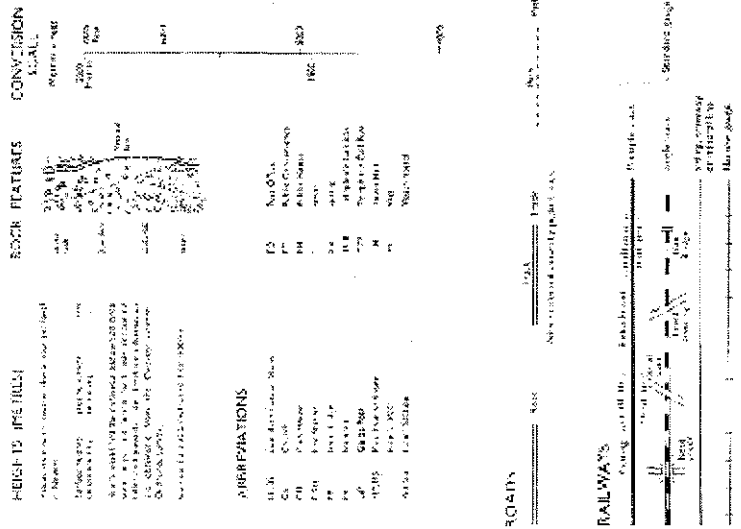
Fax: 01283 211968

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County Series 1:10,560 scale



National Grid 1:10,000 scale



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County Series & National Grid

1:10,560 scale
 &
 1:10,000 scale

**National Grid 1:2,500 / 1:1,250
scale**

**National Grid 1:2,500 / 1:1,250
scale**



1:1,250 scale



1:2,500 scale

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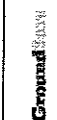
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BB12 7NL

Map Name: National Grid

Scale: 1:2,500

Printed at: 1:2,500

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Site Details:
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Client Ref: EMS_146164_210927
Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: National Grid
Map date: 1990-1993
Scale: 1:2,500
Printed at: 1:2,500



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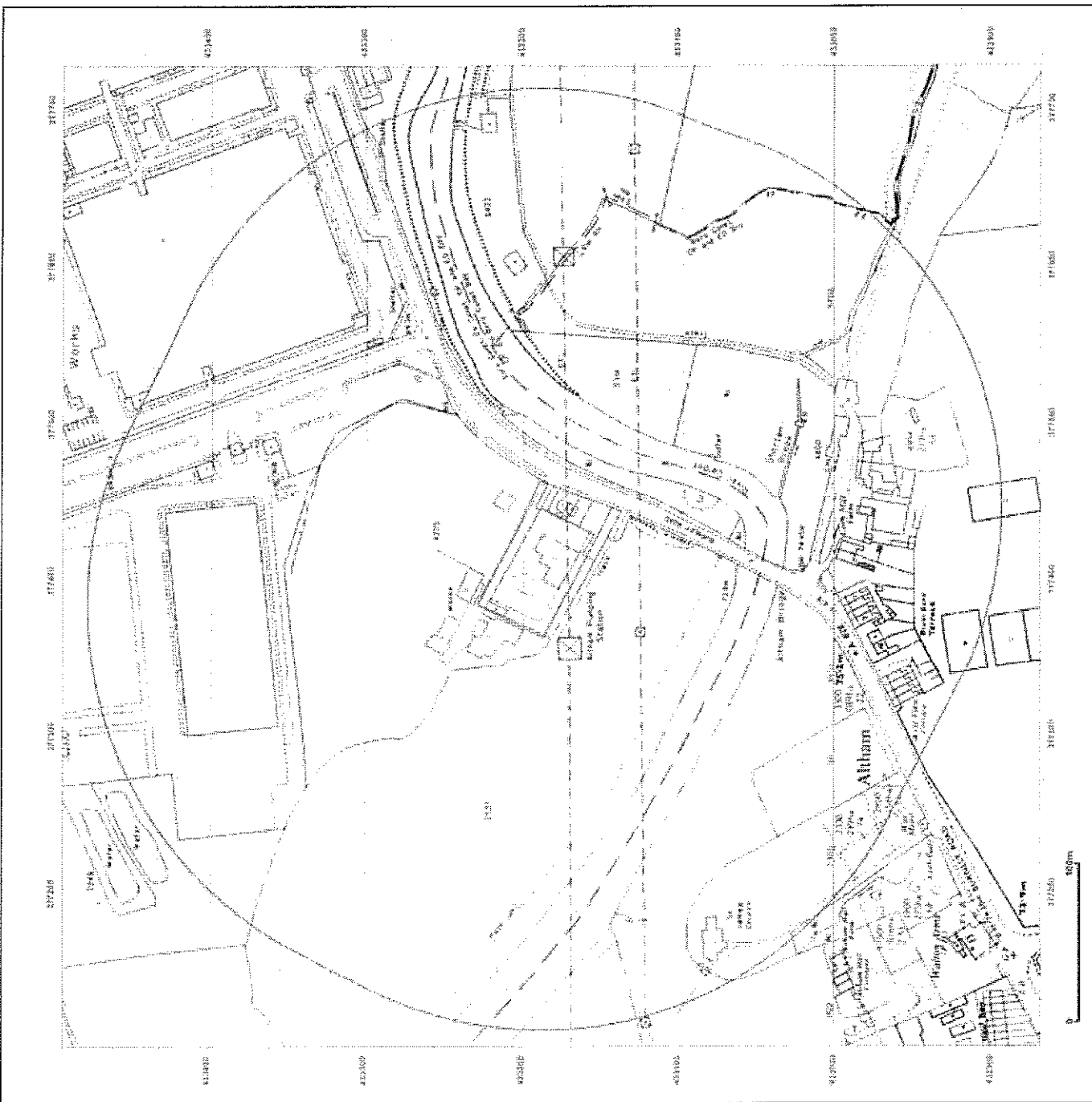


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Client Ref: EMS-146164_210927
Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: National Grid

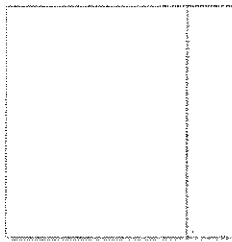
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Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1983
Referenced 1983
Revised 1983
Original 1983
Standard 1983



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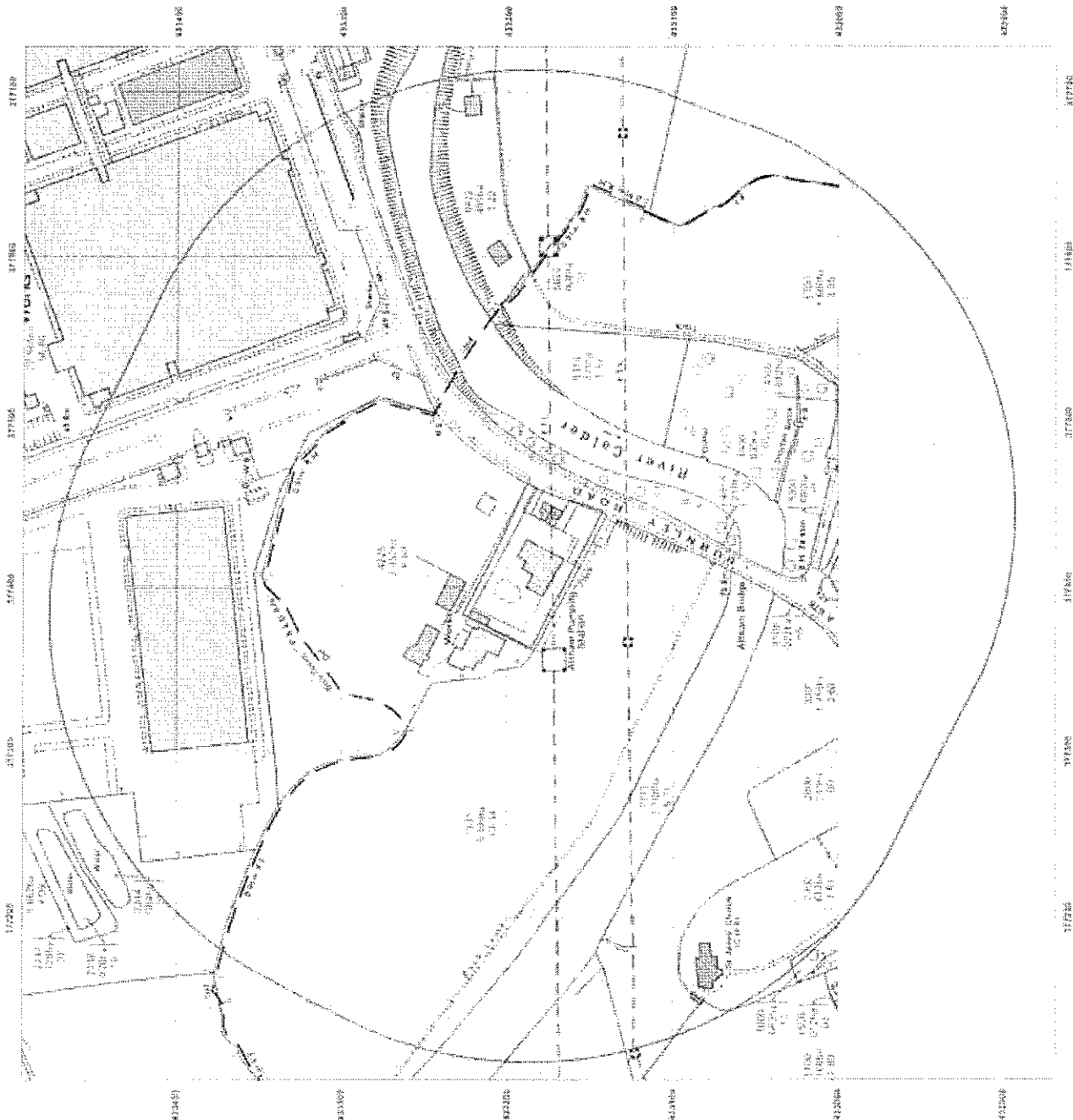


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Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

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Client Ref: EMS_146164_210927
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Grid Ref: 377415, 433180

Map Name: National Grid

Map date: 1975

Scale: 1:2,500

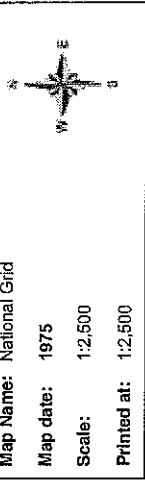
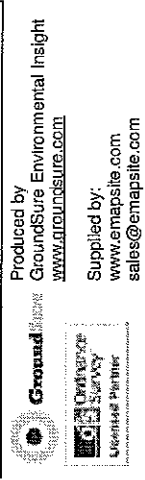
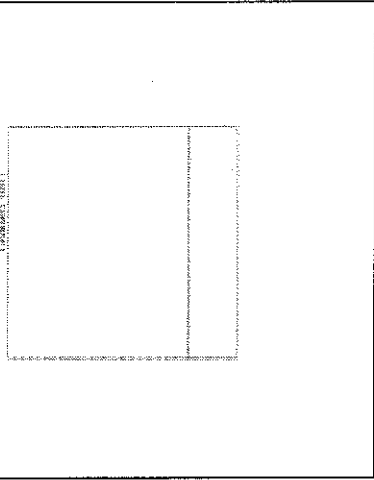
Printed at: 1:2,500



Map date: 1975
Scale: 1:2,500
Printed at: 1:2,500

Scale: 1:2,500
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Printed at: 1:2,500

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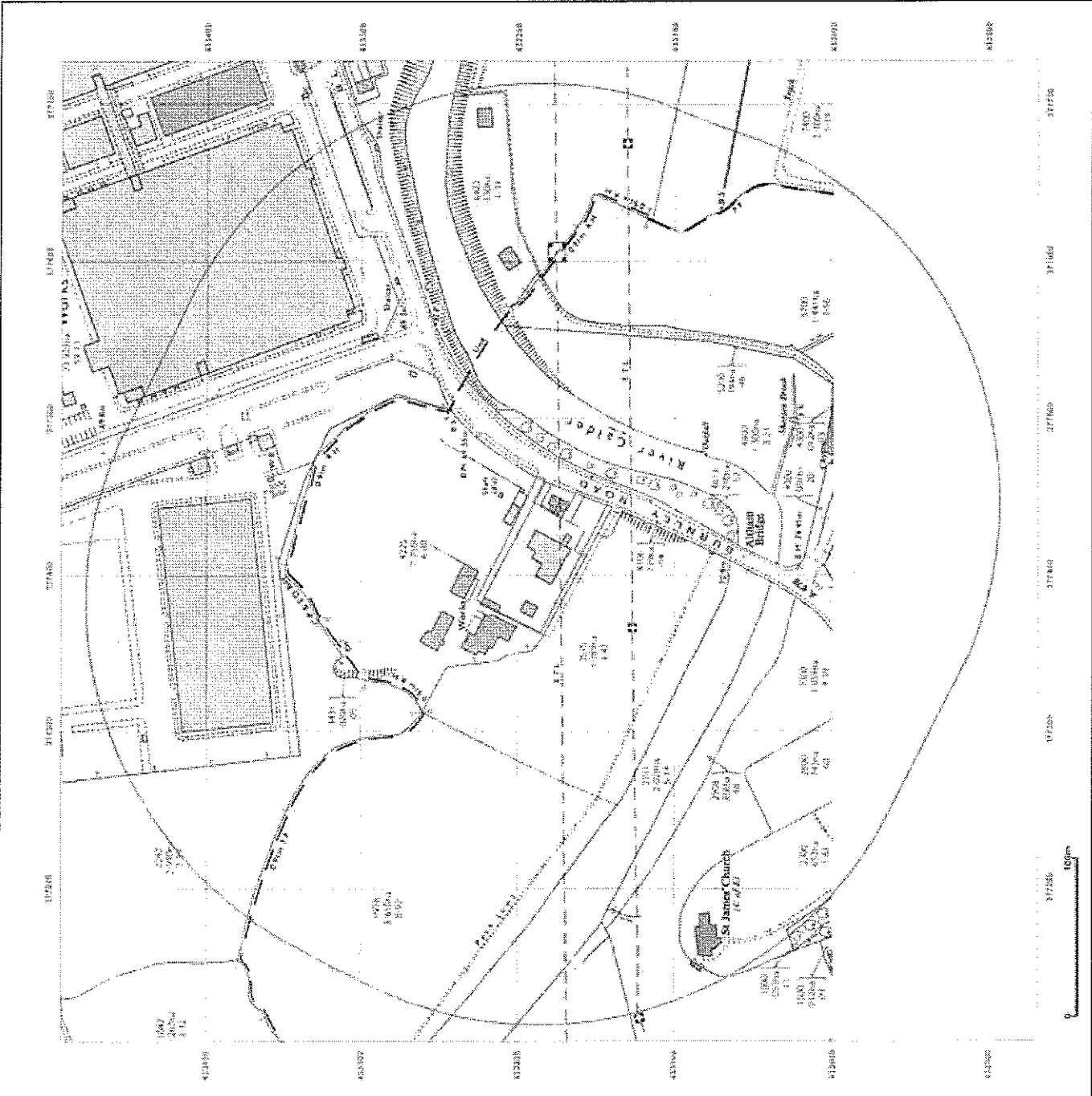

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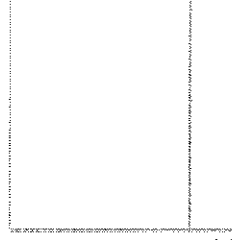
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Scale: 1:2,500

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Surveyed 1859
Revised 1959
Editor HIA
Lithography 1960
Published 1960



Surveyed 1859
Revised 1959
Editor HIA
Lithography 1960
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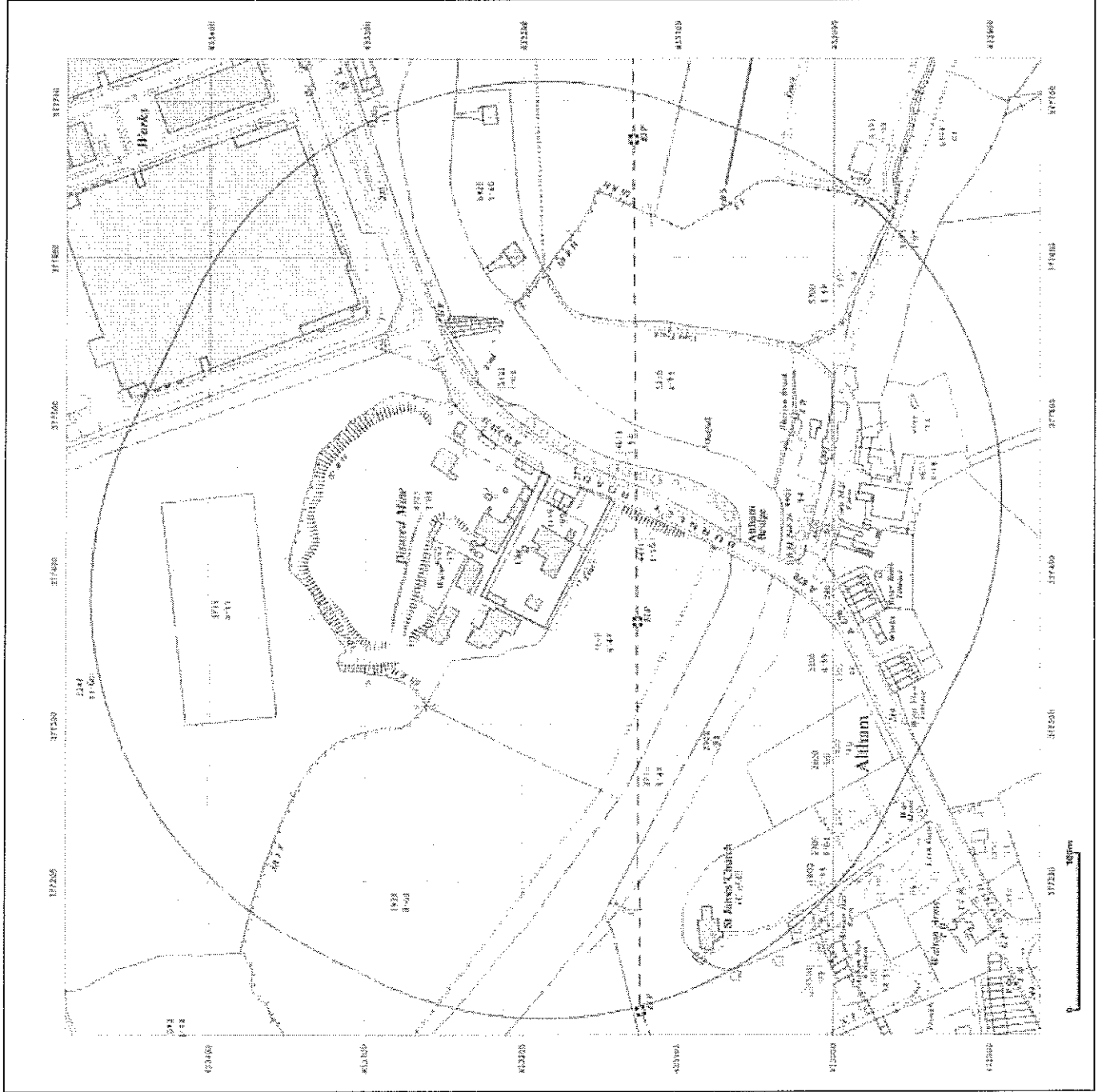


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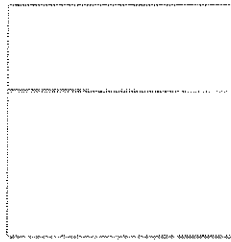
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Grid Ref: 377415, 433180

Map Name: County Series

Map date: 1931

Scale: 1:2,500

Printed at: 1:2,500



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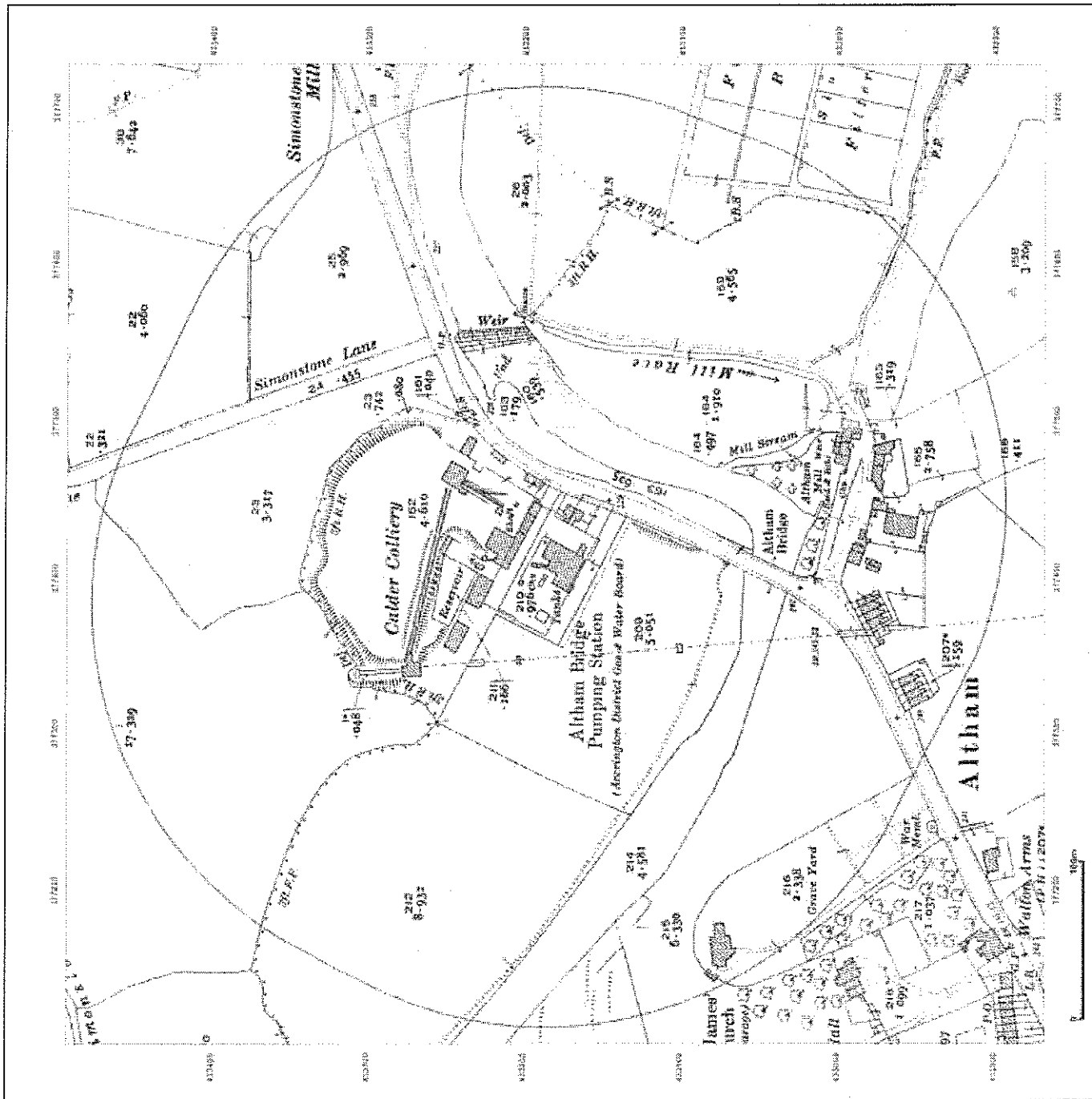


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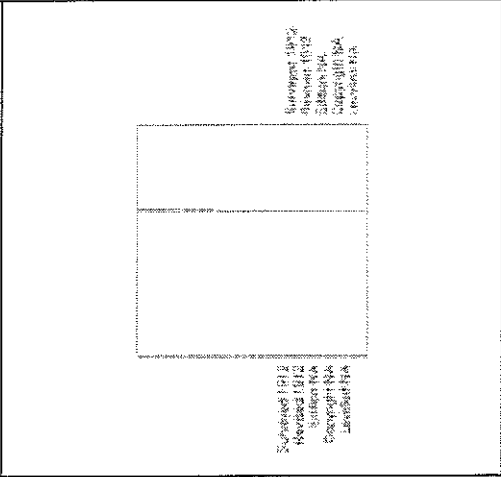
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Grid Ref: 377415, 433180

Map Name: County Series

Map date: 1912

Scale: 1:2,500

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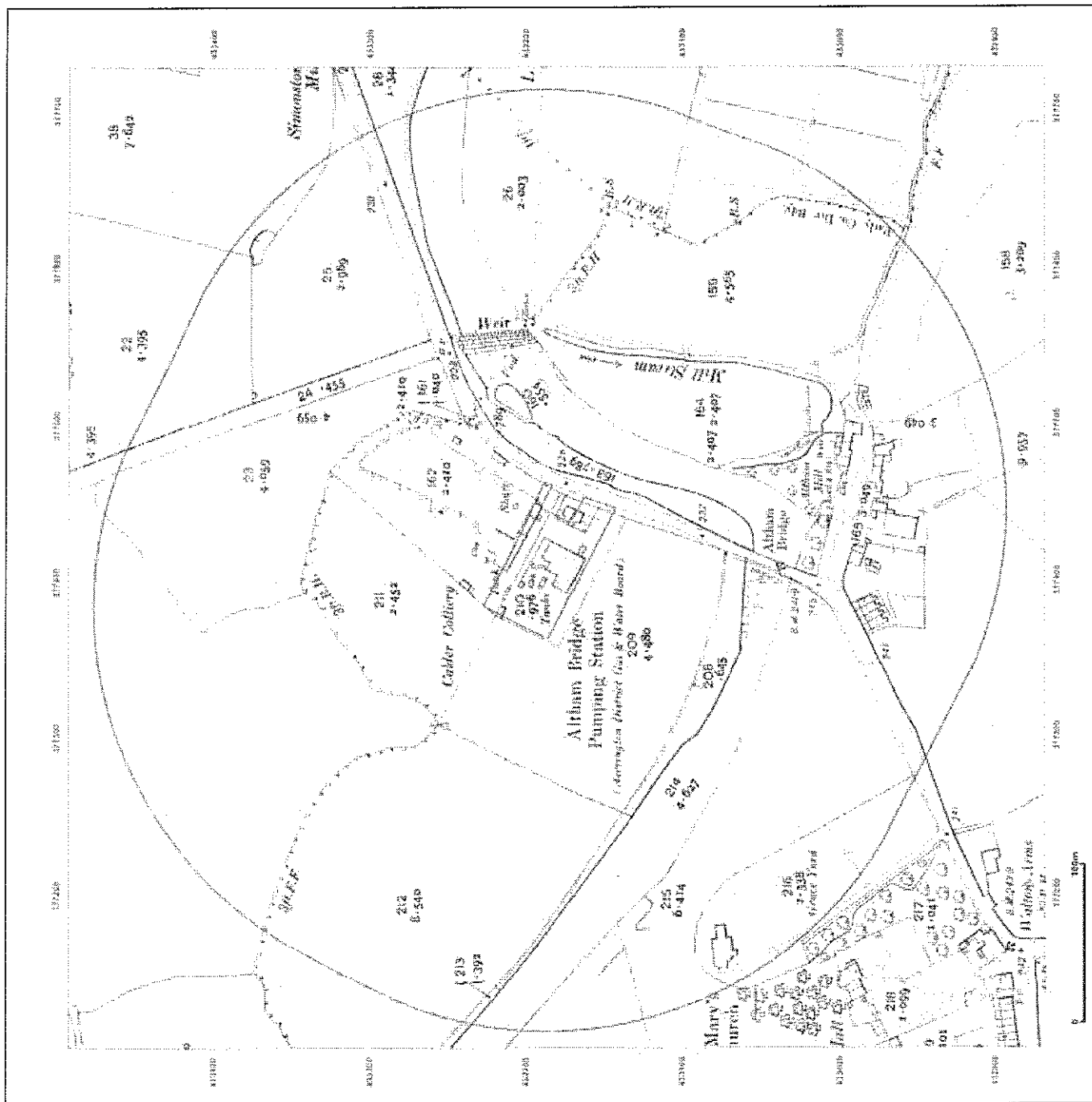
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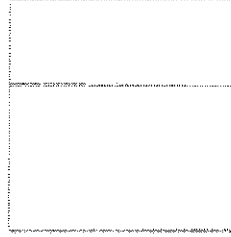
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Map Name: County Series

