deltasimons

Phase I Environmental Assessment

131-135 Arundel Road, Littlehampton

For Wilmington Homes

Delta-Simons Project No. 15-0733.01

Issued: August 2015

A member of INOGEN

ARUN DISTRICT COUNCIL 15/0815/OUT

PHASE I ENVIRONMENTAL ASSESSMENT SUMMARY TABLE
131-135 ARUNDEL ROAD, LITTLEHAMPTON
DELTA-SIMONS PROJECT NO. 15-0733.01

Context and Purpose	The purpose of this Report is to assist in the discharge of any conditions associated with a proposed planning application for the redevelopment of the Site. In addition, the Report will also serve as a plot-specific document for funding partners, tenants or in the event that the plot is sold at a later date.
Current Site Use	A sofa bed store and showroom is located in the north-west, a storage warehouse and showroom in the south-west and a car wash area in the south. Areas of hardstanding for car parking are located in the north-east and south-east. Potential former underground storage tanks were identified in the centre of the northern part of the Site. The Site is surrounded along all boundaries by residential properties, with the exception of the eastern boundary which is formed by Arundel Road.
Environmental Setting	The Site is located within a predominantly residential area. The mapped geology beneath the Site comprises the superficial River Terrace Deposits (sand, silt and clay) overlying the Lewes Nodular Chalk Formation. The superficial geology is classified as a Secondary A Aquifer, whilst the bedrock geology is classified as a Principal Aquifer. The Site is not located within an Environment Agency (EA) Source Protection Zone and the nearest surface watercourse is the River Arun, located approximately 680 m south-east. As such, the environmental sensitivity of the Site's setting is considered to be moderate to high.
Flood Risk	The GroundSure® Report indicates that a Zone II floodplain encroaches onto the south-western and eastern parts of the Site.
Historical Information Site: **Surrounding Area:**	Potential sources of contamination identified at the Site primarily relate to the Site's former use as a garage, and the presence of any Made Ground on-Site as a result of its historical redevelopment. Potential sources of contamination identified in the surrounding area include a laundry.
GroundSure® Report Summary	From regulatory information listed in the GroundSure® Report, there are potential sources of contamination present in the vicinity of the Site. This includes electricity substations, a scrap metal merchants and electrical and electronic engineers.
Third Party Reports	No previous environmental investigation reports have been reviewed as part of this assessment.
Conceptual Site Model	Delta-Simons has completed a source-pathway-receptor risk assessment based upon available information. Potential sources of contamination have been identified at the Site, primarily associated the Site's former use as a garage, and any Made Ground present on Site. Considering the future residential and commercial use of the Site, possible pollutant linkages (PPL) have been identified.
Conclusions and Recommendations	It is recommended that an intrusive environmental Site investigation is undertaken across the Site area in conjunction with geotechnical investigation works, targeting historical sources of contamination, and providing Site-wide coverage. In the event that significant contamination is identified then remedial works may potentially be required, in order to provide protection to human health and the underlying Secondary A and Principal Aquifers. Materials management on-Site should be conducted in accordance with the waste hierarchy to minimise generation of waste and avoid disposal to landfill wherever possible. It is noted that there are development abnormals which may arise during the proposed redevelopment, which are listed in Section 6.4 of the Report. These include the following: Δ To complete further environmental assessments; Δ To undertake remedial works, should significant contaminative impact be identified within underlying soil and groundwater at the Site; Δ To remove soils for engineering purposes, and undertake waste classification if necessary; Δ To supply personal protective equipment (PPE) for construction workers; Δ To use clean inert material in service runs and as capping in landscaped areas across the Site; and

	∆ To use upgraded water supply pipes, if required.

This sheet is intended as a summary only. Further detail and limitations of the assessment is provided within the main body of the Report.

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Authorisation 1
1.2 Context & Purpose 1
1.3 Scope of Works 2
1.4 Data Sources & Third Party Information 2
1.5 Limitations 2
2.0 SITE DESCRIPTION AND ENVIRONMENTAL SETTING 4
2.1 Site Details 4
2.2 Site Geology 4
2.3 Site Hydrogeology 5
2.4 Surface Water Features 5
2.5 Flood Risk 5
2.6 Environmentally Sensitive Sites 5
2.7 Environmental Sensitivity 6
3.0 HISTORICAL LAND USE 7
3.1 Historical Maps 7
3.2 Summary of Historical Information 8
4.0 REVIEW OF STATUTORY & ADDITIONAL INFORMATION 9
4.1 GroundSure® Report 9
4.2 Third Party Reports 10
4.3 Planning Information 10
4.4 Petroleum Licensing Information 10
4.5 Site Walkover 10
5.0 CONCEPTUAL SITE MODEL 12
5.1 Introduction 12
5.2 Conceptual Model 12
5.2.1 Summary of Site Description & Environmental Setting 12
5.2.2 Contaminant Sources 13
5.2.3 Potential Receptors 13
5.2.4 Potential Pathways 13
5.2.5 Potential Pollutant Linkages 14
6.0 CONCLUSIONS & RECOMMENDATIONS 17
6.1 Conclusions 17
6.2 Recommendations 17
7.0 LIMITATIONS TO ENVIRONMENTAL ASSESSMENTS 19

Tables

Table 1	Scope of Works
Table 2	Site Details
Table 3	Radon and Coal Mining Details
Table 4	Historical On-Site Features
Table 5	Key Historical Off-Site Features
Table 6	Relevant Data from GroundSure® Report
Table 7	Identified On-Site Contamination Sources
Table 8	Identified Off-Site Contamination Sources

Figures

Figure 1	Site Location Map
Figure 2	Proposed Development Plan

Appendices

Appendix I	Historical Maps
Appendix II	GroundSure® Report
Appendix III	Site Walkover Photographs

PHASE I ENVIRONMENTAL ASSESSMENT
131-135 ARUNDEL ROAD, LITTLEHAMPTON
FOR WILMINGTON HOMES
DELTA-SIMONS PROJECT NO. 15-0733.01

1.0 INTRODUCTION

1.1 Authorisation

Delta-Simons Environmental Consultants Limited ("Delta-Simons") was instructed by Wilmington Homes (the "Client") to carry out a Phase I Environmental Assessment of 131-135 Arundel Road, Littlehampton, BN17 6JA (hereafter referred to as the "Site").

1.2 Context & Purpose

The purpose of this Report is to assist in the discharge of any conditions associated with the proposed planning application for the Site. In addition, the Report will also serve as a plot-specific document for funding partners, tenants or in the event that the plot is sold at a later date.

The principal aims of a Phase I Environmental Assessment, as stated in British Standard BS10175:2011 are to obtain information in order to:

- Δ Evaluate the environmental setting of the Site and to identify sensitive receptors;
- Δ Provide information from which possible contaminant-pathway-receptor relationships can be identified; and
- Δ Formulate a Conceptual Site Model (CSM) to consider the significance of the contaminant-pathway-receptor relationships and identify whether further investigation is required.

This Report adheres to these principal aims and has been undertaken in accordance with current relevant guidance and best practice as set out within Contaminated Land Report (CLR) 11.

1.3 Scope of Works

The scope of works for the Phase I Desk Study Environmental Assessment is presented in Table 1.

Table 1 - Scope of Works

Data Collection	1. Review of Environmental Setting: a. Review current use/status of Site; and b. Review geology, hydrogeology, hydrology and environmental sensitivity of Site; 2. Review Site history from historical ordnance survey (OS) maps obtained from GroundSure®; 3. Review regulatory information relating to the Site obtained from a GroundSure® Report; 4. Review previous reports for the Site, if available; 5. Review planning information for the proposed development of the Site, if available; 6. Undertake a Site visit;
Interpretation & Reporting	7. Formulate an initial CSM by identifying potential contamination sources, pathways and receptors, in the context of the proposed commercial use of the Site; 8. Undertake a qualitative risk assessment; and 9. Prepare final Report.

1.4 Data Sources & Third Party Information

In completing this Assessment, Delta-Simons has utilised the following information:

- Online British Geological Survey (BGS) and Environment Agency (EA) data;
- OS maps obtained from GroundSure®, dated July 2015 (Appendix I);
- GroundSure® Report, dated July 2015 (Appendix II);
- Information from Arun District Council;
- Information from West Sussex County Council Operational Support Officer; and
- Information provided by the Client.

1.5 Limitations

This Report provides an assessment of the potential contamination status, ground conditions and a preliminary flood risk assessment of the Site based upon the available information. Although produced in accordance with the principles of BS10175:2011 in relation to a *Preliminary Investigation*, the Report does not constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client, GroundSure® Limited and others. Delta-Simons' conclusions,

opinions and recommendations have been determined using this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions that Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

2.0 SITE DESCRIPTION AND ENVIRONMENTAL SETTING

2.1 Site Details

Table 2 - Site Details

National Grid Reference (NGR)	The Site is centred on the approximate National Grid Reference 502609, 102868.
General Site Location	The Site is a roughly L-shaped parcel of land, located directly west of Arundel Road (A284), approximately 670 m north-west of Littlehampton town centre. A Site location map and plan are provided as Figure 1.
Site Description	A sofa bed showroom is located in the north-west, a storage warehouse and showroom in the south-west and a car wash area in the south. Areas of hardstanding for car parking are located in the north-east and south-east. Potential former underground storage tanks were identified in the centre of the northern part of the Site. No chemicals are stored on-Site, except for small quantities of car washing fluids. The Site is bound in all directions by residential properties, with the exception of the western boundary where Arundel Road is present.
Surrounding Land Uses	Residential properties surround the Site in all directions. A school is located approximately 100 m north-east.
Proposed Development	It is understood that the proposed development is to comprise the refurbishment of the sofa bed store building in the northern part of the Site and the demolition of buildings in the south of the Site, and redevelopment with six houses with gardens. An indicative Proposed Site Layout Plan is provided as Figure 2.

2.2 Site Geology

From BGS data, the Site is underlain by the superficial River Terrace Deposits (sand, silt and clay), underlain by the Lewes Nodular Chalk Formation. There are no BGS boreholes within close proximity to the Site.

An assessment of the potential for radon and coal mining issues is shown in Table 3.

Table 3 – Radon and Coal Mining Details

Other Information	Yes/No	Details
Is the Site in a radon-affected area?	No	Reference to the National Radiological Protection Board (NRPB) Radon Affected Areas of England and Wales indicates that less than 1% of homes in the area are above the action level for radon.
Are radon protection measures required?	No	Reference to Buildings Research Establishment publication BRE211 'Radon: Guidance on Protective Measures for New Buildings' (2007) indicates that no radon protective measures are necessary in the construction of new buildings within the area of the Site.
Is the Site in a known area affected by potential coal mining issues?	No	Reference to information held by the Coal Authority indicates that the Site is not located within an area that may be affected by coal mining activity. However, is it stated in the GroundSure® Report that minor non-coal mining (mining for chalk) may have occurred on-Site.

2.3 Site Hydrogeology

The River Terrace Deposits are classified by the EA as a Secondary A Aquifer and The Lewes Nodular Chalk Formation bedrock is classified as a Principal Aquifer.

The Site is not located within an EA Source Protection Zone (SPZ).

According to the GroundSure® Report, there are no current groundwater abstraction licenses within 1km of the Site. The closest historical licensed groundwater abstraction is listed as being located approximately 830 m to the south-west, which was used for general washing / process washing.

2.4 Surface Water Features

The nearest surface water feature is the River Arun, located approximately 680 m to the south-west.

There are no currently licensed surface water abstractions within 1 km of the Site.

2.5 Flood Risk

The GroundSure® Report indicates that a Zone II floodplain encroaches onto the south-west and eastern parts of the Site.

2.6 Environmentally Sensitive Sites

There are no environmentally sensitive sites within 500 m of the Site.

2.7 Environmental Sensitivity

Environmental sensitivity is based upon the geological, hydrogeological, ecological and land use of the Site's setting. For instance, an industrial area will have a lower environmental sensitivity than a residential area, and Unproductive Strata will have a lower sensitivity than a Principal Aquifer.

Based upon the available information, the Site setting is considered to be of a moderate to high environmental sensitivity.

3.0 HISTORICAL LAND USE

3.1 Historical Maps

A study of historical OS maps presented within the GroundSure® Report has been undertaken to identify any potentially contaminative former land uses at the Site and within the surrounding area. These maps date from 1876 to 2014. The key features and land uses of the Site and surrounding area identified from the available information are summarised below. Copies of the OS historical maps are included in Appendix I.

Table 4 – Historical On-Site Features

On-Site Features	Location
From the earliest map edition of 1876, farm buildings are located in the centre of the northern part of the Site, south and south-west of the Site. The remainder of the Site appears to be undeveloped.	Centre, south and south-west
The Site remains unchanged until circa 1957, where the building in the centre has been demolished.	Centre
By circa 1968, a garage is located in the centre of the northern part of the Site and a "dairy" is located in the south-west.	Centre and south-west
By circa 1994, the garage building is now unlabelled, and by 2002, the "dairy" building is not labelled, both considered to be representative of their present day use.	Across the Site.

Table 5 – Key Historical Off-Site Features

Surrounding Features	Direction	Approximate Distance from the Site
From the earliest available map edition of 1876, residential properties have been developed to the north of the Site. The remainder of the surrounding area appears undeveloped.	North	20 m
Between circa 1910 and 1932, a brick field is present.	North-east	350 m
By circa 1932, a depot and destructor works is present, which is later labelled as "works", until it is demolished circa 2002.	South-west	450 m
By circa 1957, a "works" is present and is labelled "scrap iron works" by circa 1968, then "works" by circa 1978, and is present until at least 1994.	North-east	100 m
A laundry is present from circa 1968 until at least 1994.	North-east	240 m
A pumping station is present from circa 1968 to circa 1984.	South	200 m
A garage is present from circa 1978 to at least 1994.	North-east	210 m
An electricity sub-station is present from 1994.	South	50 m

3.2 Summary of Historical Information

Potential sources of contamination identified are primarily associated with the Site's former use a garage and any Made Ground, following historical redevelopment works, beneath the Site.

4.0 REVIEW OF STATUTORY & ADDITIONAL INFORMATION

4.1 GroundSure® Report

The GroundSure® Report provides a database of environmental information held by various statutory bodies including the EA, Local Authority (LA), Health & Safety Executive (HSE), NRPB and the Coal Authority. A full copy of the GroundSure® Report is presented in Appendix II and the most relevant information from the GroundSure® Data Sheet is summarised in Table 6 below. However, issues associated with radon, coal, hydrogeology, water abstractions and Environmentally Sensitive Areas are discussed in Section 2.0.

Table 6 – Relevant Data from GroundSure® Report

Information Type	On-Site	0 – 250 m	251 – 500 m	Details/Comments
Current Industrial Sites Data	1	1	8	The single on-Site industrial use relates to the sofa bed retail unit. The nine off-Site industrial uses relate to three electricity substations (located 45 m south, 100 m south and 240 m north), a scrap metal merchants, located 95 m north-east, an unspecified works, located 100 m north-east, an electrical and electronic engineers, located 150 m south-west, a vehicle repair, testing and servicing property, located 210 m north-east and a vehicle parts and accessories unit, located 235 m north.
Potentially Contaminative Uses	0	4	30	The potentially contaminative past land uses located within 500 m of the Site include: nurseries, brick works, depots, unspecified works and brick fields.
Environment Agency Recorded Pollution Incidents	0	0	3	The nearest entry is located 350 m south-west of the Site and relates to atmospheric pollutants and effects, occurred in February 2002 and was classified as a category 3 (minor impact). Both other entries relate to category 4 (no impact) incidents, relating to petrol and household waste.
Records of Historical Tanks	0	2	5	The nearest entry is located 115 m north, dated 1957, however no further information is available. All other entries relate to tanks of unspecified use.
Historical Garage and Motor Vehicle Repairs	3	7	4	The three entries relating to the Site relate to a “garage” and are dated 1965, 1984 and 1973. All other entries relate to “garages”.
Potentially Infilled Land	0	2	17	The nearest entry relates to a Brick Works, located 185 m north-east and is indicated to have been infilled in 1896.

Information Type	On-Site	0 – 250 m	251 – 500 m	Details/Comments
Records of Waste Treatment, Transfer or Disposal Sites	0	1	3	The nearest entry relates to a scrap iron works, located 80 m north-east, however, no further information is provided.

4.2 Third Party Reports

Delta-Simons has not identified any previous reports relating to the Site.

4.3 Planning Information

From the Arun District Council planning website, no relevant information pertaining to the contaminative status of the Site has been identified.

4.4 Petroleum Licensing Information

Delta-Simons contacted West Sussex County Council Operational Support Officer in order to obtain any information about the suspected tanks beneath the Site. A response stated that three tanks were installed prior to 1961 and were concrete slurry filled on 18th February 1986. It should be noted that there is no record of the tanks being removed from the Site.

4.5 Site Walkover

A Site walkover was completed on the 4th August 2015. Referenced photographs are included in Appendix III.

The Site

The Site is a roughly L-shaped parcel of land, currently occupied by a sofa bed retail unit and car wash with associated car parking hardstanding.

An area of vacant hardstanding, used as a car wash, is located in the north-western corner of the Site (Photograph 1). The north-western boundary is lined with vegetation and a fence. A residential property is located beyond the fence.

The north-east of the Site is hardstanding, used for customer car parking. The tarmac is generally in bad condition and is cracked and uneven (Photograph 2).

A sofa bed shop is located in the north-west of the Site, comprising a two storey structure with potential asbestos roofing (Photograph 3). The sales room is located on the ground floor, with office space on the first floor.

Potential underground storage tanks (USTs) were identified in the centre of the Site, directly east of the sofa bed showroom (Photograph 4). Given the previous use of the Site as a garage, it is considered likely that these are petrol or diesel tanks.

Three drains are located in the centre of the eastern boundary (Photograph 5), and are considered likely to be interceptors associated with the Site's former use as a garage.

A storage warehouse is located in the south-west of the Site, where sofa beds are stored, as well as cans of propane and butane, which are also sold on-Site (Photograph 6).

A warehouse for washing cars is located adjacent to the north of the storage warehouse (Photograph 7).

Surrounding Area

The Site is surrounded in all directions by residential properties. Arundel Road is located immediately to the east of the Site.

ARUN DISTRICT COUNCIL LU/316/16/DOC

5.0 CONCEPTUAL SITE MODEL

5.1 Introduction

A CSM represents the relationships between contaminant sources, pathways and receptors, to support the identification and assessment of possible pollutant linkages (PPLs) - and an assessment of known pollutant linkages, where identified from existing information.

Where PPLs are identified, a preliminary risk assessment is carried out to assess the likelihood that each possible linkage exists and to decide whether these pose potentially unacceptable risks to identified receptors and require further assessment. Where this linkage is of a form that subsequently leads to land being identified as 'contaminated land' under the terms of Part 2A of the Environmental Protection Act (EPA) 1990, the linkage is termed a significant pollutant linkage.

At the preliminary risk assessment stage, which is usually based upon desk top information, the decision on whether a PPL poses a potentially unacceptable risk is based upon professional judgement. The significance of the PPL will also be determined dependant on the context of the land use and the purpose of the assessment.

Assessing risks from land contamination underpins the "suitable for use" approach adopted for Part 2A of the EPA 1990 regulatory regime.

5.2 Conceptual Model

5.2.1 Summary of Site Description & Environmental Setting

The Site is currently used as a sofa bed retail unit and car wash. The surrounding area predominantly consists of residential land use. The ground conditions on the Site are likely to consist of small pockets of Made Ground, overlying River Terrace Deposits (sand, silt and clay), over the Lewes Nodular Chalk Formation. The River Terrace Deposits are classified by the EA as a Secondary A Aquifer and the Lewes Nodular Chalk Formation is classified as a Principal Aquifer. The Site is not located within an SPZ, and the nearest surface water feature is the River Arun, located approximately 680 m south-west. The overall environmental sensitivity of the Site setting is considered to be moderate to high.

5.2.2 Contaminant Sources

A CSM has been developed for the Site. Tables 7 and 8 show the identified on-Site and off-Site potential sources of contamination. Delta-Simons does not have any record of historical ground investigation having been undertaken within the Site area.

Table 7 – Identified On-Site Contamination Sources

Potential Source Area	Key Potential Contaminants/Comments
The former use as a garage	Hydrocarbons, heavy metals, and asbestos.
The former use as a dairy	Organic based materials.
Any Made Ground located at the Site.	Heavy metals, hydrocarbons, asbestos and ground gas.
Natural/organic material, and any deleterious/contaminative materials within Made Ground beneath the Site.	Ground gas.

Table 8 – Identified Off-Site Contamination Sources

Potential Source Area	Key Potential Contaminants/Comments
A laundry.	Heavy metals, hydrocarbons, VOCs and SVOCs, and asbestos.
Various works.	Various, but could include: Hydrocarbons, volatile contaminants, heavy metals and pesticides.

5.2.3 Potential Receptors

Potential receptors to any contamination which may be present beneath the Site area are identified as follows:

- Δ Future Site workers and visitors;
- Δ Future residents;
- Δ Construction workers during the redevelopment of the Site;
- Δ Groundwater located beneath the Site within the Secondary A Aquifer;
- Δ Service conduits, especially potable water supply pipes;
- Δ Vegetation in any new landscaped / garden areas;
- Δ The future buildings on-Site;
- Δ Neighbouring properties and users; and
- Δ The Site from any contamination from off-Site sources.

5.2.4 Potential Pathways

The main pathways that can be considered at the Site include:

- Δ Exposure via direct contact and ingestion during groundworks and in landscaped / garden areas;
- Δ Exposure via inhalation of volatile vapours and asbestos fibres;
- Δ Leaching of contamination from soils through infiltration of rainfall and migration into underlying groundwater;

- Migration of contamination through drains and service runs;
- Direct filtration into water supply pipes following degradation of plastic pipes by direct contact with hydrocarbon contaminated soils;
- Root uptake by vegetation in any new landscaped areas; and
- Indoor exposure/explosive hazard via enclosed space accumulation of ground gas.

5.2.5 Potential Pollutant Linkages

Based on the information reviewed within this Report, the following preliminary risk assessment tables have been formulated, which identifies all PPL in the context of the proposed commercial and residential use of the Site.