Map date: 1891-1892

Scale: 1:2,500

Printed at: 1:2,500



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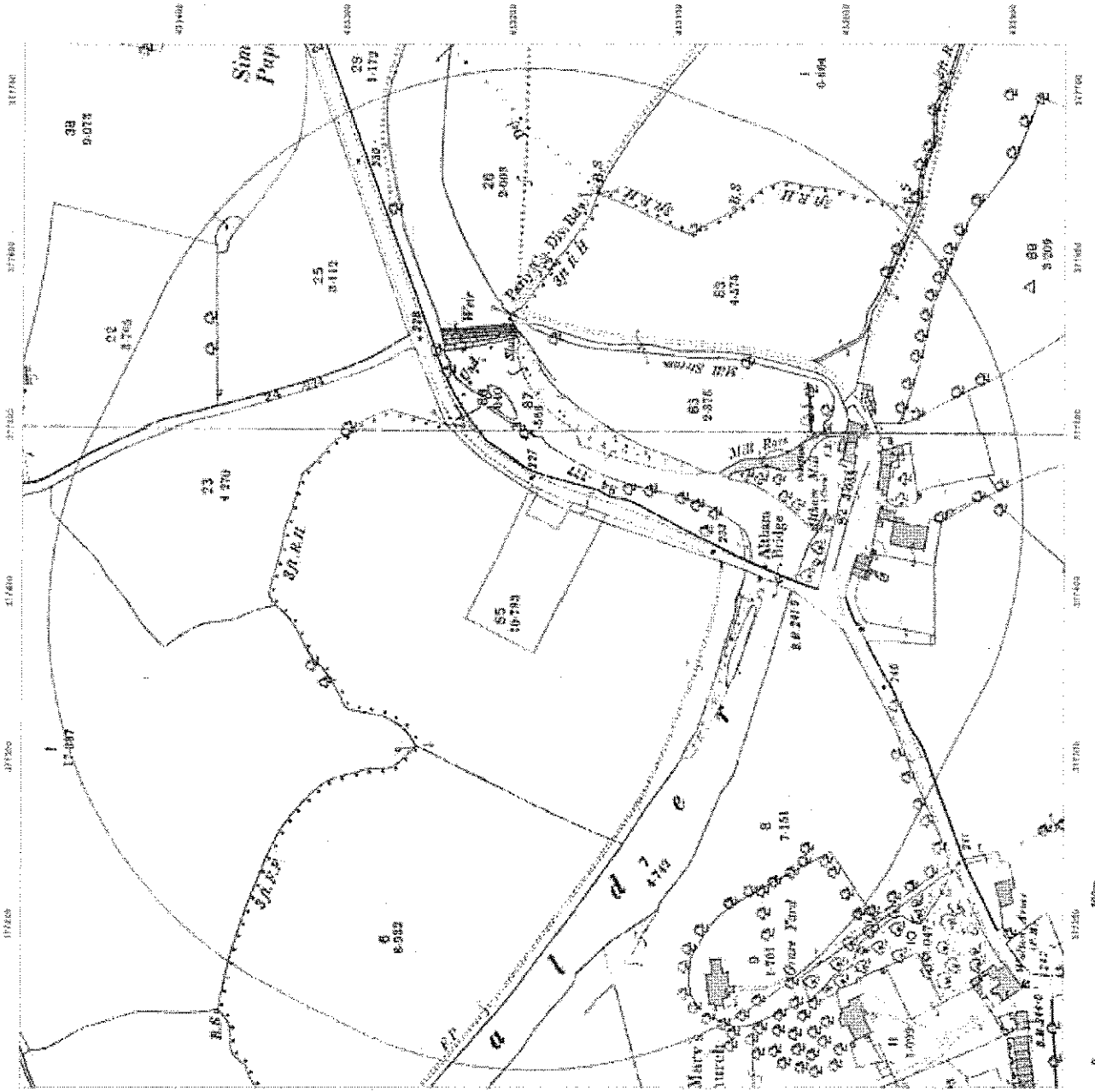


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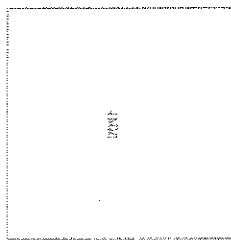
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Map Name: National Grid

Map date: 2011

Scale: 1:10,000

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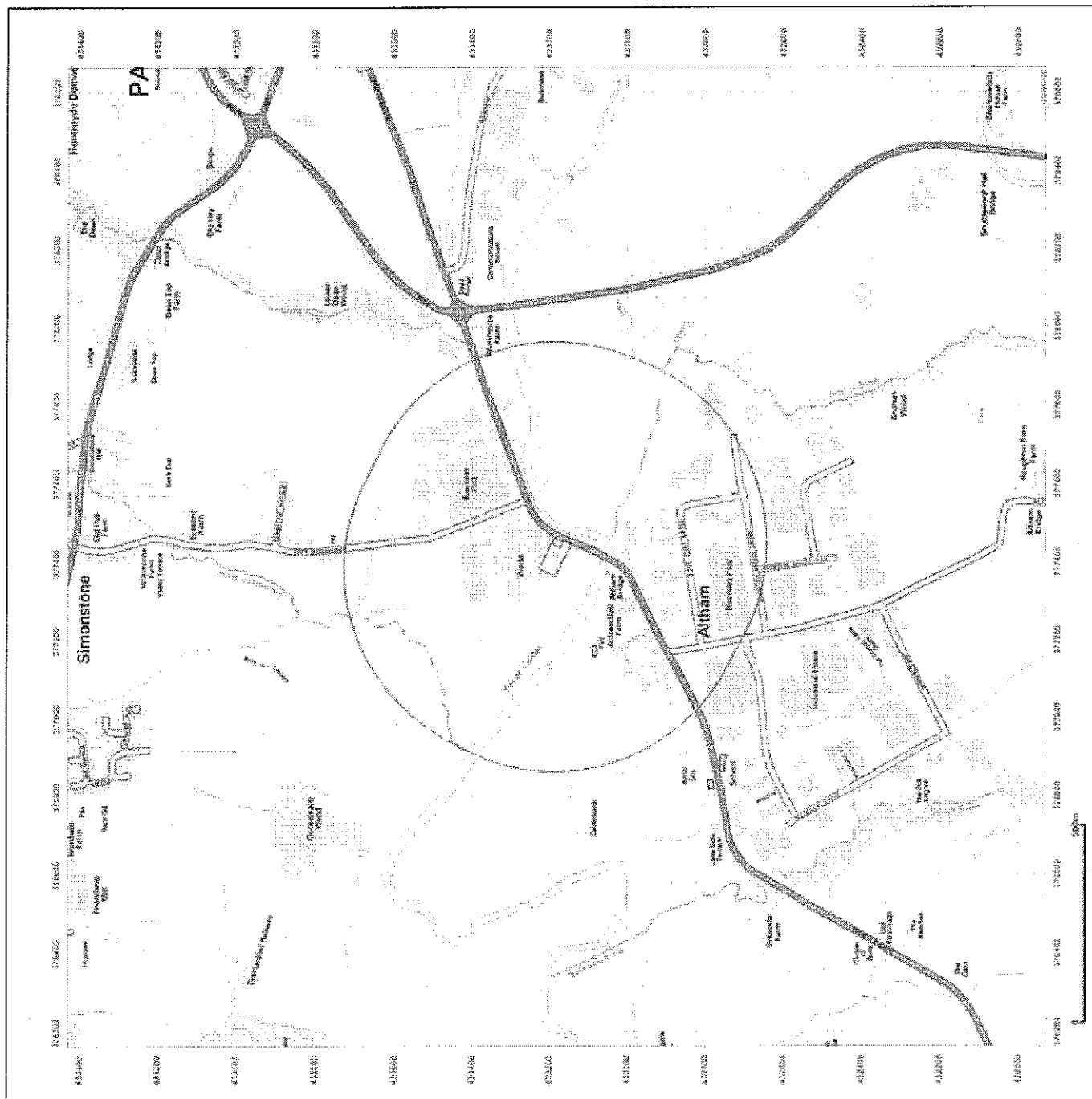
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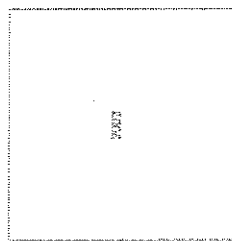
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Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



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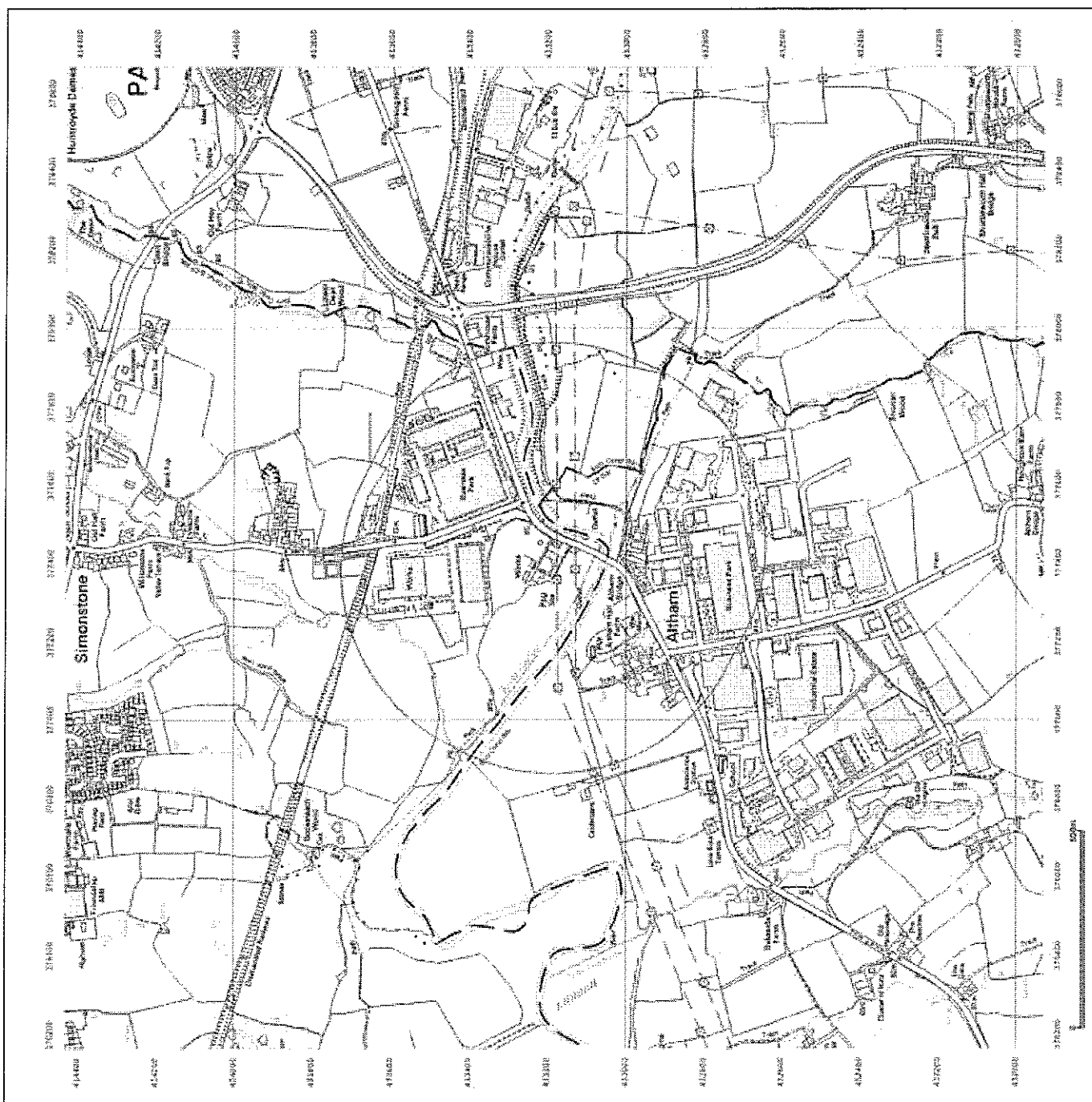


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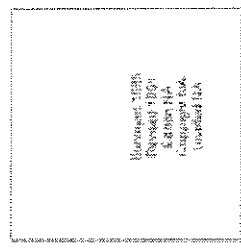
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Site Details:
BB12 7NL

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Grid Ref: 377415, 433180

Map Name: National Grid
Map date: 1991
Scale: 1:10,000
Printed at: 1:10,000

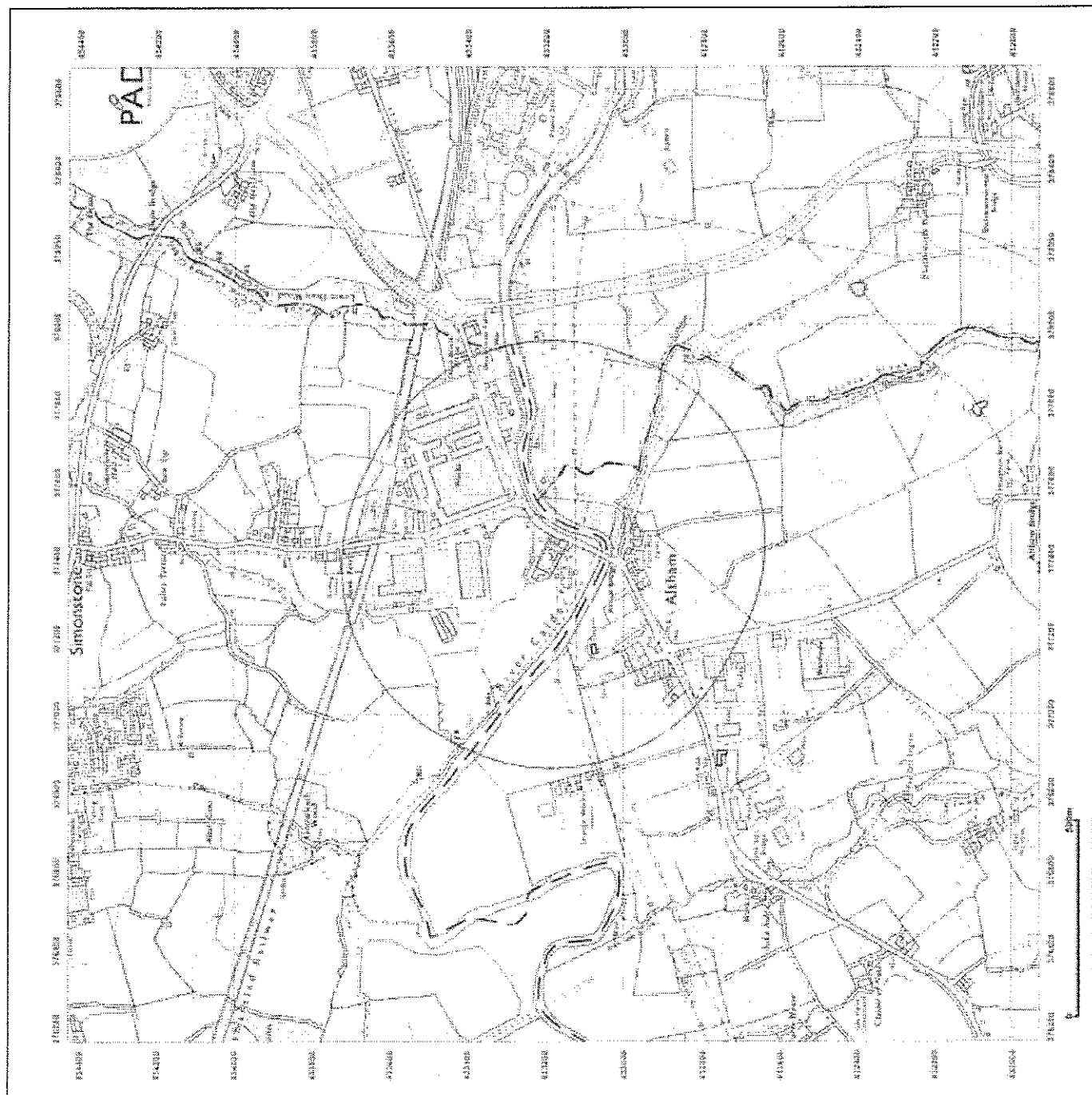


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Client Ref: EMS_146164_210927
Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: National Grid

Map date: 1987

Scale: 1:10,000

Printed at: 1:10,000



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Revised 1987
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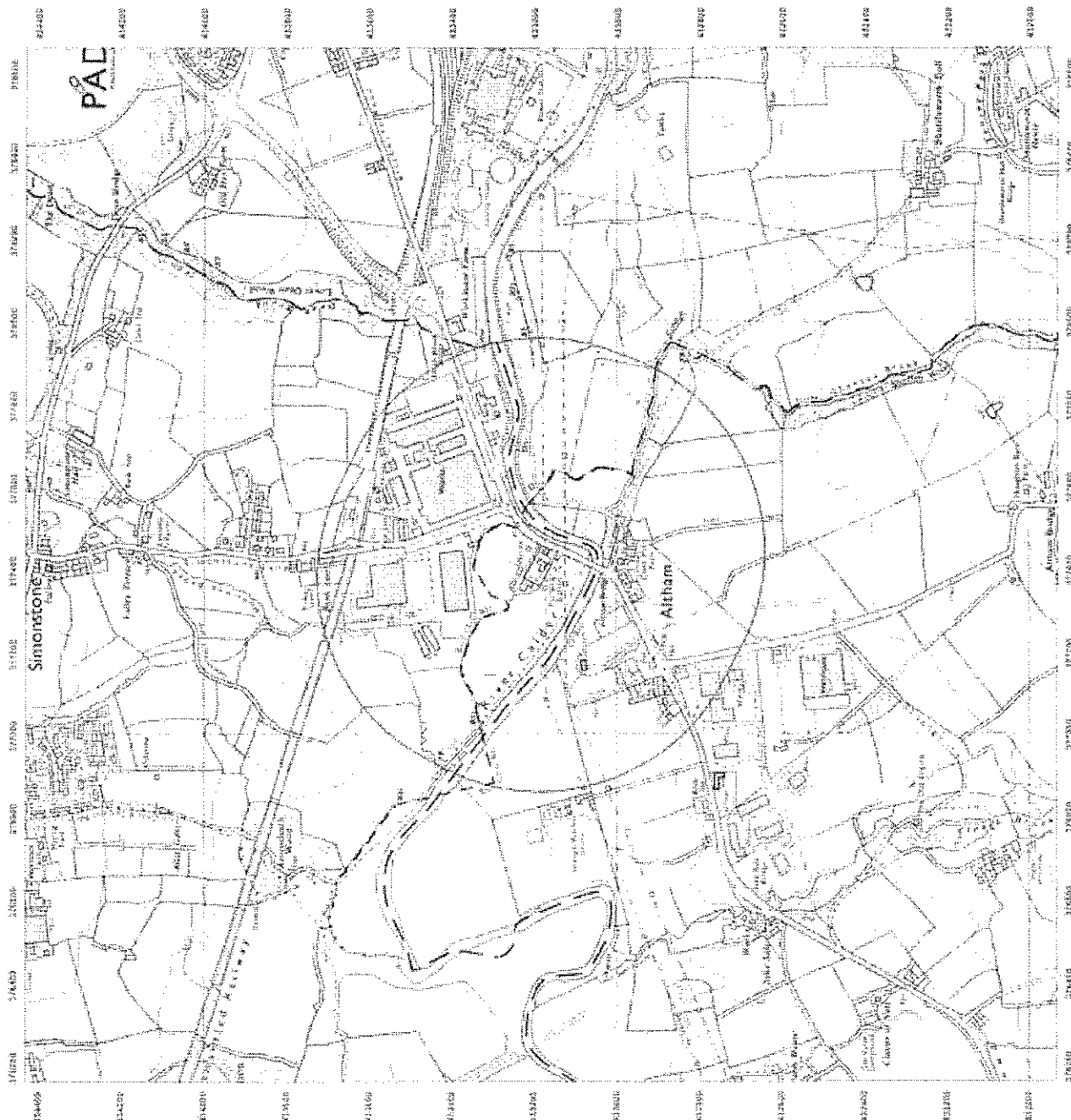


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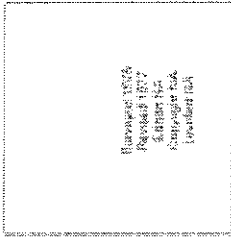


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Site Details:
BB12 7NL

Client Ref: EMS_146164_210927
Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: National Grid
Map date: 1977
Scale: 1:10,000
Printed at: 1:10,000



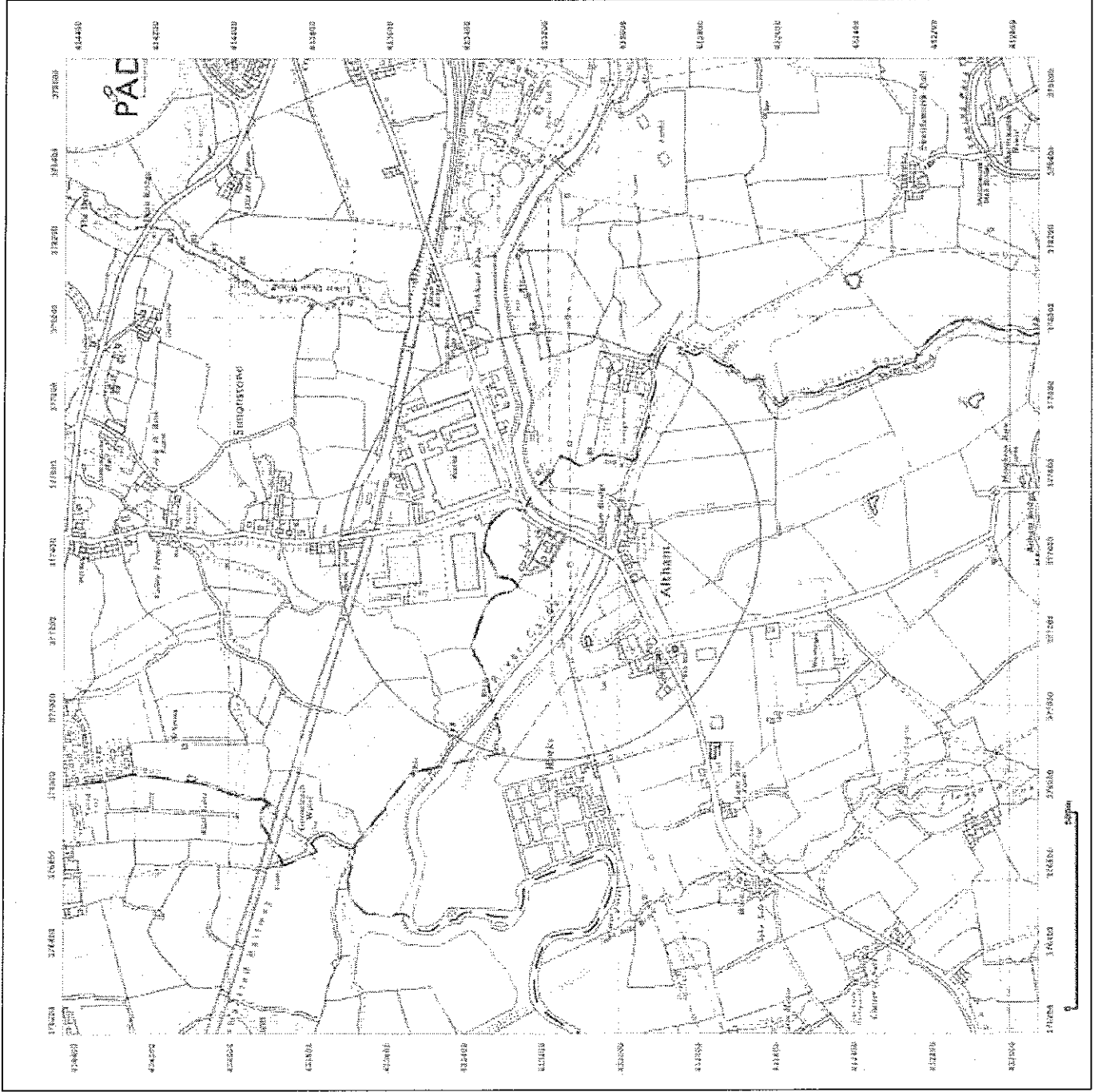
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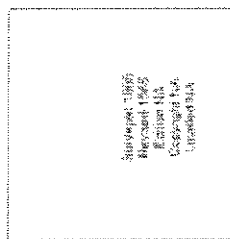
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Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: Provisional

Map date: 1965

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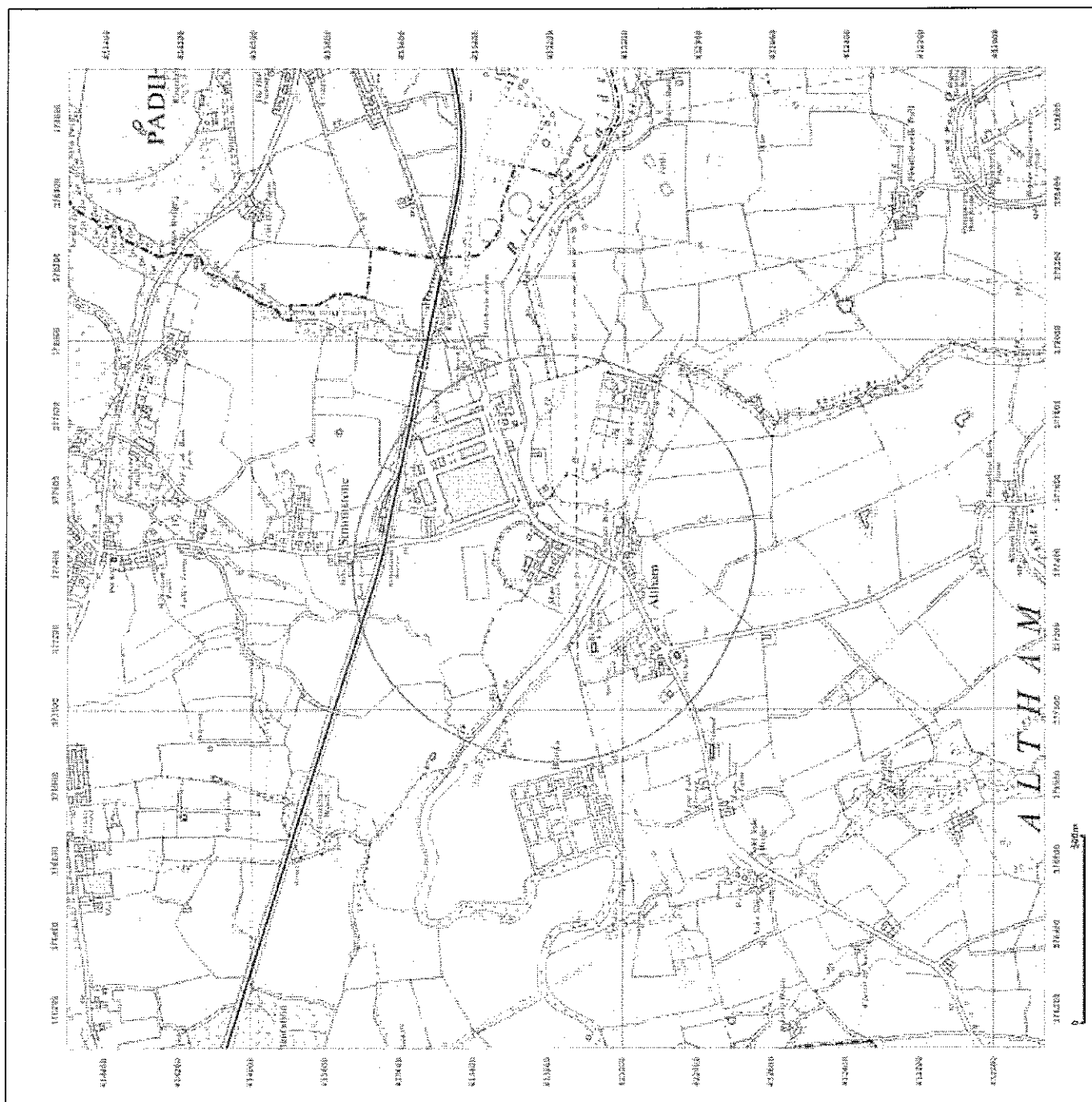


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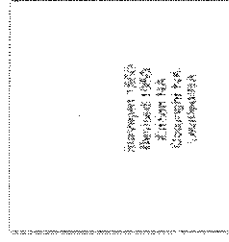


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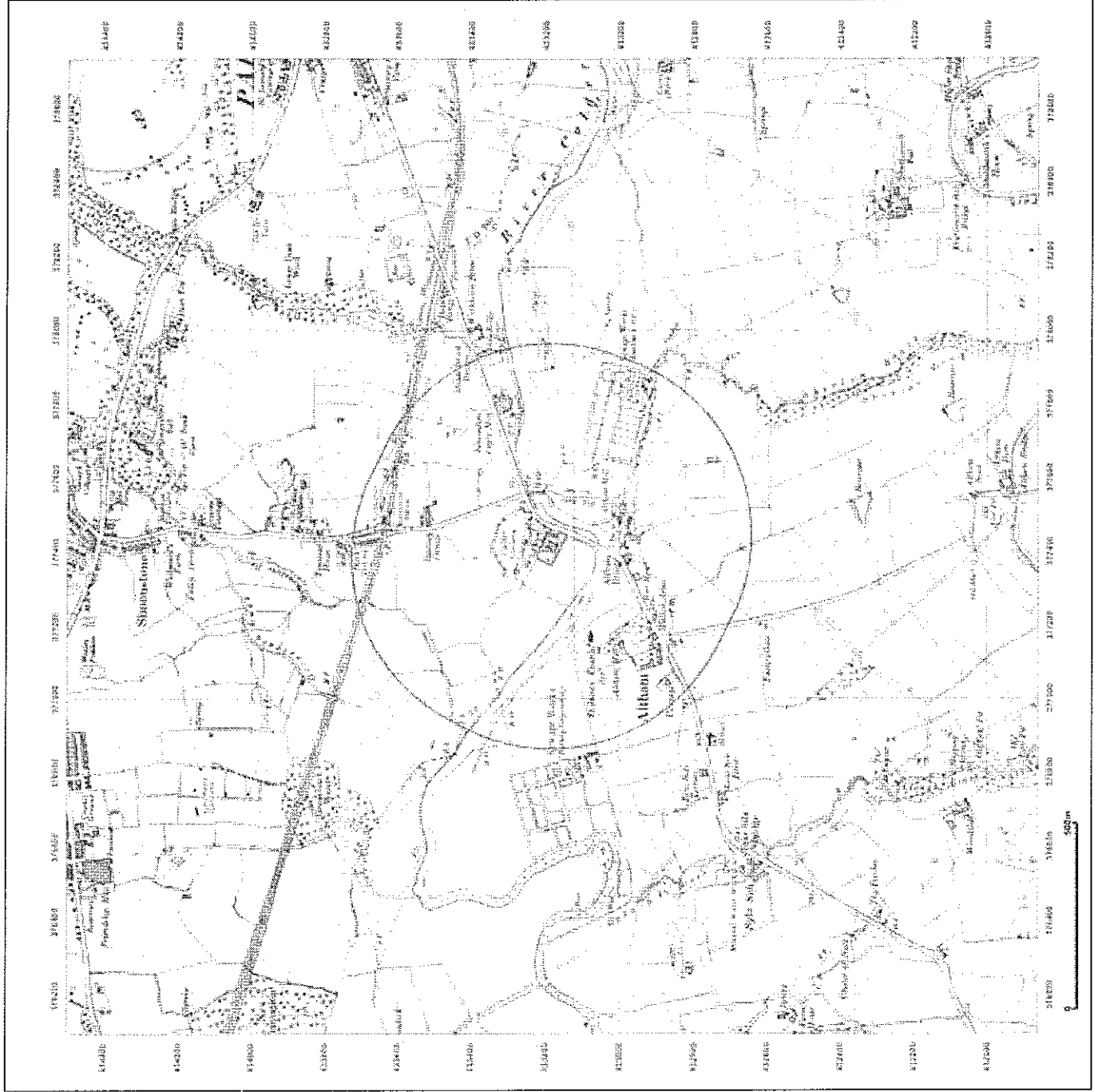
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Map date: 1938

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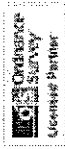


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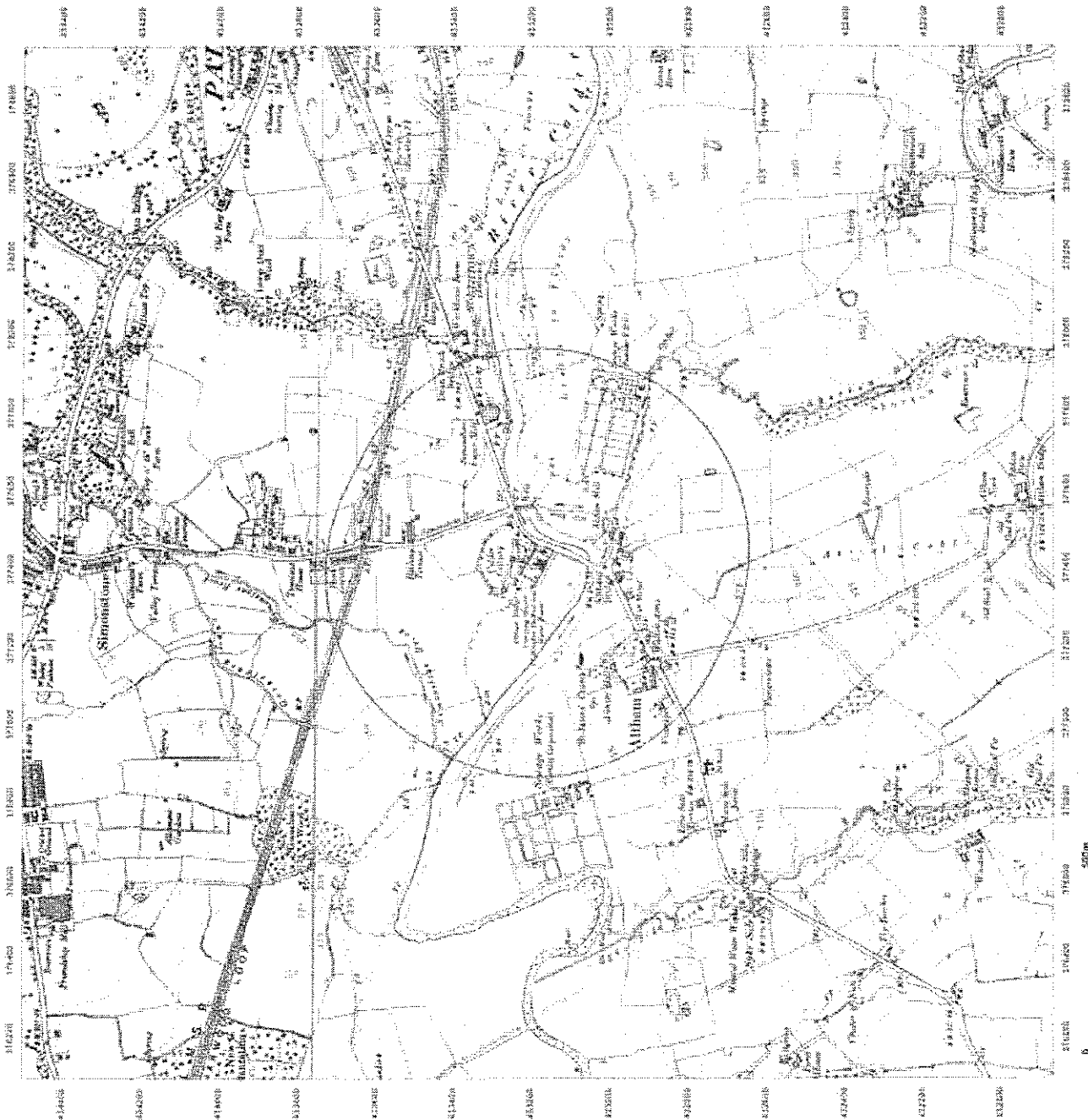


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This is a detailed topographic map of the Saigon area in Vietnam. The map shows the city of Saigon, the Saigon River, and surrounding terrain. A large circle is drawn around the city center, and a scale bar indicates 500 meters. The map includes various labels for locations, roads, and landmarks. The map is oriented with North at the top.

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Map date: 1909-1910

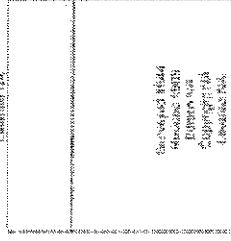
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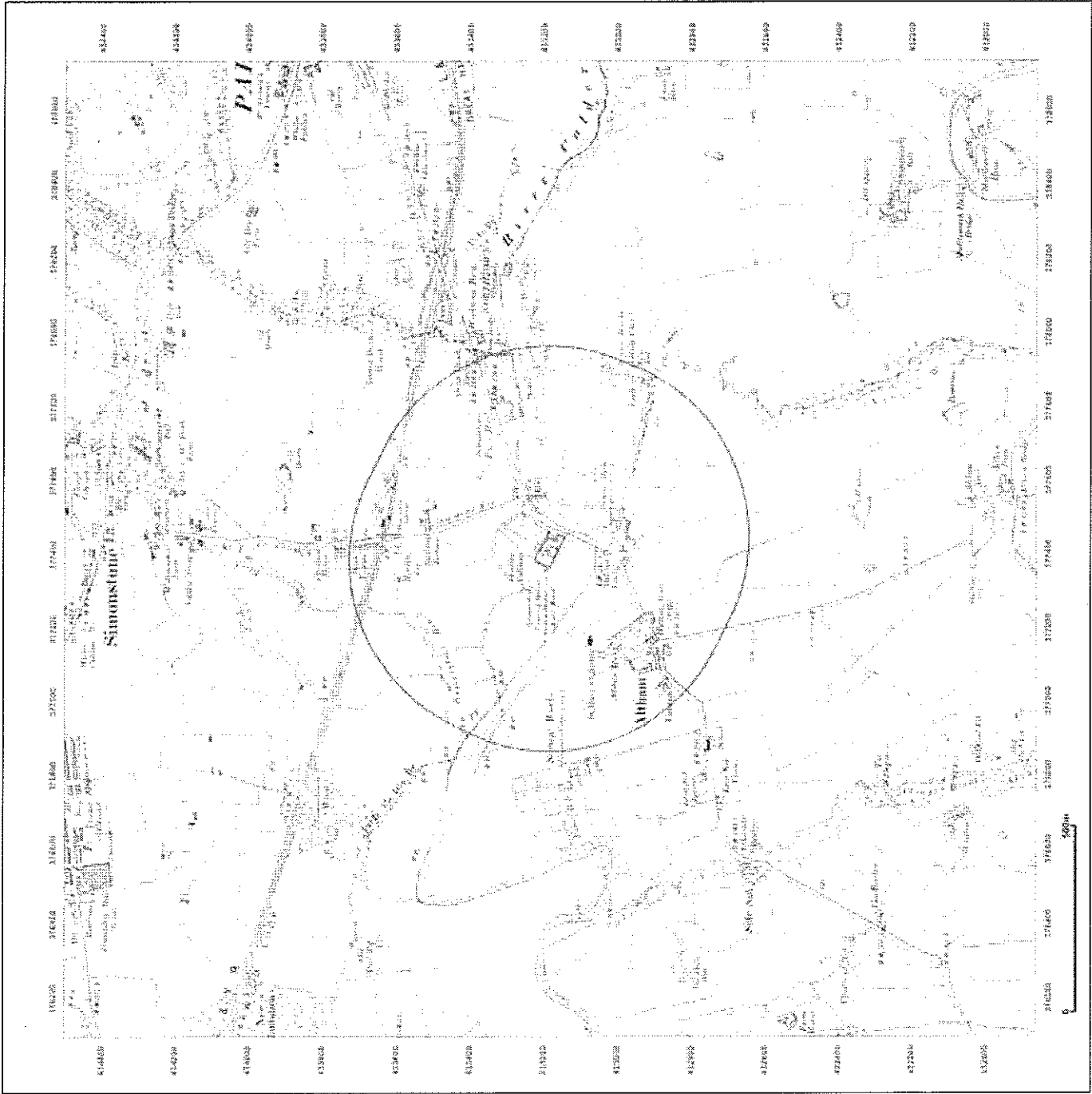


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Report Ref: EMS-146164_210927
Grid Ref: 377415, 433180

Map Name: County Series
Map date: 1892
Scale: 1:10,560
Printed at: 1:10,560



Surveyed 1892
Revised 1922
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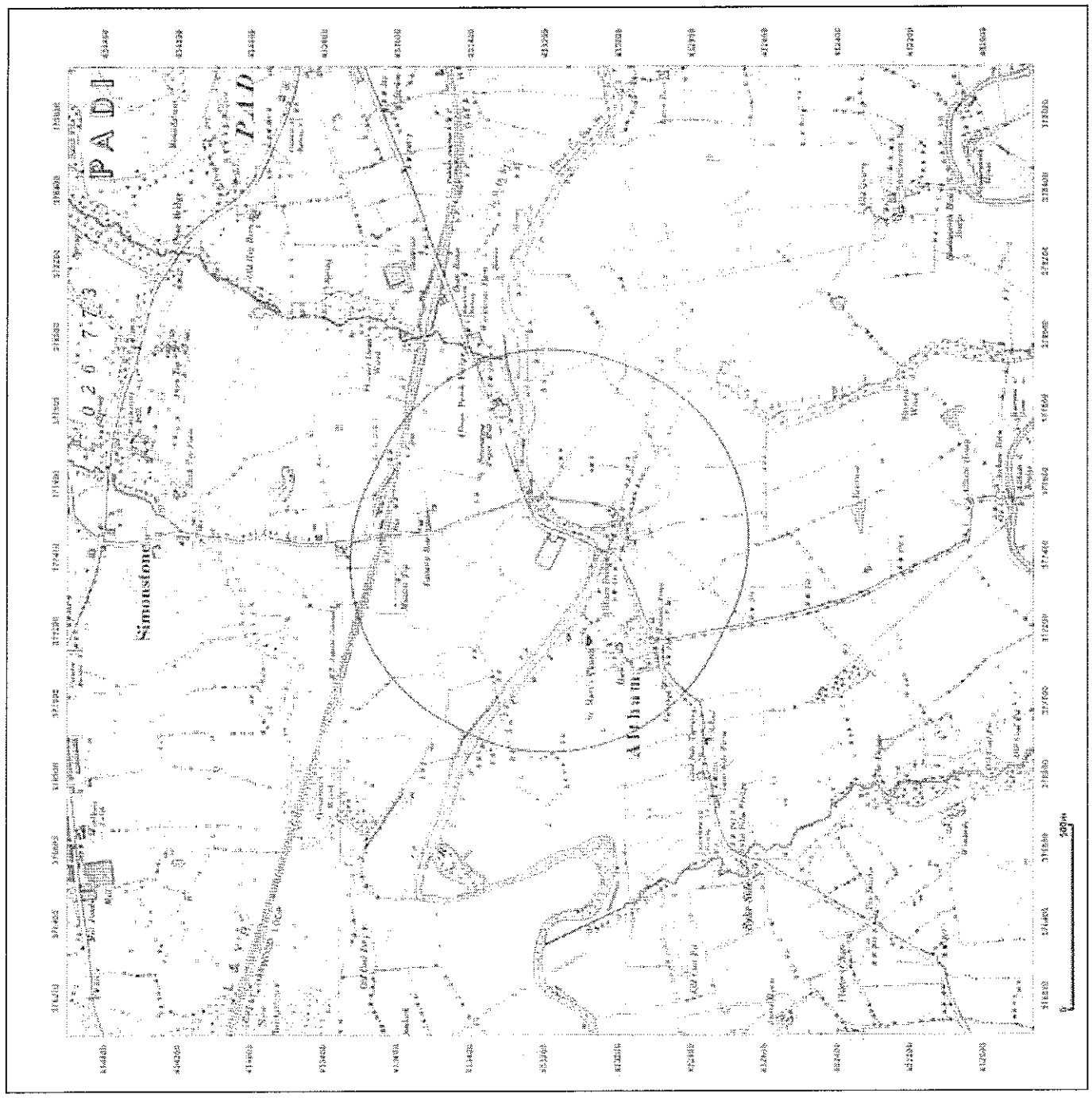
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Transferred under S.I. 1962 No 1939 to Calder Water Board

GEOLOGICAL SURVEY AND MUSEUM

BORNEOLAN

68 40A

42"

BORE ~~SHALE~~ Accrington District Gas &

Water Board ALTHAM PUMPING STATION

Year Simonstone No. 1 Borehole

Surface level

O.D.

22.8'

One-inch Map

Communicated

1932

by

Mathew + Platt Book P.

Date of sinking

1907

Borer

Mathew + Platt

Specimens

Locs. 24 to 28 & Altham Pumping

Position of ARLEY M.

Description

THICKNESS

DEPTH

Feet

Inches

Feet

Inches

WELL

Boulder Clay

Large gravel & grey shale

Boulders & white clay

Shale clay & stones

Black shale

Large peaty blue shale & sandstone

of stone like ironstone

ironstone balls & ironstone grey shale

Dark bluish with iron bands

fine clay

Dark grey with black shale & pink Rag

Black shale with hard

bands & traces of fine clay

Dark grey & hard grey sand

Dark shale passing to black

Hard rock:

Grey

White

Greyish dark grey

Ironstone

Brownish grey

Brown

Grey & brown

Dark grey & sandy

White - sandy

Grey, in layers

Brown, in layers

Dark grey, in layers

Black shale

Water level at end of boring:-

6'6" from surface

10.10.49

From No. 10 - Altham

A N G R c 7740 3319.

GEOLOGICAL SURVEY AND MUSEUM BORINGHOLES AND SHAFTS

c. 7740 3319.

County

6" Quarter Sheet 50738

BORE or SHAFT Wet Calder Pit Borehole

County San Diego

Ref. Map 6345

Alongside or on site of Calder Pit (7345/5) USM 6

Surface level 226.16

O.D.

Original Map

Communicated to L. J. Sherlock

by Messrs. Geo. Hargreaves & Co.

Date of sinking begin Jan. 2, 1902 Notes Geo. Hargreaves & Co. by day labour

Specimens

Description	THICKNESS		DEPTH		Thickness		Depth	
	Feet	Inches	Feet	Inches	metre	metre	metre	metre
Soil	1	-	1	-	0	31	0	31
Sand	5	6	6	6	1	47	1	48
Loamy clay	5	9	12	3	1	75	3	73
Gravel very close & small	8	6	20	9	2	60	6	33
Loamy clay	10	6	31	3	3	20	9	53
Gravel		9	32	-	0	22	9	75
Boulder stone on edge of	1	3	33	3	0	39	10	14
Loamy clay	3	-	36	3	0	91	11	05
with stones	2	-	38	3	0	61	11	66
Clay broken shales & gravel	2	9	41	-	0	84	12	50
Clay & stones	3	9	44	9	1	14	13	64
Loose stone		6	45	3	0	15	13	79
Loamy clay & stones	2	11	48	2	0	29	14	68
Light shale, stratified	3	4	51	6	1	02	15	70
Black shales	6	2	57	8	1	88	17	58
Coal "Arley" 16.5 16	3	4	61	-	1	01	18	59
To bottom	1	-	62	-	0	31	18	90

Still in coal. Very wet clay. Could not do more. Unable to get to the bottom of the hole next day.

The mine water rose during the cutting of the coal to within 4' 8" of surface.

Coal bored as soft, inferior, crop stuff.

4-

7744-332

Labels :

1.11.1959 18.35

3342

Figure 1. A schematic diagram of the experimental setup.

2015

67-37432

	West	East	Depth	Depth
Filled up ground	12 -	13 -	8 16	8 60
Soil	1 -	13 -	5 20	3 16
Loamy sand	7 6	20 6	2 29	6 29
Muddy clay & fine	5 -	23 6	0 11	7 16
Ground sand	5 -	21 6	2 44	9 46
Gr. & Red Clay	4 6	11 -	2 52	12 56
Loamy clay	26 6	61 6	2 26	18 75
Gray shale & fine	5 11	67 5	1 50	20 55
Black shale	2 -	69 5	0 61	21 16
COAL. ARLEY MINE	5 -	74 9	1 62	22 18
Loamy & gray shale	5 9	76 6	0 24	23 22
COAL	15 8	91 8	2 12	25 17
Black shale with COAL	3 -	91 11	2 23	26 18
Loamy with Kaolins	2 7	94 6	0 72	28 20
Gray clay with sand & fine sand	8 9	103 3	2 45	31 45
Gray shale	2 -	105 3	0 53	32 28
Gr. & clay (hard)	5 9	111 -	1 10	33 32
Dark shale	11 6	122 6	3 17	37 34
White rock	21 8	150 2	2 42	47 72
Dark raggy shale	3 14	153 6	4 22	64 27
White rock	15 10	169 4	4 32	6 61
Dark clay	5 6	169 10	0 16	10 72
White rock	5 2	172 0	0 30	22 16
Dark shale	25 4	206 4	10 77	62 20
COAL. Summit	5 02	206 14 1/2	0 20	63 10
Blue rock	3 7	210 1 1/2	1 15	64 52
Gray & blue shale	5 10	216 1 1/2	1 20	65 40
Dark shale	17 10	233 11 1/2	5 41	71 51



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GRM DEVELOPMENT SOLUTIONS LIMITED,
FIRST AVENUE,
BURTON-ON-TRENT,
STAFFORDSHIRE,
DE14 2WH

Person dealing with this matter:	Eric Fretwell
Our reference:	00072336-11
Your reference:	CRS/P5667
Electronic Ref:	EME_00016999290001_005
RRUID:	005 00016999290001
Date of your enquiry:	25 November 2011
Date we received your enquiry:	25 November 2011
Date of issue:	28 November 2011

This report is for the property described in the address below and the attached plan.

Non-Residential Coal and Brine Report

Altham Pumping Station, Burnley Road, Simonstone, Burnley, Lancashire

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	Yes
Brine Compensation District	No

Information from the Coal Authority

Underground Coal Mining

Past

The property is in the likely zone of influence from workings in 1 seam of coal at 280m to 320m depth, and last worked in 1931.

Any ground movement from these coal workings should have stopped by now.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is not in an area for which a licence has been granted to remove coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

Within, or within 20 metres of, the boundary of the property there is 1 mine entry, the approximate position of which is shown on the attached plan.