CONCEPTUAL SITE MODEL				
Source(s)	**Receptor(s)**	**Pathway(s)**	**Pollutant Linkage?**	**Comments/Linkage Significance/Mitigation**
Potentially contaminated soils and/or groundwater underlying the Site.	Future Site workers and visitors, and future residents.	Inhalation of volatile vapours and direct contact, ingestion and inhalation in landscaped areas.	**Possible**	Given the potentially contaminative historical land use at the Site, this could give rise to localised areas of elevated soil and groundwater contamination which could represent a risk to end-users of the development. An intrusive investigation and risk assessment is recommended in order to determine the likelihood of this pollutant linkage occurring.
	Construction workers.	Direct contact, ingestion and inhalation of dust and vapours.	**Possible**	Site workers may become exposed to contaminated soils and shallow groundwater during intrusive groundworks undertaken at the Site. Safe working practices and use of appropriate personal protective equipment (PPE) should be maintained. This should be re-assessed following intrusive investigation works at the Site.
	Secondary A and Principal Aquifer beneath the Site	Leaching of contaminants and migration through permeable deposits.	**Possible**	It is possible that there could be localised areas of leachable soil contamination present, given the historical land use of the Site. Additional works, including the analysis of groundwater beneath the Site, is recommended to confirm the depth of the soil and the quality of the groundwater beneath the Site, if present.
	Water supply pipes.	Permeation of hydrocarbons through plastic pipe work.	**Possible**	Hydrocarbons, especially aromatics and chlorinated solvents are known to permeate plastic pipes, particularly when encountered at high concentrations. The provision of upgraded pipes may be required as part of the proposed redevelopment. This requirement should be re-assessed following intrusive works at the Site. This could potentially be sourced from Site, subject to chemical testing.
	Vegetation in any new landscaped areas.	Root uptake.	**Possible**	Clean topsoil and subsoil may be required in areas of the Site where landscaping is proposed. This requirement should be re-assessed following intrusive works at the Site.
	On-Site Secondary A Aquifer and underlying Principal Aquifer, and neighbouring properties.	Lateral migration through any groundwater beneath the Site.	**Possible**	Given the possibility of encountering granular soils beneath the Site (sand, silt and clay), off-Site migration of contamination, if present, is considered to be a possibility.
Ground gas.	Site users and visitors; buildings on-Site.	Vertical and lateral migration of ground gases.	**Possible**	There is the potential for ground gases to be generated from any Made Ground, organic material or contamination beneath the Site. This could potentially represent a risk to end-users of the development, however, should be easily mitigated via the incorporation of ground gas protection measures within any confined spaces within new buildings. Assessment of the gas regime beneath the Site should form part of further Site assessment works.

CONCEPTUAL SITE MODEL				
Source(s)	**Receptor(s)**	**Pathway(s)**	**Pollutant Linkage?**	**Comments/Linkage Significance/Mitigation**
Potentially contaminated soil and groundwater from off-Site sources.	Groundwater beneath the Site and future Site users.	Lateral migration and subsequent indoor inhalation of volatile vapours.	**Unlikely**	Given the limited potential off-Site sources of contamination, the risk is considered to be low.
ACMs.	Construction workers.	Inhalation of asbestos fibres.	**Possible**	Any Made Ground beneath the Site may potentially contain asbestos fibres. The analysis of Site soil for ACMs should form part of future Site investigation assessment works.

6.0 CONCLUSIONS & RECOMMENDATIONS

6.1 Conclusions

The Site is currently a sofa bed retail unit and car wash. Historically, the Site was a farm, dairy and a garage.

The Site is located within a predominantly residential area. The Site is underlain by a Secondary A Aquifer and a Principal Aquifer. The River Arun is located 680 m south-west of the Site. As such, the environmental sensitivity of the Site's setting is considered to be moderate to high.

Delta-Simons has completed a source-pathway-receptor risk assessment based upon available information. Potential sources of contamination have been identified at the Site, primarily associated with the former use of the Site as a garage with associated fuel storage, and the presence of any Made Ground on-Site. Considering the future residential and commercial use of the Site, PPLs have been identified.

6.2 Recommendations

It is recommended that an intrusive Site investigation is undertaken across the Site area, in conjunction with a geotechnical investigation, targeting historical sources of contamination, as well as gaining coverage of the entire Site area. The additional works should include a suitable period of ground gas monitoring in accordance with current guidance.

In the event that significant contamination is identified then remedial works may potentially be required, in order to provide protection to human health of the end-users of the proposed development and the Secondary A and Principal Aquifers underlying the Site.

Materials management on-Site should be conducted in accordance with the waste hierarchy to minimise generation of waste and avoid disposal to landfill wherever possible.

There is the potential that abnormal costs may be incurred during redevelopment, as follows:

- To complete a Phase II Environmental Assessment and, if necessary, a waste classification exercise and liaison with the Statutory Authorities;

- To undertake any further assessments, for example a Quantitative Risk Assessment (QRA) and subsequent soil and groundwater remediation, should the targeted investigation identify significant contamination;
- To remove soils for engineering purposes (e.g. foundation and service trench arisings, engineering cut, etc.) or remediation;
- To supply PPE for construction workers;
- To use clean inert material in service runs, and as capping in landscaped / garden areas, across the Site; and
- To use upgraded water supply pipes, even where low concentrations of hydrocarbons are present.

7.0 LIMITATIONS TO ENVIRONMENTAL ASSESSMENTS

The recommendations contained in this Assessment represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.5 of this Assessment, exercising the duty of care required of an experienced Environmental Consultant. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

This Assessment was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.0 of this Assessment. Nothing contained in this Assessment shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Assessment to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Assessment by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Assessment, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

ARUN DISTRICT COUNCIL LU/316/16/DOC

This Report was prepared by:

[redacted]

13/08/15

Cerys Baldwin Date

Graduate Geo-Environmental Engineer

This Report was reviewed by:

[redacted]

13/08/15

Tom Horner Date

Project Manager

This Report was authorised by:

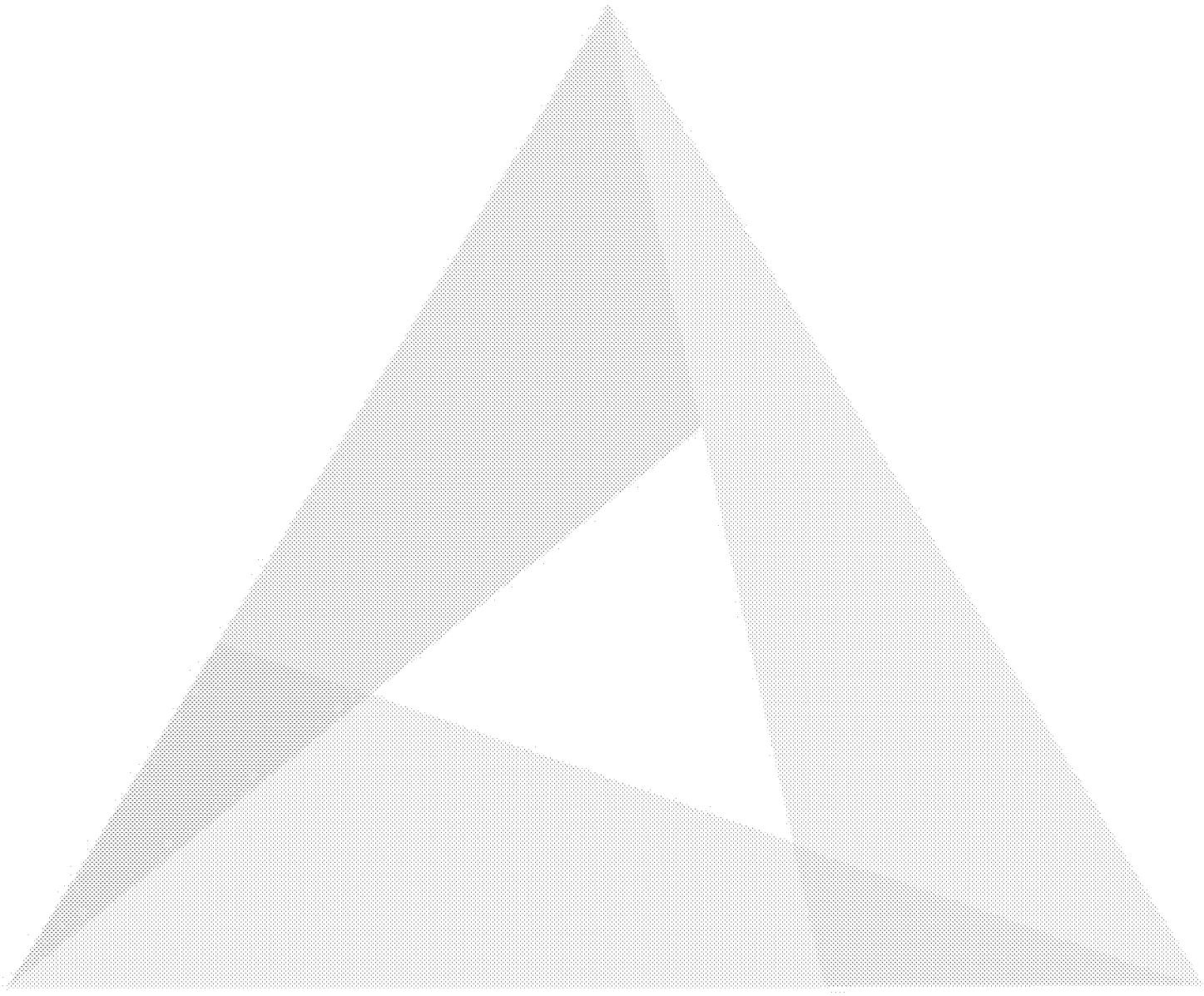
[redacted]

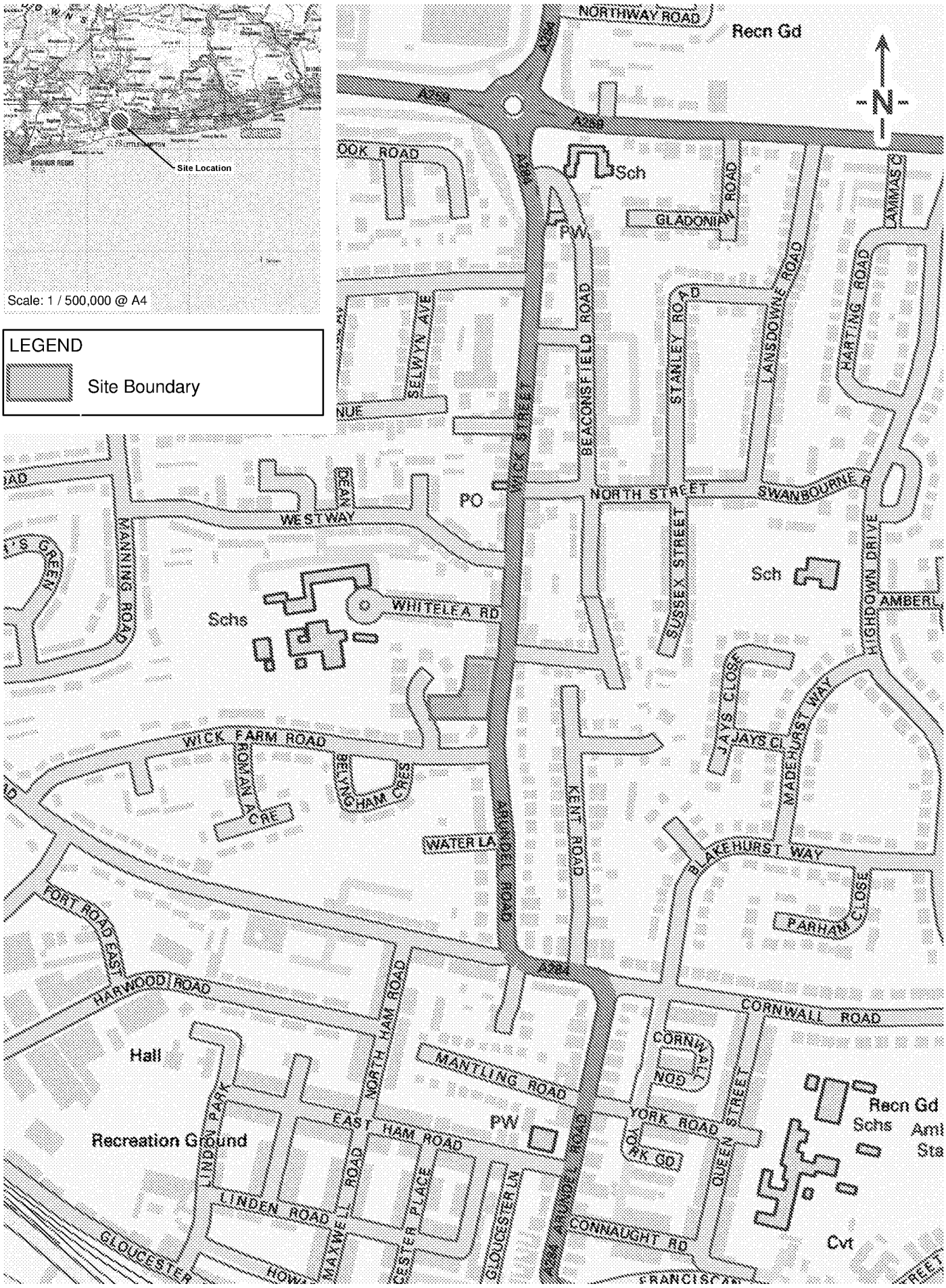
13/08/15

Simon Brown Date

Commercial Director

ARUN DISTRICT COUNCIL LU/316/16/DOC





Scale: 1 / 10,000 @ A4

Ordnance Survey, (c) Crown Copyright 2015. All rights reserved.

deltasimons

TITLE:
Site Location Map
131-135 Arundel road
Littlehampton

DRAWN BY:	SCALE:	PROJECT NO:
DP	To Scale@A4	15-0733.01
CHECKED BY:	REVISION:	FIGURE NO:
CB	1	1
DATE: 11 August 2015		



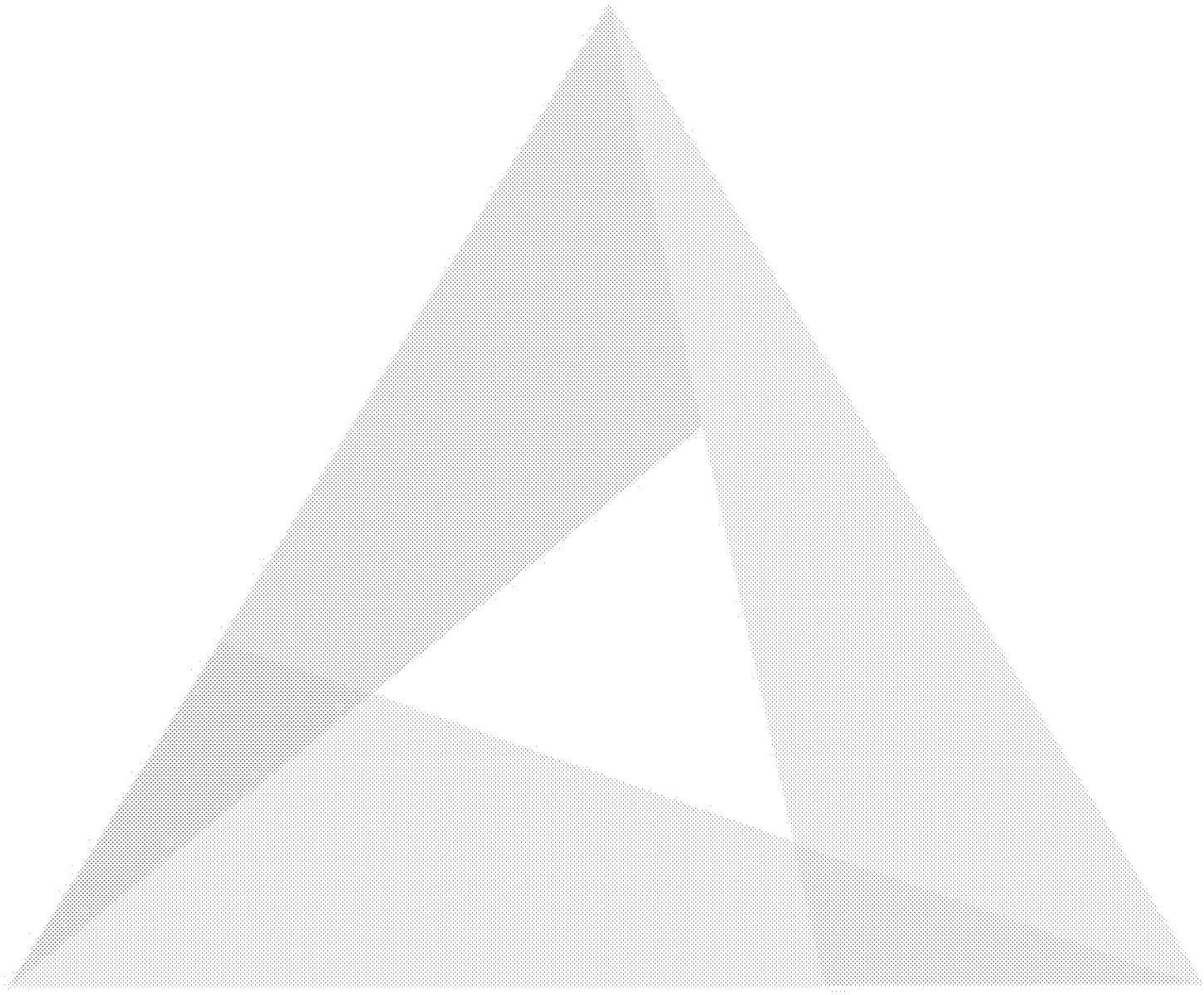
deltasimons

TITLE:
Proposed Development Plan
131-135 Arundel road
Littlehampton

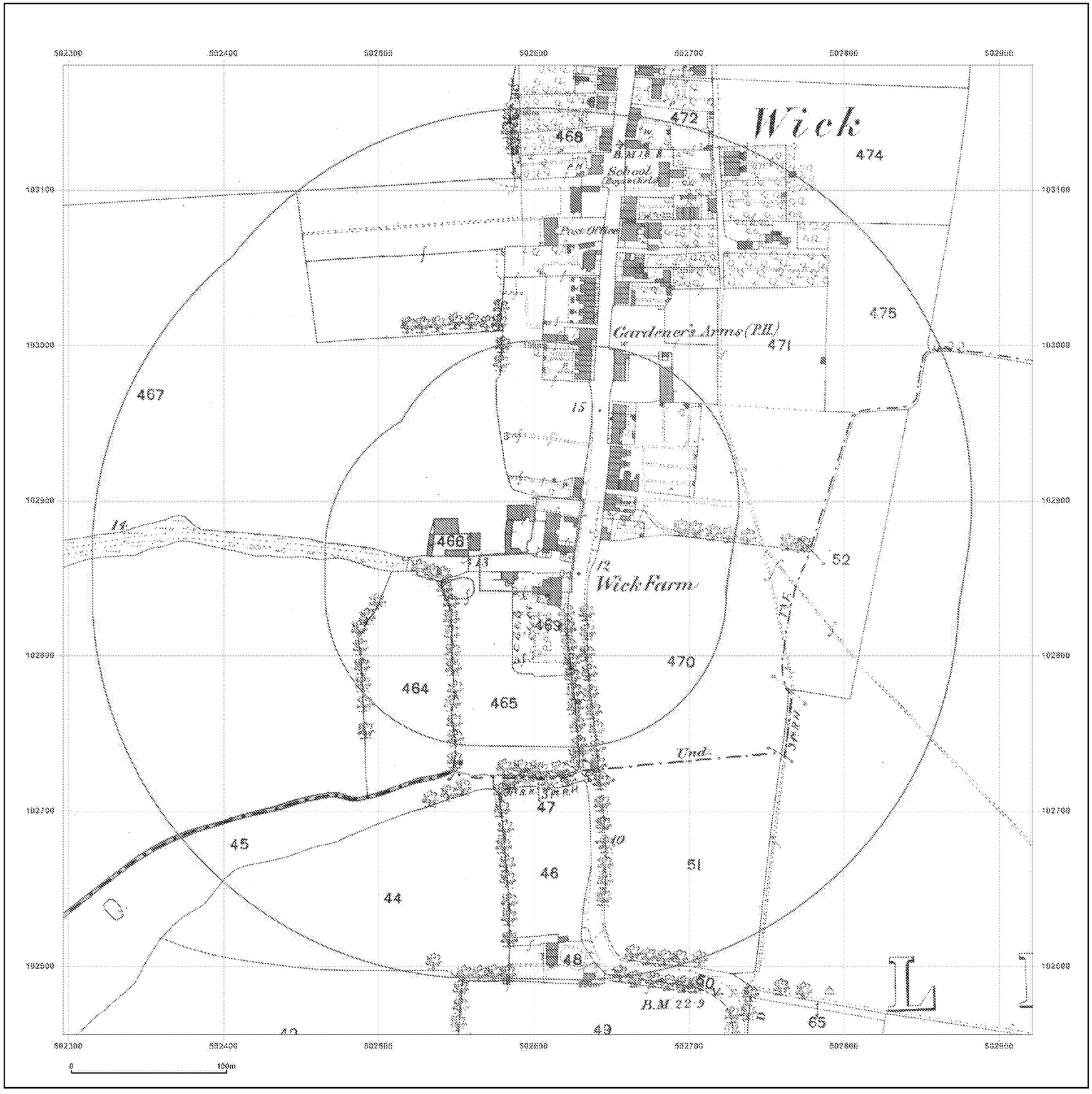
DRAWN BY: DP	SCALE: Not to Scale	PROJECT NO: 15-0733.01
CHECKED BY: CB	REVISION: 1	FIGURE NO: 2
DATE: 11 August 2015		

ARUN DISTRICT COUNCIL LU/316/16/DOC

Appendix I



ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

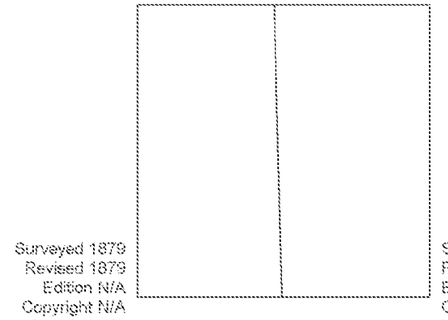
Map Name: County Series

Map date: **1878-1879**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



Ordnance Survey Licensed Partner

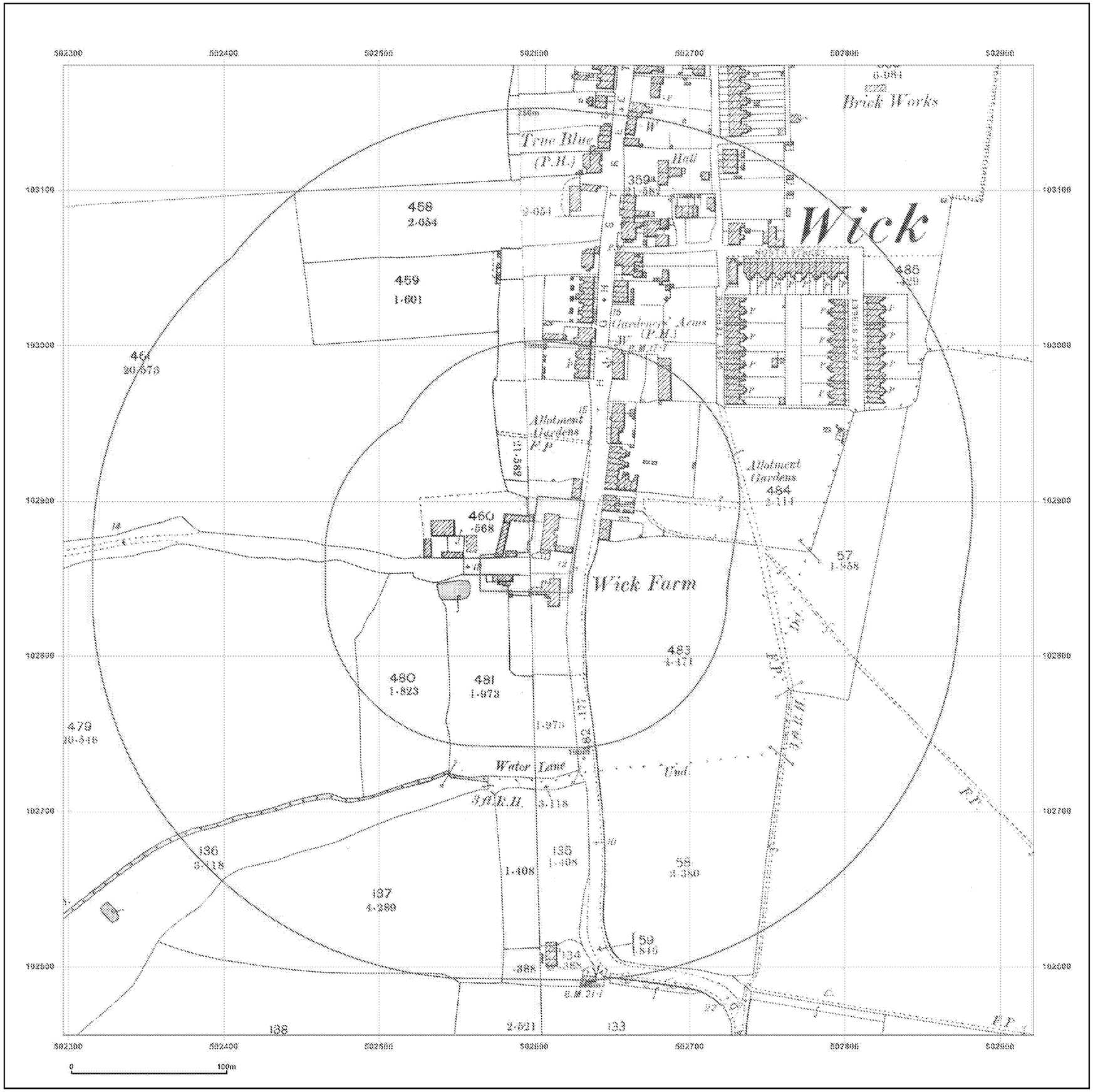
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