Coal Authority records disclose the following information:

377433-002. Our records indicate that this shaft was capped with a reinforced concrete cap with a drainage facility incorporated in 1982.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal-mining geology

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

Opencast Coal Mining

Past

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

Present

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

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

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

Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

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

Hazards related to coal mining

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

Withdrawal of Support

The property is not in an area for which a notice of entitlement to withdraw support has been published.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working Facilities Orders

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

Payments to Owners of Former Copyhold Land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

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

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

The attached plan shows the approximate location of the disused mine entry/entries referred to in this report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan. Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991*). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and the obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0845 762 6848 or online at www.coal.gov.uk/services/subsidence. If you wish to discuss the relevance of any of the information contained in this report you should seek the advice of a qualified mining engineer or surveyor. If you or your adviser wish to examine the source plans from which the information has been taken these are normally available at our Mansfield office, free of charge, by prior appointment, telephone 01623 637233. Should you or your adviser wish to carry out any physical investigations that may enter, disturb or interfere with any disused mine entry the prior permission of the owner must be sought. For coal mine entries the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). Our emergency telephone number at all times is 01623 646333.

*Note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional remarks

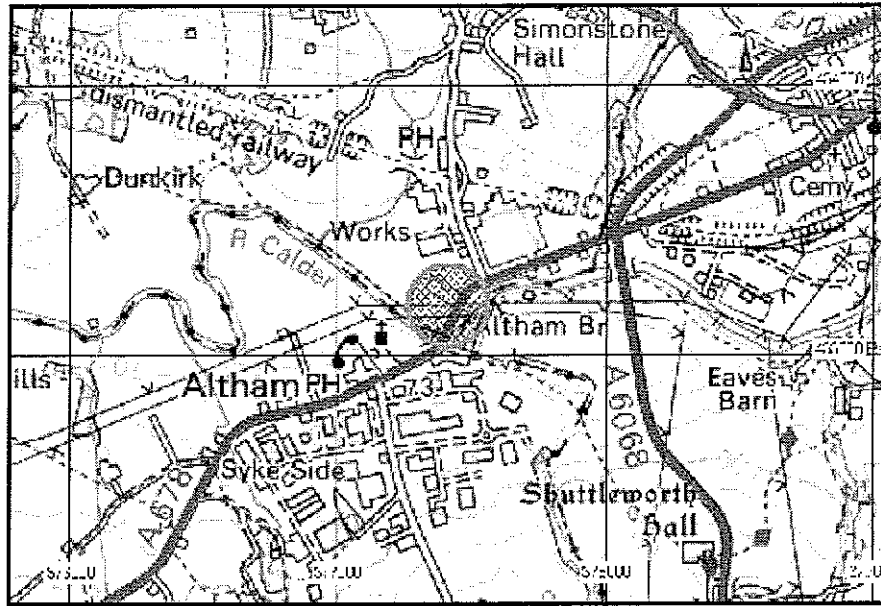
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Location map



Approximate
position
of property



Enquiry boundary

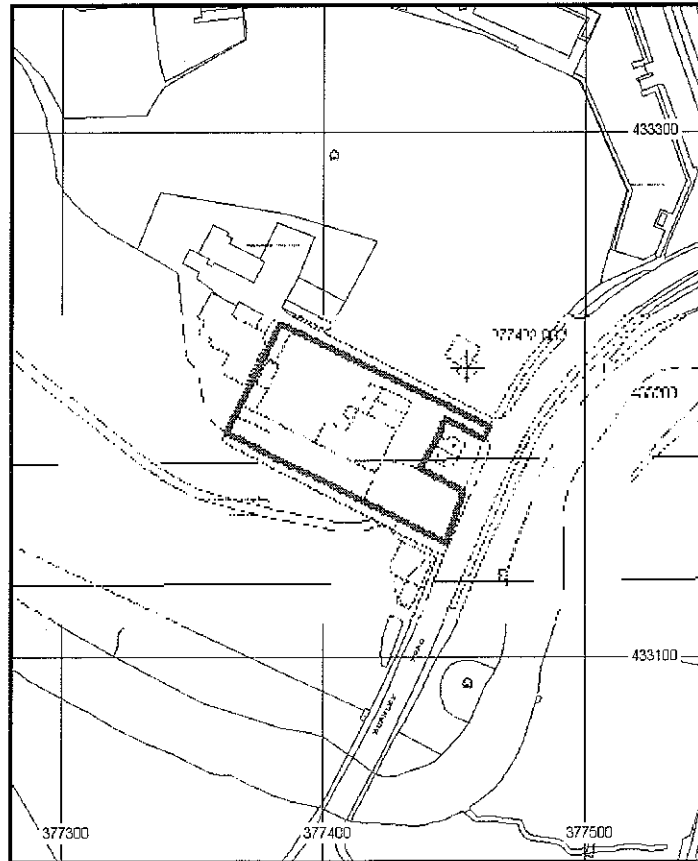
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Key

Approximate position of enquiry boundary shown



Disused Adit or Mineshaft



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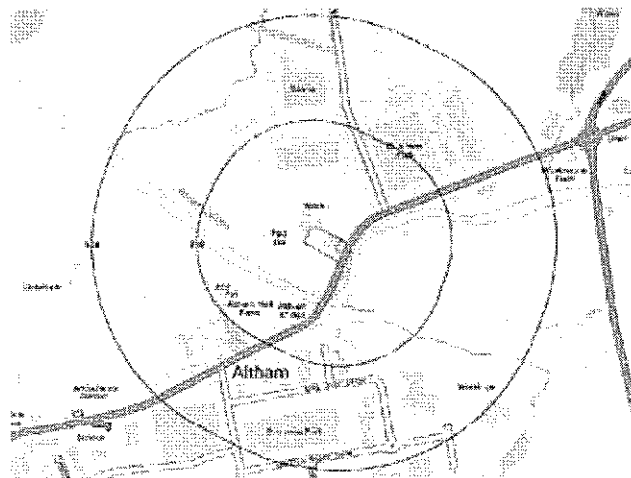
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Date: Nov 25, 2011

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Aerial Photograph of Study Site



Site Name: BB12 7NL
Grid Reference: 377411,433186
Size of Site: 0.38 ha

Aerial photography supplied by Getmapping PLC
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Overview of Findings

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded

Report Section	Number of records found within (X) m of the study site boundary
1. Geology	Description
1.1 Artificial Ground,	
1.1.1 Is there any Artificial Ground /Made Ground present beneath the study site?*	No
1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology & Landslips	
1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
1.2.2 Are there any records relating to permeability of superficial geology within the study site* boundary?	Yes
1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
1.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No
1.3 Bedrock, Solid Geology & Faults	
1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
1.3.2 Are there any records relating to permeability of bedrock within the study site* boundary?	Yes
1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.3.4 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
1.3.5 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

* This includes an automatically generated 50m buffer zone around the site

Source:Scale 1:50 000 BGS Sheet No:068

Report Reference: EMS-146164_210928

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	4	6	5	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	5	0	0	0	0
2.3 Current Ground Workings	0	0	0	0	3

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	5	0	0	0	0
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining*	0	0	0	0	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

*This includes an automatically generated 50m buffer zone around the site

4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Very Low	-	-	-	-
4.2 Landslides	Very Low	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Negligible	-	-	-	-
4.4 Compressible Deposits	Moderate	-	-	-	-
4.5 Collapsible Deposits	Negligible	-	-	-	-
4.6 Running Sand	Low	-	-	-	-

* This includes an automatically generated 50m buffer zone around the site

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	3	7	9	-	-

6. Estimated Background Soil Chemistry	on-site	0-50	51-250	251-500	501-1000
6.1 Records of Background Soil Chemistry	1	0	0	-	-

NW

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NE

W

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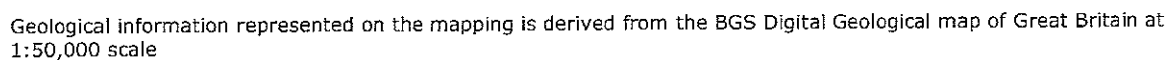
SW

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SE

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1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:068

1.1.1 Artificial/Made Ground

Are there any records of Artificial/Made Ground within 500m of the study site boundary? **No**

Database searched and no data found

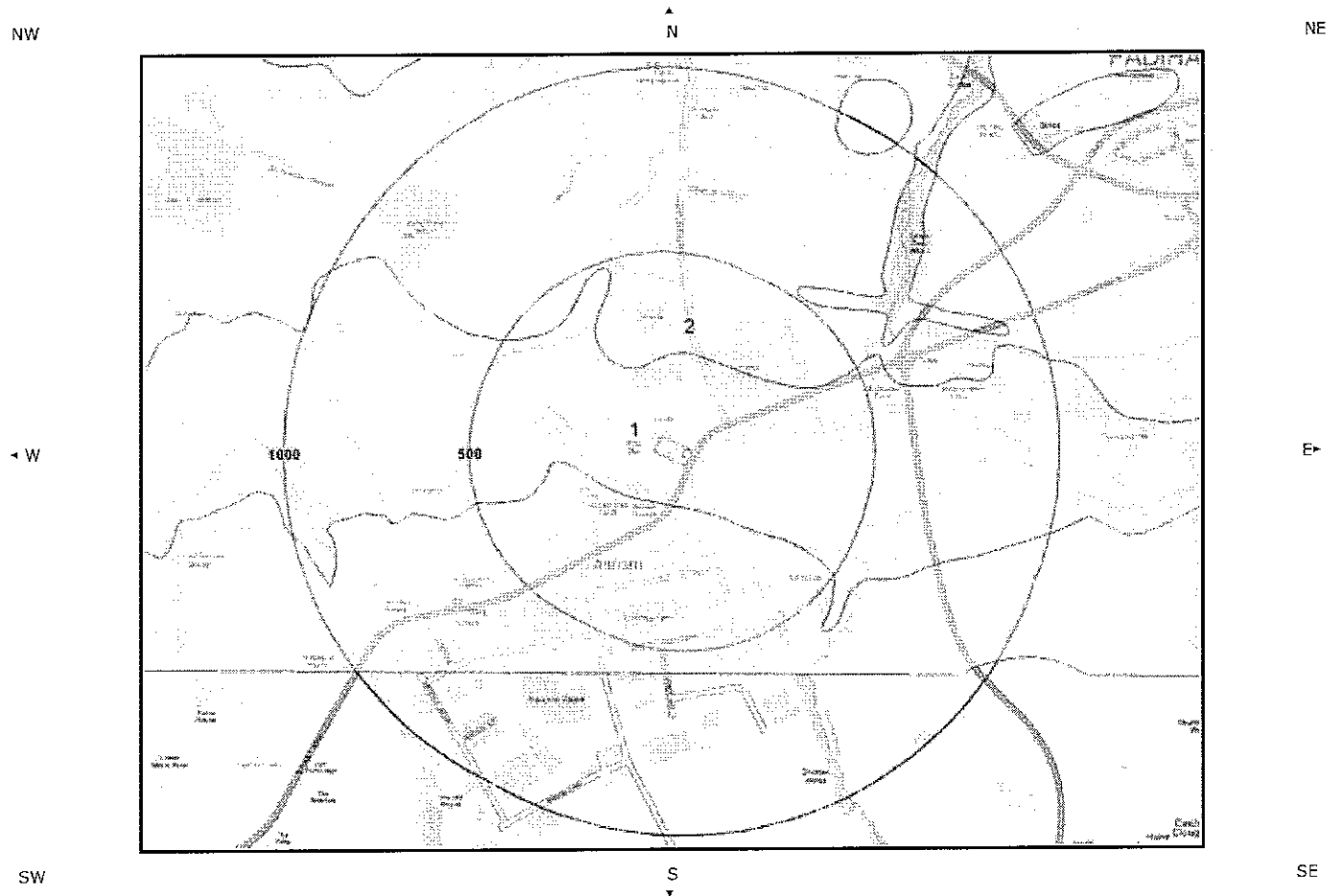
1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site* boundary? **No**

Database searched and no data found

* This includes an automatically generated 50m buffer zone around the site.

1.2 Superficial Deposits and Landslips Map



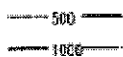
Superficial and Landslips Legend



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Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/Drift Geology

Are there any records of Superficial Deposits/Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Lex Code	Description	Rock Description
1	0.0	On Site	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	110.0	S	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site* boundary? Yes

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Very Low

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

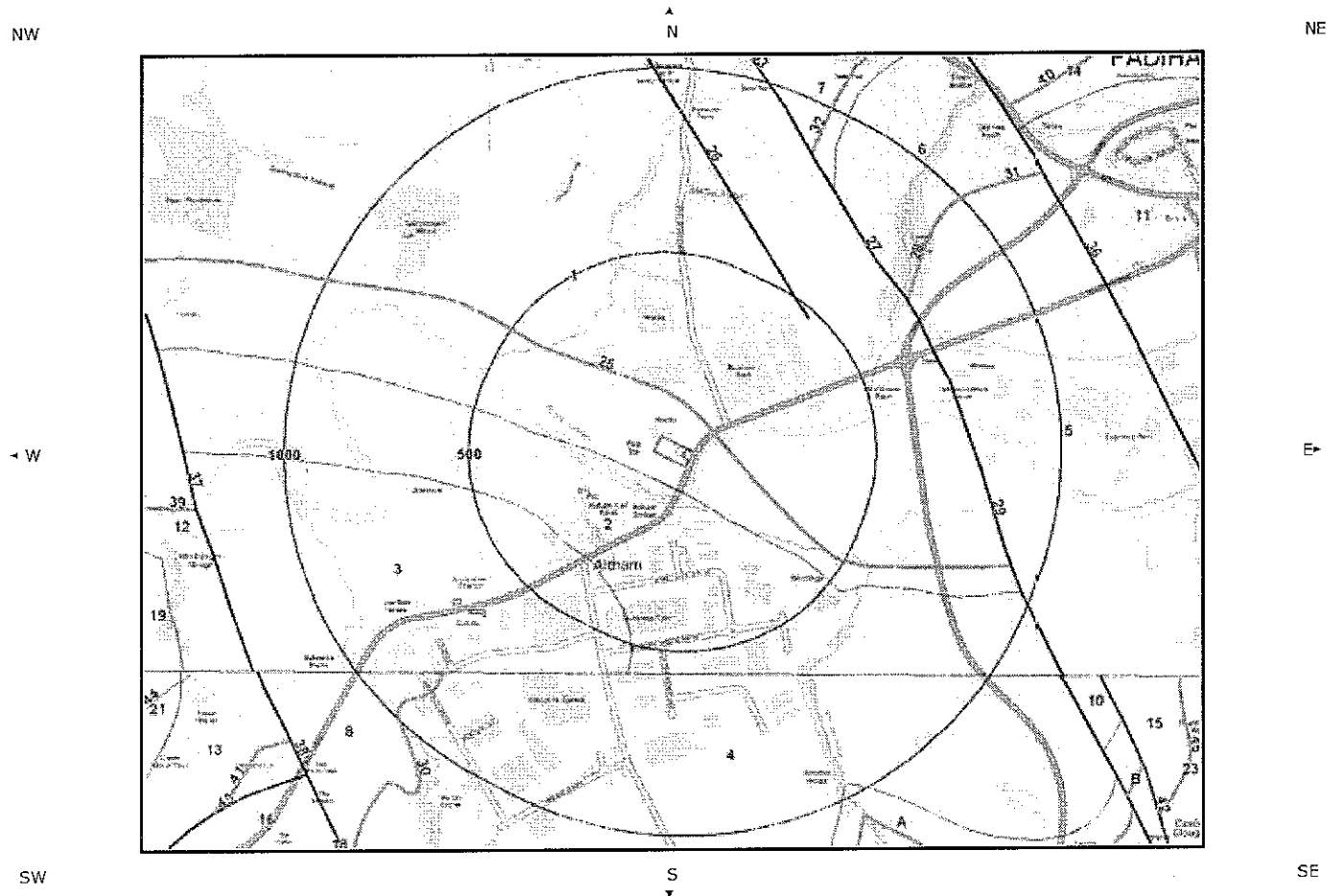
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found

This includes an automatically generated 50m buffer zone around the site.

1.3 Bedrock and Faults Map



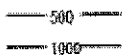
Bedrock & Faults Deposits Legend



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Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:068

1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
2	66.0	SW	DNDY-SDST	Dandy Rock - Sandstone	Langsettian (westphalian A)
3	340.0	SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? **Yes**

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Low

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? **Yes**

ID	Distance (m)	Direction	Category Description	Feature Description
25	77.0	NE	ROCK	Coal seam, inferred
26	475.0	NE	FAULT	Normal fault, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3.4 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

1.3.5 Radon Protection

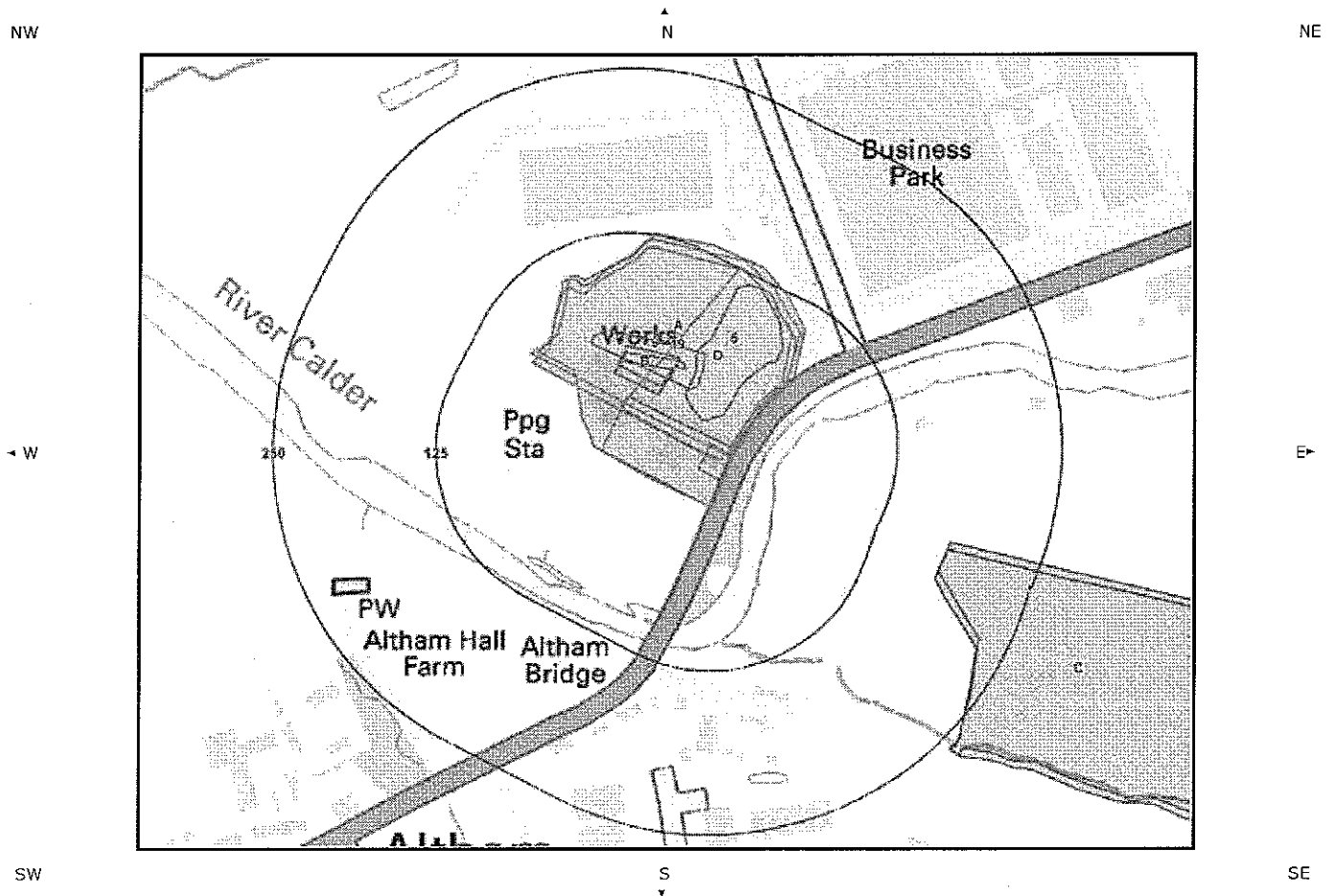
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

* This includes an automatically generated 50m buffer zone around the site

Report Reference: EMS-146164_210928

No radon protective measures are necessary

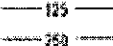
2. Ground Workings Map



Ground Workings Legend



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- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

2. Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? **Yes**

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	377412,433264	Colliery	1950
2D	0.0	On Site	377430,433260	Colliery	1909
3A	0.0	On Site	377411,433258	Colliery	1938
4A	0.0	On Site	377411,433258	Colliery	1929
5	9.0	NE	377464,433260	Refuse Heap	1909
6B	11.0	NE	377395,433241	Reservoir	1938
7B	11.0	NE	377395,433241	Reservoir	1929
8B	18.0	NE	377401,433248	Reservoir	1950
9	25.0	NE	377399,433255	Unspecified Ground Workings	1965
10	25.0	NE	377402,433253	Water Body	1965
B					
11	178.0	E	377764,433005	Sewage Works	1909
C					
12	178.0	E	377764,433005	Sewage Works	1929
C					
13	178.0	E	377764,433005	Sewage Works	1938
C					
14	179.0	E	377766,433010	Sewage Works	1977
C					
15	179.0	E	377766,433010	Sewage Works	1950
C					

2.2 Historical Underground Workings Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown

Are there any Historical Underground Working Features within 1000m of the study site boundary? **Yes**

The following Historical Underground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
16A	0.0	On Site	377411,433258	Colliery	1938
17A	0.0	On Site	377411,433258	Colliery	1929
18D	0.0	On Site	377430,433260	Colliery	1909
19	0.0	On Site	377417,433247	Unspecified Disused Mine	1965
20A	0.0	On Site	377412,433264	Colliery	1950

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles

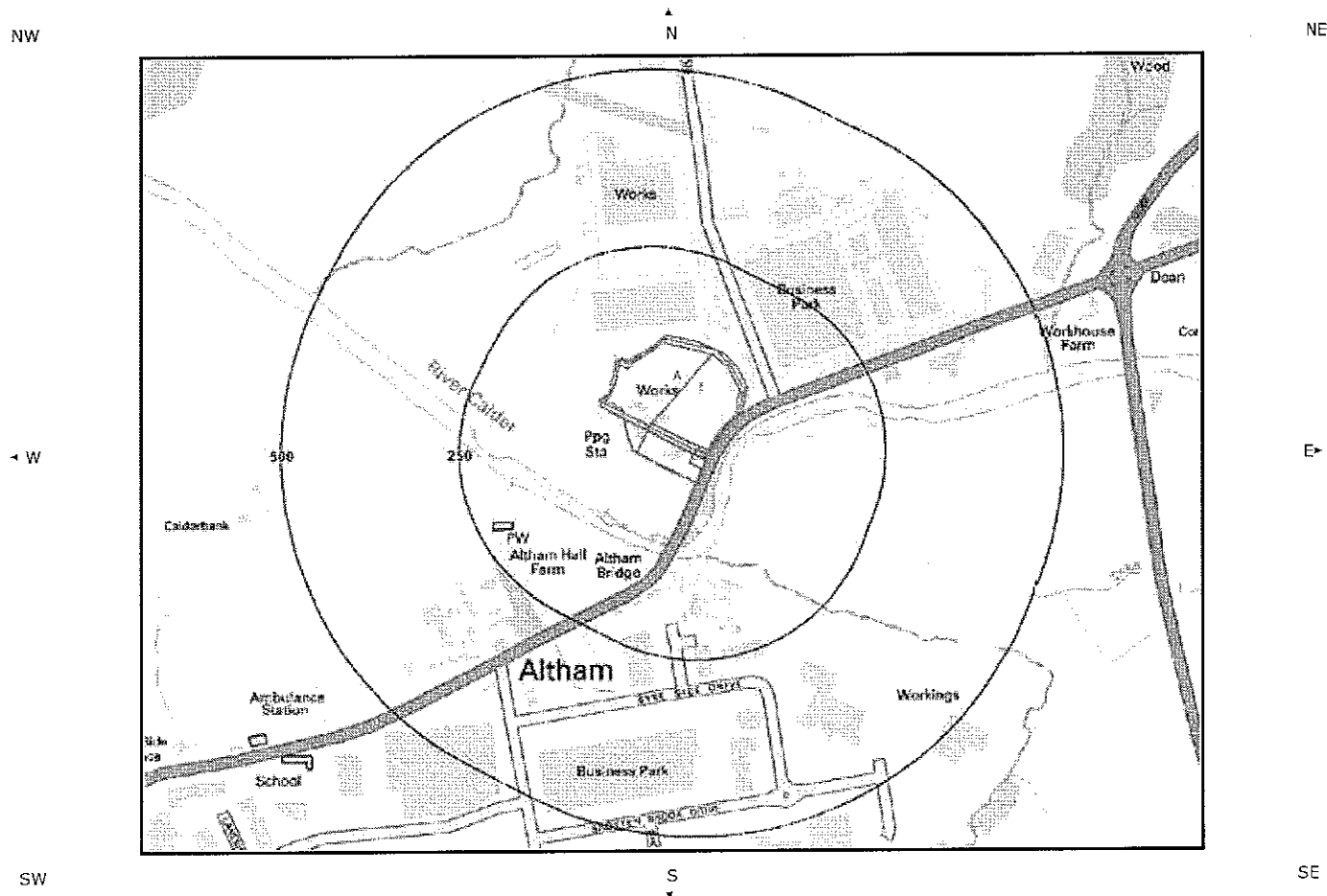
Are there any BGS Current Ground Workings within 1000m of the study site boundary?

Yes

The following Current Ground Workings information is provided by British Geological Society:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	719.0	N	377617, 433907	Sandstone	Tunstead House	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	881.0	NE	378045, 433850	Sandstone	Lower Dean Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	966.0	NE	378068, 433941	Sandstone	Lower Dean Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

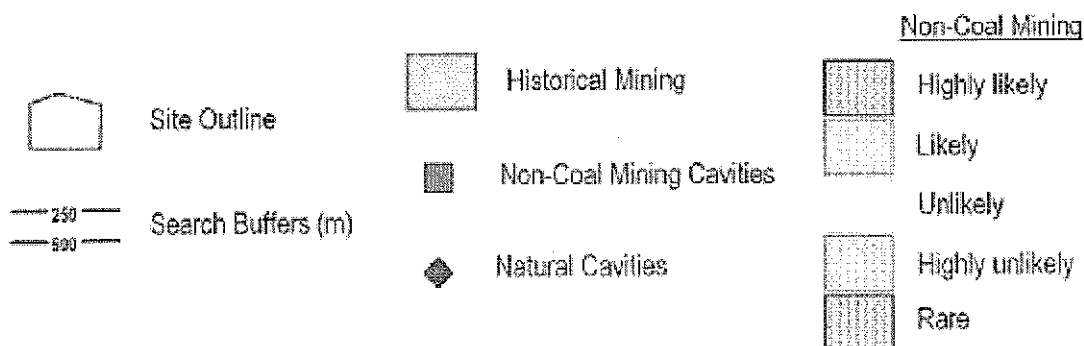
3. Mining, Extraction & Natural Cavities Map



Mining, Extraction & Natural Cavities
Legend

Enabled by
Ordnance Survey

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3. Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities

Are there any Historical Mining areas within 1000m of the study site boundary?

Yes

The following Historical Mining information is provided by Groundsure :

ID	Distance (m)	Direction	NGR	Details	Date
1	0.0	On Site	377430,433260	Colliery	1909
2A	0.0	On Site	377411,433258	Colliery	1929
3A	0.0	On Site	377411,433258	Colliery	1938
4A	0.0	On Site	377417,433247	Unspecified Disused Mine	1965
5A	0.0	On Site	377412,433264	Colliery	1950

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

Yes

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on Mapping:

Database searched No results found.

3.4 Non – Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

Report Reference: EMS-146164_210928

3.5 Non – Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority

Are there any Brine Extraction areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records

Are there any Gypsum Extraction areas within 1000m of the study site boundary? **No**

Database searched and no data found

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records This search is based upon postcode information to a sector level. More detailed information on potential Tin Mining may be found in Section 3 4 – Non-Coal Mining Hazards.

Are there any Tin Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

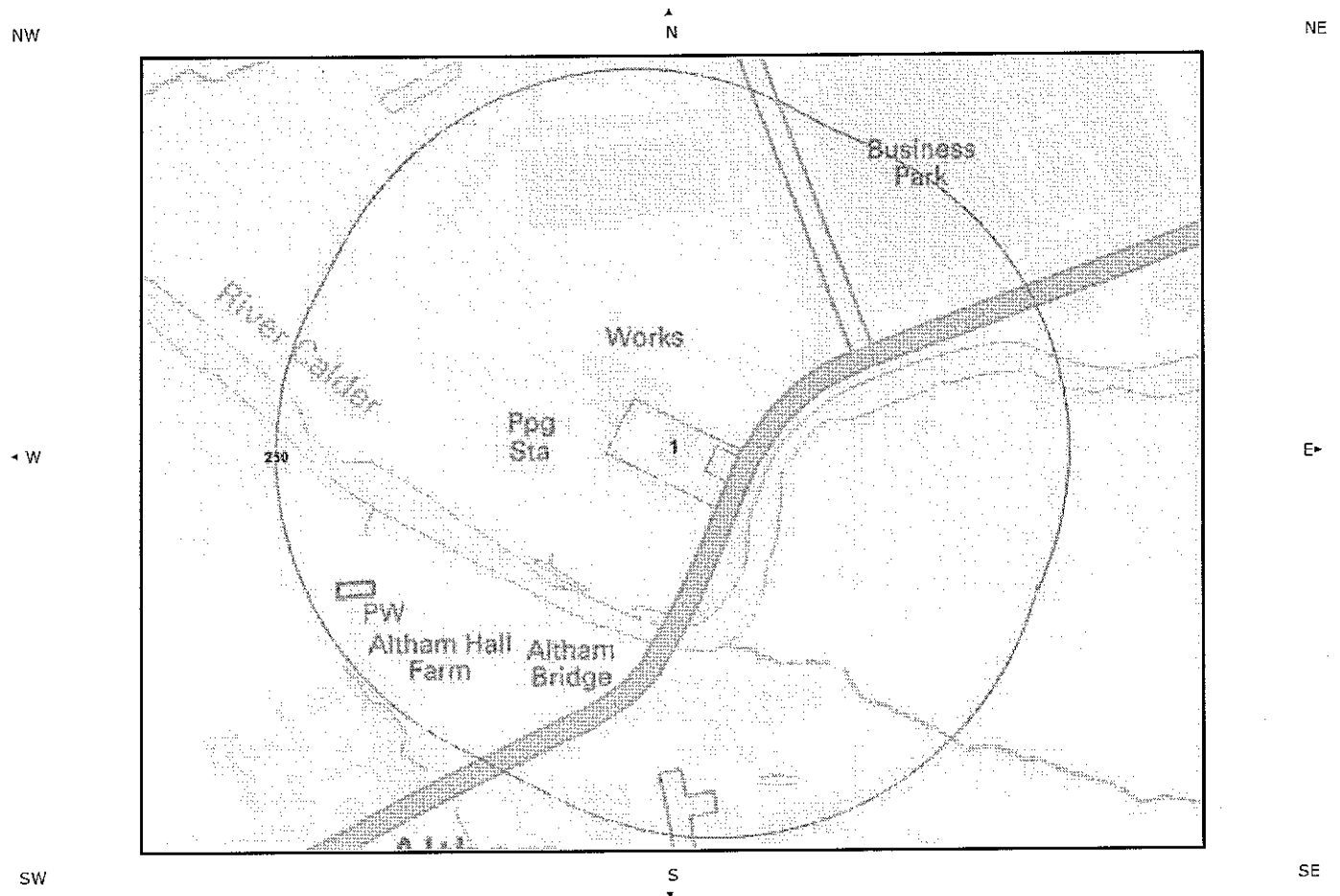
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

4. Natural Ground Subsidence

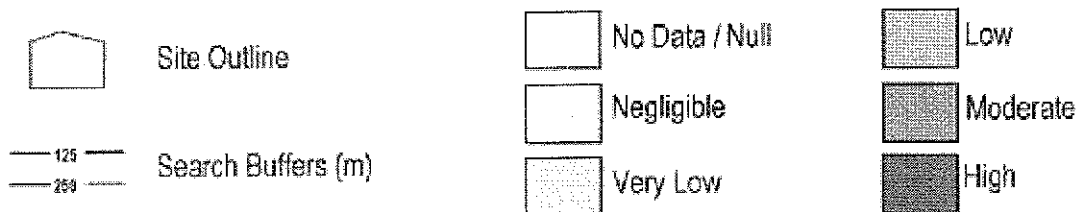
4.1 Shrink-Swell Clay Map



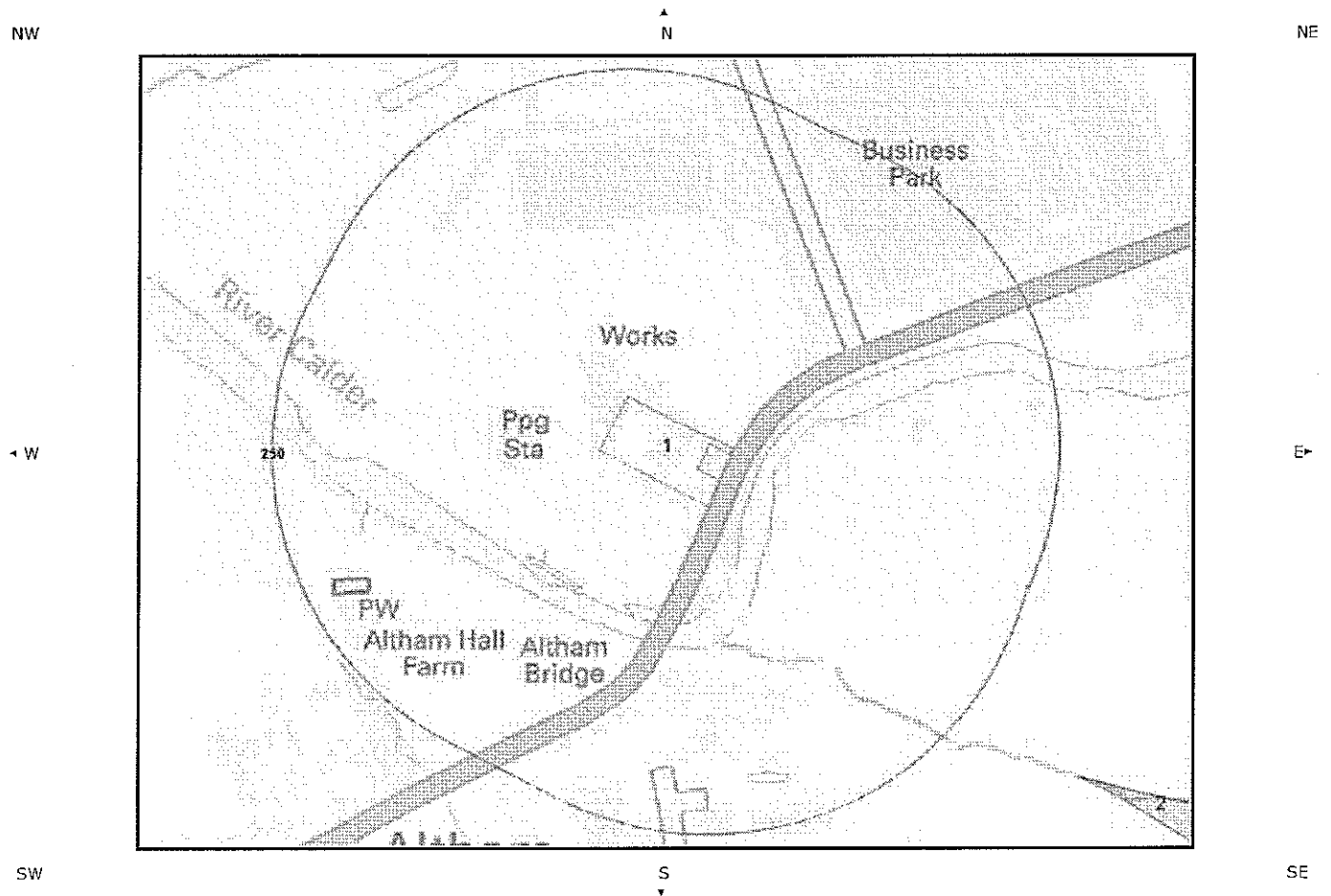
Shrink-Swell Clay Legend



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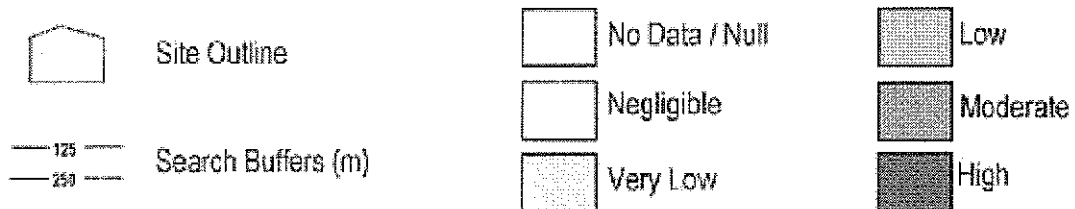
4.2 Landslides Map



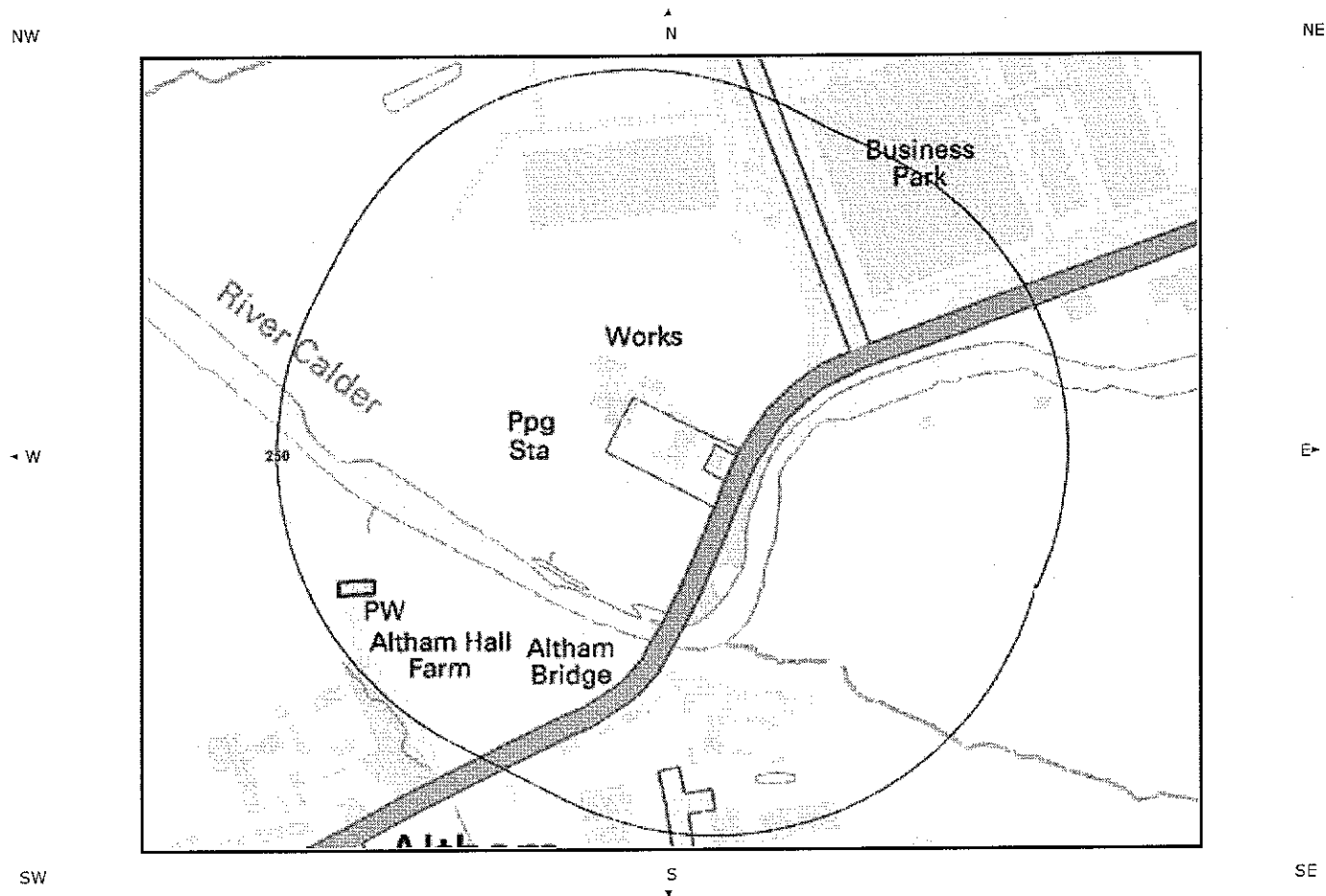
Landslides Legend



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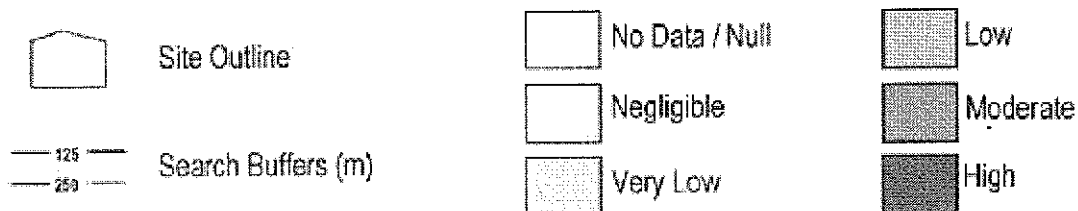
4.3 Ground Dissolution Soluble Rocks Map



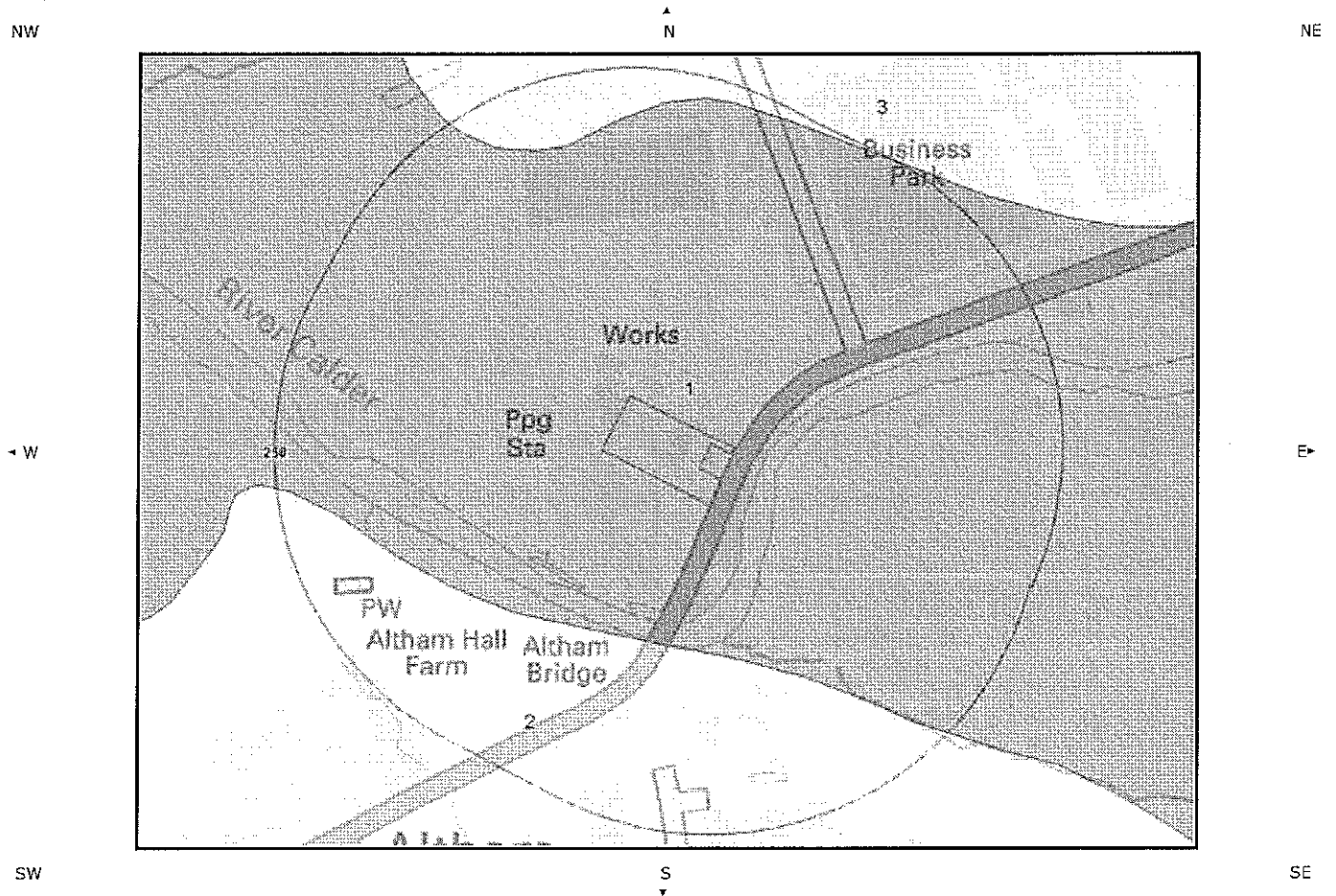
Ground Dissolution Soluble Rocks
Legend

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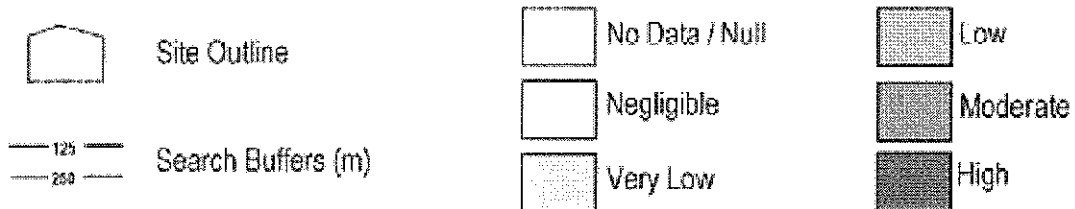
4.4 Compressible Deposits Map



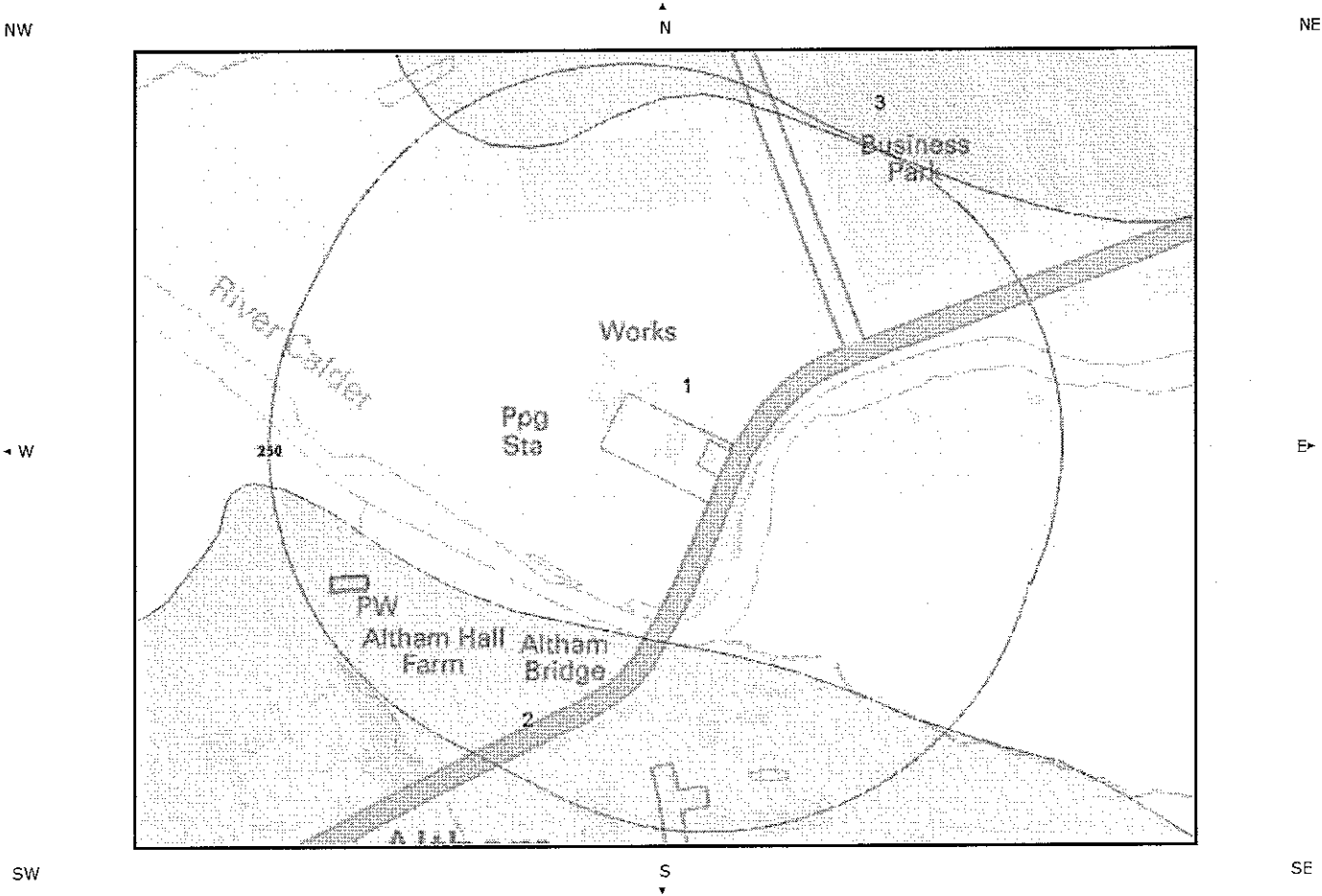
Compressible Deposits Legend

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4.5 Collapsible Deposits Map



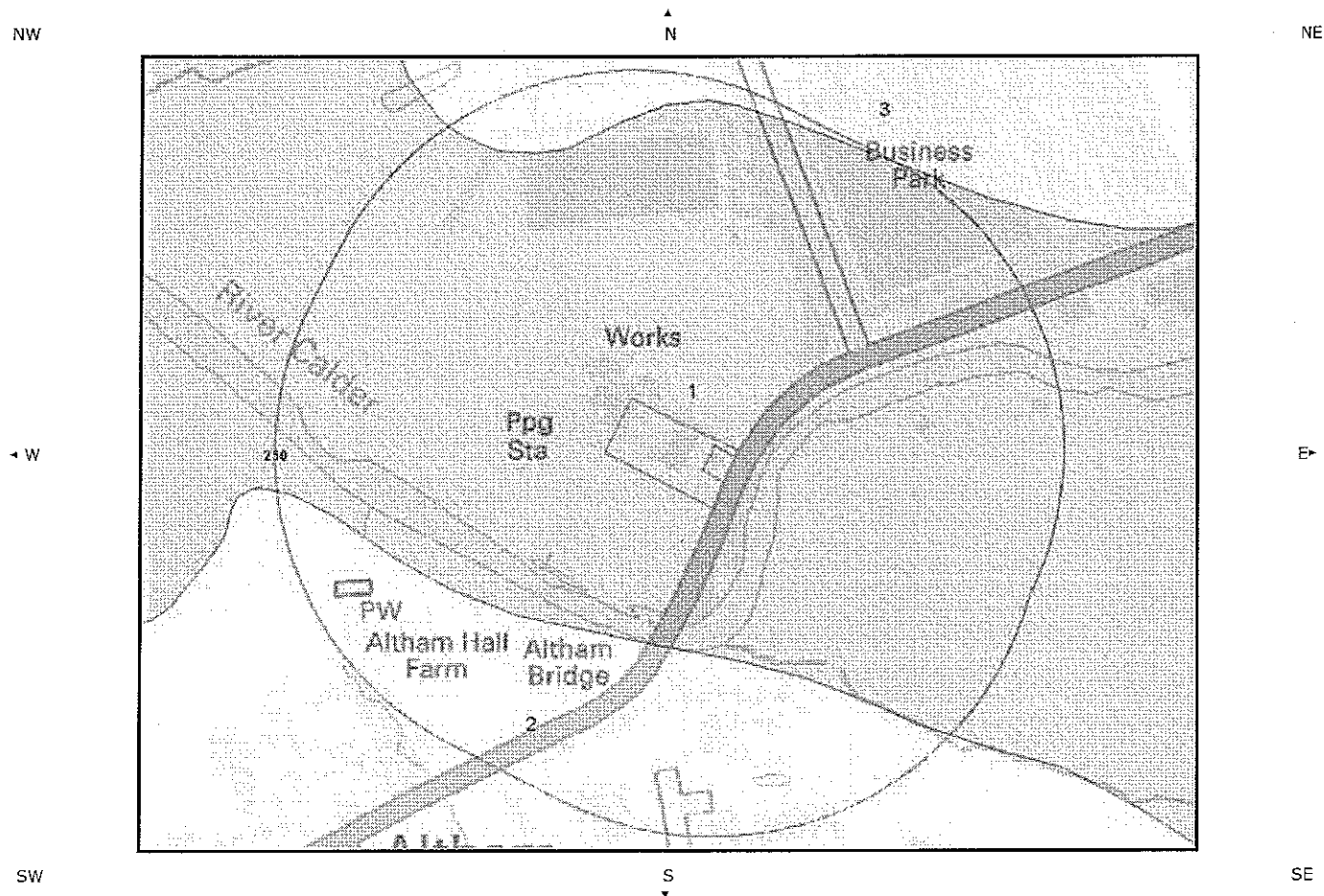
Collapsible Deposits Legend



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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