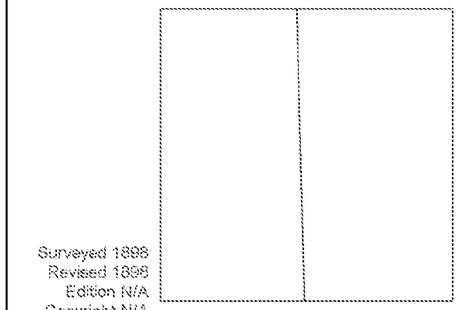
Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



Ordnance Survey Licensed Partner

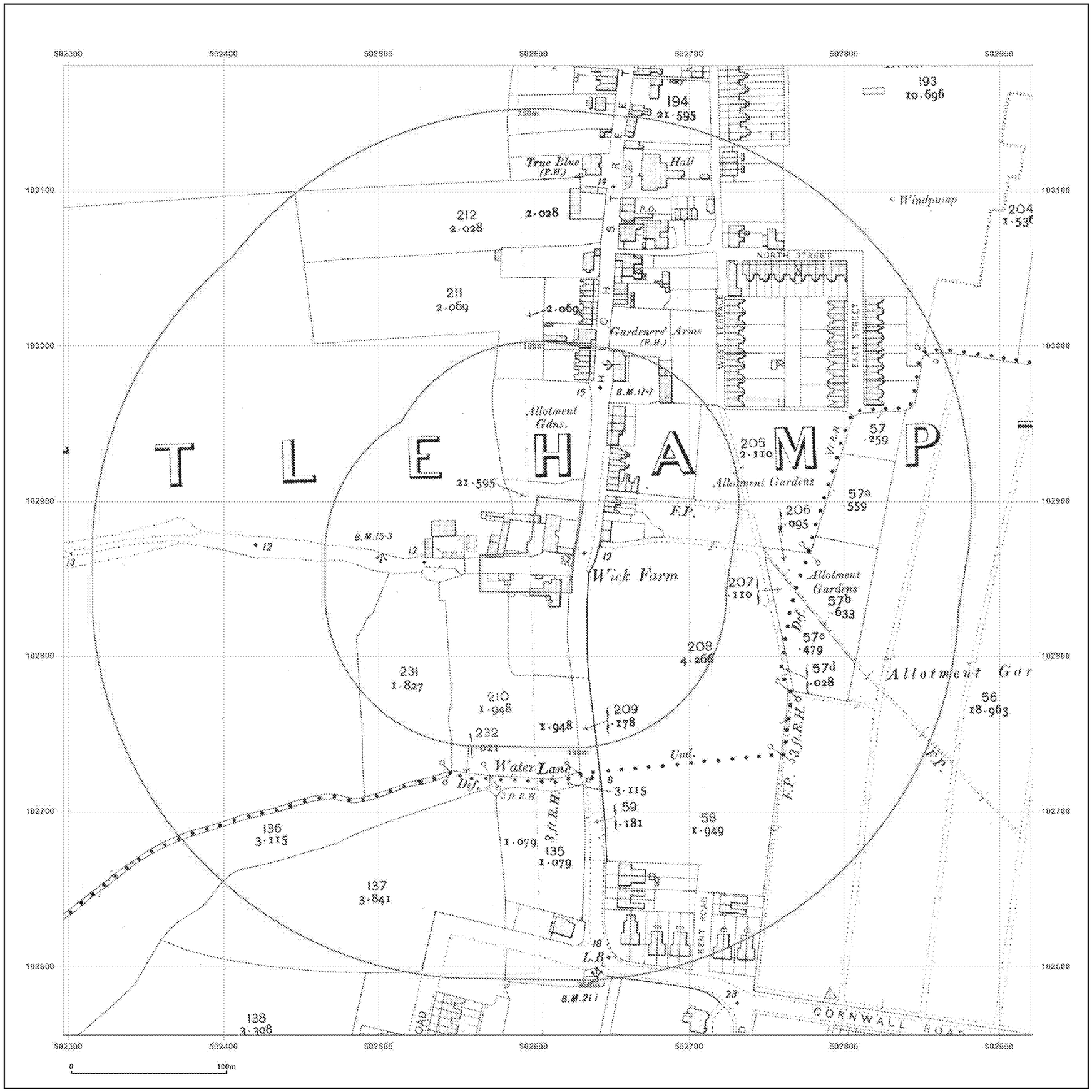
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

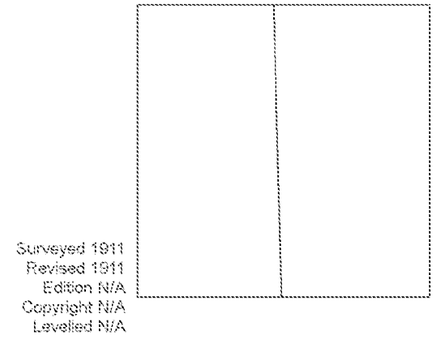
Map Name: County Series

Map date: **1911-1912**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



Surveyed 1911
Revised 1911
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1912
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

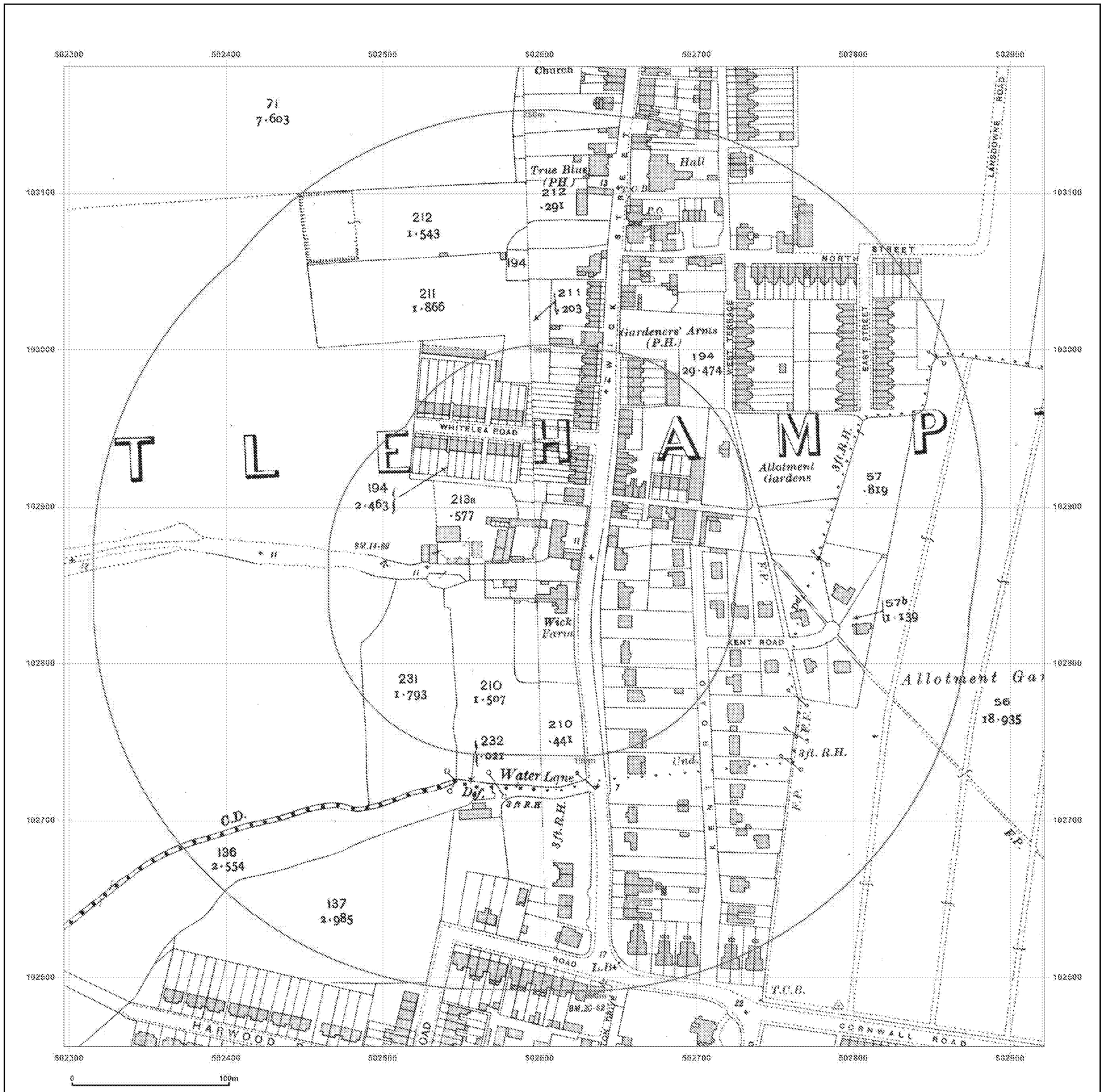
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

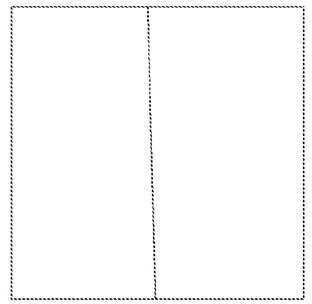
Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1957**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1950

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1950

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1950

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled 1950

Ordnance Survey Licensed Partner

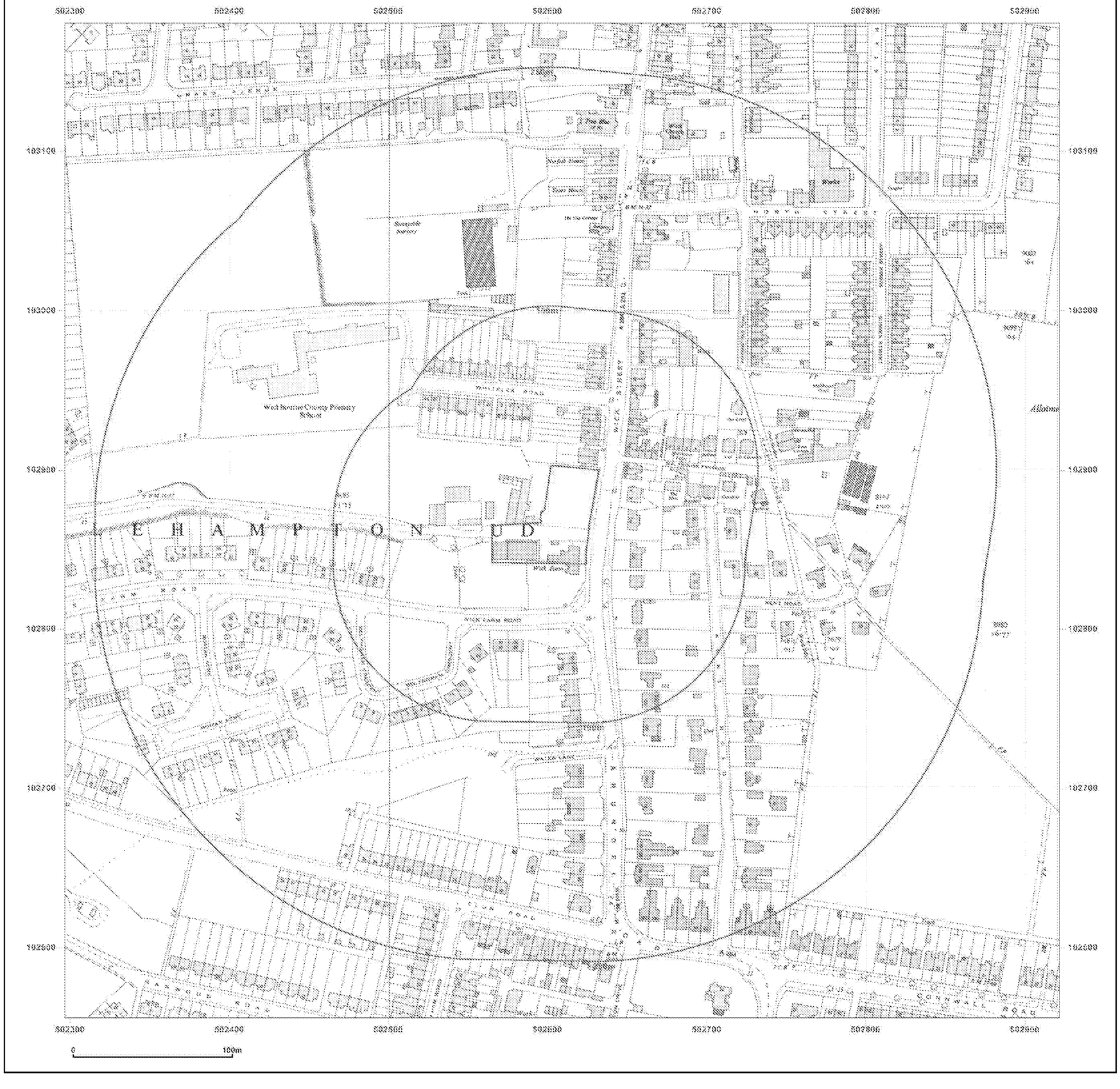
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1957**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1957
Revised 1957
Edition 1959
Copyright 1959
Levelled 1950

Surveyed 1957
Revised 1957
Edition 1959
Copyright N/A
Levelled 1950

Ordnance Survey Licensed Partner

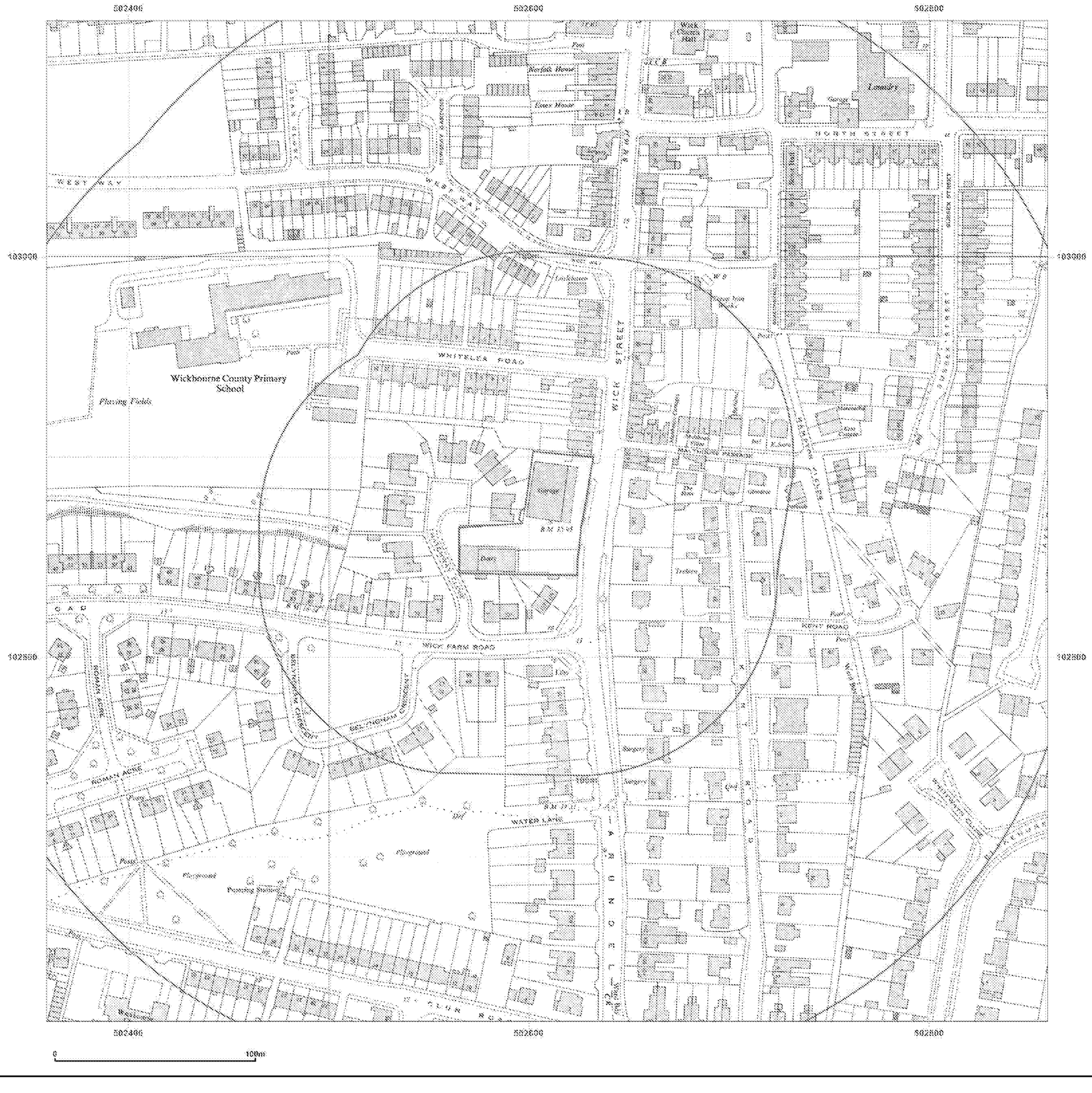
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1964-1968**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1964
Edition N/A
Copyright N/A
Levelled 1959

Surveyed 1957
Revised 1967
Edition N/A
Copyright 1967
Levelled 1966

Surveyed 1957
Revised 1967
Edition N/A
Copyright 1968
Levelled 1966

Surveyed 1957
Revised 1965
Edition N/A
Copyright 1966
Levelled 1959

Ordnance Survey Licensed Partner

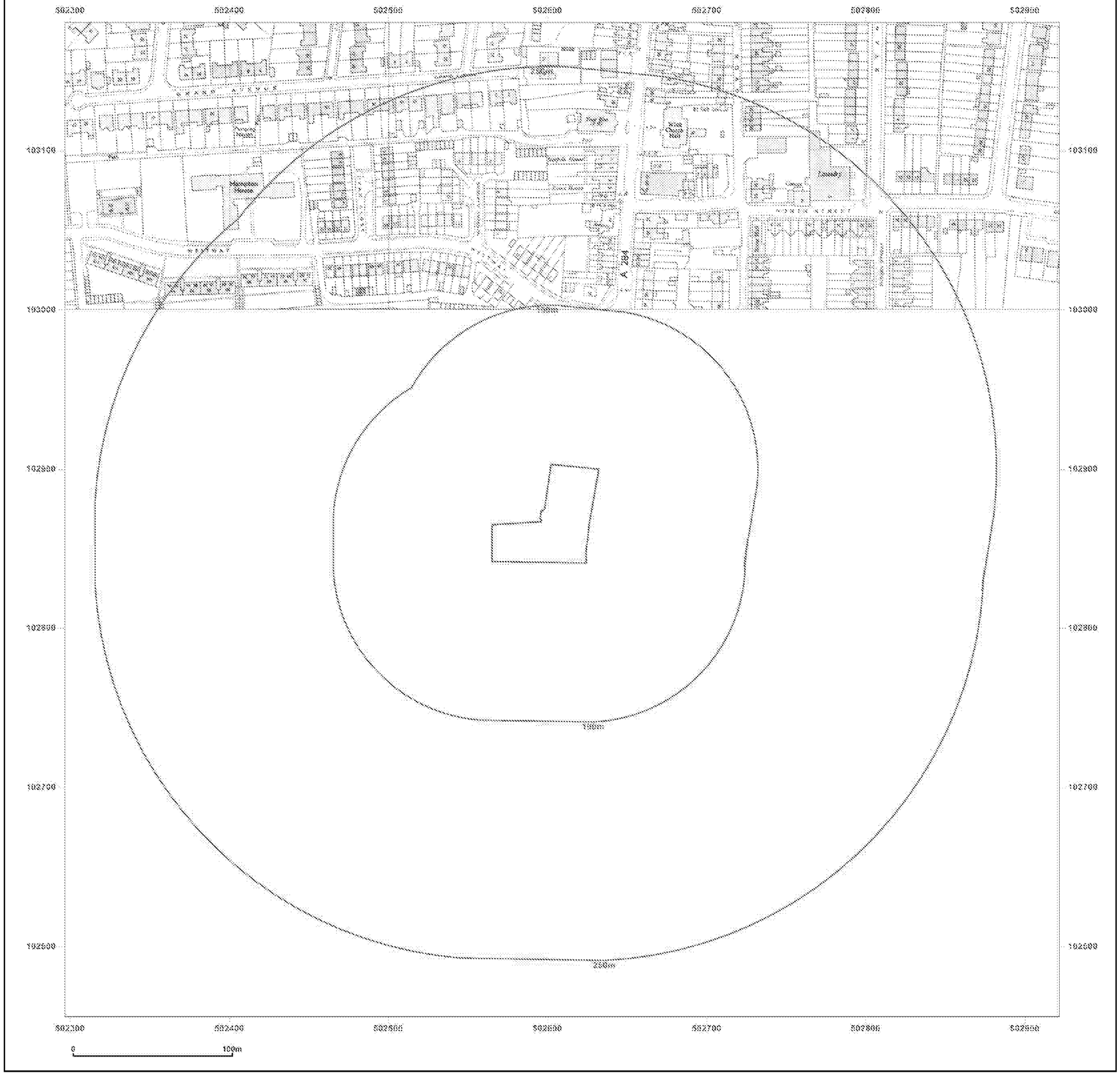
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1970**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1968
Revised 1970
Edition N/A
Copyright 1972
Levelled 1968

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1973-1978**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1974
Edition N/A
Copyright 1974
Levelled 1966