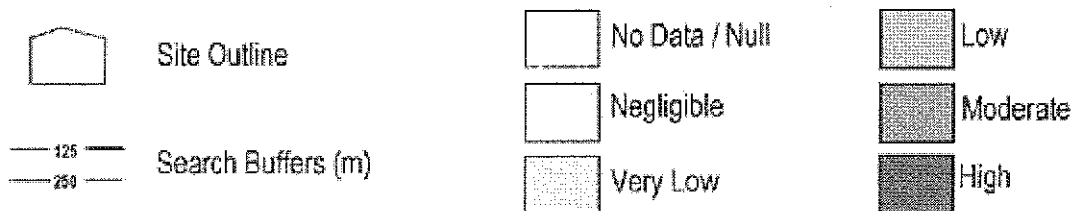
4.6 Running Sand Map



Running Sand Legend



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4. Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site* boundary? Moderate

4.1 Shrink – Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

4.3 Ground Dissolution of Soluble Rocks

The following Soluble Rocks information provided by the British Geological Survey:

Distance (m)*	Direction	Hazard Rating	Details
0.0	On site	Null-Negligible	Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

4.4 Compressible Deposits

The following Compressible Ground information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
----	---------------	-----------	---------------	---------

*This includes an automatically generated 50m buffer zone around the study site boundary

1	0.0	On Site	Moderate	Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
---	-----	---------	----------	---

4.5 Collapsible Deposits

The following Collapsible Rocks information is provided by the British Geological Survey:

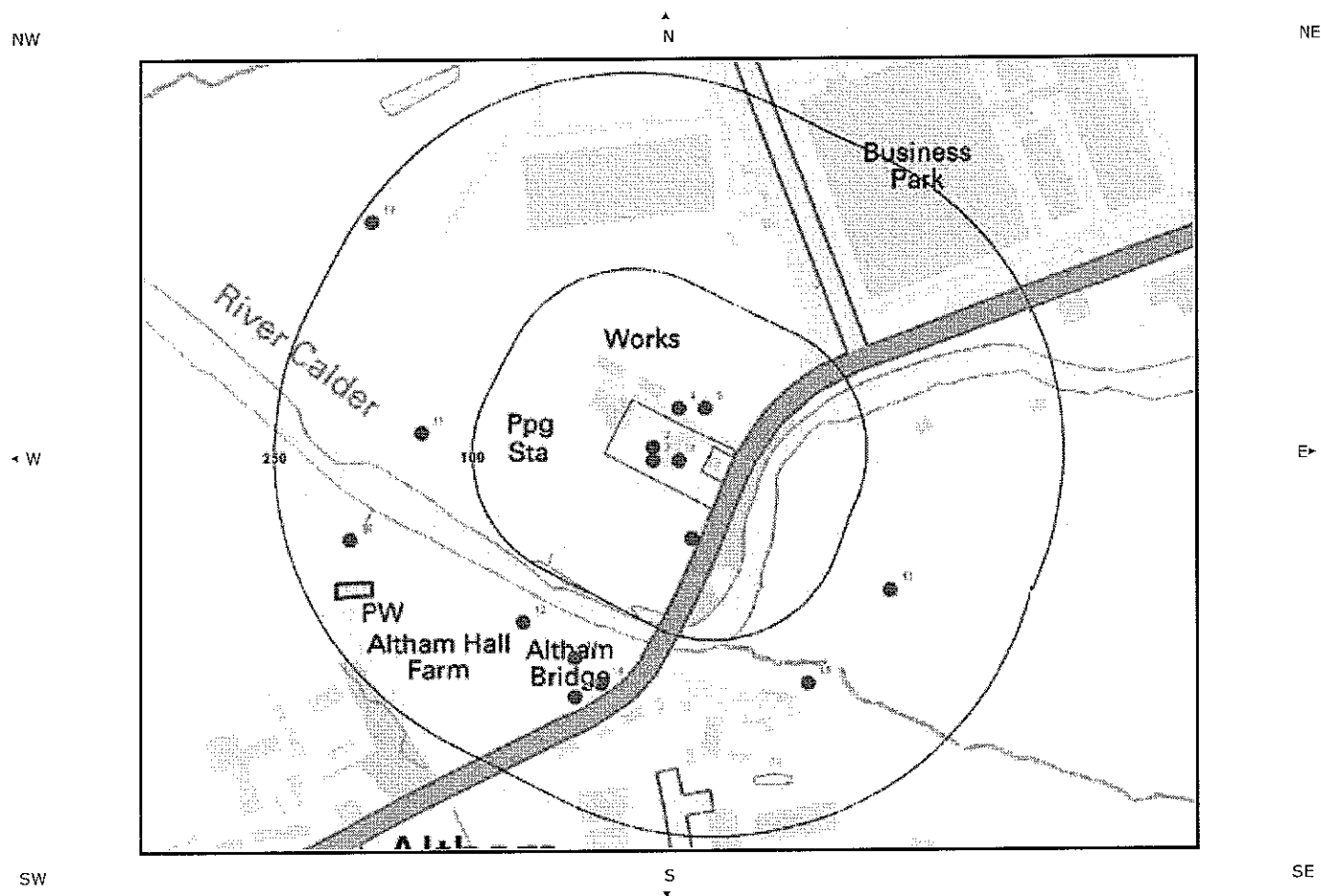
ID	Distance (m) *	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information is provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

5. Borehole Records Map



Borehole Records Legend



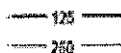
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Site Outline



Borehole Locations



Search Buffers (m)

5. Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information

Records of boreholes within 250m of the study site boundary:

19

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name
1	0.0	On Site	377420,433180	SD73SE365	-1.0	CALDER W.B.
2	0.0	On Site	377400,433190	SD73SE45	18.9	NO.1 CALDER PIT BH
3	0.0	On Site	377400,433180	SD73SE360	51.66	ALTHAM P.S. NO.1
4	10.0	NE	377420,433220	SD73SE366	-1.0	N.C.B.
5	19.0	NE	377440,433220	SD73SE5	307.27	CALDER PIT SIMONSTONE
6A	28.0	SW	377430,433120	SD73SE25	-1.0	ALTHAM COLLIERY NO.1
7A	28.0	SW	377430,433120	SD73SE6/A	51.66	ALTHAM PUMPING STATION 1
8A	28.0	SW	377430,433120	SD73SE6/B	51.66	ALTHAM PUMPING STATION 2
9A	28.0	SW	377430,433120	SD73SE6/C	90.98	ALTHAM PUMPING STATION 3
10A	28.0	SW	377430,433120	SD73SE6/D	-1.0	ALTHAM PUMPING STATION 4
11	140.0	W	377224,433202	SD73SE187	6.0	MID CALDER & HYNDBURN JSB R5
12	143.0	SW	377301,433057	SD73SE180	5.0	MID CALDER & HYNDBURN JSB P1
13	148.0	SE	377580,433080	SD73SE31	-1.0	ALTHAM COLLIERY NO.10
14	149.0	SW	377340,433030	SD73SE339	-1.0	ALTHAM BRDG NR ACCRINGTON BH6
15	151.0	SE	377518,433010	SD73SE181	5.0	MID CALDER & HYNDBURN JSB P2
16	158.0	SW	377360,433010	SD73SE224	10.46	CALDER VALLEY SEWER C9
17	176.0	SW	377340,433000	SD73SE338	-1.0	ALTHAM BRDG NR ACCRINGTON BH5
18	204.0	W	377170,433120	SD73SE223	7.2	CALDER VALLEY SEWER C8
19	239.0	NW	377187,433363	SD73SE186	6.0	MID CALDER & HYNDBURN JSB R4

6. Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

1

For further information on how this data is calculated and limitations upon its use, please see the GroundSure GeoInsight User Guide, available on request

Estimated Geometric Mean Soil Concentrations (mg/kg)							
Distance (m)*	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0 0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius

7. Contacts

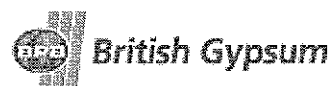
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Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological enquiries



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Acknowledgements

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- "Commission" means an order for Consultancy Services submitted by a Client.
- "Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items
- "Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.
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- "Mapping" means an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure
- "Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site
- "Order Website" means online platform via which Orders may be placed.
- "Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.
- "Residential" means any building used as or suitable for use as an individual dwelling.
- "Risk Screening Report" means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability, excluding "Consultancy Services".
- "Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site
- "Site" means the land site in respect of which GroundSure provides the Services.
- "User Guide" means the relevant current version of the user guide available upon request from GroundSure

2 Scope of Services

- 2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.
- 2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services
- 2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.
- 2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others
- 2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore
- 2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website
- 3 The Client's obligations
- 3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third Parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs
- 3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).
- 3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.
- 3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site, or providing funding in relation to the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.
- 3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password

4 Reliance

- 4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.
- 4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.
- 4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.
- 4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.
- 4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.
- 4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party

5 Fees and Disbursements

- 5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.
- 5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees, disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.
- 5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute

6 Intellectual Property

- 6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.
- 6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party
- 6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- 6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary
- 6.5 The Client and each of the parties set out in clause 4.2 are permitted to make up to 8 (commercial) or 2 (residential) printed copies of the Report only. Further copies of the Report may not be made in whole or in part without the prior written permission of GroundSure who shall be entitled to make a charge for each additional copy
- 6.6 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):
 - (i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
 - (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

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(iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
 (iv) not combine the Services with or incorporate such Services into any other information data or service; and
 (v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.6(v) where such reformatting is in the normal course of providing advice based upon the Services) in each case of parts (iii) to (v) inclusive, whether or not such product or report is produced for commercial profit or not.

6.7 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time

7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or willful default.

7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing Party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.

7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.

7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.

7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed

7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.

7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.

7.8 Subject to the provisions of clause 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.

7.9 Subject to the provisions of clause 7.1 and irrespective of whether multiple parties make use of the same Services the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £10 million per claim or series of connected claims

7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.

7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them.

7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content

7.13 Subject to clause 7.1, GroundSure shall not be liable to the Client, the Beneficiary or any third party in contract, tort (including without limitation, negligence) or for misrepresentation or breach of statutory duty or otherwise in respect of any loss of profits, goodwill, revenue or opportunity, or any indirect or consequential loss (even if such loss was reasonably foreseeable).

7.14 GroundSure undertakes for the duration of the liability periods referred to in clauses 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities under this Contract. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8. GroundSure right to suspend or terminate

8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:

- (i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any material term of the Contract (including but not limited to the obligations in clause 4) incapable of remedy or if remediable is not remedied within 14 days of notice of the breach

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.

9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights

10. Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/Beneficiary in GroundSure's possession or control.

10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract

11. General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.

11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure

11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.

11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999

11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Data Providers; or
- (viii) changes in law.

11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.

11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties

11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired

11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.

11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

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EmapSite
Masdar House, ,
Eversley, RG27 0RP

GroundSure Reference:	EMS-146164_210929
Your Reference:	EMS_146164_210929
Report Date:	Nov 25, 2011
Report Delivery Method:	Email - pdf
Client Email:	sales@emapsite.com

GroundSure EnviroInsight

Address: BB12 7NL

Dear Sir/Madam,

Thank you for placing your order with emapsite. Please find enclosed the GroundSure EnviroInsight as requested

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc
GroundSure EnviroInsight

GroundSure EnviroInsight

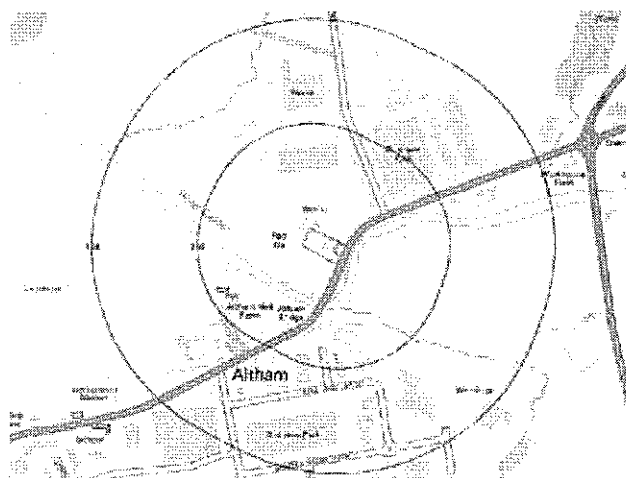
Address: BB12 7NL

Date: Nov 25, 2011

GroundSure Reference: EMS-146164_210929

Your Reference: EMS_146164_210929

Client: EmapSite



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emapsite™

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Report Section	Number of records found within (X) m. of the study site boundary					
1. Environmental Permits, Incidents and Registers	on-site	0-50	51-250	251-500	501-1000	1000-1500
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations						
Records of historic IPC Authorisations	0	0	0	1	-	-
Records of Part A(1) and IPPC Authorised Activities	0	0	0	0	-	-
Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	-	-
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	-	-
Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of List 2 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of Part A(2) and Part B Activities and Enforcements	0	0	0	2	-	-
Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	4	-	-
Records of Licensed Discharge Consents	0	0	0	1	-	-
Records of Planning Hazardous Substance Consents and Enforcements	0	0	0	0	-	-
1.2 Records of COMAH and NIHS sites	0	0	0	0	-	-
1.3 Environment Agency Recorded Pollution Incidents						
National Incidents Recording System, List 2	0	0	2	-	-	-
National Incidents Recording System, List 1	0	0	1	-	-	-
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990	0	0	0	0	-	-
2. Landfill and Other Waste Sites						
2.1 Landfill Sites						
Environment Agency Registered Landfill Sites	0	0	0	0	0	-
Landfill Data - Operational Landfill Sites	0	0	0	1	0	-
Environment Agency Historic Landfill Sites	0	0	2	1	2	1
Landfill Data - Non-Operational Landfill Sites	0	0	0	1	2	-
BGS/DoE Landfill Site Survey	0	0	0	0	0	0
GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings						
Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Environment Agency Licensed Waste Sites	0	0	0	1	1	0

3. Current Land Uses	on-site	0-50	51-250	251-500	501-1000	1000-1500
3.1 Current Industrial Sites Data	0	5	8	-	-	-
3.2 Records of Petrol and Fuel Sites	0	0	0	0	-	-
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0	-	-

4. Geology	Description
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? *	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? *	Yes
4.3 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
Source: Scale: 1:50 000 BGS Sheet 068	

* This includes an automatically generated 50m buffer zone around the site.

5. Hydrogeology and Hydrology	on-site	0-50	51-250	251-500	501-1000	1001-2000
5.1 Are there any records of Productive Strata in the Superficial Geology within 500m of the study site?				Yes		
5.2 Are there any records of Productive Strata in the Bedrock Geology within 500m of the study site?				Yes		
5.3 Groundwater Abstraction Licences (within 1000m of the study site).	1	0	0	2	0	-
5.4 Surface Water Abstraction Licences (within 1000m of the study site).	0	0	0	0	4	-
5.5 Potable Water Abstraction Licences (within 2000m of the study site).	1	0	0	0	0	0
5.6 Are there any Source Protection Zones within 500m of the study site?				No		
5.7 River Quality						
Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	Yes	No	No	No
5.8 Detailed River Network entries within 500m of the site	0	1	7	9	-	-
5.9 Surface water features within 250m of the study site	No	Yes	Yes	-	-	-

6. Flooding	
6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?	Yes
6.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?	Yes
6.3 Are there any Flood Defences within 250m of the study site?	Yes
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Very High
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low

7. Designated Environmentally Sensitive Sites	on-site	0-50	51-250	251-500	501-1000	1001-1500
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	-	-

7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.3 Records of Local Nature Reserves (LNR)	0	0	0	0	-	-
7.4 Records of Special Areas of Conservation (SAC)	0	0	0	0	-	-
7.5 Records of Special Protection Areas (SPA)	0	0	0	0	-	-
7.6 Records of Ramsar sites	0	0	0	0	-	-
7.7 Records of World Heritage Sites	0	0	0	0	-	-
7.8 Records of Environmentally Sensitive Areas	0	0	0	0	-	-
7.9 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	-	-
7.10 Records of National Parks	0	0	0	0	-	-
7.11 Records of Nitrate Sensitive Areas	0	0	0	0	-	-
7.12 Records of Nitrate Vulnerable Zones	1	0	0	0	-	-

8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence? Moderate

9. Mining

9.1 Are there any coal mining areas within 75m of the study site? Yes

9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site? Low-Moderate

9.3 Are there any brine affected areas within 75m of the study site? No

Using this Report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites. These searches are conducted using radii of up to 500m.

8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9. Mining

Provides information on areas of coal and shallow mining.

10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

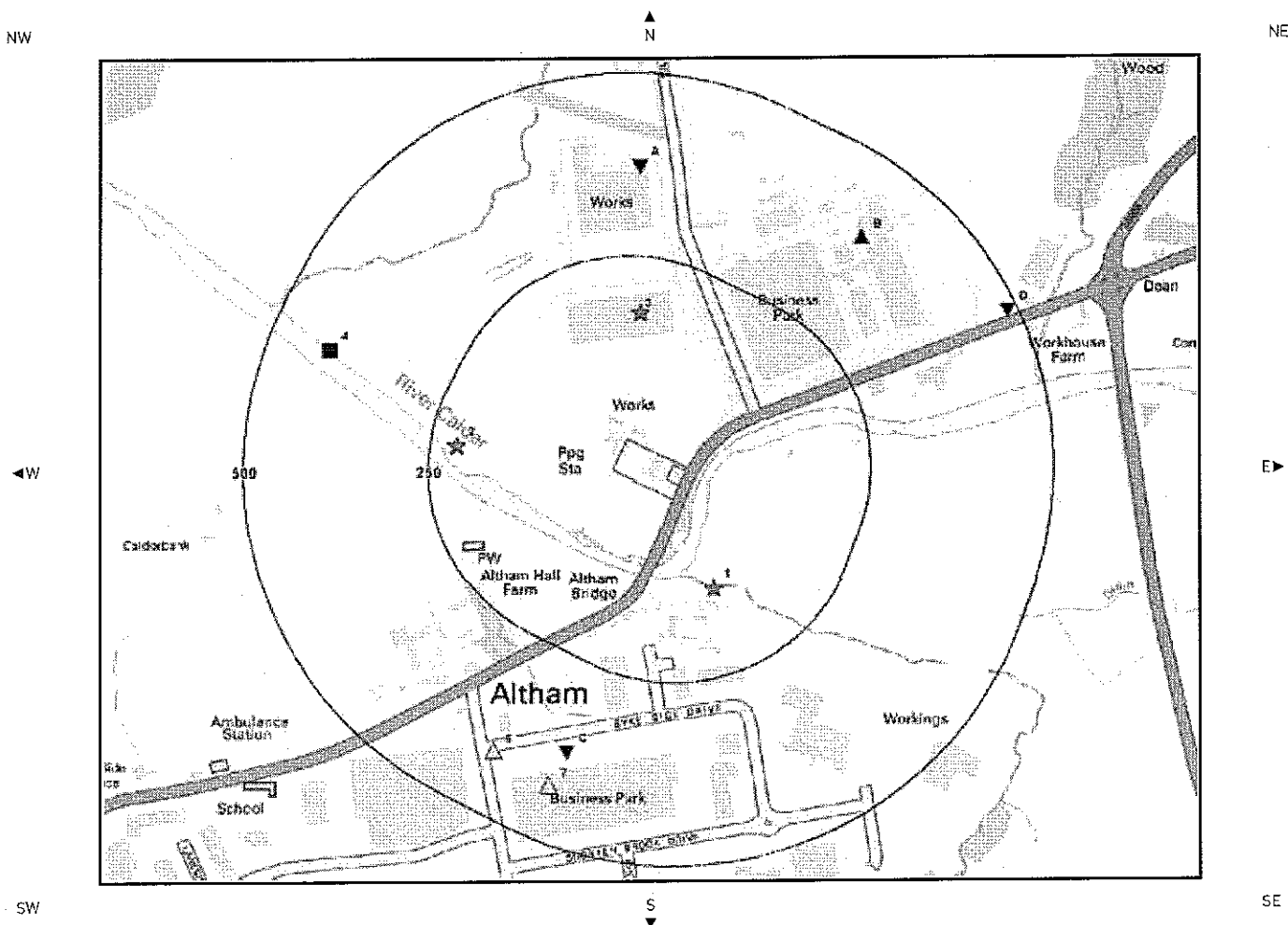
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Environmental Permits, Incidents and Registers Map



Authorisations, Incidents and Registers Legend

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OS Ordnance Survey

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	Recorded Pollution Incident		RAS 3 & 4 Authorisations
	Dangerous Substances (List 1)		Part A(1) Authorised Processes and Historic IPC Authorisations
	Dangerous Substances (List 2)		Part A(2) and Part B Authorised Processes
	Water Industry Referrals		COMAH / NHHS Sites
	Licensed Discharge Consents		Sites Determined as Contaminated Land
	Red List Discharge Consents		Hazardous Substance Consents and Enforcements
	Search Buffers (m)		
	250		
	500		
	Site Outline		

1.Environmental Permits, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

Records of historic IPC Authorisations within 500m of the study site: 1

The following IPC Authorisations are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details
12B	392.0	NE	377700, 433500	Operator: Rwe Npower Plc Address: Padiham Power Station, Blackburn Road, Padiham, Burnley, Lancashire, BB12 7NH Process: Combustion Processes Permit Number: AA2461 Original Permit Number: IPCAIRAPP Date Approved: 8-4-1993 Effective Date: 8-4-1993 Status: Surrendered

Records of Part A(1) and IPPC Authorised Activities within 500m of the study site: 0

Database searched and no data found.

Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site: 0

Database searched and no data found.

Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site: 0

Database searched and no data found.

Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: 0

Database searched and no data found.

Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: 0

Database searched and no data found.

Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site: 2

The following Part A(2) and Part B Activities are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details
----	----------	-----------	-----	---------

Report Reference: EMS-146164_210929

6	418.0	SW	377200, 432800	Address: Alan Cooper Furniture Sykeside Drive, Bb5 5ye Process: Coating & Enamelling Process, Process:timber Process Status: Historic Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	427.0	SW	377275, 432752	Address: Senator International Ltd, Altham Business Park, Syke Side Drive, Altham, ACCRINGTON, LANCASHIRE, BB5 5YE Process: Waste Oil Burner (less than 0.4 MW), Timber Process Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site:
4

The following RAS Licence (3 or 4) records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance [m]	Direction	Address	Operator	Type	Permission Number	Dates	Status
13C	373.0	SW	Jas Broadley Ltd, Unit B Gec Site,blackburn Road,clayton Le Moors, Accrington, ,	Jas Broadley Ltd	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1)	AQ3148	Date of Approval:1 -4-1991 Effective from:1-4- 1991 Last date of update:20 03-12-01	Revoked/ cancelled
14A	373.0	N	Philips Semiconductors Ltd, Simonstone Typg Factory, Burnley, Lancashire, BB12 7NJ	Philips Semicon ductors Ltd	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1)	AM9055	Date of Approval:1 7-2-1992 Effective from:17- 2-1992 Last date of update:20 03-12-01	Revoked/ cancelled
15A	373.0	N	Philips Semiconductors Ltd, Simonstone Typg Factory, Burnley, Lancashire, BB12 7NJ	Philips Semicon ductors Ltd	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	AM9055	Date of Approval:3 1-3-1991 Effective from:31- 3-1991 Last date of update:20 03-12-01	Supersed ed By Variation
16D	486.0	NE	Mullard Colour Tubes, Blackburn Road,simonstone, Burnley, Lancashire, BB12 7NJ	Mullard Colour Tubes	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1)	AQ0114	Date of Approval:1 -4-1991 Effective from:1-4- 1991 Last date of update:20 03-12-01	Revoked/ cancelled

Records of Licensed Discharge Consents within 500m of the study site:
1

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details
----	----------	-----------	-----	---------

4	417.0	NW	376980, 433350	Address: Simonstone Cso, Nr Altham, Lancashire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: 01RIB0050 Permit Version: 1	Receiving Water: River Calder Status: Post Nra Legislation Where Issue Date > 31-aug-89 (historic Only) Issue date: - Effective Date: 1/1/1995 Revocation Date: -
---	-------	----	-------------------	--	---

Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site: 0

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

Records of National Incidents Recording System, List 2 within 250m of the study site: 2

The following NIRS List 2 records are represented as points on the Authorisations, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
1	131.0	SE	377499, 433023	Incident Date: 22/11/2001 Incident Identification: 44458 Pollutant: Contaminated Water Pollutant Description: Minewater Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	216.0	W	377150, 433220	Incident Date: 26/3/2003 Incident Identification: 146866 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

Records of National Incidents Recording System, List 1 within 250m of the study site: 1

The following NIRS List 1 records are represented as points on the Authorisations, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
3	174.0	N	377400, 433400	Incident Date: 06-Jan-1999 Incident Identification: 1593.0 Catchments Name: RIVER CALDER (RIBBLE) Water Description: RIVER STRETCH (FRESHWATER) Water Course: RIVER RIBBLE Incident Substantiated: Yes Priority Description: Immediate (2 Hours) Waste Description: Not Available Water Impact: Minor Impact Land Impact: Significant Impact Air Impact: Significant Impact Pollutant:

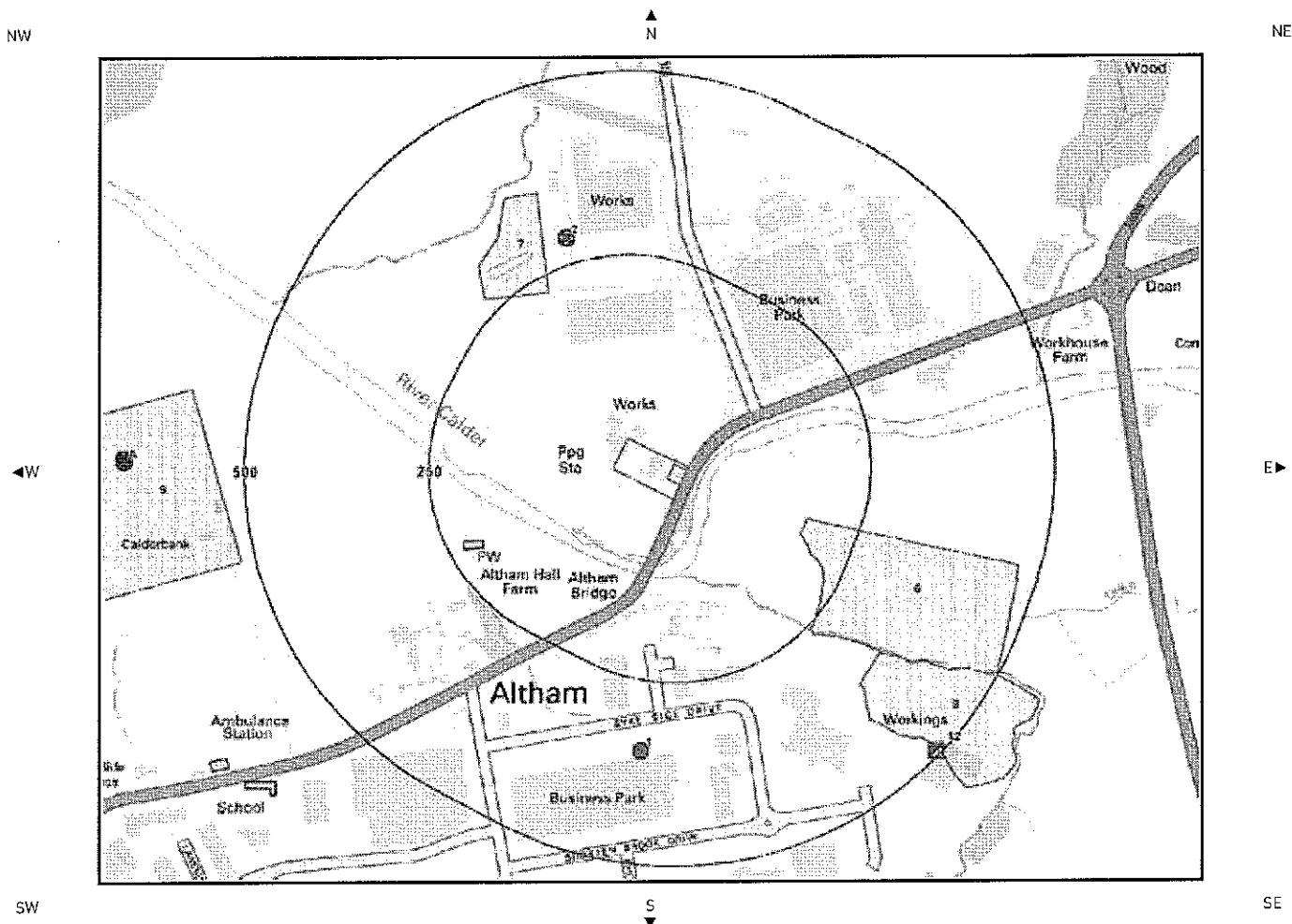
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

Report Reference: EMS-146164_210929

2. Landfill and Other Waste Sites Map



Landfill & Other Waste Sites Legend

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Ordnance Survey

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- | | | | | | |
|--|--------------------|--|---------------------------------------|--|-------------------------------------|
| | Site Outline | | E.A. Active Landfill | | Operational Waste Treatment Licence |
| | Search Buffers (m) | | E.A. Historic Landfill (Area Data) | | Closed Waste Treatment Licence |
| | | | E.A. Historic Landfill (Point Data) | | REGIS Waste Licence |
| | | | BGS / CoE Survey Landfill | | Operational Landfill |
| | | | Local Authority Landfill (Area Data) | | Closed Landfill |
| | | | Local Authority Landfill (Point Data) | | |

2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site:

1

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details
1	346.0	S	377400, 432800	Site Address: adj. NE Boundary of Altham Business Park, Altham, ACCRINGTON, Lancashire, Agency Reference: L1/11/663 LVO Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: Some restriction on source of waste Record Date: 01-Jul-1994 Transfer Date: Modification Date: 01-Mar-1999 Status: Operational as far as is known Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Very Small (<10,000 tonnes/year)

Records of Environment Agency historic landfill sites within 1500m of the study site:

6

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details
6	177.0	E	377700, 433000	Site Address: Altham Sewage Works, Burnley Road, Altham, Burnley, Lancashire Waste Licence: - Site Reference: K1/12/033 Waste Type: Inert, Household Regis Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
7	226.0	NW	377200, 433400	Site Address: Mullard Simonstone, West of Simonstone Lane, Simonstone, Burnley, Lancashire Waste Licence: Yes Site Reference: L1/03/118, WD/100/118, WR/K1/03/044 Licence No 95 Waste Type: Inert, Industrial, Liquid sludge Regis Reference: - Licence Issue: 28-Jul-1978 Licence Surrendered: 19-Jul-1993 Licence Hold Address: Blackburn Road, Simonstone, Burnley Operator: -
8	347.0	SE	377800, 432800	Site Address: Altham Business Park, Shorton Brook Drive, Altham, Accrington, Lancashire Waste Licence: Yes Site Reference: Licence No 583, K1/11/057, L1/11/663 Waste Type: Inert, Industrial, Commercial Regis Reference: NS1/L/BAR002 Licence Issue: 29-Jul-1994 Licence Surrendered: 22-May-2002 Licence Hold Address: Cornmill Farmhouse, Burnley Road, Altham Operator: -
9	519.0	W	376700, 433100	Site Address: Altham Sewage Works, Burnley Road, Calderbank, Accrington, Lancashire Waste Licence: Yes Site Reference: L1/11/336, L1/11/432, K1/11/010, Licences 272 and 364 Waste Type: Inert, Commercial Regis Reference: - Licence Issue: 17-Feb-1988 Licence Surrendered: 31-Dec-1994 Licence Hold Address: Calderbank, Altham Sewage Works, Burnley Road, Accrington Operator: -

Not shown	764.0	E	378600, 433200	Site Address: Padiham Power Station, Land off Blackburn Road, Simonstone, Burnley, Lancashire Waste Licence: - Site Reference: K1/23/034 Waste Type: Inert, Industrial, Household Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1390.0	S	377400, 431200	Site Address: Enfield Road, Enfield Road, Huncoat, Accrington, Lancashire Waste Licence: - Site Reference: K1/11/003 Waste Type: Inert, Industrial, Household Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: 3

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details	
2	286.0	N	377300, 433500	Site Address: Rear of TVPG, Simonstone Lane, BURNLEY, Lancashire, Landfill Licence: 250ADMAL Agency Reference: 118 CSM Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: Some restriction on source of waste	Record Date: 01-Jul-1978 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL - with lagoon Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
3A	663.0	W	376700, 433195	Site Address: Altham Sewage Works, Burnley Road, ACCRINGTON, Lancashire, Landfill Licence: 25FAABAL Agency Reference: 432 LTK Waste Type: Non-Hazardous Waste Description: Non-Hazardous Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Jul-1991 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
4A	663.0	W	376700, 433200	Site Address: Altham S.T. Works, Burnley Road, Altham, ACCRINGTON, Lancashire Landfill Licence: 250ARHAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Feb-1988 Transfer Date: Modification Date: 01-Jan-1990 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined

Records of BGS/DoE non-operational landfill sites within 1500m of the study site: 0

Database searched and no data found.

Records of Local Authority landfill sites within 1500m of the study site: 0

Database searched and no data found.

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site: 0

Database searched and no data found.

Report Reference: EMS-146164_210929

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site: 0

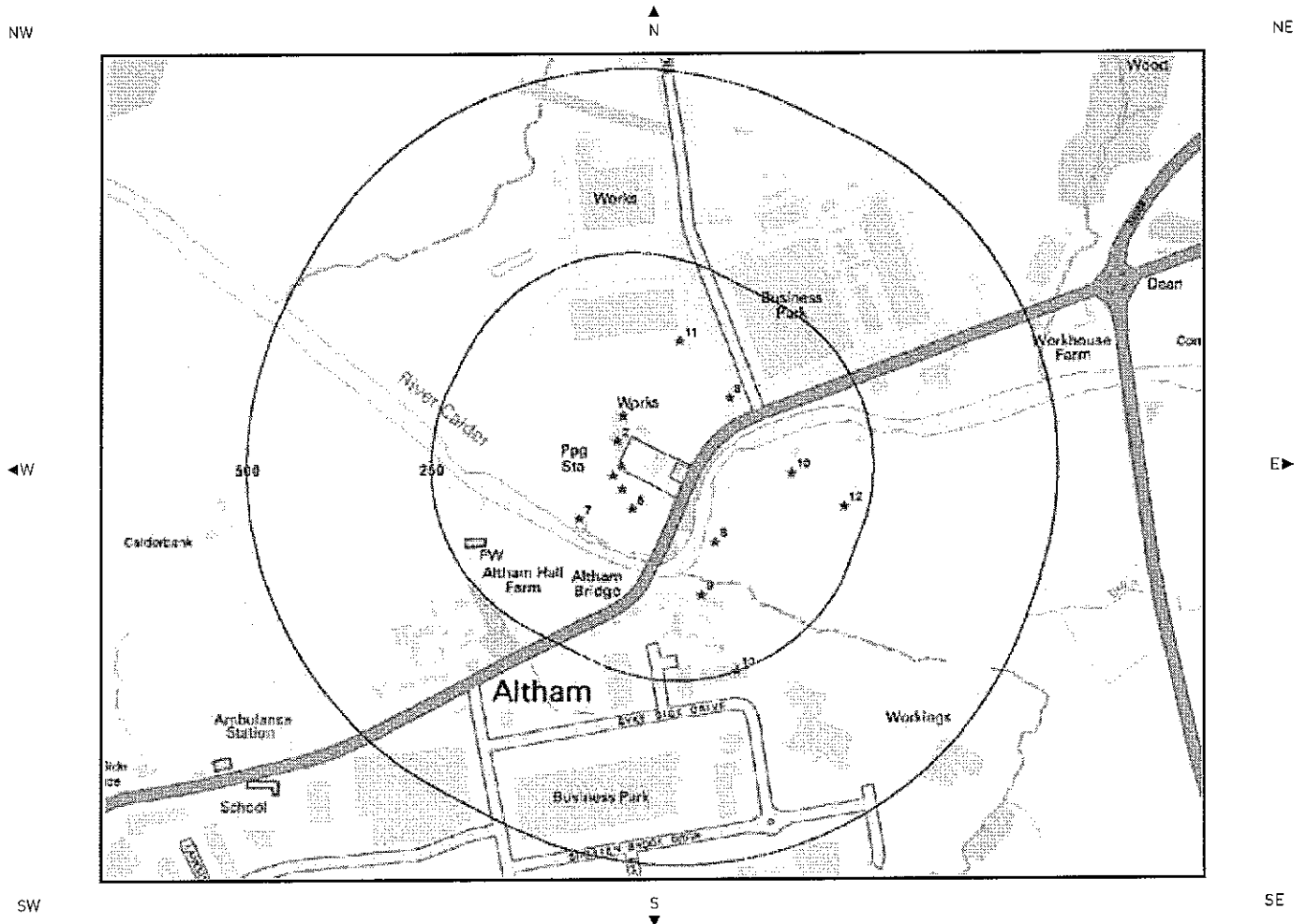
Database searched and no data found.

Records of Environment Agency licensed waste sites within 1500m of the study site: 2

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details	
12	493.0	SE	377800, 432800	Site Address: Land Ajoining The North East Boundary Of Altham Business Pk., Altham, Accrington, Lancashire, BB5 Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Regis Licence Number: BAR002 EPR reference: EA/EPR/PP3897CZ/S002 Operator: Mr John Barnes Waste Management licence No: 54171 Annual Tonnage: 150000.0	Issue Date: 29/07/1994 Effective Date: - Modified: - Surrendered Date: 22/05/2002 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Barnes Correspondence Address: -
Not shown	937.0	E	378400, 433200	Site Address: Shuttleworth Mead Business Pk, Unit 14b, Meadway, Padiham, Burnley, Lancashire, BB12 7NG Type: Special Waste Transfer Station Size: < 25000 tonnes Regis Licence Number: DRU001 EPR reference: EA/EPR/SP3993ZT/A001 Operator: Druck Chemie U K Ltd Waste Management licence No: 54471 Annual Tonnage: 1922.0	Issue Date: 30/03/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Druck Chemie Uk Ltd Correspondence Address: -

3. Current Land Use Map



Current Land Use Legend



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- | | | | |
|--|--------------------|--|--|
| | Site Outline | | Current Industrial Sites |
| | Search Buffers (m) | | Petrol & Fuel Sites |
| | | | Underground High Pressure Oil & Fuel Pipelines |

3. Current Land Uses

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

13

The following records are represented as points on the Current Land Uses map.

ID	Distance	Direction	Company	Address	Activity	Category
1A	13.0	SW	Pylon	BB12	Electrical Features	Infrastructure and Facilities
2	16.0	NW	Ascotex Ltd	Calder Works, Burnley Road, Simonstone, Burnley, BB12 7NL	General Purpose Machinery	Industrial Products
3A	23.0	SW	Altham Pumping Station	BB12	Water Pumping Stations	Industrial Features
4	32.0	NW	Calder Works	BB12	Unspecified Works Or Factories	Industrial Features
5	42.0	SW	Pylon	BB12	Electrical Features	Infrastructure and Facilities
6	79.0	SE	Outfall	BB12	Waste Storage, Processing and Disposal	Infrastructure and Facilities
7	86.0	SW	Outfall	BB12	Waste Storage, Processing and Disposal	Infrastructure and Facilities
8	106.0	NE	Gas Governor	BB12	Gas Features	Infrastructure and Facilities
9	137.0	S	Chimney	BB5	Chimneys	Industrial Features
10	139.0	E	Pylon	BB12	Electrical Features	Infrastructure and Facilities
11	146.0	NE	Fort Vale Engineering Ltd	Calder Vale Park, Simonstone Lane, Simonstone, Burnley, BB12 7ND	Industrial Engineers	Engineering Services
12	217.0	E	Pylon	BB12	Electrical Features	Infrastructure and Facilities
13	249.0	S	F Dean & Sons	Sykeside Drive, Altham Business Park, Altham, Accrington, BB5 5YE	Industrial Engineers	Engineering Services

3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

0

Database searched and no data found.

3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site:

0

Database searched and no data found.

4. Geology

4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

4.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

4.3 Bedrock and Solid Geology

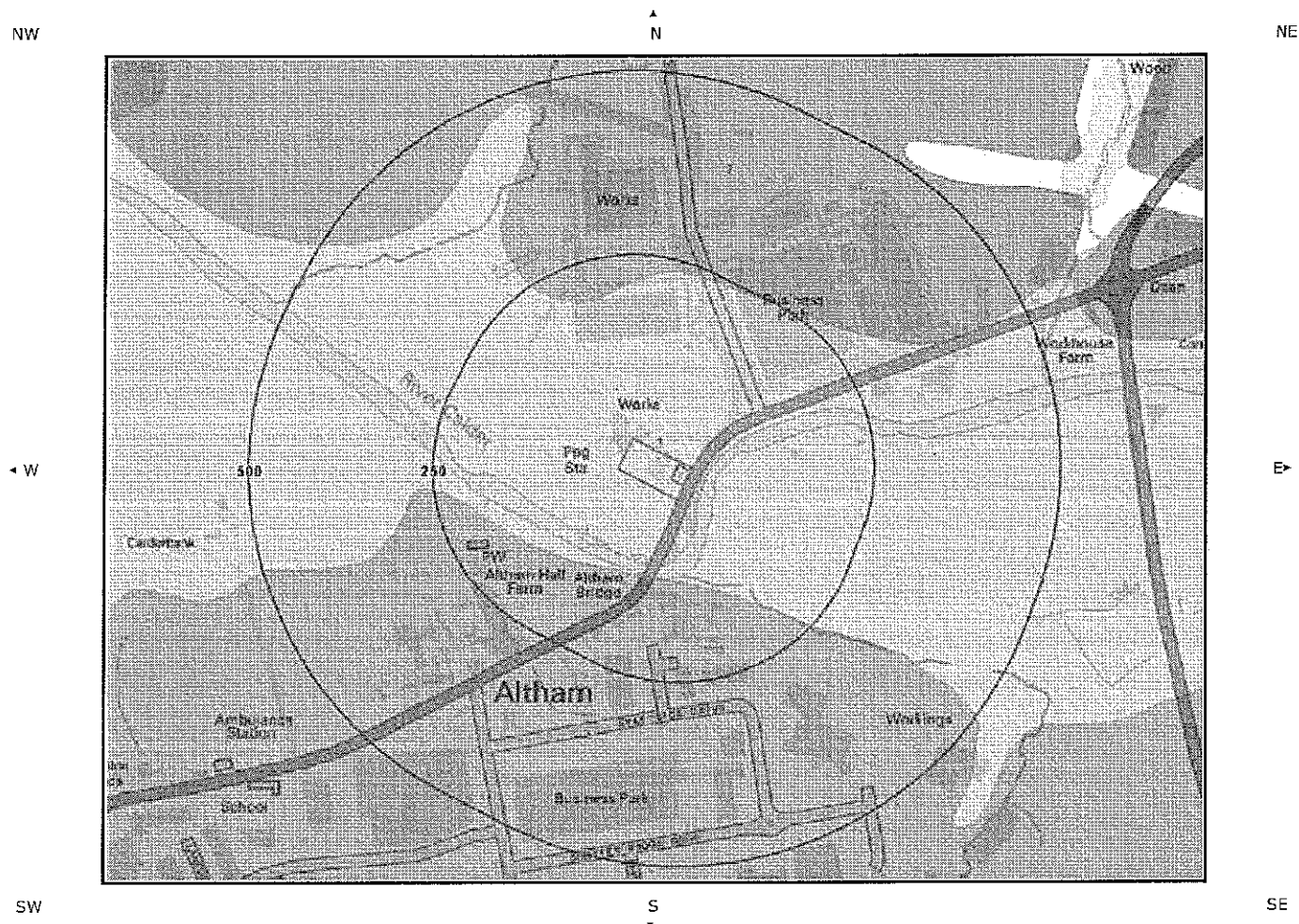
The database has been searched on site, including a 50m buffer.

LEX Code	Description	Rock Type
PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.

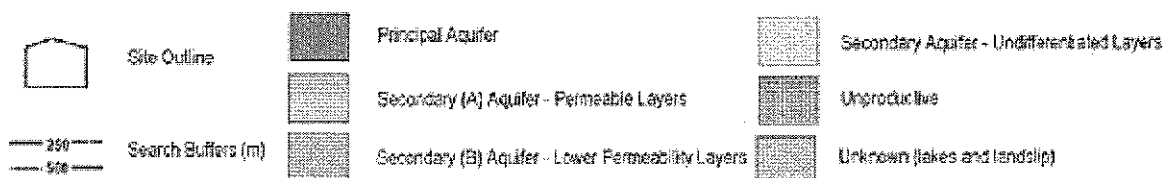
5a. Hydrogeology - Aquifer Within Superficial Geology



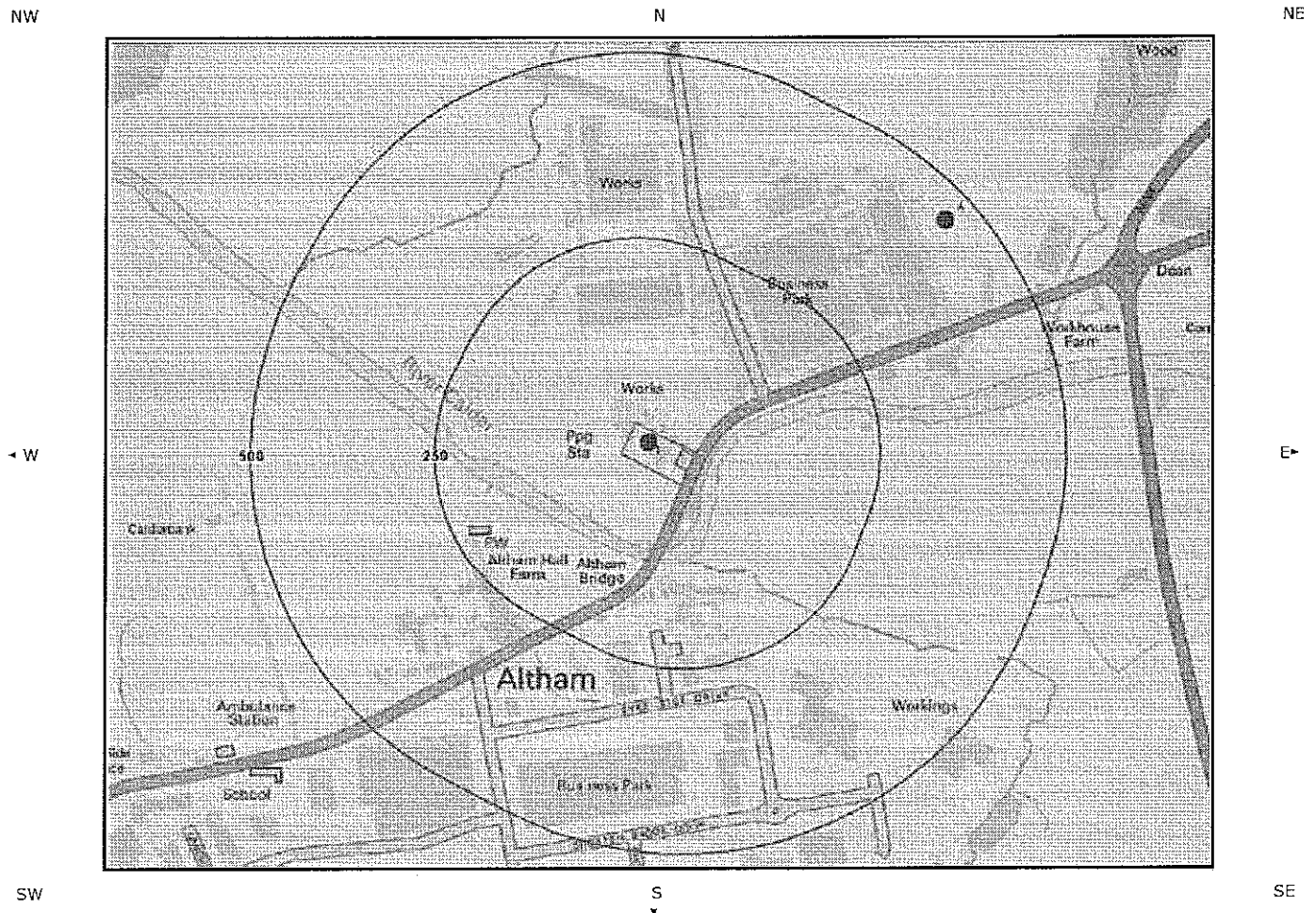
Aquifer Within Superficial Geology Legend

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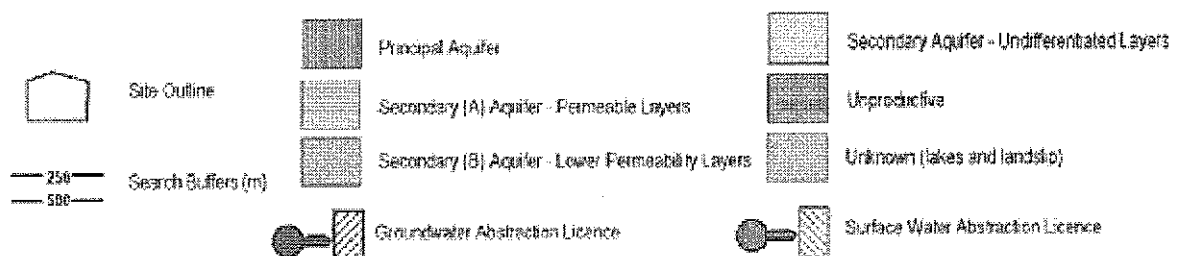
5b. Hydrogeology - Aquifer Within Bedrock Geology and Abstraction Licenses