Surveyed 1957
Revised 1973
Edition N/A
Copyright 1973
Levelled 1966

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1978
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1979-1984**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1957
Revised 1978
Edition N/A
Copyright 1979
Levelled 1966

Surveyed 1966 Revised 1984 Edition N/A Copyright 1984 Levelled 1966	Surveyed 1966 Revised 1984 Edition N/A Copyright 1984 Levelled 1966

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1991-1994**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
S

Surveyed 1991
Revised 1991
Edition N/A
Copyright 1991
Levelled N/A

Surveyed 1994
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1963
Revised 1993
Edition N/A
Copyright 1993
Levelled 1963

Surveyed 1994
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Ordnance Survey Licensed Partner

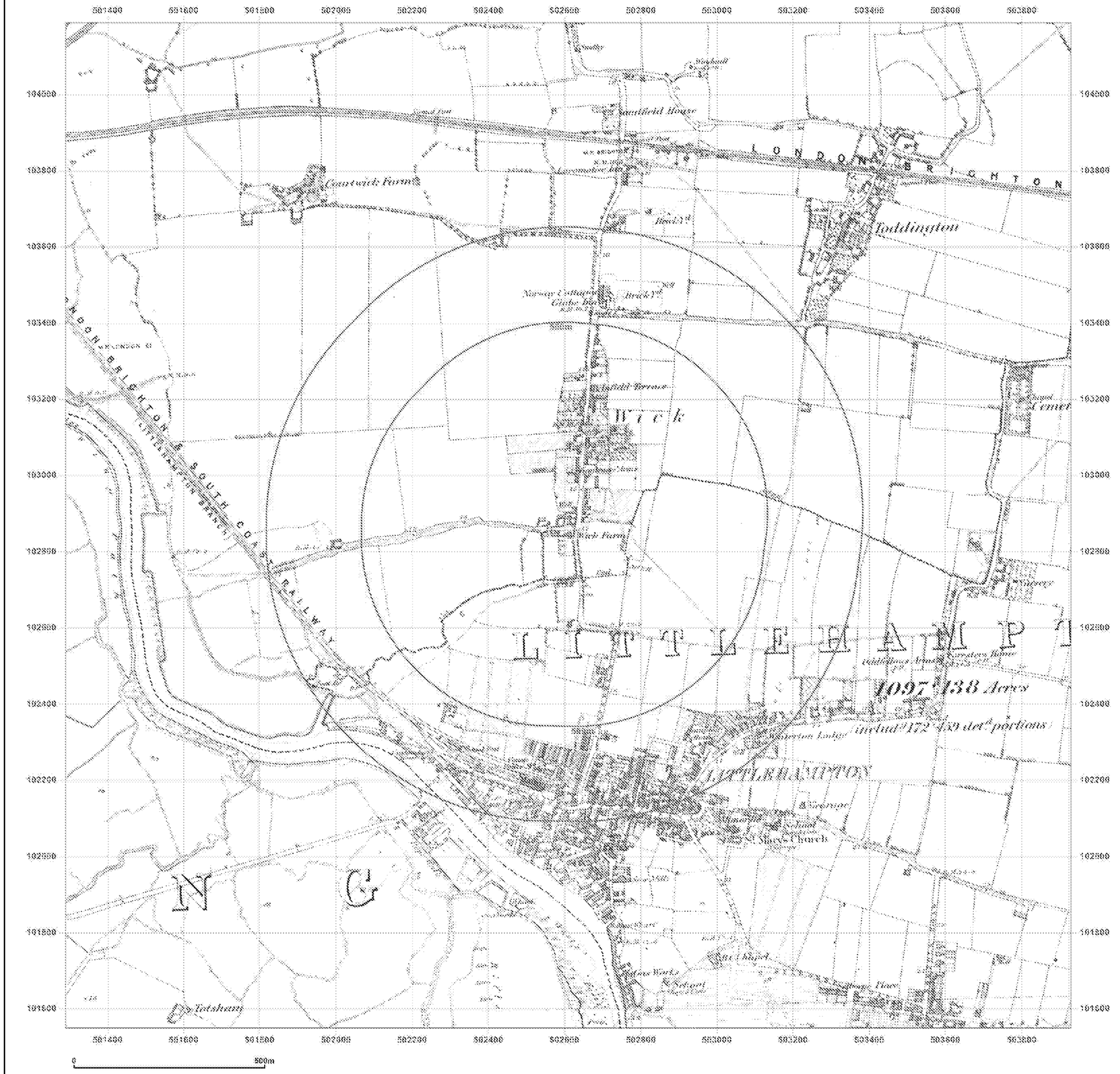
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

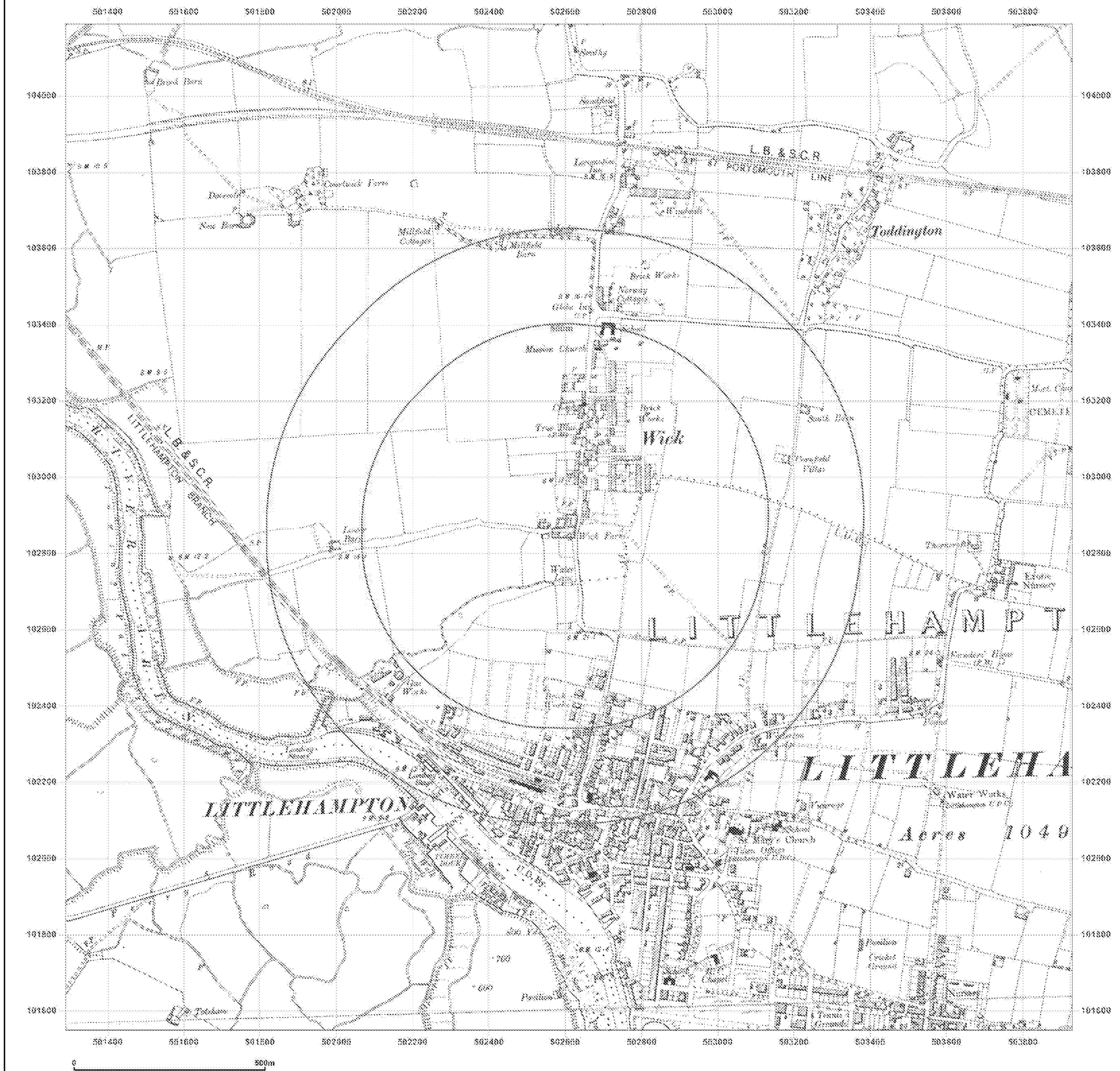
Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC


501400
501600
501800
502000
502200
502400
502600
502800
503000
503200
503400
503600
503800
104000
103800
103600
103400
103200
103000
102800
102600
102400
102200
102000
101800
101600
Goatsfield House
Goatsfield Farm
Toddington
Wick
LITTLEHAMPTON
1097 138 Acres
Tidal 172 139 det Portions
St Mary's Church
Tidal Basin
Littlehampton Station
Littlehampton Swing Bridge
Littlehampton Harbour
Littlehampton Golf Course
Littlehampton Golf Course Railway
Littlehampton Boating Lake
Littlehampton Cricket Ground
Littlehampton Recreation Ground
Littlehampton Lifeboat Station
Littlehampton Pier
Littlehampton Pier Light
Littlehampton Sea Wall
Littlehampton Sea Wall Groyne
Littlehampton Sea Wall Groyne Light
Littlehampton Sea Wall Groyne Light
Littlehampton Sea Wall Groyne Light

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: County Series

Map date: 1896

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1876
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

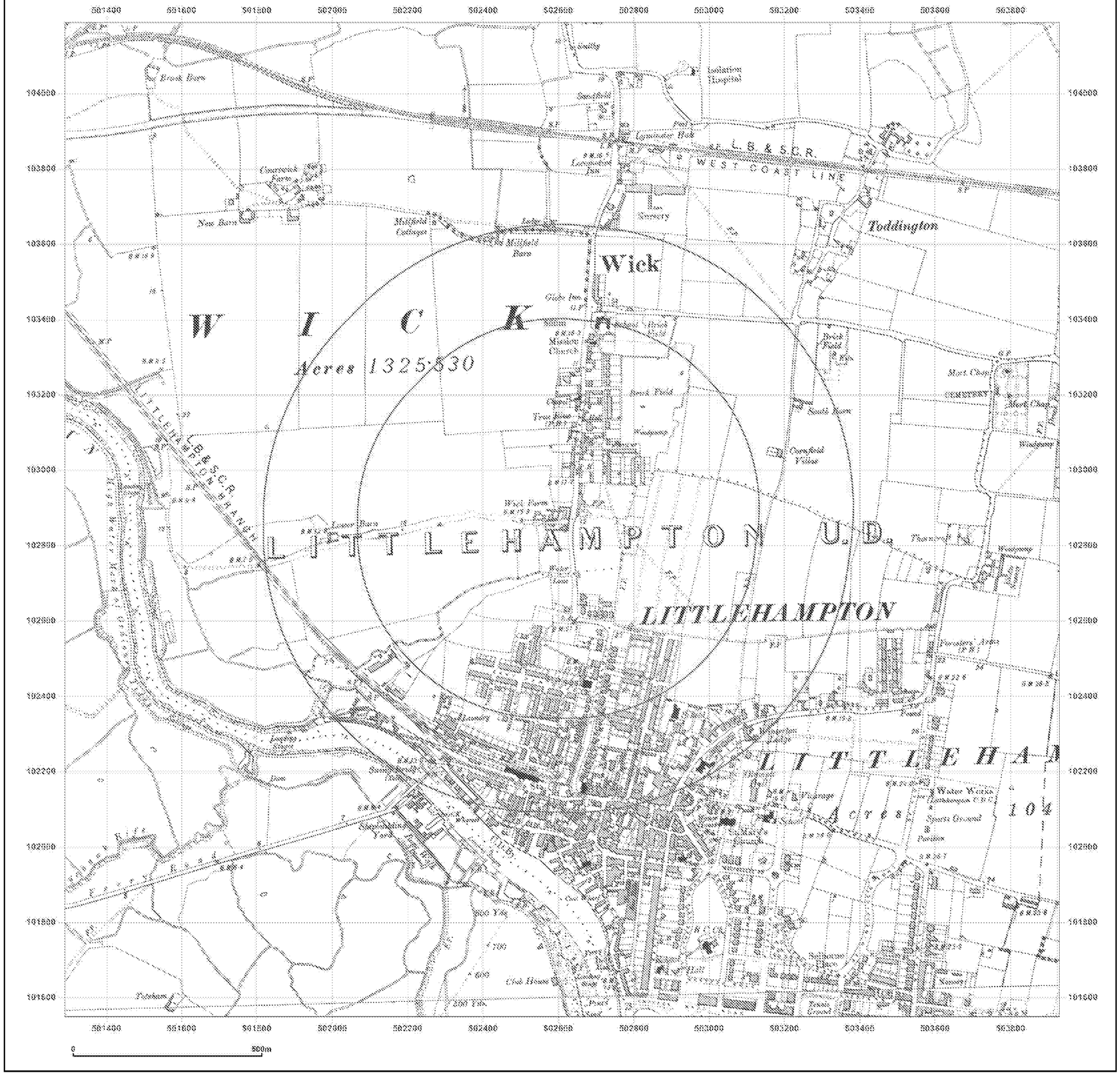
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: County Series

Map date: **1910**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1875
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1875
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey® Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: County Series

Map date: **1932**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1875
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1875
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC


SOUTHERN RAILWAY
Toddington
Wick
W I C K
LITTLEHAMPTON U.D.
LITTLEHAMPTON
Water Works
Toddington Farm
Court Wick Farm
New Barn
Hillfield College
Isolation Hospital
Nursery
Black Pond
Chapel
Cemetery
Old Rectory
Wick Hall
Wick Cottage
Wick Farm
Wick Bridge
Wick Pond
Wick Court
Wick Manor
Wick Lodge
Wick Cottages
Wick Terrace
Wick Place
Wick Villas
Wick Road
Wick Street
Wick Hall Drive
Wick Hall Cottages
Wick Hall Farm
Wick Hall Pond
Wick Hall Lodge
Wick Hall Cottage
Wick Hall Farm Cottages
Wick Hall Farm Pond
Wick Hall Farm Lodge
Wick Hall Farm

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: Provisional

Map date: **1957**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1875
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1974**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1973
Revised 1974
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **1981**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1981
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

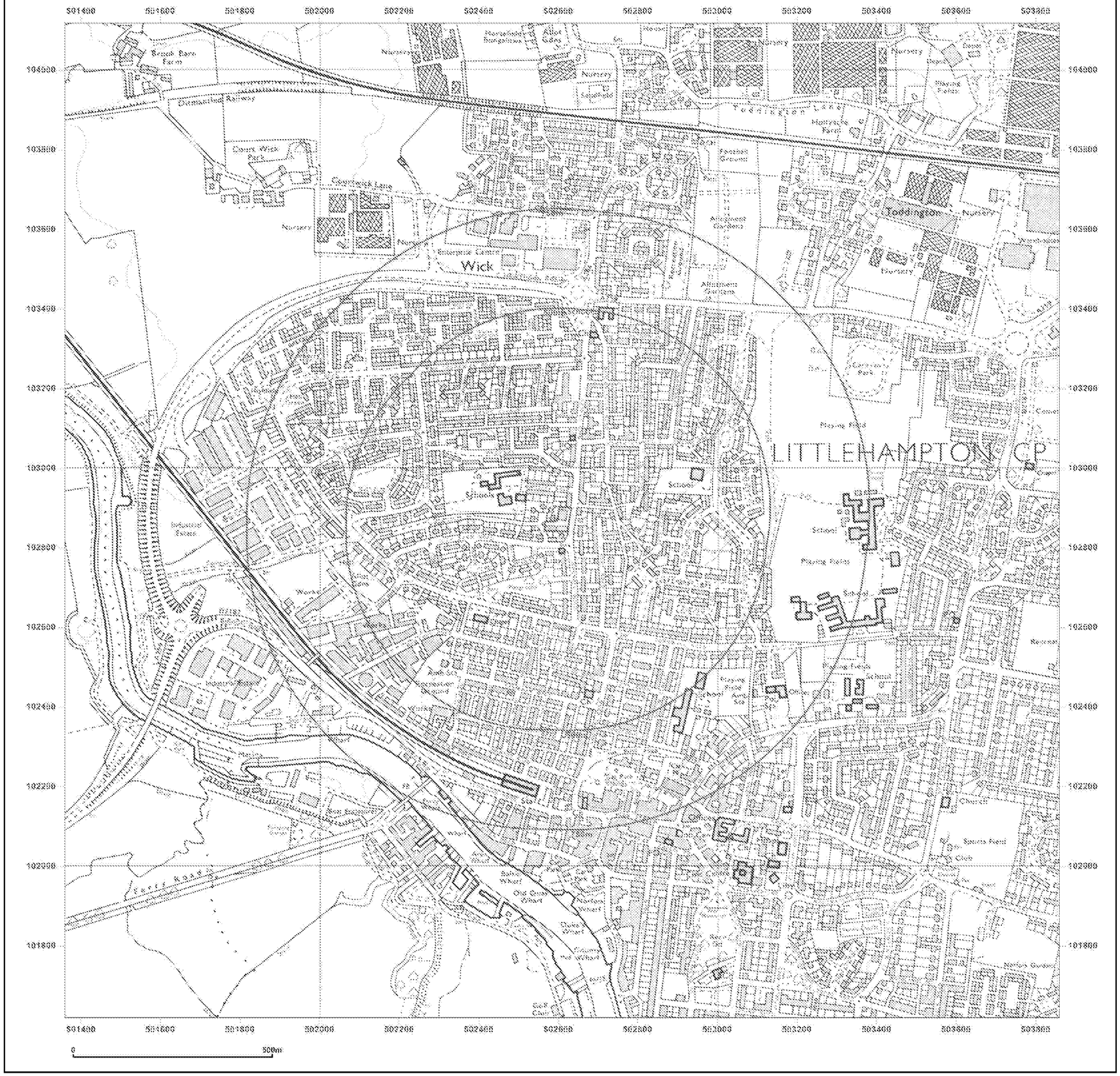
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: 1992

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1981
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: 1:10,000 Raster
Map date: 2002
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

2002

Ordnance Survey Licensed Partner

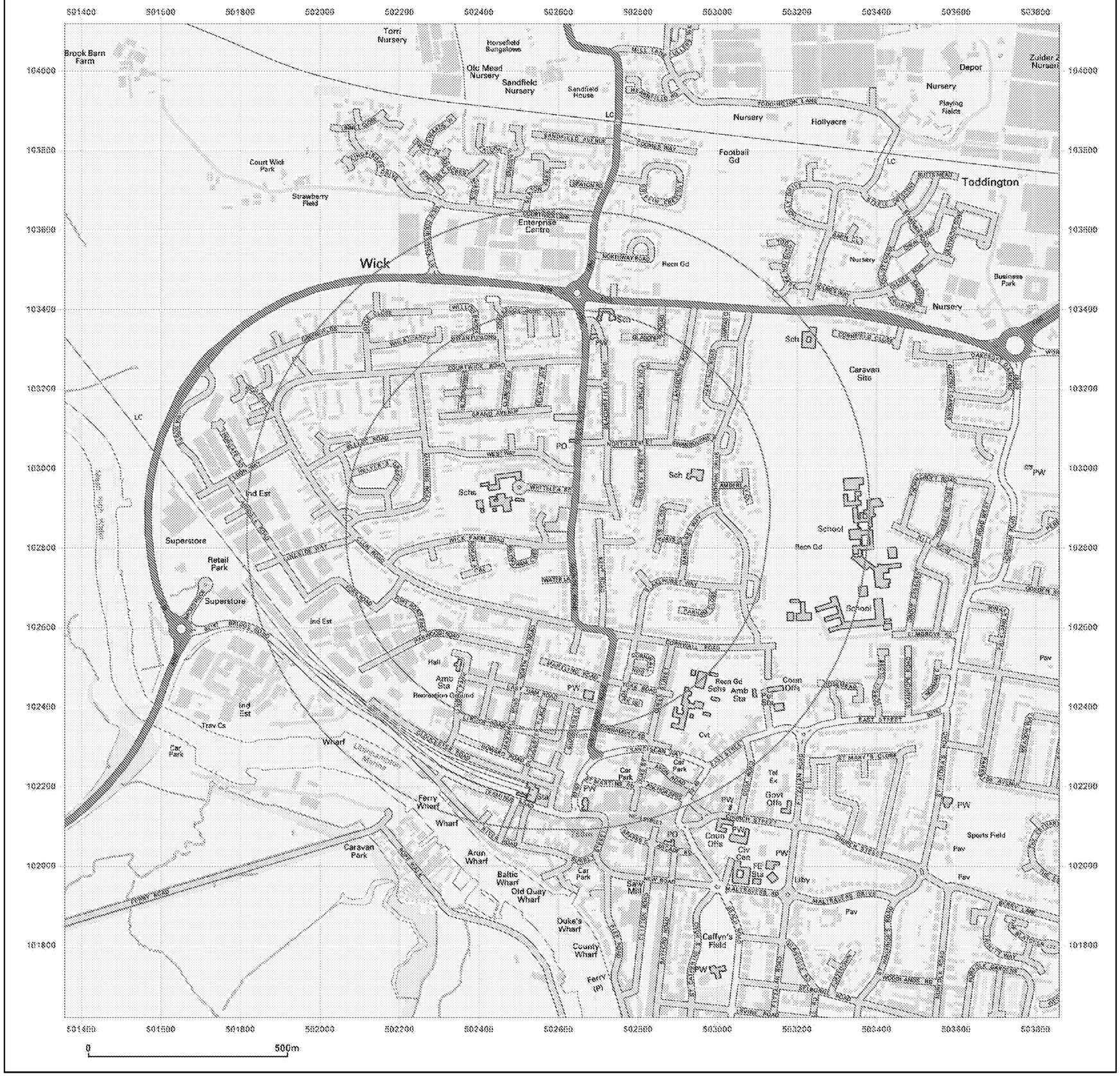
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