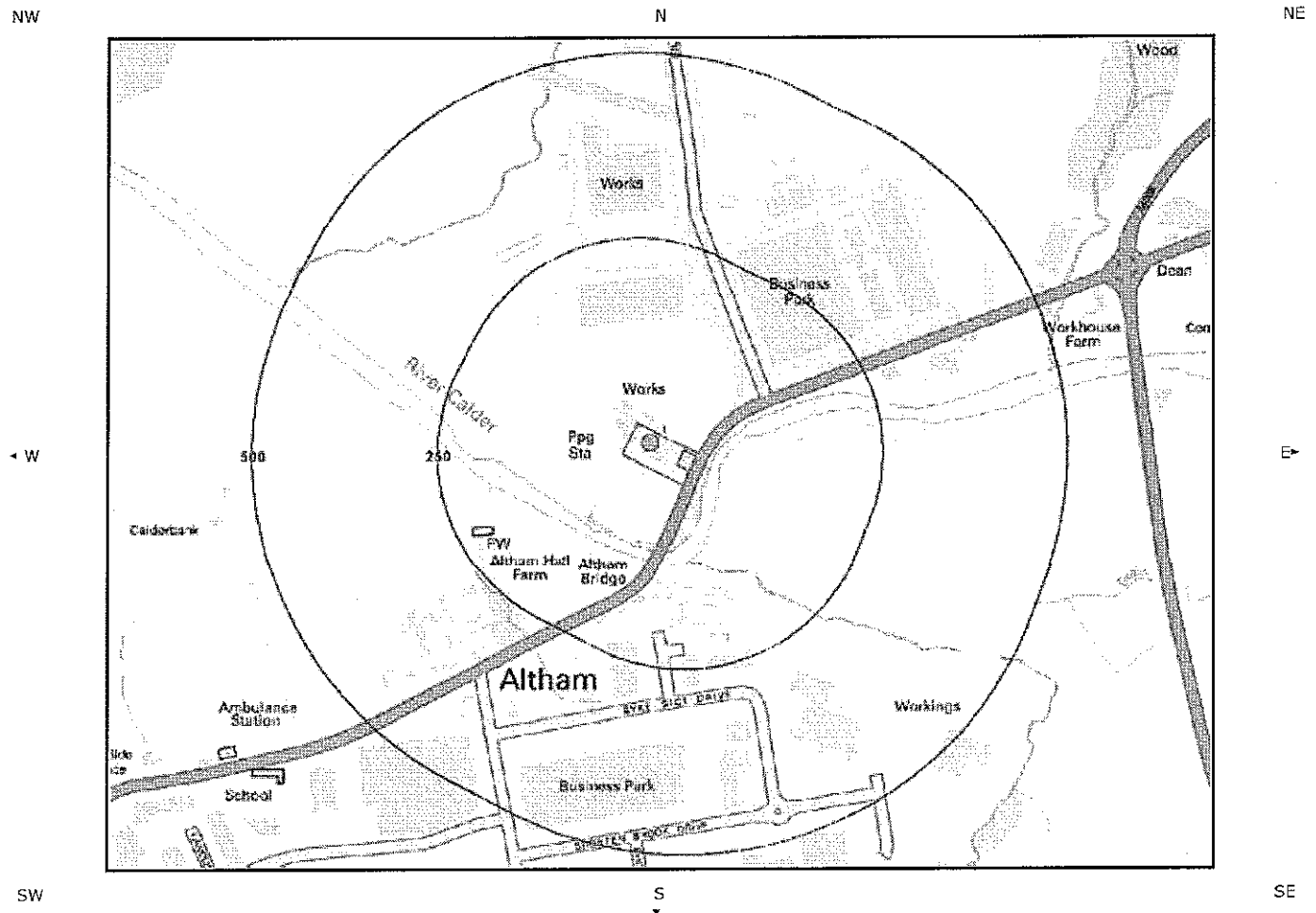
Aquifer Within Bedrock Geology Legend



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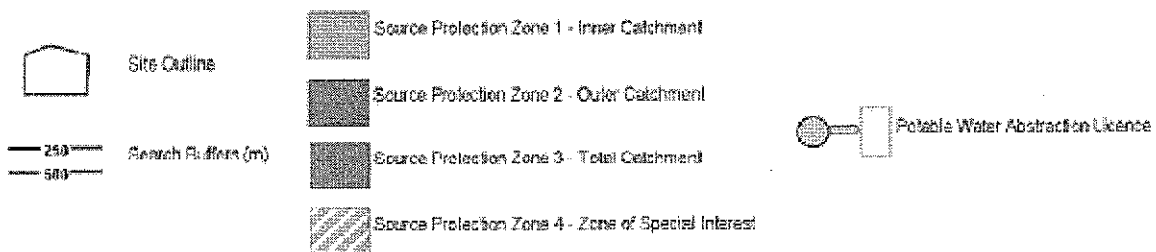
5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



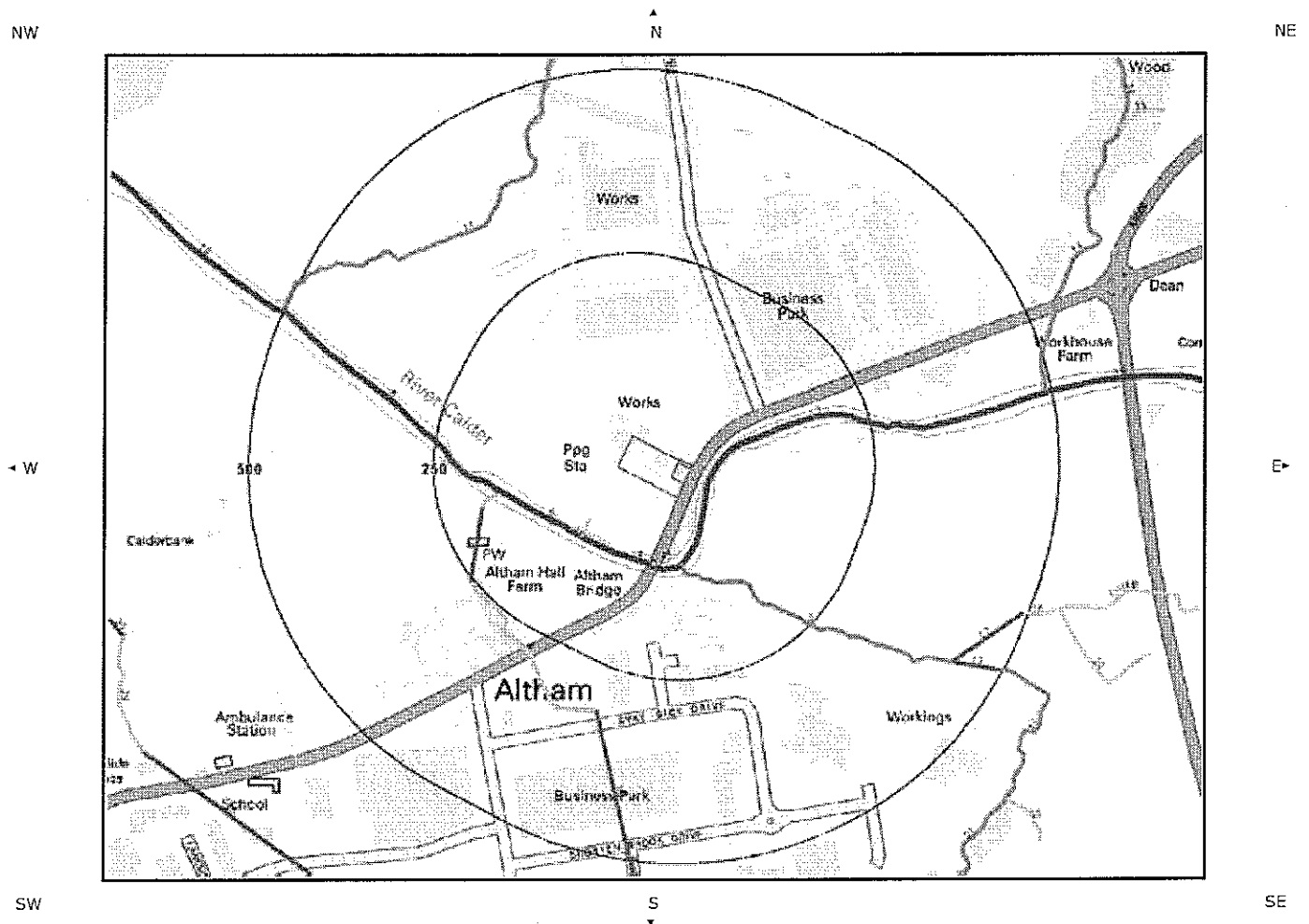
SPZ and Potable Water Abstraction Licenses
Legend

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5d. Hydrology – Detailed River Network and River Quality



Hydrology Legend

	Site Outline		Primary River		Canal
	250 Search Buffers (m)		Secondary River		Canal Tunnel
	500 Search Buffers (m)		Tertiary River		Extended Culvert (greater than 50m)
			Lake/Reservoir		D/S of High Water Mark
			Underground River (inferred)		EUS seaward extension
			General Quality Assessment: Chemistry		General Quality Assessment: Ecology

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5. Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

Are there records of productive strata within the superficial geology at or in proximity to the property? **Yes**

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

ID	Distance [m]	Direction	Designation	Description
1	0.0	On Site	Secondary A	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. These are generally aquifers formerly classified as minor aquifers
2	110.0	S	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
3	196.0	N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

5.2 Aquifer within Bedrock Deposits

Are there records of productive strata within the bedrock geology at or in proximity to the property? **Yes**

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

ID	Distance [m]	Direction	Designation	Description
1	0.0	On Site	Secondary A	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. These are generally aquifers formerly classified as minor aquifers

5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 1000m of the study site? **Yes**

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance	Direction	NGR	Details
2	0.0	On Site	377400, 433200	Licence No: 2671332013 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (4) At Altham Data Type: Point Annual Volume (m³): 1241058 Max Daily Volume (m³): 4546 Original Application No: 3399 Original Start Date: 20/5/1966 Expiry Date: - Issue No: 100 Version Start Date: 6/1/1995 Version End Date:

3A	459.0	NE	377800, 433500	Licence No: 2671332022 Details: Process water Direct Source: Ground Water - North West Region Point: 'borehole At Simonstone Business Park, Burnley' Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 7275 Original Start Date: 5/5/1994 Expiry Date: - Issue No: 100 Version Start Date: 5/5/1994 Version End Date:
4A	459.0	NE	377800, 433500	Licence No: 2671332022 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole At Simonstone Business Park, Burnley Data Type: Point	Annual Volume (m³): 87600 Max Daily Volume (m³): 240 Original Application No: 7275 Original Start Date: 5/5/1994 Expiry Date: - Issue No: 101 Version Start Date: 1/12/2000 Version End Date:

5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 1000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance	Direction	NGR	Details	
Not shown	990.0	SW	376500, 432700	Licence No: 2671332020 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: syke Side Br00k At Altham, Accrington' Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	990.0	SW	376500, 432700	Licence No: 2671332020 Details: General use relating to Secondary Category (Medium Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "syke Side Br00k At Altham, Accrington' Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	990.0	SW	376500, 432700	Licence No: 2671332020 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Syke Side Br00k At Altham, Accrington Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	990.0	SW	376500, 432700	Licence No: 2671332020 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-tidal - North West Region Point: Syke Side Br00k At Altham, Accrington Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:

5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (5c):

ID	Distance	Direction	NGR	Details
----	----------	-----------	-----	---------

Report Reference: EMS-146164_210929

1	0.0	On Site	377400, 433200	Licence No: 2671332013 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (4) At Altham Data Type: Point	Annual Volume (m³): 1241058 Max Daily Volume (m³): 4546 Original Application No: 3399 Original Start Date: 20/5/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
---	-----	---------	-------------------	--	--

5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

5.7 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

Yes

Biological Quality:

Database searched and no data found.

Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (5d):

ID	Distance [m]	Direction	NGR	River Details	Chemical Quality Grade (Headline Indicator)				
					2005	2006	2007	2008	2009
45	96.0	S	377413, 433053	River Name: Calder Reach: Padiham Power Station To Hyndburn Bk End/Start of Stretch: Sample Point NGR	C	B	C	C	C

5.8 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (5d):

ID	Distance	Direction	Details	
1	31.0	SE	River Name: Calder Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
2	84.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined

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3	91.0	S	River Name: Shorten Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
4	91.0	S	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
5	108.0	SW	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
6	159.0	W	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
7	159.0	W	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
8	193.0	W	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
9	253.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
10	311.0	S	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
11	353.0	NW	River Name: Simonstone Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
12	434.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
13	434.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
14	490.0	E	River Name: Dean Brook Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
15	490.0	E	River Name: River Calder Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
16	493.0	E	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
17	496.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined

5.9 Surface Water Features

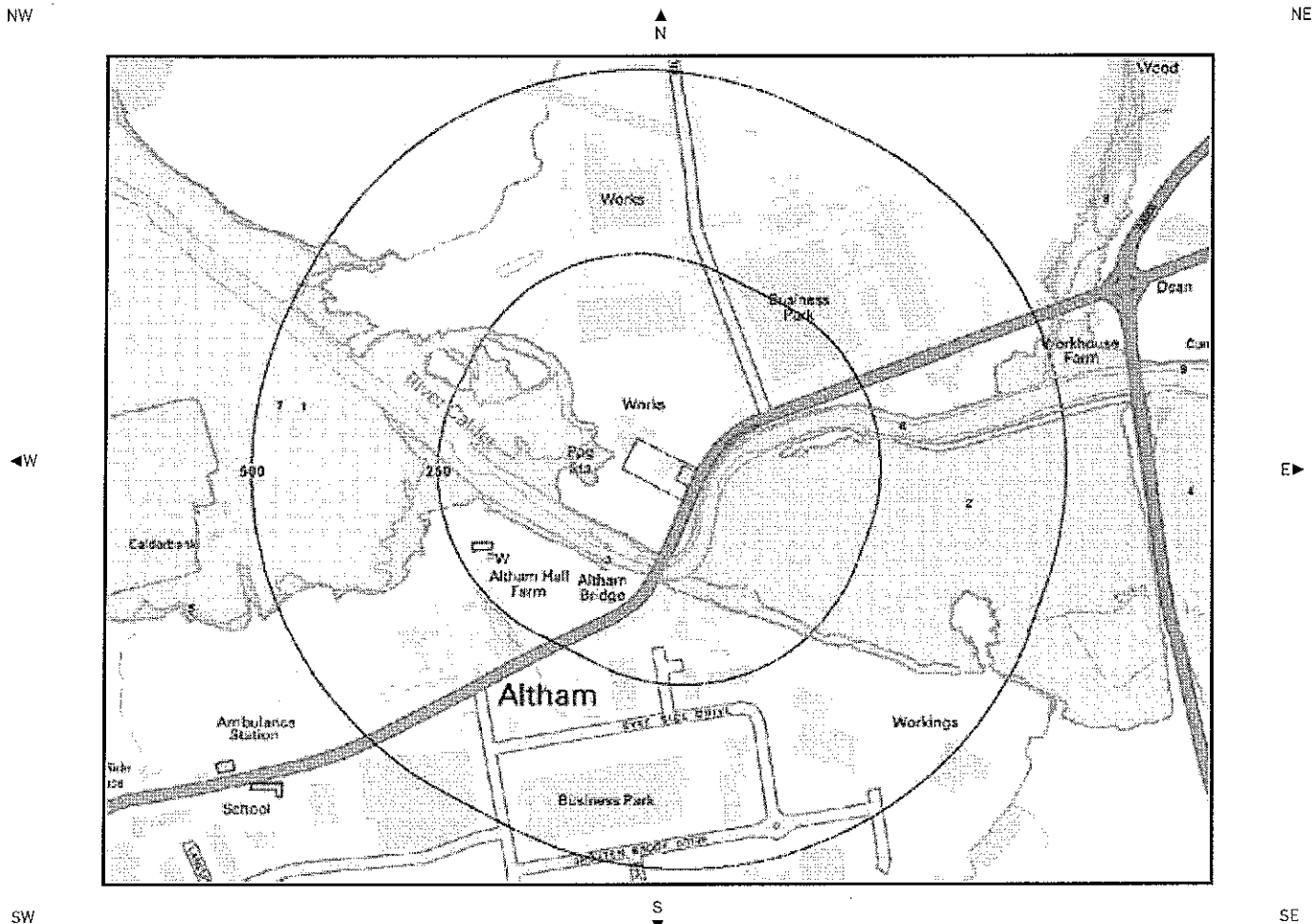
Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:

Distance to Surface Water (m)	on-site	0-50	51-250
Surface water features within 250m of the study site	No	Yes	Yes

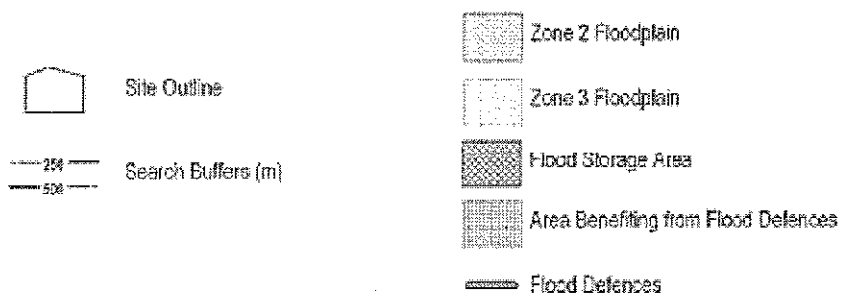
6. Environment Agency Flood Map



Environment Agency Flood Legend



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6. Flooding

6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain?

Yes

The following floodplain records are represented as green shading on the Flood Map:

ID	Distance	Direction	Update	Type
1	17.0	NW	01-Nov-2011	Zone 2 - (Fluvial Models)
2	20.0	E	01-Nov-2011	Zone 2 - (Fluvial Models)
3	130.0	SW	01-Nov-2011	Zone 2 - (Fluvial Models)

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain?

Yes

The following floodplain records are represented as blue shading on the Flood Map:

ID	Distance	Direction	Update	Type
6	21.0	E	01-Nov-2011	Zone 3 - (Fluvial Models)
7	55.0	NW	01-Nov-2011	Zone 3 - (Fluvial Models)

6.3 Flood Defences

Are there any Flood Defences within 250m of the study site?

Yes

The following flood defence records are represented as lines on the Flood Map:

ID	Distance	Direction	Update
10	17.0	E	01-Nov-2011

6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

6.5 Areas used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

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6.6 Groundwater Flooding Susceptibility Areas

Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site?

Yes

What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Very High

6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

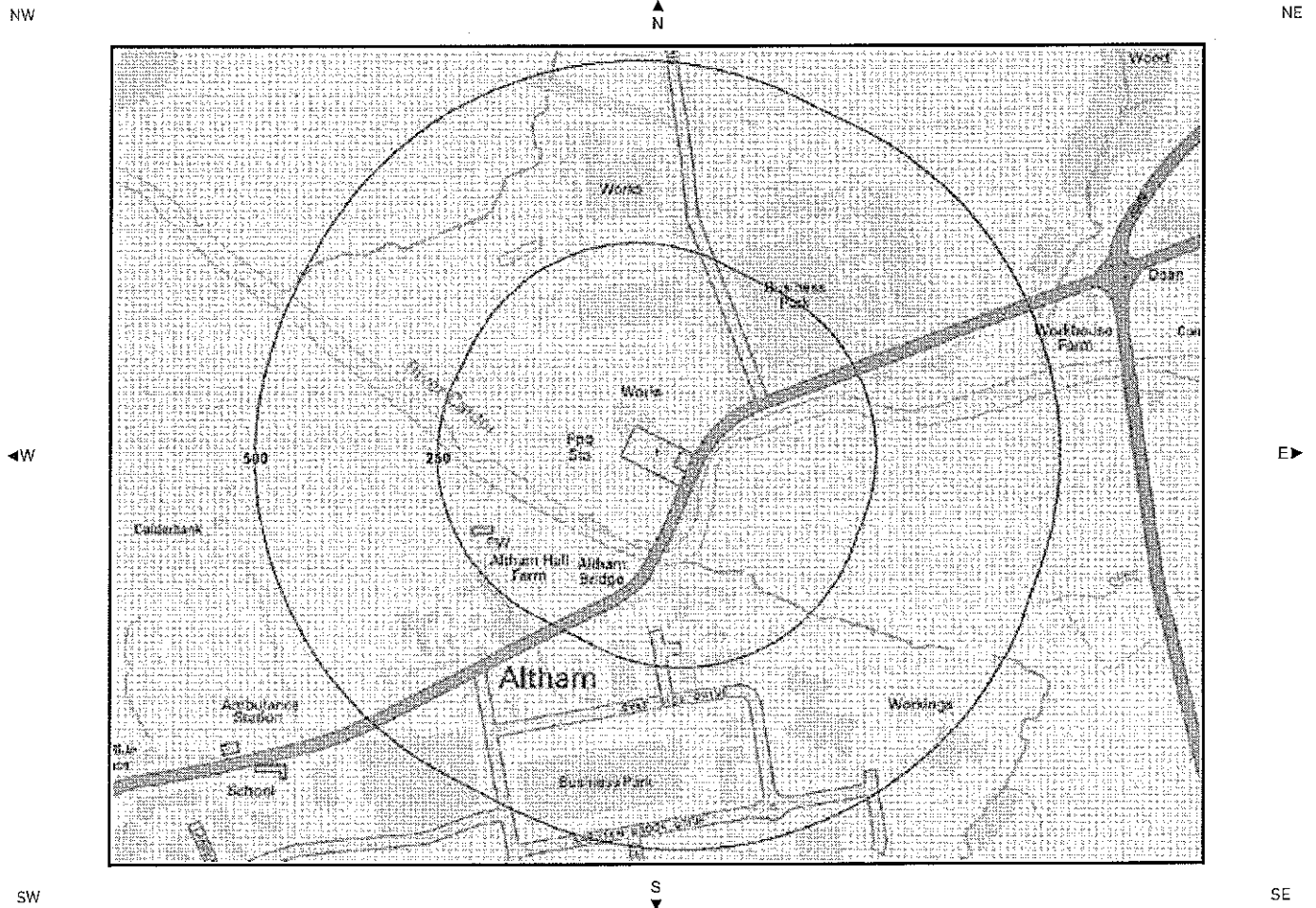
Low

Notes:

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The **confidence rating** is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

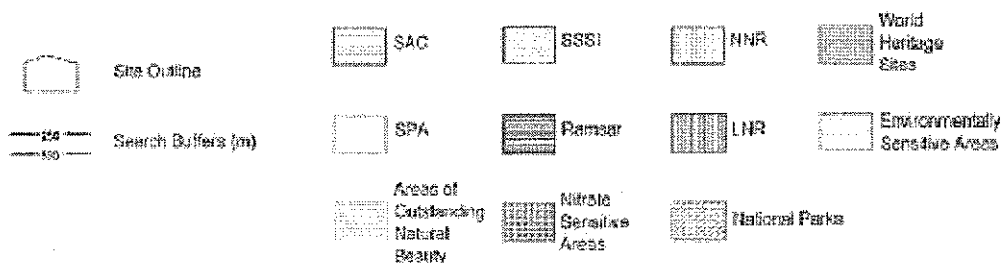
7.Designated Environmentally Sensitive Sites Map



Designated Environmentally Sensitive Sites Legend



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7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 500m of the study site? **Yes**

Records of Sites of Special Scientific Interest (SSSI) within 500m of the study site: **0**

Database searched and no data found.

Records of National Nature Reserves (NNR) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Areas of Conservation (SAC) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Protection Areas (SPA) within 500m of the study site: **0**

Database searched and no data found.

Records of Ramsar sites within 500m of the study site: **0**

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 500m of the study site: **0**

Database searched and no data found.

Records of World Heritage Sites within 500m of the study site: **0**

Database searched and no data found.

Records of Environmentally Sensitive Areas within 500m of the study site: **0**

Database searched and no data found.

Records of Areas of Outstanding Natural Beauty (AONB) within 500m of the study site: **0**

Database searched and no data found.

Records of National Parks (NP) within 500m of the study site: **0**

Database searched and no data found.

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Records of Nitrate Sensitive Areas within 500m of the study site:

0

Database searched and no data found.

Records of Nitrate Vulnerable Zones within 500m of the study site:

1

The following Nitrate Vulnerable Zone records produced by DEFRA are not represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	NVZ Name	Data Source
1	0.0	On Site	No place name provided	DEFRA

8. Natural Hazards Findings

8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a GroundSure GeoInsight, available from our website. The following information has been found:

8.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

8.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

8.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?

Null - Negligible

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

8.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?

Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

8.1.6 Running Sand

What is the maximum Running Sand* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

* This indicates an automatically generated 50m buffer and site

9. Mining

9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848

9.2 Shallow Mining

What is the subsidence hazard relating to shallow mining on-site*?

Low-Moderate

*Please note this data is searched with a 150m buffer.

9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Database searched and no data found.

10. Contacts

EmapSite
Telephone: 0118 9736883
sales@emapsite.com

emapsite™

British Geological Survey (England & Wales)
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276. Email:
enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological
enquiries



Environment Agency
National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
Tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk



Health Protection Agency
Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and
guidance



The Coal Authority
200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848. DX 716176 Mansfield 5
www.coal-authority.co.uk
Coal mining reports and related enquiries



Ordnance Survey
Romsey Road
Southampton SO16 4GU
Tel: 08456 050505



Local Authority
Authority: Ribble Valley Borough Council
Phone: 01200 425111
Web: www.ribblevalley.gov.uk
Address: Council Offices, Church Walk, Clitheroe,
Lancashire, BB7 2RA

Get Mapping PLC
Virginia Villas, High Street, Hartley Witney, Hampshire RG27
8NW
Tel: 01252 845444



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This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Report Reference: EMS-146164_210929

Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:

"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services

"Commercial" means any building which is not Residential.

"Commission" means an order for Consultancy Services submitted by a Client.

"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items

"Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report and any agreed amendments in accordance with clause 11

"Client" means the party that submits an Order or Commission.

"Data Provider" means any third party providing Content to GroundSure.

"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

"GroundSure" means GroundSure Limited a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trademark or any other intellectual property rights.

"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure

"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site

"Order Website" means online platform via which Orders may be placed.

"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.

"Residential" means any building used as or suitable for use as an individual dwelling.

"Risk Screening Report" means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability excluding "Consultancy Services".

"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site

"Site" means the landsite in respect of which GroundSure provides the Services.

"User Guide" means the relevant current version of the user guide, available upon request from GroundSure

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.

2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others

2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore

2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website

3 The Client's obligations

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third Parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.

3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).

3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site, or providing funding in relation to the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.

4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.

4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute

6 Intellectual Property

6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.

6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party

6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary

6.5 The Client and each of the parties set out in clause 4.2 are permitted to make up to 3 (commercial) or 2 (residential) printed copies of the Report only. Further copies of the Report may not be made in whole or in part without the prior written permission of GroundSure who shall be entitled to make a charge for each additional copy

6.6 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):

(i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service; and

(v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.6(v) where such reformatting is in the normal course of providing advice based upon the Services).

6.7 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or willful default.

7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing Party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.

7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.

7.4 In relation to Data Reports Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.

7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.

7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.

7.7 GroundSure shall not be liable if the Data Reports Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.

7.8 Subject to the provisions of clause 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.

7.9 Subject to the provisions of clause 7.1 and irrespective of whether multiple parties make use of the same Services the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £10 million per claim or series of connected claims.

7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.

7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them.

7.12 GroundSure shall provide the Services using reasonable skill and care however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.

7.13 Subject to clause 7.1 GroundSure shall not be liable to the Client, the Beneficiary or any third party in contract, tort (including, without limitation, negligence) or for misrepresentation or breach of statutory duty or otherwise in respect of any loss of profits, goodwill, revenue or opportunity, or any indirect or consequential loss (even if such loss was reasonably foreseeable).

7.14 GroundSure undertakes for the duration of the liability periods referred to in clauses 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities under this Contract. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8. GroundSure right to suspend or terminate

8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:

(i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any material term of the Contract (including, but not limited to, the obligations in clause 4) incapable of remedy or if remediable is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.

9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10. Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/Beneficiary in GroundSure's possession or control.

10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11. General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.

11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.

11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.

11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Data Providers; or

(viii) changes in law.

11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.

11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.

11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.

11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

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