ARUN DISTRICT COUNCIL LU/316/16DOC



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

2010

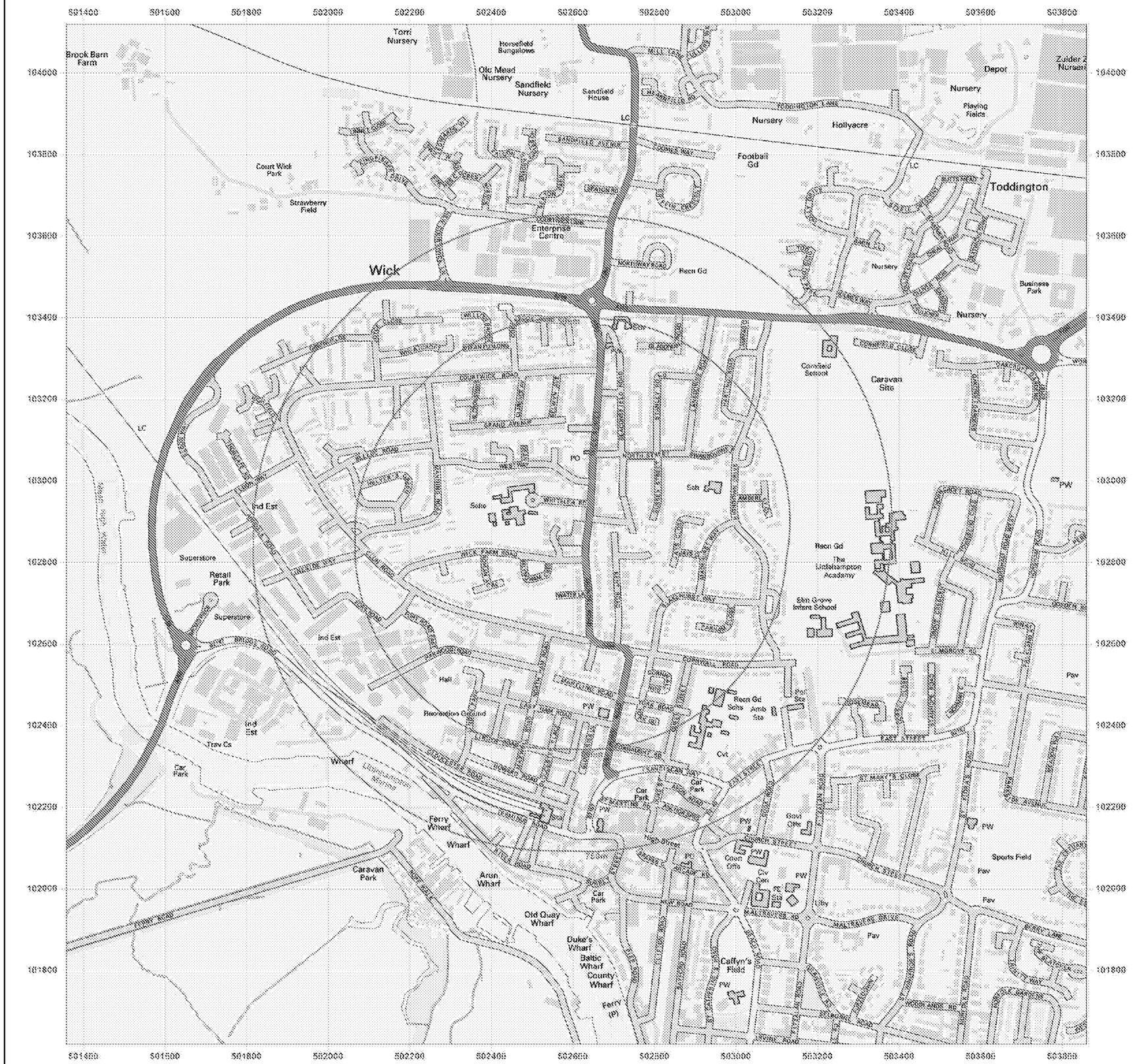
Ordnance Survey Licensed Partner

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

131-135, ARUNDEL ROAD,
LITTLEHAMPTON, BN17 7DH

Client Ref: DS25567
Report Ref: GS-2313719
Grid Ref: 502609, 102868

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

2014

Ordnance Survey Licensed Partner

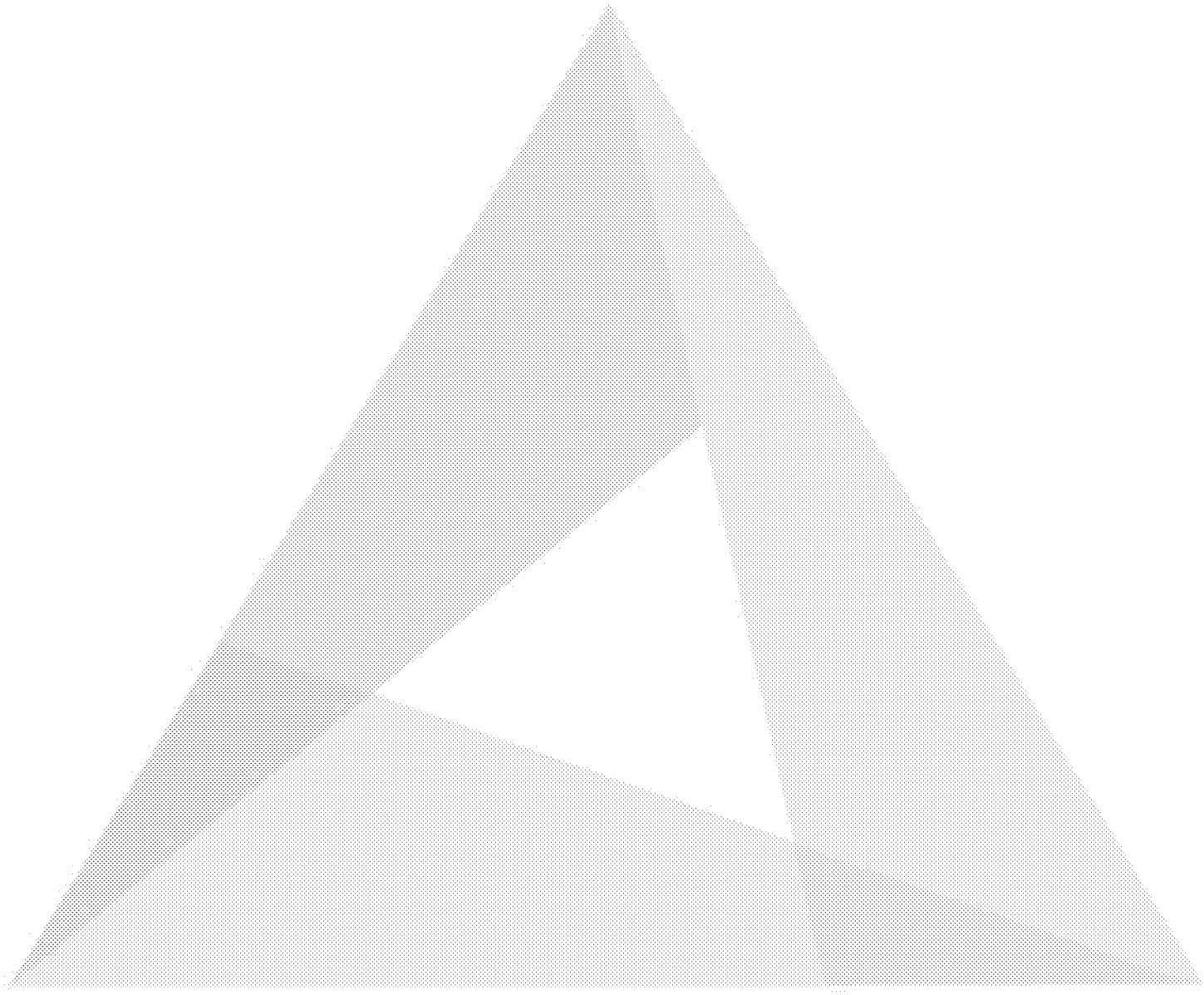
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 30 July 2015

To view map legend click here *Legend*

Appendix II



Groundsure
LOCATION INTELLIGENCE

Delta-Simons

3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR

Groundsure Reference:	GS-2313717
Your Reference:	DS25567
Report Date	30 Jul 2015
Report Delivery Method:	Email - pdf

Groundsure Enviroinsight

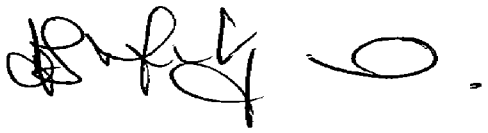
Address: 131-135, ARUNDEL ROAD, LITTLEHAMPTON, BN17 7DH

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviroinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure Enviroinsight

Address:	131-135, ARUNDEL ROAD, LITTLEHAMPTON, BN17 7DH
Date:	30 Jul 2015
Reference:	GS-2313717
Client:	Delta-Simons

NW N NE



W E

SW S SE

Aerial Photograph Capture date: 13-Sep-2012
Grid Reference: 502609,102868
Site Size: 0.25ha

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

Contents Page

Contents Page 3
Overview of Findings 6
Using this report 10
1. Historical Land Use 11
1. Historical Industrial Sites 12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping 12
1.2 Additional Information – Historical Tank Database 13
1.3 Additional Information – Historical Energy Features Database 13
1.4 Additional Information – Historical Petrol and Fuel Site Database 15
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database 15
1.6 Potentially Infilled Land 15
2. Environmental Permits, Incidents and Registers Map 17
2. Environmental Permits, Incidents and Registers 18
2.1 Industrial Sites Holding Licences and/or Authorisations 18
2.1.1 Records of historic IPC Authorisations within 500m of the study site: 18
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site: 18
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site: 18
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: 18
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: 18
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site: 19
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations: 19
2.1.8 Records of Licensed Discharge Consents within 500m of the study site: 19
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site: 19
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site: 19
2.2 Dangerous or Hazardous Sites 19
2.3 Environment Agency Recorded Pollution Incidents 20
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site: 20
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site: 20
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990 20
3. Landfill and Other Waste Sites Map 21
3. Landfill and Other Waste Sites 22
3.1 Landfill Sites 22
3.1.1 Records from Environment Agency landfill data within 1000m of the study site: 22
3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site: 22
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site: 23
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site: 23
3.2 Other Waste Sites 24
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site: 24
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site: 25
4. Current Land Use Map 27
4. Current Land Uses 28
4.1 Current Industrial Data 28
4.2 Petrol and Fuel Sites 28
4.3 National Grid High Voltage Underground Electricity Transmission Cables 29
4.4 National Grid High Pressure Gas Transmission Pipelines 29
5. Geology 30

5.1 Artificial Ground and Made Ground 30
5.2 Superficial Ground and Drift Geology 30
5.3 Bedrock and Solid Geology 30
6 Hydrogeology and Hydrology 31
6a. Aquifer Within Superficial Geology 31
6b. Aquifer Within Bedrock Geology and Abstraction Licenses 32
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses 33
6d. Hydrogeology – Source Protection Zones within confined aquifer 34
6e. Hydrology – Detailed River Network and River Quality 35
6.Hydrogeology and Hydrology 36
6.1 Aquifer within Superficial Deposits 36
6.2 Aquifer within Bedrock Deposits 36
6.3 Groundwater Abstraction Licences 36
6.4 Surface Water Abstraction Licences 39
6.5 Potable Water Abstraction Licences 39
6.6 Source Protection Zones 40
6.7 Source Protection Zones within Confined Aquifer 40
6.8 Groundwater Vulnerability and Soil Leaching Potential 40
6.9 River Quality 40
6.9.1 Biological Quality: 40
6.9.2 Chemical Quality: 41
6.10 Detailed River Network 41
6.11 Surface Water Features 41
7a. Environment Agency Flood Map for Planning (from rivers and the sea) 42
7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map 43
7 Flooding 44
7.1 River and Coastal Zone 2 Flooding 44
7.2 River and Coastal Zone 3 Flooding 44
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating 44
7.4 Flood Defences 45
7.5 Areas benefiting from Flood Defences 45
7.6 Areas benefiting from Flood Storage 45
7.7 Groundwater Flooding Susceptibility Areas 45
7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes 45
7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions? 45
7.8 Groundwater Flooding Confidence Areas 46
8. Designated Environmentally Sensitive Sites Map 47
8. Designated Environmentally Sensitive Sites 48
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 48
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site: 48
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site: 48
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site: 48
8.5 Records of Ramsar sites within 2000m of the study site: 48
8.6 Records of Ancient Woodland within 2000m of the study site: 49
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site: 49
8.8 Records of World Heritage Sites within 2000m of the study site: 49
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site: 49
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: 49
8.11 Records of National Parks (NP) within 2000m of the study site: 49

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:....50
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:....50
8.14 Records of Green Belt land within 2000m of the study site:....50
9. Natural Hazards Findings 51
9.1 Detailed BGS GeoSure Data....51
9.1.1 Shrink Swell....51
9.1.2 Landslides....51
9.1.3 Soluble Rocks....51
9.1.4 Compressible Ground....52
9.1.5 Collapsible Rocks....52
9.1.6 Running Sand....52
9.2 Radon....52
9.2.1 Radon Affected Areas....52
9.2.2 Radon Protection....53
10. Mining 54
10.1 Coal Mining....54
10.2 Non-Coal Mining....54
10.3 Brine Affected Areas....54
Contact Details 55
Standard Terms and Conditions 57

Groundsure
LOCATION INTELLIGENCE

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.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	4	30
1.2 Additional Information – Historical Tank Database	0	0	2	5
1.3 Additional Information – Historical Energy Features Database	0	1	7	57
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	3	0	7	4
1.6 Potentially Infilled Land	0	0	2	17

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	3
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-5000
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	0	0	2	5
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	1
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	4	1
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	1	3	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	3	2	5

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	1	1	8	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	14
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	5
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	0	Not searched	Not searched

	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology	0-500m					
6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

Section 7: Flooding	
7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Very Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential below Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	High

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	1	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Low
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Very Low
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 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.
9.2.2 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?	No radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No

Groundsure
LOCATION INTELLIGENCE

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. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. 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.

3. 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.

4. 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 gas pipelines and underground electricity transmission lines.

5. Geology

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

6. 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.

7. Flooding

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

8. 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 and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. 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 and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. 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

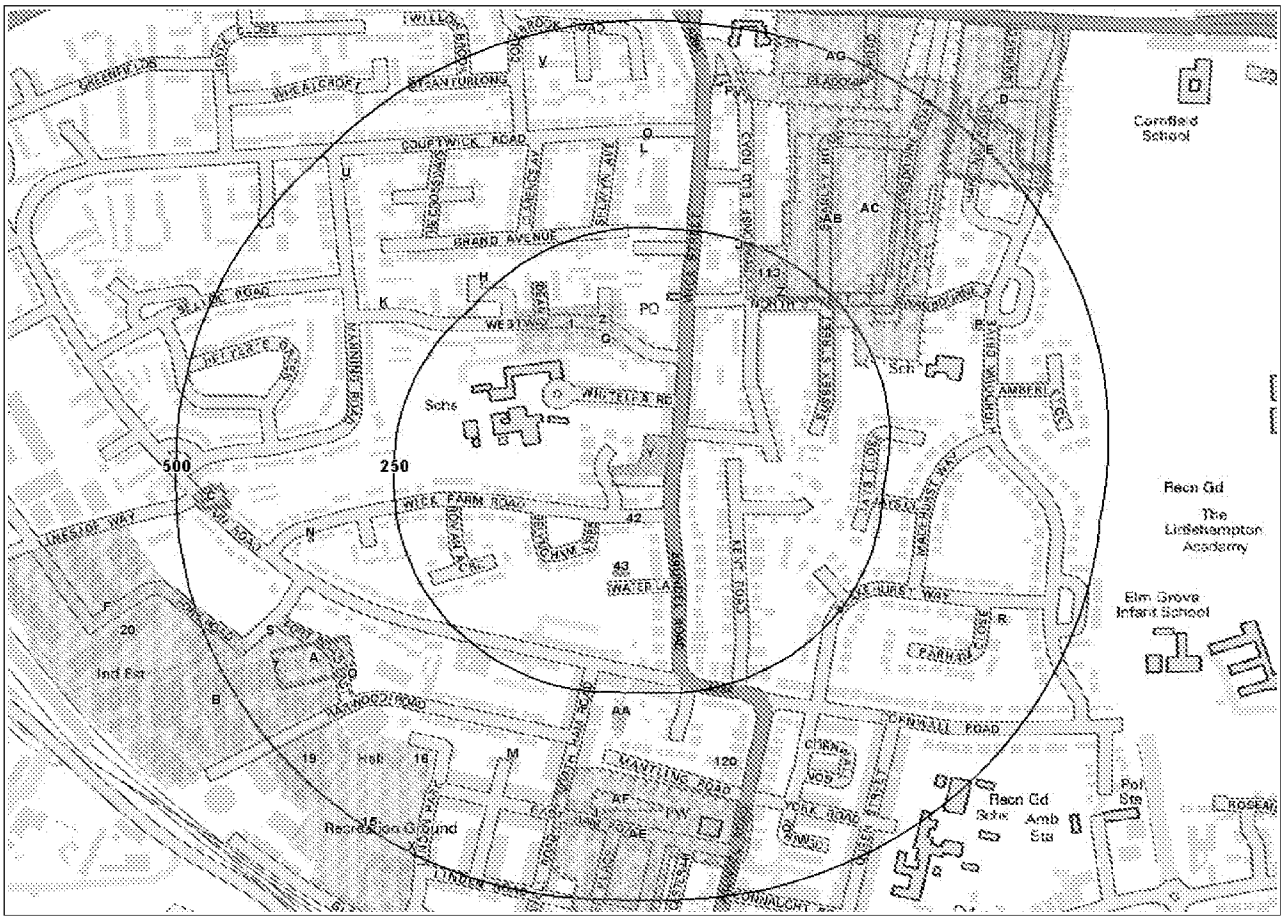
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes 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.

Groundsure
LOCATION INTELLIGENCE

1. Historical Land Use



Mapping supplied by Ordnance Survey®

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.

Historical 1:10,000 and 1:10,560 scale mapping

Site Outline

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

250
500
Search Buffers (m)

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 34

ID	Distance [m]	Direction	Use	Date
1	110	N	Nursery	1957
2	122	N	Nursery	1957
3AB	186	NE	Brick Works	1896
4AC	213	NE	Brick Field	1910
5AD	271	NE	Unspecified Ground Workings	1910
6AE	341	S	Brick Works	1896
7	353	SW	Unspecified Works	1957
8A	353	SW	Depot and Destructor Works	1932
9A	353	SW	Depot and Destructor Works	1932
10A	355	SW	Depot and Destructor Works	1938
11AF	366	S	Unspecified Pit	1896
12B	377	SW	Unspecified Works	1974
13B	377	SW	Unspecified Works	1992
14B	377	SW	Unspecified Works	1981
15	379	SW	Unspecified Works	1957
16	388	SW	Ambulance Station	1992
17I	397	S	Unspecified Tank	1896
18AG	417	N	Brick Field	1910
19	423	SW	Unspecified Works	1974
20	429	SW	Works	1957
21C	437	W	Cuttings	1932
22C	443	W	Cuttings	1938
23C	443	W	Cuttings	1910
24D	445	NE	Brick Field	1938
25E	445	NE	Unspecified Pit	1938
26D	448	NE	Brick Field	1932
27E	448	NE	Unspecified Pit	1932
28D	448	NE	Brick Field	1932
29E	448	NE	Unspecified Pit	1932
30F	463	SW	Unspecified Works	1981
31F	463	SW	Unspecified Works	1957
32F	463	SW	Unspecified Works	1974
33F	463	SW	Unspecified Works	1992

34AH	499	NE	Unspecified Ground Workings	1957

1.2 Additional Information - Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 7

ID	Distance (m)	Direction	Use	Date
35G	116	N	Tanks	1957
36G	117	N	Tanks	1957
37H	260	NW	Unspecified Tank	1991
38H	260	NW	Unspecified Tank	1979
39H	260	NW	Unspecified Tank	1974
40H	260	NW	Unspecified Tank	1994
41I	400	S	Unspecified Tank	1898

1.3 Additional Information - Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 65

ID	Distance (m)	Direction	Use	Date
42	43	S	Electricity Substation	1994
43	94	S	Electricity Substation	1994
44J	237	N	Electricity Substation	1987
45J	237	N	Electricity Substation	1973
46J	237	N	Electricity Substation	1973
47J	237	N	Electricity Substation	1967
48J	237	N	Electricity Substation	1970
49J	237	N	Electricity Substation	1994
50K	322	NW	Electricity Substation	1979
51K	323	NW	Electricity Substation	1994
52K	323	NW	Electricity Substation	1991
53L	336	N	Electricity Substation	1987
54L	337	N	Electricity Substation	1994
55M	345	S	Electricity Substation	1993
56M	345	S	Electricity Substation	1984
57M	345	S	Electricity Substation	1968
58M	346	S	Electricity Substation	1993
59N	348	W	Electricity Substation	1984

60N	348	W	Electricity Substation	1967
61N	349	W	Electricity Substation	1973
62O	357	N	Electricity Substation	1973
63O	357	N	Electricity Substation	1970
64O	357	N	Electricity Substation	1987
65O	357	N	Electricity Substation	1994
66O	357	N	Electricity Substation	1968
67O	358	N	Electricity Substation	1987
68N	365	W	Electricity Substation	1973
69P	368	E	Electricity Substation	1973
70P	369	E	Electricity Substation	1967
71P	369	E	Electricity Substation	1994
72P	369	E	Electricity Substation	1970
73P	369	E	Electricity Substation	1993
74P	369	E	Electricity Substation	1984
75Q	374	SW	Electricity Substation	1968
76Q	374	SW	Electricity Substation	1995
77Q	374	SW	Electricity Substation	1995
78Q	375	SW	Electricity Substation	1980
79R	418	SE	Electricity Substation	1993
80R	418	SE	Electricity Substation	1984
81R	418	SE	Electricity Substation	1968
82S	428	SW	Electricity Substation	1987
83S	428	SW	Electricity Substation	1987
84S	428	SW	Electricity Substation	1987
85S	428	SW	Electricity Substation	1970
86T	457	S	Electricity Substation	1979
87T	457	S	Electricity Substation	1974
88T	457	S	Electricity Substation	1970
89V	457	N	Electricity Substation	1994
90U	457	NW	Electricity Substation	1970
91U	457	NW	Electricity Substation	1994
92U	458	NW	Electricity Substation	1991
93U	458	NW	Electricity Substation	1987
94U	458	NW	Electricity Substation	1994
95W	458	S	Electricity Substation	1987
96V	459	N	Electricity Substation	1987
97W	459	S	Electricity Substation	1979
98V	459	N	Electricity Substation	1974
99W	459	S	Electricity Substation	1970
100W	459	S	Electricity Substation	1991
101V	459	N	Electricity Substation	1976
102V	459	N	Electricity Substation	1995
103V	459	N	Electricity Substation	
104U	459	NW	Electricity Substation	
105X	494	SW	Electricity Substation	
106X	495	SW	Electricity Substation	

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 14

ID	Distance (m)	Direction	Use	Date
107Y	0	On Site	Garage	1965
108Y	0	On Site	Garage	1984
109Y	0	On Site	Garage	1973
110Z	203	NE	Garage	1973
111Z	203	NE	Garage	1967
112Z	203	NE	Garage	1987
113	204	NE	Garage	1994
114Z	213	NE	Garage	1970
115Z	213	NE	Garage	1965
116AA	248	S	Garage	1994
117AA	268	S	Garage	1984
118AA	268	S	Garage	1965
119AA	268	S	Garage	
120	337	S	Garage	

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 19

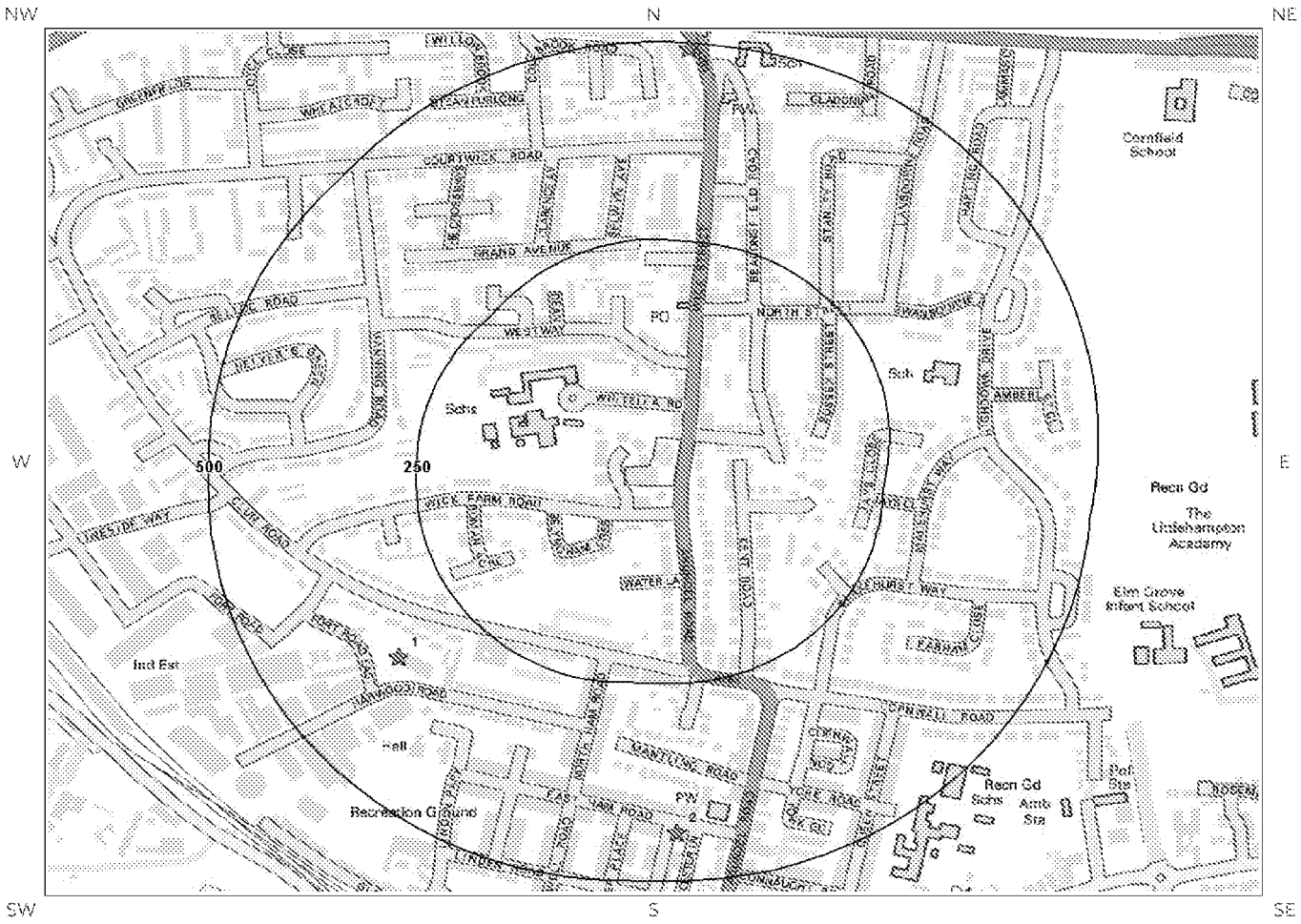
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
121AB	186	NE	Brick Works	1896
122AC	213	NE	Brick Field	1910
123AD	271	NE	Unspecified Ground Workings	1910
124AE	341	S	Brick Works	1896
125A	353	SW	Depot and Destructor Works	1932
126A	353	SW	Depot and Destructor Works	1932

127A	355	SW	Depot and Destructor Works	1938
128AF	366	S	Unspecified Pit	1896
129AG	417	N	Brick Field	1910
130C	437	W	Cuttings	1932
131C	443	W	Cuttings	1910
132C	443	W	Cuttings	1938
133E	445	NE	Unspecified Pit	1938
134D	445	NE	Brick Field	1938
135E	448	NE	Unspecified Pit	1932
136E	448	NE	Unspecified Pit	1932
137D	448	NE	Brick Field	1932
138D	448	NE	Brick Field	1932
139AH	499	NE	Unspecified Ground Workings	1957

Groundsure
LOCATION INTELLIGENCE

2. Environmental Permits, Incidents and Registers Map



Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

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

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

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

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.3 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.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.9 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.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

3

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

ID	Distance (m)	Direction	NGR	Details	
1	349	SW	502292 102625	Incident Date: 26-Feb-2002 Incident Identification: 60543 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Effects on Humans	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
2	438	S	502626 102403	Incident Date: 07-Dec-2001 Incident Identification: 46975 Pollutant: Oils and Fuel Pollutant Description: Petrol	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
3	492	N	502640 103394	Incident Date: 08-Mar-2002 Incident Identification: 80665 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

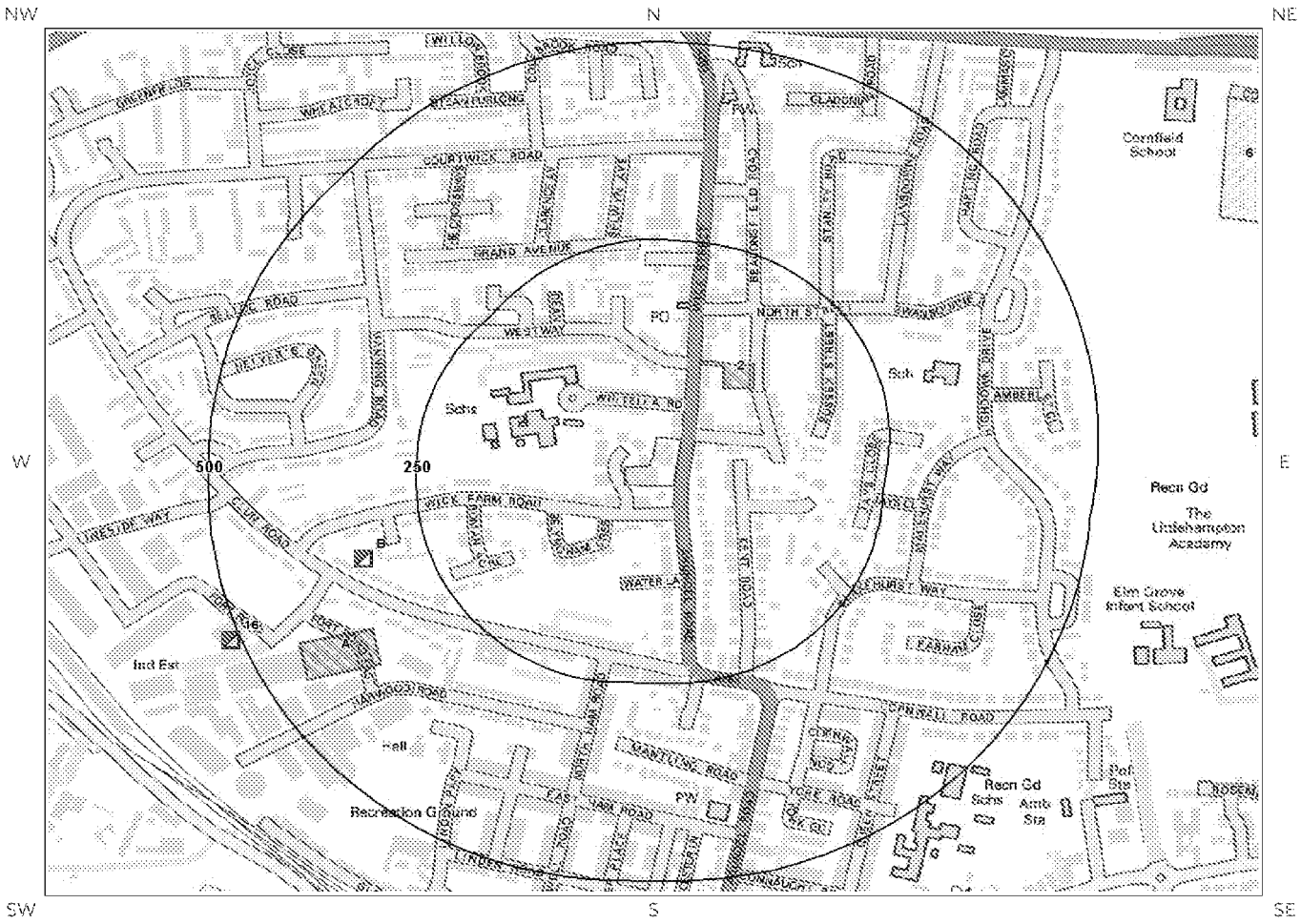
Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A 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.

3. Landfill and Other Waste Sites Map



© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

250 Search Buffers (m)
500

E.A. Active Landfill

E.A. Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

E.A. Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

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

0

Database searched and no data found.

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

7

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

ID	Distance (m)	Direction	NGR	Details	
6	705	NE	503300 103200	Site Address: Cornfield Close Caravan Site, Worthing Road, Littlehampton, Sussex Waste Licence: Yes Site Reference: WD27/153 Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: 31-Dec-1960 Last Recorded: 31-Dec-1970
Not shown	744	SW	501900 102200	Site Address: Littlehampton Ferry Road South, Littlehampton, Sussex Waste Licence: - Site Reference: WD27/148b Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: 31-Dec-1946 Last Recorded: 31-Dec-1975
Not shown	1039	W	501500 103000	Site Address: Wick Farm, Littlehampton, Sussex Waste Licence: - Site Reference: WD27/152 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: - Last Recorded: -
Not shown	1072	SW	501600 102200	Site Address: Littlehampton Marina Extension, Littlehampton, Sussex Waste Licence: Yes Site Reference: WD27/149, WD13/47 Waste Type: Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 30-Mar-1981 Licence Surrendered: 07-Jan-1983 Licence Hold Address: - Operator: - First Recorded: 01-Jun-1981 Last Recorded: 05-Aug-1981

ID	Distance (m)	Direction	NGR	Details	
Not shown	1117	SW	501400 102600	Site Address: Ferry Road North, Littlehampton, Sussex Waste Licence: Yes Site Reference: WD27/48a, WD27/148a Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: Littlehampton Urban District Council First Recorded: 31-Dec-1946 Last Recorded: 31-Dec-1975
Not shown	1162	NW	501700 103900	Site Address: Brook Barn Farm, Littlehampton, Sussex Waste Licence: Yes Site Reference: WD27/248 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: 31-Dec-1970 Last Recorded: 31-Dec-1975
Not shown	1359	N	501800 104200	Site Address: Old Mead Road Tip, Littlehampton, Sussex Waste Licence: Yes Site Reference: 27-329, WD27/151, WD13/12, WD13/79 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge, Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 13-Jun-1977 Licence Surrendered: 13-Oct-1984 Licence Hold Address: - Operator: - First Recorded: 30-Nov-1975 Last Recorded: 12-Oct-1984

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

1

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

ID	Distance (m)	Direction	NGR	Details	
Not shown	1244	SW	501500.0 102200.0	Address: Ferry Rd, Littlehampton, West Sussex BGS Number: 23.0	Risk: Risk not recorded Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

5

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

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	771	SW	502075 102202	Refuse Tip	1967 mapping	Polygon
Not shown	827	SW	502059 102149	Refuse Tip	1967 mapping	Polygon
Not shown	859	SW	501884 102166	Refuse Tip	1969 mapping	Polygon

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	929	SW	501829 102211	Refuse Tip	1969 mapping	Polygon
Not shown	1001	SW	501626 102296	Refuse Tip	1969 mapping	Polygon

3.2 Other Waste Sites

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

4

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

ID	Distance (m)	Direction	NGR	Details		
2	82	NE	502686 102981	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1965	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3A	353	SW	502223 102628	Type of Site: Depot and Destructor Works Site Address: N/A	Planning Application Reference: N/A Date: 1932	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
4A	353	SW	502223 102628	Type of Site: Depot and Destructor Works Site Address: N/A	Planning Application Reference: N/A Date: 1932	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
5A	355	SW	502222 102627	Type of Site: Depot and Destructor Works Site Address: N/A	Planning Application Reference: N/A Date: 1938	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

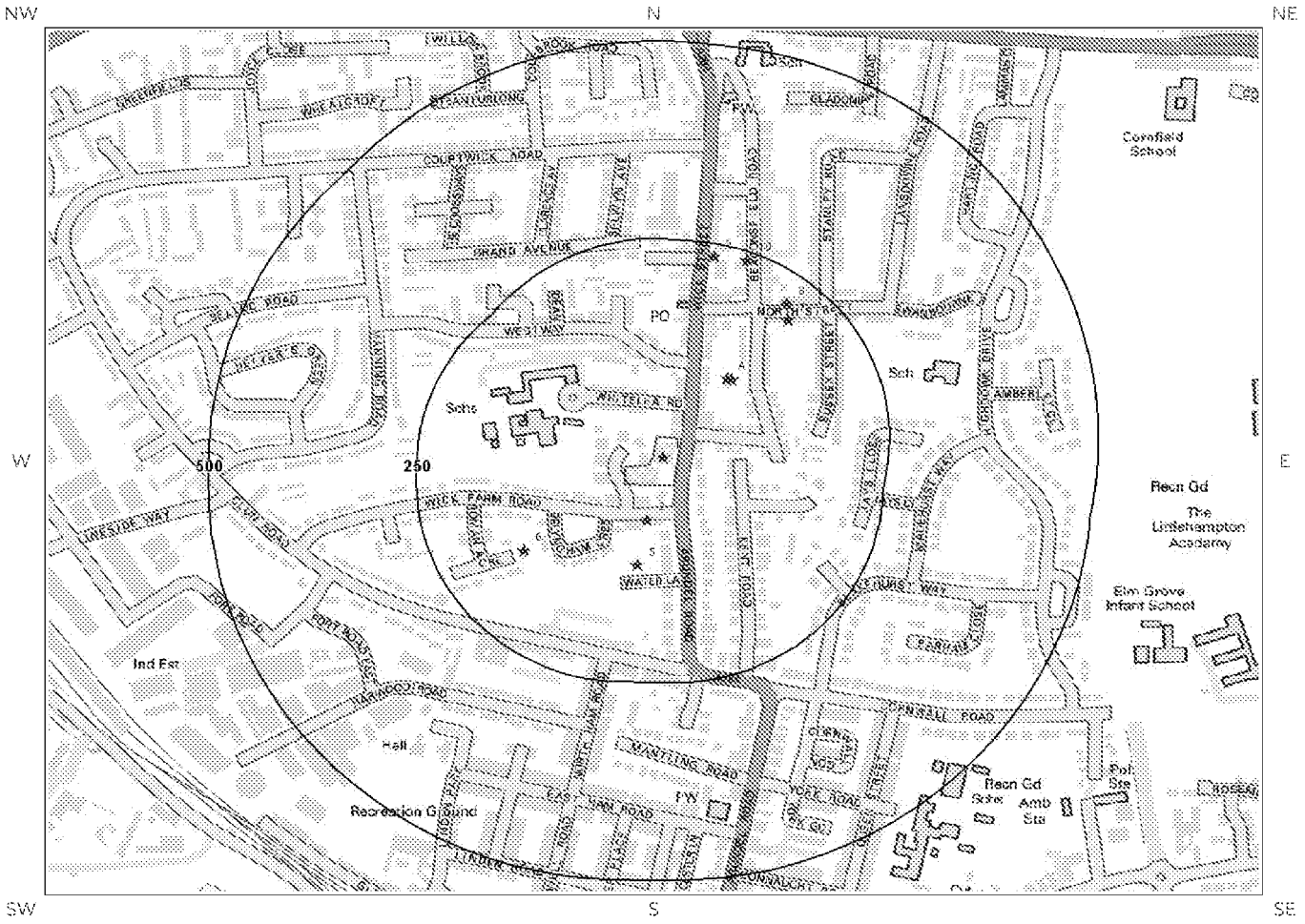
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

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

ID	Distance (m)	Direction	NGR	Details	
13B	328	W	502250 102750	Site Address: Unit A, Fort Road Industrial Estate, Littlehampton, West Sussex, BN17 7QU Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ETH010 EPR reference: CP3196EH/T001 Operator: Ethos Recycling Ltd Waste Management licence No: 10147 Annual Tonnage: 5000.0	Issue Date: 05/07/2006 Effective Date: 06/04/2009 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Fort Road Industrial Estate Clinical Waste Transfer Station Correspondence Address: -, -
14B	328	W	502250 102750	Site Address: Unit A, Fort Road Industrial Estate, Littlehampton, West Sussex, BN17 7QU Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CLI001 EPR reference: - Operator: Cliniserve Ltd Waste Management licence No: 10147 Annual Tonnage: 0.0	Issue Date: 05/07/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Fort Road Industrial Estate Clinical Waste Transfer Station Correspondence Address: -, 35, Bishops Cleeve, Austrey, Atherstone, Warwickshire, CV9 3EU
15B	328	W	502250 102750	Site Address: Unit A, Fort Road Industrial Estate, Littlehampton, West Sussex, BN17 7QU Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ETH013 EPR reference: FP3895LK/T001 Operator: Ethos Medical & Special Waste Ltd Waste Management licence No: 10147 Annual Tonnage: 5000.0	Issue Date: 05/07/2006 Effective Date: 05/03/2010 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Fort Road Industrial Estate Clinical Waste Transfer Station Correspondence Address: -, -
16	512	SW	502092 102646	Site Address: Unit A, Fort Road Industrial Estate, Littlehampton, West Sussex, BN17 7QU Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MED040 EPR reference: EA/EPR/QP3536TW/V004 Operator: Medisort Ltd Waste Management licence No: 10147 Annual Tonnage: 20000.0	Issue Date: 05/07/2006 Effective Date: 01/07/2010 Modified: 17/01/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Littlehampton Waste Treatment Plant Correspondence Address: -, -
Not shown	803	W	501779 102680	Site Address: Units 15/16, Arndale Road, Lineside Ind Est, Littlehampton, West Sussex, BN17 7HD Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SRC001 EPR reference: EA/EPR/EP3490SD/A001 Operator: S R C L Ltd Waste Management licence No: 101116 Annual Tonnage: 74999.0	Issue Date: 23/12/2009 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Littlehampton Waste Facility Correspondence Address: -, -

ID	Distance (m)	Direction	NGR	Details	
Not shown	1183	NE	503400 103800	Site Address: Tulley's Nurseries, Toddington Lane, Wick, Littlehampton, West Sussex, BN17 7PW Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TUL001 EPR reference: EA/EPR/FP3594HD/A001 Operator: K C Tulley Nurseries Ltd Waste Management licence No: 19665 Annual Tonnage: 2000.0	Issue Date: 10/11/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Tulley's Nurseries Correspondence Address: -, -
Not shown	1183	NE	503400 103800	Site Address: Tulley's Nurseries, Toddington Lane, Wick, Littlehampton, West Sussex, BN17 7PW Type: Landfill taking Non-Biodegradeable Wastes Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TUL001 EPR reference: - Operator: K C Tulley Nurseries Ltd Waste Management licence No: 19665 Annual Tonnage: 2000.0	Issue Date: 10/11/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Tulley's Nurseries Correspondence Address: -, 1, Tulley Cottages, Littlehampton, West Sussex, BN17 7PW
Not shown	1327	N	502900 104200	Site Address: Littlehampton H W R C, Mill Lane, Littlehampton, West Sussex, BN17 7PH Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WYV002 EPR reference: - Operator: Wyvern Waste Services Ltd Waste Management licence No: 19684 Annual Tonnage: 26000.0	Issue Date: 01/09/1995 Effective Date: - Modified: 17/11/1999 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Littlehampton Civic Amenity Site Correspondence Address: -, Contract Office - Burgess Hill Transfer Station, Fairbridge Way, Burgess Hill, West Sussex, RH15 8AR
Not shown	1327	N	502900 104200	Site Address: Littlehampton H W R C, Mill Lane, Littlehampton, West Sussex, BN17 7PH Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR008 EPR reference: - Operator: Viridor Waste Management Ltd Waste Management licence No: 19684 Annual Tonnage: 26000.0	Issue Date: 01/09/1995 Effective Date: 28/05/2004 Modified: 17/11/1999 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Littlehampton Civic Amenity Site Correspondence Address: -, Great Western House, Station Approach, Taunton, Somerset, TA1 1QW
Not shown	1327	N	502900 104200	Site Address: Littlehampton H W R C, Mill Lane, Littlehampton, West Sussex, BN17 7PH Type: Household Waste Amenity Site Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR008 EPR reference: EA/EPR/ZP3094HX/V003 Operator: Viridor Waste Management Ltd Waste Management licence No: 19684 Annual Tonnage: 26000.0	Issue Date: 01/09/1995 Effective Date: 28/05/2004 Modified: 11/07/2005 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Littlehampton Civic Amenity Site Correspondence Address: -, -

4. Current Land Use Map



Mapping Sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 10

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Sofa Bed Heaven	502610 102876	131-135, Arundel Road, Littlehampton, BN17 7DH	Beds and Bedding	Consumer Products
2	44	S	Electricity Sub Station	502590 102798	BN17	Electrical Features	Infrastructure and Facilities
3A	94	NE	H D White Ltd	502686 102976	42, Wick Street, Wick, Littlehampton, BN17 7JH	Scrap Metal Merchants	Recycling Services
4A	97	NE	Works	502693 102976	BN17	Unspecified Works Or Factories	Industrial Features
5	101	S	Electricity Sub Station	502579 102741	BN17	Electrical Features	Infrastructure and Facilities
6	147	SW	Ortronics	502443 102759	22, Roman Acre, Wick, Littlehampton, BN17 7HN	Electrical and Electronic Engineers	Engineering Services
7	197	NE	Mark Weston Artist & Sign Writer	502759 103050	16, North Street, Wick, Littlehampton, BN17 6JJ	Signs	Industrial Products
8	213	NE	The Car Surgery Sussex Ltd	502758 103071	9, North Street, Wick, Littlehampton, BN17 6JJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
9	235	N	Going Spare	502671 103131	78, Wick Street, Wick, Littlehampton, BN17 7JS	Vehicle Parts and Accessories	Motoring
10	240	N	Electricity Sub Station	502711 103127	BN17	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

---

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
RTDU	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

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

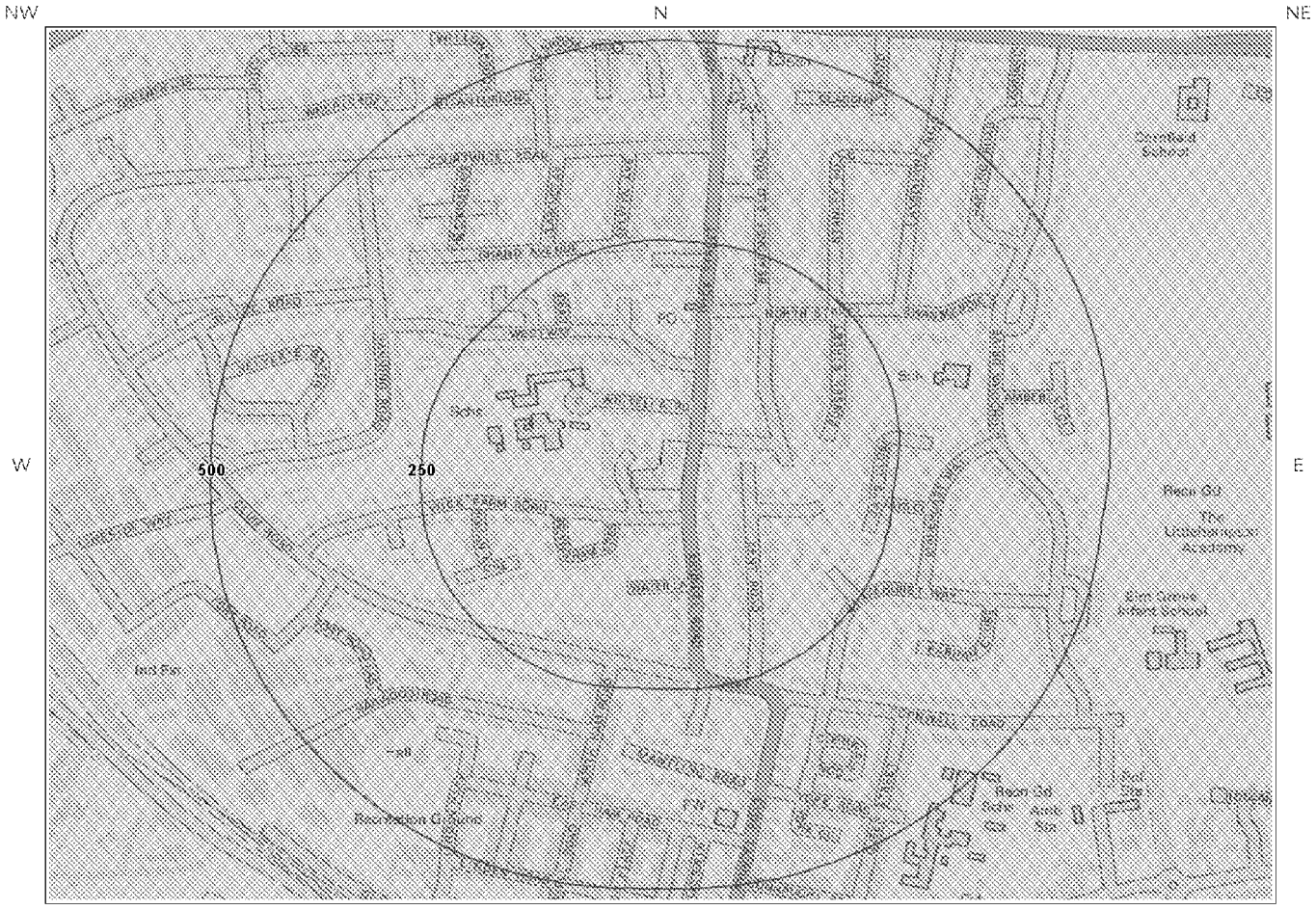
Lex Code	Description	Rock Type
LPCK-CHLK	LEWES NODULAR CHALK FORMATION, SEAFORD CHALK FORMATION, NEWHAVEN CHALK FORMATION, CULVER CHALK FORMATION AND PORTSDOWN CHALK FORMATION (UNDIFFERENTIATED)	CHALK

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

Groundsure
LOCATION INTELLIGENCE

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015
Ordnance Survey license 100035207.

Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

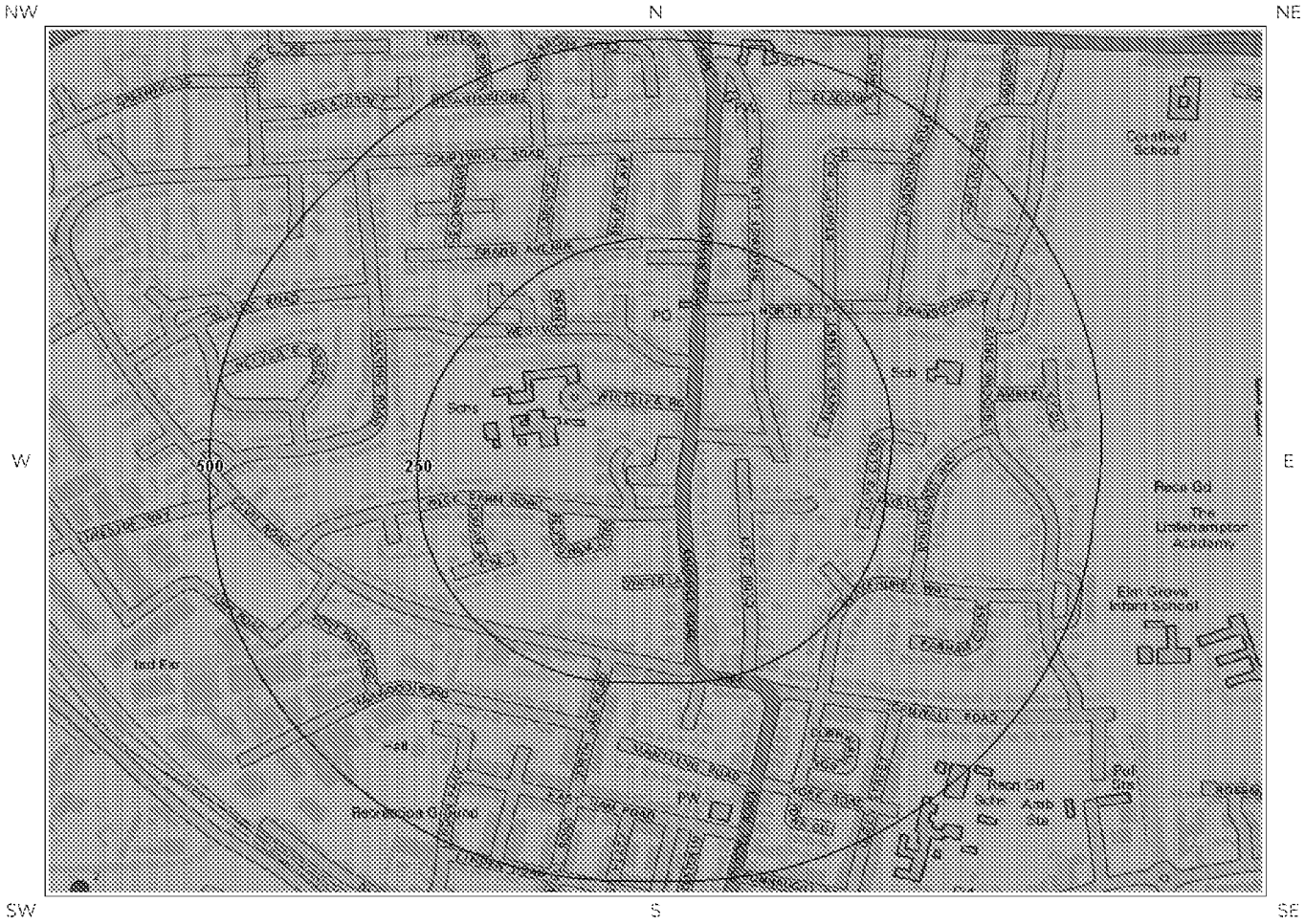
Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

Groundsure
LOCATION INTELLIGENCE

6b. Aquifer Within Bedrock Geology and Abstraction Licenses



Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015
Ordnance Survey license 100035207.

Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

Secondary Aquifer - Undifferentiated Layers

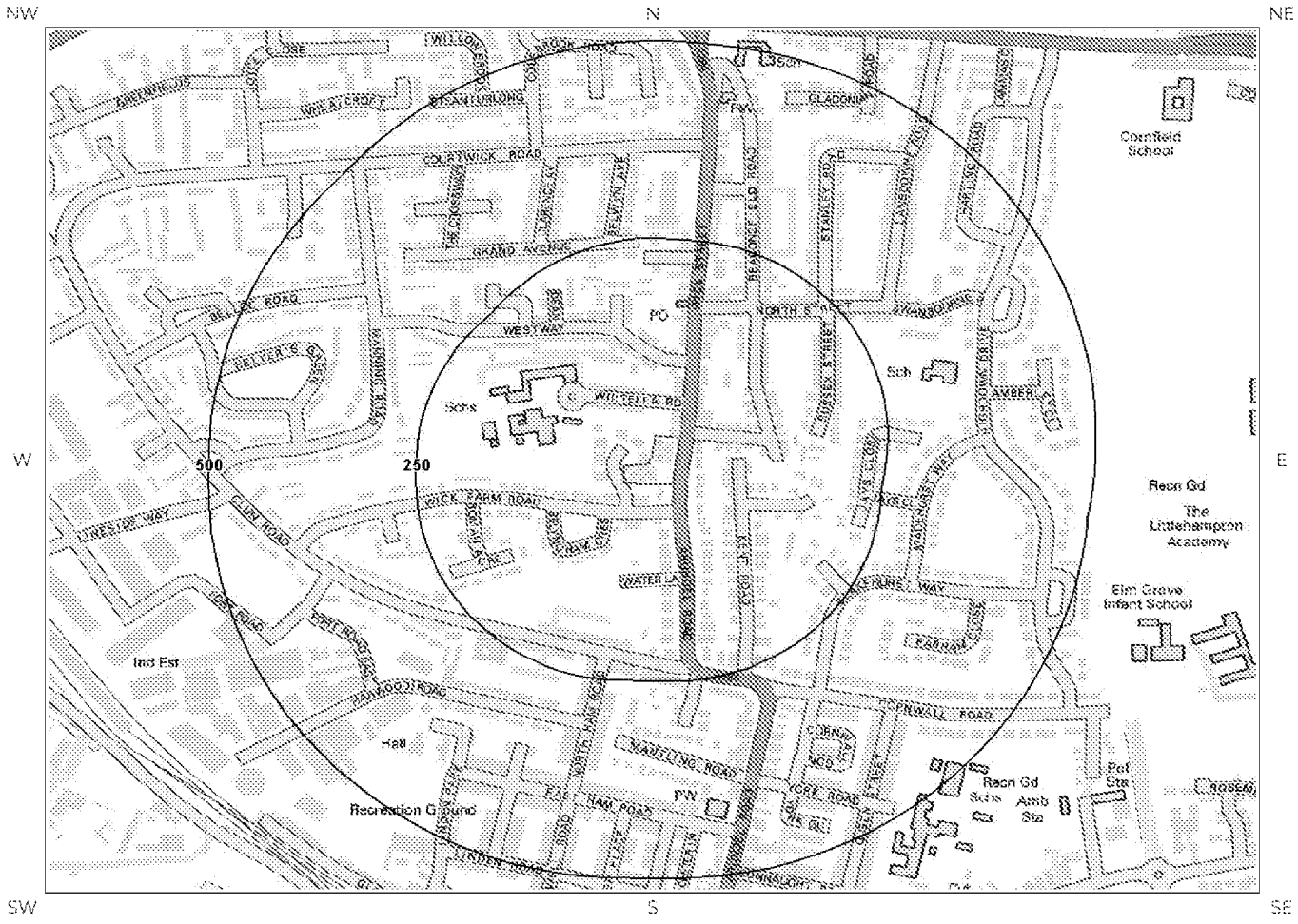
Unproductive

Unknown (lakes and landslip)

Surface Water Abstraction Licence

Groundsure
LOCATION INTELLIGENCE

6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



© Crown copyright and database rights 2015
Ordnance Survey license 100035207.

Site Outline

250 Search Buffers (m)
500

Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2 - Outer Catchment

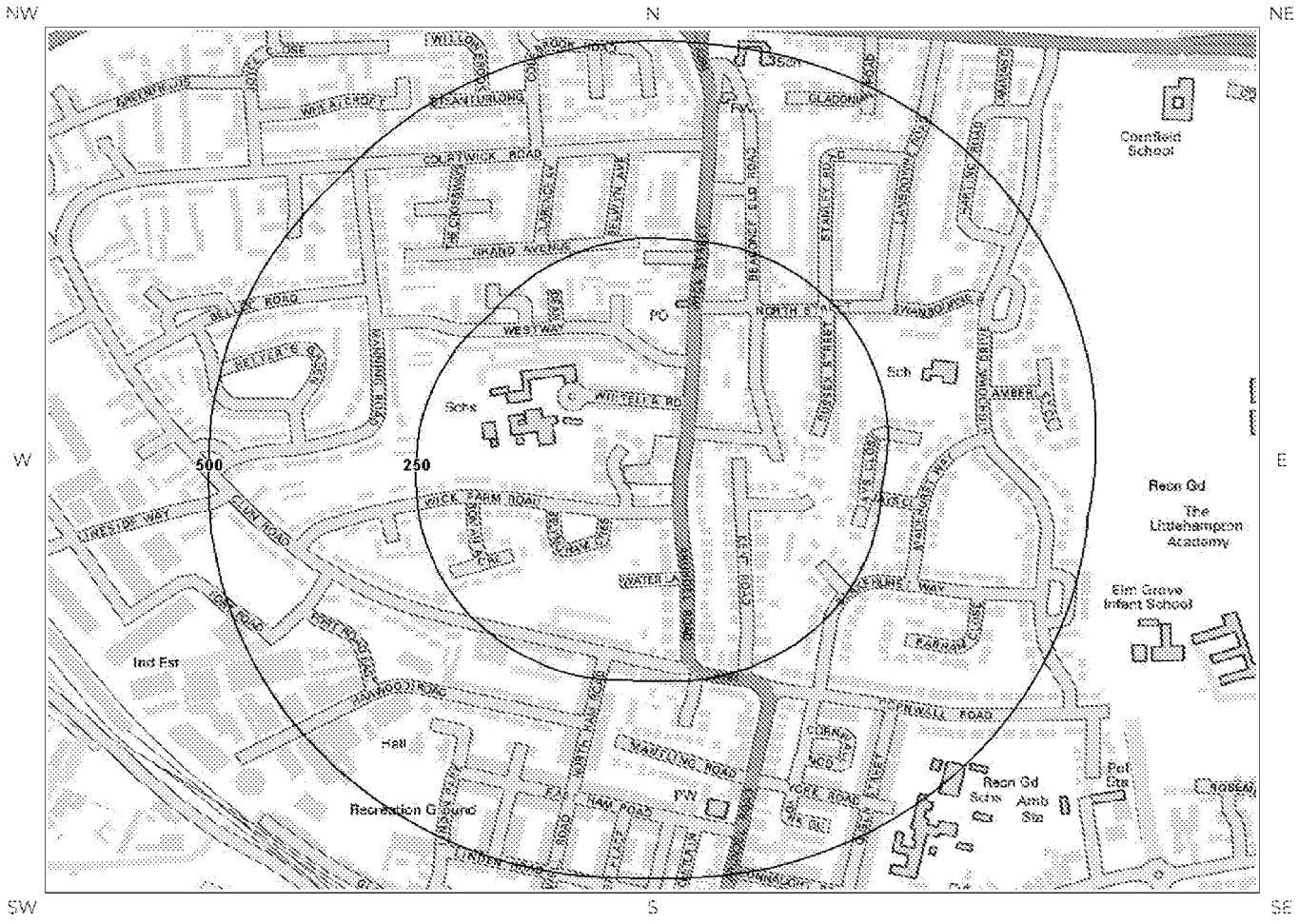
Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

Groundsure
LOCATION INTELLIGENCE

6d. Hydrogeology – Source Protection Zones within confined aquifer



© Crown copyright and database rights 2015
Ordnance Survey license 100035207.

Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

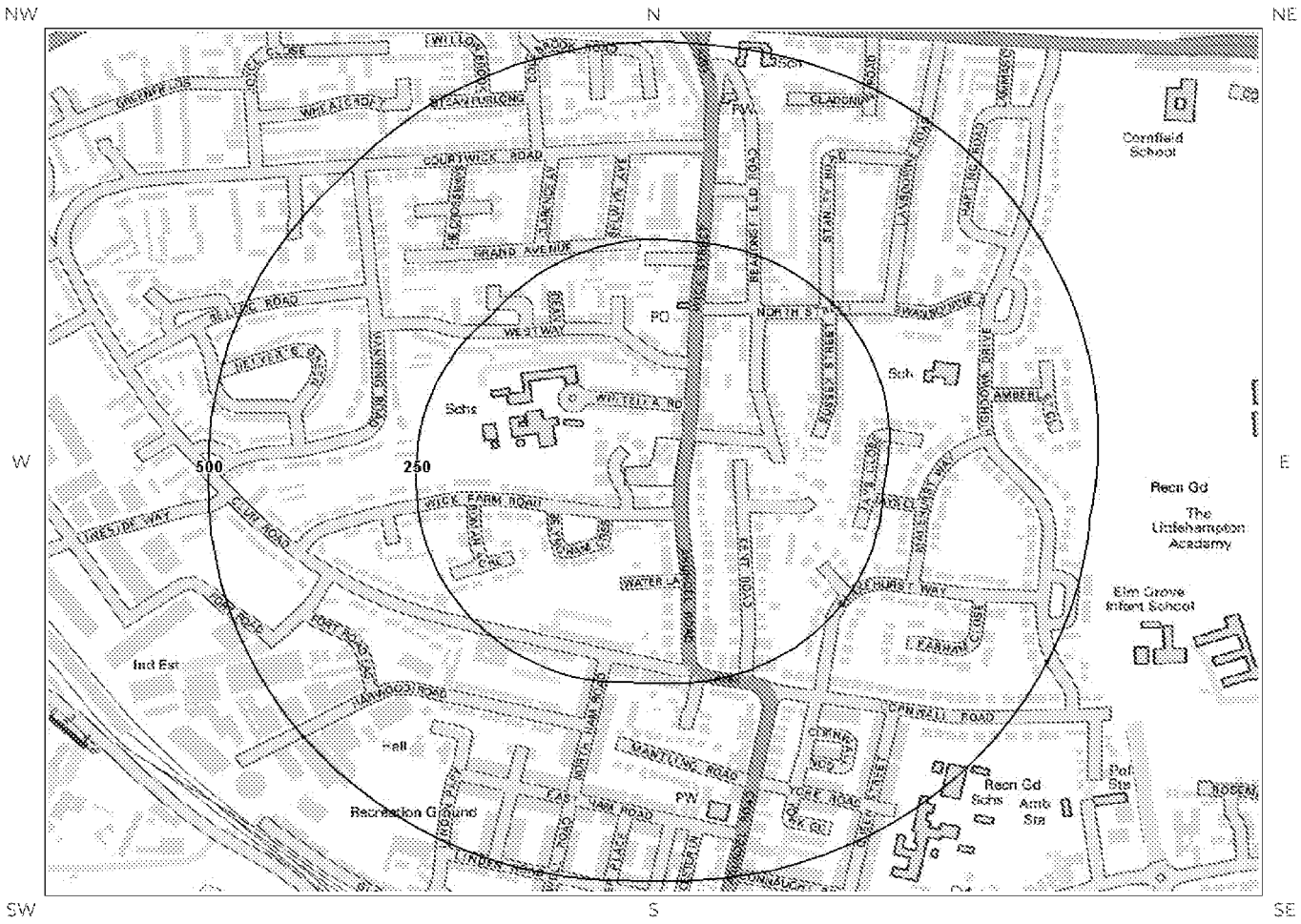
Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

Site Outline

250 — Search Buffers (m)
500

6e. Hydrology – Detailed River Network and River Quality



Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.

Site Outline

250 Search Buffers (m)
500

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry
Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification 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 (6a):

ID	Distance (m)	Direction	Designation	Description
1	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

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification 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 (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
2	831	SW	501910 102330	Status: Historical Licence No: 10/41/411021 Details: General Washing/Process Washing Direct Source: Southern Region Groundwater Point: River Arun Estuary Data Type: Point Name: ARC Ltd (Solent Aggregates Ltd)	Annual Volume (m^3): 39277.4 Max Daily Volume (m^3): 163.65 Original Application No: 169/0538 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 29/10/1997 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	920	NW	502080 103660	Status: Historical Licence No: 10/41/411004 Details: Animal Watering & General Use in non Farming situations Direct Source: Southern Region Groundwater Point: Normans Nurseries Courtwick Lane Data Type: Point Name: Yoder Toddington Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0190 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 6/10/2003 Version End Date:
Not shown	1048	N	502560 103950	Status: Historical Licence No: 10/41/411012 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Borehole At Sandfield Nurseries Data Type: Point Name: Sandfield Plant Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0138 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/11/1999 Version End Date:
Not shown	1058	N	502560 103960	Status: Historical Licence No: 10/41/411012 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Borehole At Sandfield Nurseries Data Type: Point Name: Farfield Plants Limited	Annual Volume (m^3): 16800 Max Daily Volume (m^3): 96 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 102 Version Start Date: 13/11/2006 Version End Date:
Not shown	1059	N	502660 103960	Status: Historical Licence No: 10/41/411012 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Sandfield Nurseries Data Type: Point Name: Sandfield Plant Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0138 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/11/1999 Version End Date:
Not shown	1059	NE	503460 103560	Status: Historical Licence No: 10/41/414025 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Firview Nursery Toddington Lane Data Type: Point Name: Yoder Toddington Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0169 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 17/10/2003 Version End Date:
Not shown	1059	NE	503460 103560	Status: Historical Licence No: 10/41/414025 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Firview Nursery Toddington Lane Data Type: Point Name: Yoder Toddington Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0169 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 17/10/2003 Version End Date:
Not shown	1152	N	502320 104020	Status: Active Licence No: 24/065 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Torri House Data Type: Point Name: Molica Esq	Annual Volume (m^3): 5966 Max Daily Volume (m^3): 25 Original Application No: 169/1450 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:
Not shown	1191	N	502320 104060	Status: Active Licence No: 24/064 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Marina House Data Type: Point Name: Molica Esq	Annual Volume (m^3): 5966 Max Daily Volume (m^3): 25 Original Application No: 169/1449 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1222	N	502240 104070	Status: Historical Licence No: 24/062 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Sandfield Nursery Data Type: Point Name: Molica-Franco	Annual Volume (m^3): 4200 Max Daily Volume (m^3): 25 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 103 Version Start Date: 16/6/2009 Version End Date:
Not shown	1230	NW	501720 103760	Status: Active Licence No: 10/41/411003 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: Court Wick Park Littlehampton Data Type: Point Name: A H Bowerman & Son Ltd	Annual Volume (m^3): 9100 Max Daily Volume (m^3): 45 Original Application No: WR.0050 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:
Not shown	1273	NE	503580 103750	Status: Historical Licence No: 10/41/414019 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Foxdale Nursery Toddington Lane Data Type: Point Name: Yoder Toddington Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0087 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/11/2004 Version End Date:
Not shown	1294	N	503090 104110	Status: Historical Licence No: 24/067 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Borehole At Point 'a' At Kirin Agribo Toddington Nurseries Data Type: Point Name: Kirin Agribo Toddington Ltd	Annual Volume (m^3): 24338 Max Daily Volume (m^3): 228 Original Application No: 1695/0010 Original Start Date: 15/9/2005 Expiry Date: 31/3/2016 Issue No: 1 Version Start Date: 16/6/2009 Version End Date:
Not shown	1354	N	502180 104190	Status: Historical Licence No: 24/059 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Glenvilla Lyminster Data Type: Point Name: Perella	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: 169/1177 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 21/5/1992 Version End Date:
Not shown	1395	NE	503760 103720	Status: Historical Licence No: 10/41/414031 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: Foxdale Nursery Toddington Lane (a) Data Type: Point Name: Yoder Toddington Ltd	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0087 Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 1/11/2004 Version End Date:
Not shown	1618	N	501260 105330	Status: Historical Licence No: 10/41/411010 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: Church Farm Lyminster Data Type: Region Name: Longhurst Esq	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.0612 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/7/1979 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m 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 (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1063	SW	501710 102210	Status: Historical Licence No: 10/41/411016 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: Ryebank Rife And Elmer Rife Data Type: Line Name: Baird	Annual Volume (m^3): 27272 Max Daily Volume (m^3): 1091 Application No: WR.0809 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 8/12/2005 Version End Date:
Not shown	1086	SW	501720 102160	Status: Active Licence No: 10/41/411016 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: Ryebank Rife Data Type: Line Name: James D Baird (Home Farm) Ltd	Annual Volume (m^3): 27272 Max Daily Volume (m^3): 2182 Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 8/6/2009 Version End Date:
Not shown	1474	N	501790 104310	Status: Active Licence No: 10/41/414020 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: Black Ditch At Church Farm Lyminster Data Type: Line Name: Longhurst	Annual Volume (m^3): 9092 Max Daily Volume (m^3): 654.62 Application No: WR.0158 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 8/6/2009 Version End Date:
Not shown	1599	N	501230 105650	Status: Active Licence No: 10/41/411010 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: Church Farm Lyminster Data Type: Region Name: Longhurst Esq	Annual Volume (m^3): 13638 Max Daily Volume (m^3): 654.62 Application No: WR.0612 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 8/6/2009 Version End Date:
Not shown	1678	N	503250 104460	Status: Historical Licence No: 10/41/414014 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: Black Ditch At Manor Farm Data Type: Line Name: Langmead	Annual Volume (m^3): 20548 Max Daily Volume (m^3): 916.5 Application No: WR.0114 Original Start Date: - Expiry Date: 31/10/2006 Issue No: 101 Version Start Date: 1/4/2006 Version End Date:

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? No

Database searched and no data found.

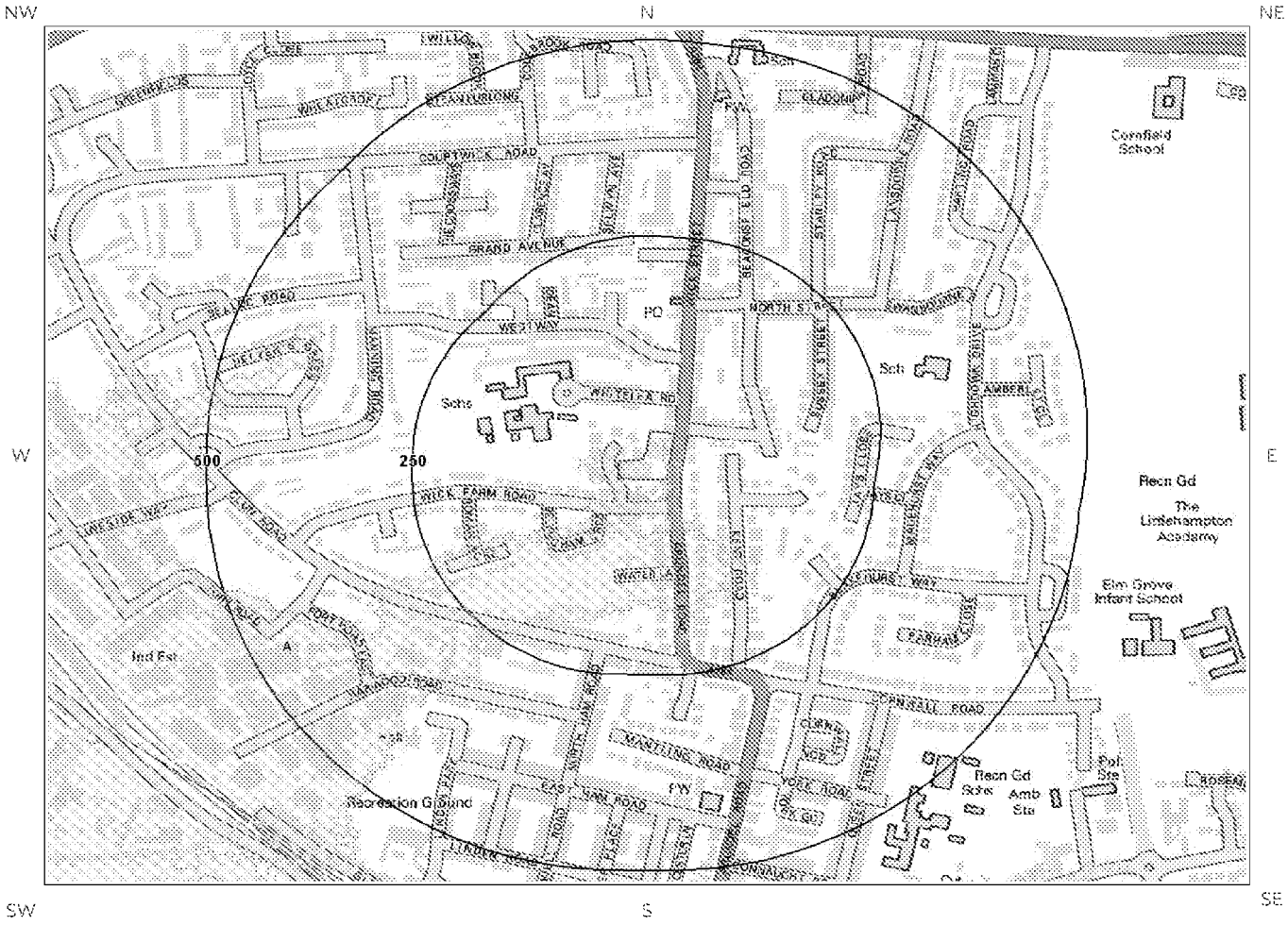
6.11 Surface Water Features

Are there any surface water features within 250m of the study site? No

Database searched and no data found.

Groundsure
LOCATION INTELLIGENCE

7a. Environment Agency Flood Map for Planning (from rivers and the sea)



Mapping extract from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

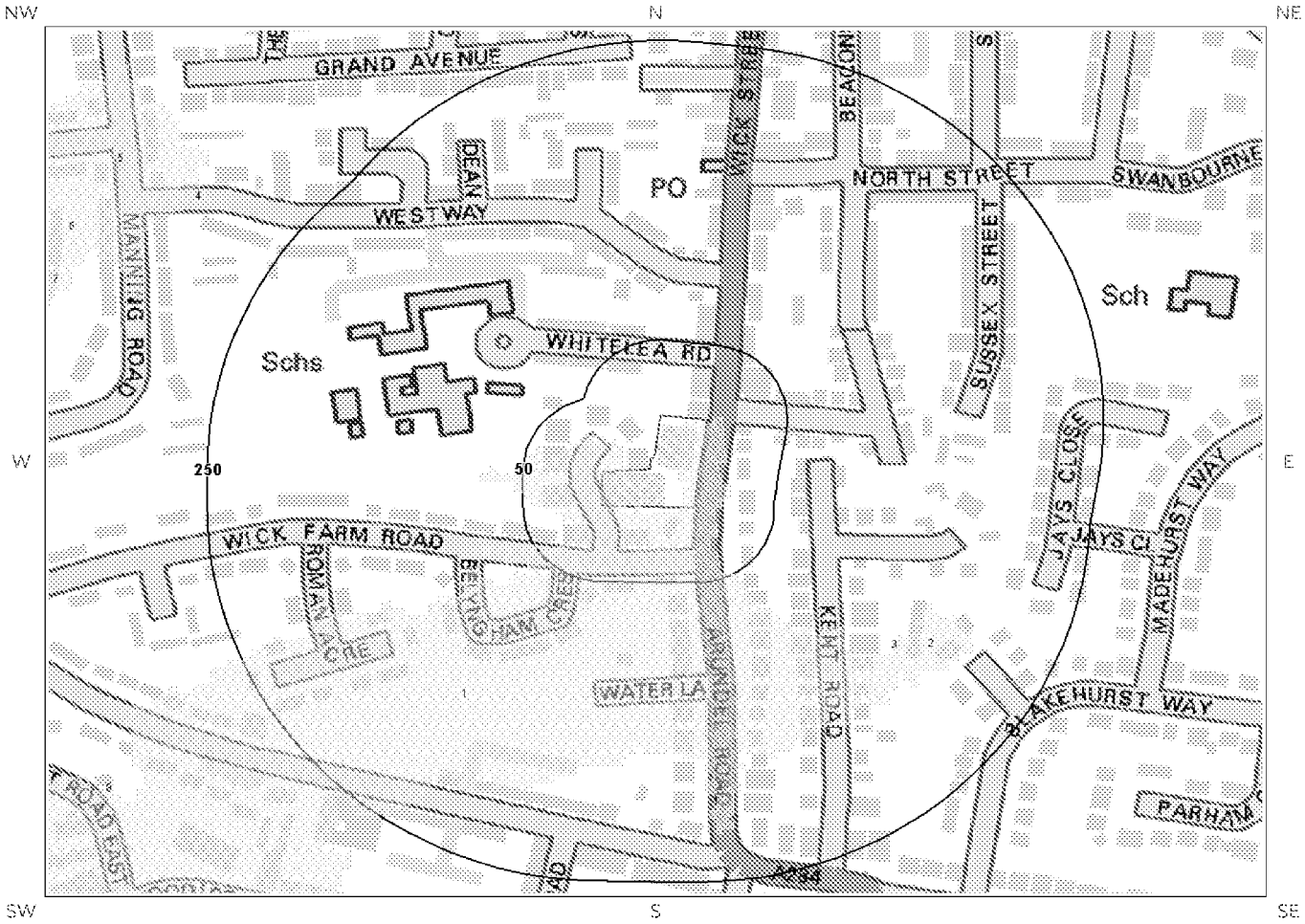
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map



Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.

Site Outline

100 250 Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

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

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1A	0	On Site	18-Jun-2015	Zone 2 - (Fluvial / Tidal Models)

7.2 River and Coastal Zone 3 Flooding

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

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1A	0	E	26-May-2015	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Very Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

---

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

---

7.7 Groundwater Flooding Susceptibility Areas

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

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

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

Potential below Surface

Where potential for groundwater flooding of property situated below ground level is indicated, this means that given the geological conditions there may be a groundwater flooding hazard to basements and other below surface infrastructure. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

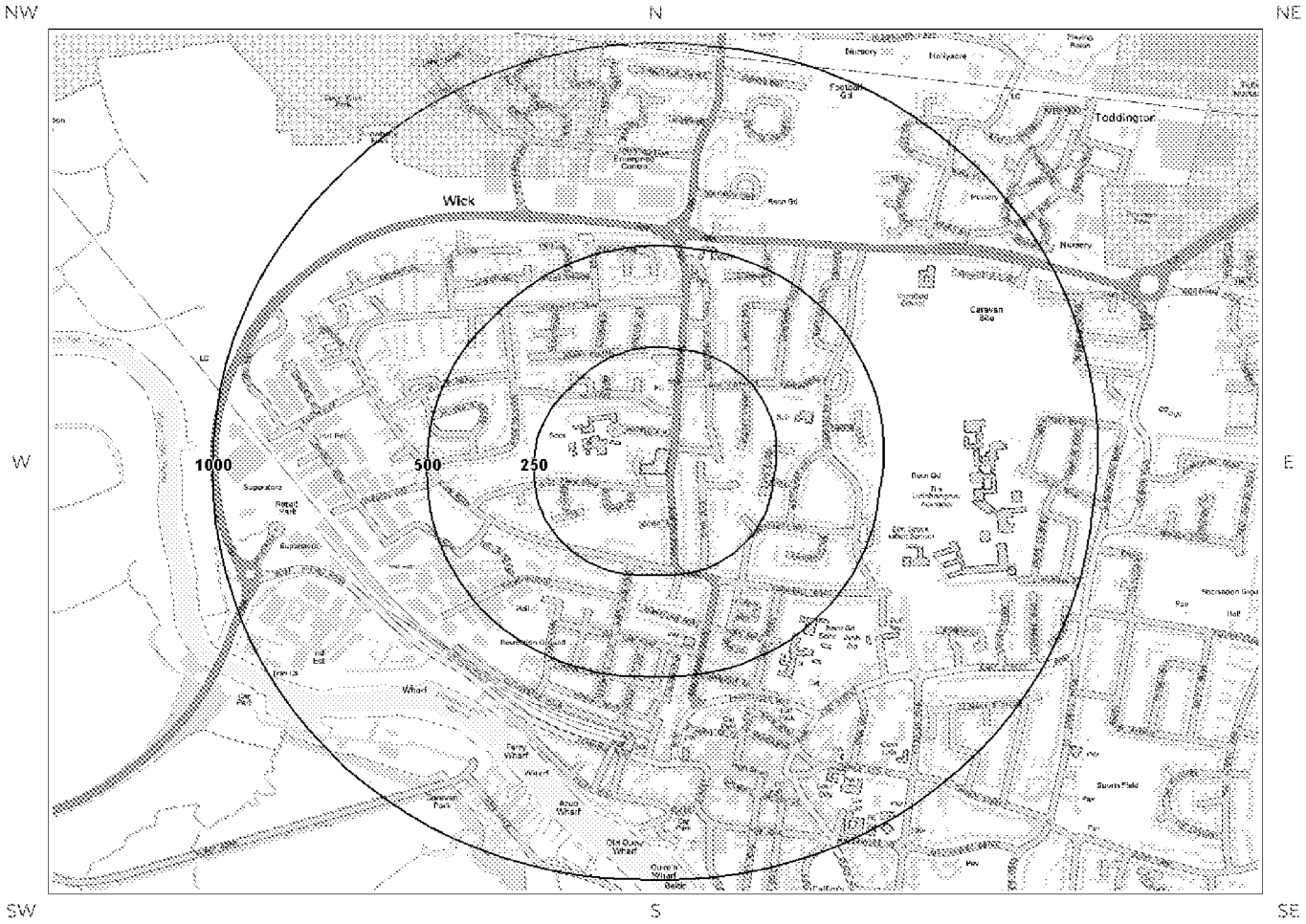
7.8 Groundwater Flooding Confidence Areas

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

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.

8. Designated Environmentally Sensitive Sites Map



Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

100 / 250 Search Buffers (m)

AONB

National Park

SSSI

Special Protection Areas

Nitrate Vulnerable Zones

Green Belt

Environmentally Sensitive Areas

Special Areas of Conservation

World Heritage Sites

Nitrate Sensitive Areas

Ancient Woodland

National Nature Reserve

Local Nature Reserves

Ramsar Sites

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

1

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1671	S	Climping Beach	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
Not shown	1367	S	West Beach	Natural England

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

1

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
3	689	N	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 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:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell* 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
Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

9.1.2 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.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* 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
Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* 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 compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* 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
Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.

9.1.6 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 Ö 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 Ö no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 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.

* This indicates an automatically generated 50m buffer and site.

9.2.2 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?	No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Not available	Chalk	Occasional minor mining may have occurred but of restricted extent.

Past underground mine workings are uncommon, localised and of limited area. The rock types present in this area are such that minor mineral veins may be present within them on which it is possible that there have been attempts to work these by underground methods and/or it is possible that small scale underground extraction of other materials may have occurred. All such occurrences are likely to be restricted in size and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

[redacted]

Groundsure
LOCATION INTELLIGENCE

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

Public Health England

The Coal Authority

Mapping sourced from Ordnance Survey®

getmapping®

Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England who retain the Copyright and Intellectual Property Rights for the data.
PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028].
This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with Groundsure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 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 writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(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, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and

frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. 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 (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

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

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, 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 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;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person 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: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 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 term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) 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 and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) 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 or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, 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.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 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 Third Party Data Providers;

(viii) changes in law; or

(ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 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.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 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.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. **© Groundsure Limited June 2013**

Groundsure
LOCATION INTELLIGENCE

Delta-Simons

3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR

Groundsure Reference:	GS-2313718
Your Reference:	DS25567
Report Date	30 Jul 2015
Report Delivery Method:	Email - pdf

Groundsure Geoinsight

Address: 131-135, ARUNDEL ROAD, LITTLEHAMPTON, BN17 7DH

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

[redacted]

Managing Director
Groundsure Limited

Enc.
Groundsure Geoinsight

Groundsure Geoinsight

Address:	131-135, ARUNDEL ROAD, LITTLEHAMPTON, BN17 7DH
Date:	30 Jul 2015
Reference:	GS-2313718
Client:	Delta-Simons

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	13-Sep-2012
Grid Reference:	502609,102868
Site Size:	0.25ha

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

Contents Page

Overview of Findings 5
1 Geology 8
1.1 Artificial Ground Map 8
1 Geology 9
1.1 Artificial Ground 9
1.1.1Artificial/ Made Ground 9
1.1.2 Permeability of Artificial Ground 9
1.2 Superficial Deposits and Landslips Map 10
1.2 Superficial Deposits and Landslips 11
1.2.1 Superficial Deposits/ Drift Geology 11
1.2.2 Permeability of Superficial Ground 11
1.2.3 Landslip 11
1.2.4 Landslip Permeability 12
1.3 Bedrock and Faults Map 13
1.3 Bedrock, Solid Geology & Faults 14
1.3.1 Bedrock/ Solid Geology 14
1.3.2 Permeability of Bedrock Ground 14
1.3.3 Faults 14
1.4 Radon Data 15
1.4.1 Radon Affected Areas 15
1.4.2 Radon Protection 15
2 Ground Workings Map 16
2 Ground Workings 17
2.1 Historical Surface Ground Working Features derived from Historical Mapping 17
2.2 Historical Underground Working Features derived from Historical Mapping 17
2.3 Current Ground Workings 17
3 Mining, Extraction & Natural Cavities Map 19
3 Mining, Extraction & Natural Cavities 20
3.1 Historical Mining 20
3.2 Coal Mining 20
3.3 Johnson Poole and Bloomer 20
3.4 Non-Coal Mining 21
3.5 Non-Coal Mining Cavities 21
3.6 Natural Cavities 21
3.7 Brine Extraction 21
3.8 Gypsum Extraction 22
3.9 Tin Mining 22
3.10 Clay Mining 22
4 Natural Ground Subsidence 23
4.1 Shrink-Swell Clay Map 23
4.2 Landslides Map 24
4.3 Ground Dissolution Soluble Rocks Map 25
4.4 Compressible Deposits Map 26
4.5 Collapsible Deposits Map 27
4.6 Running Sand Map 28
4 Natural Ground Subsidence 29
4.1 Shrink-Swell Clays 29
4.2 Landslides 29
4.3 Ground Dissolution of Soluble Rocks 29

4.4 Compressible Deposits....30
4.5 Collapsible Deposits....30
4.6 Running Sands....30
5 Borehole Records Map....31
5 Borehole Records....32
6 Estimated Background Soil Chemistry....33
7 Railways and Tunnels Map....34
7 Railways and Tunnels....35
7.1 Tunnels....35
7.2 Historical Railway and Tunnel Features....35
7.3 Historical Railways....36
7.4 Active Railways....36
7.5 Railway Projects....36

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

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.

Section 1:Geology		
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 and 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?	No
1.4 Radon data	1.4.1 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
	1.4.2 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

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	2	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	0	2	5

ARUN DISTRICT COUNCIL LU/316/16/DOC

Section 3:Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	3
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	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

Section 4:Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Low
4.2 Landslides	Very Low
4.3 Ground Dissolution of Soluble Rocks	Very Low
4.4 Compressible Deposits	Negligible
4.5 Collapsible Deposits	Low
4.6 Running Sand	Low

Section 5:Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	0	0	0

Section 6:Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	1	0	4

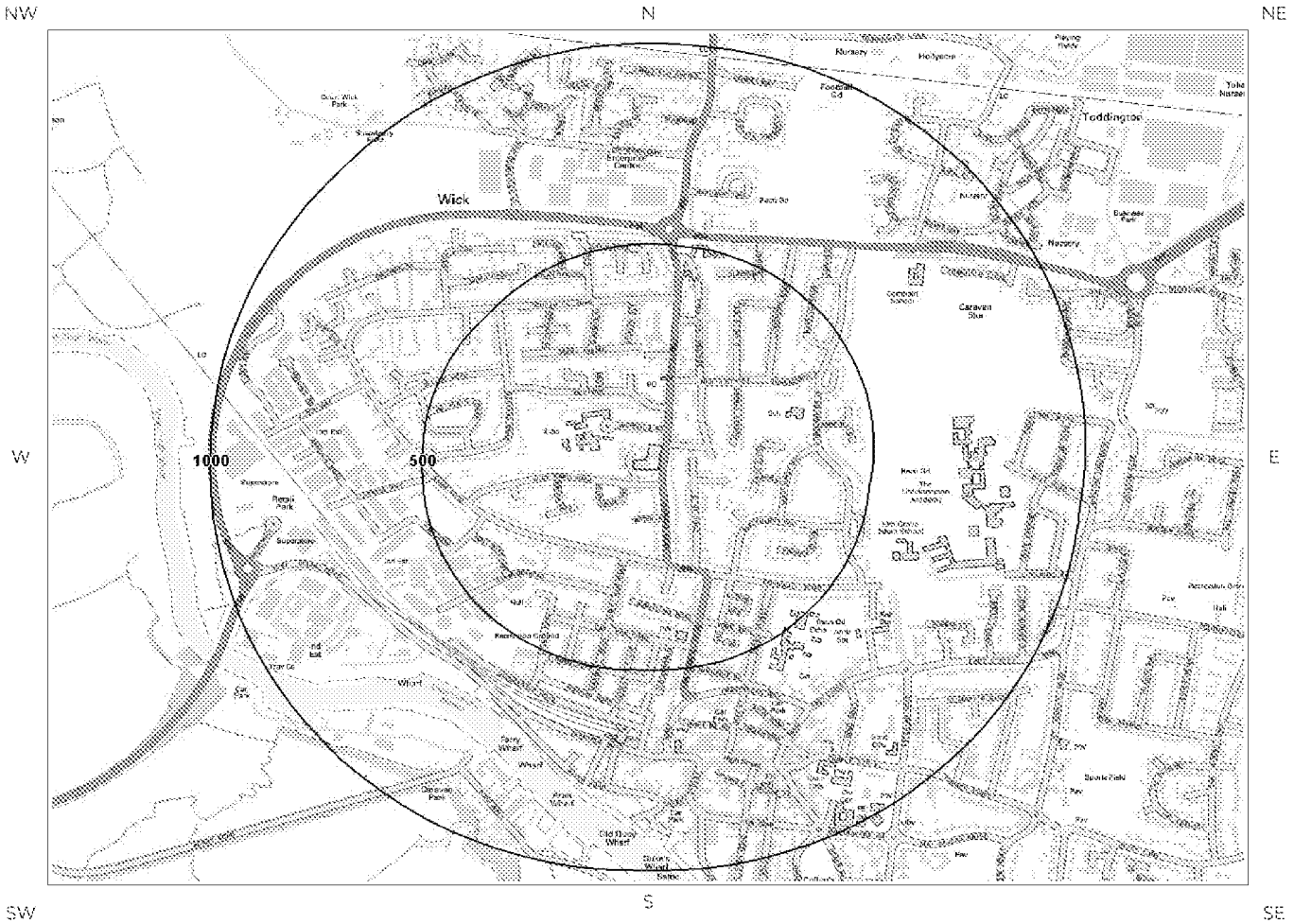
Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.1 Tunnels	0	0	0	Not Searched
7.2 Historical Railway and Tunnel Features	0	0	0	Not Searched
7.3 Historical Railways	0	0	0	Not Searched
7.4 Active Railways	0	0	0	Not Searched

Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

ARUN DISTRICT COUNCIL LU/316/16/DOC

1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

ARUN DISTRICT COUNCIL LU/316/16/DOC

1 Geology

1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:332

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

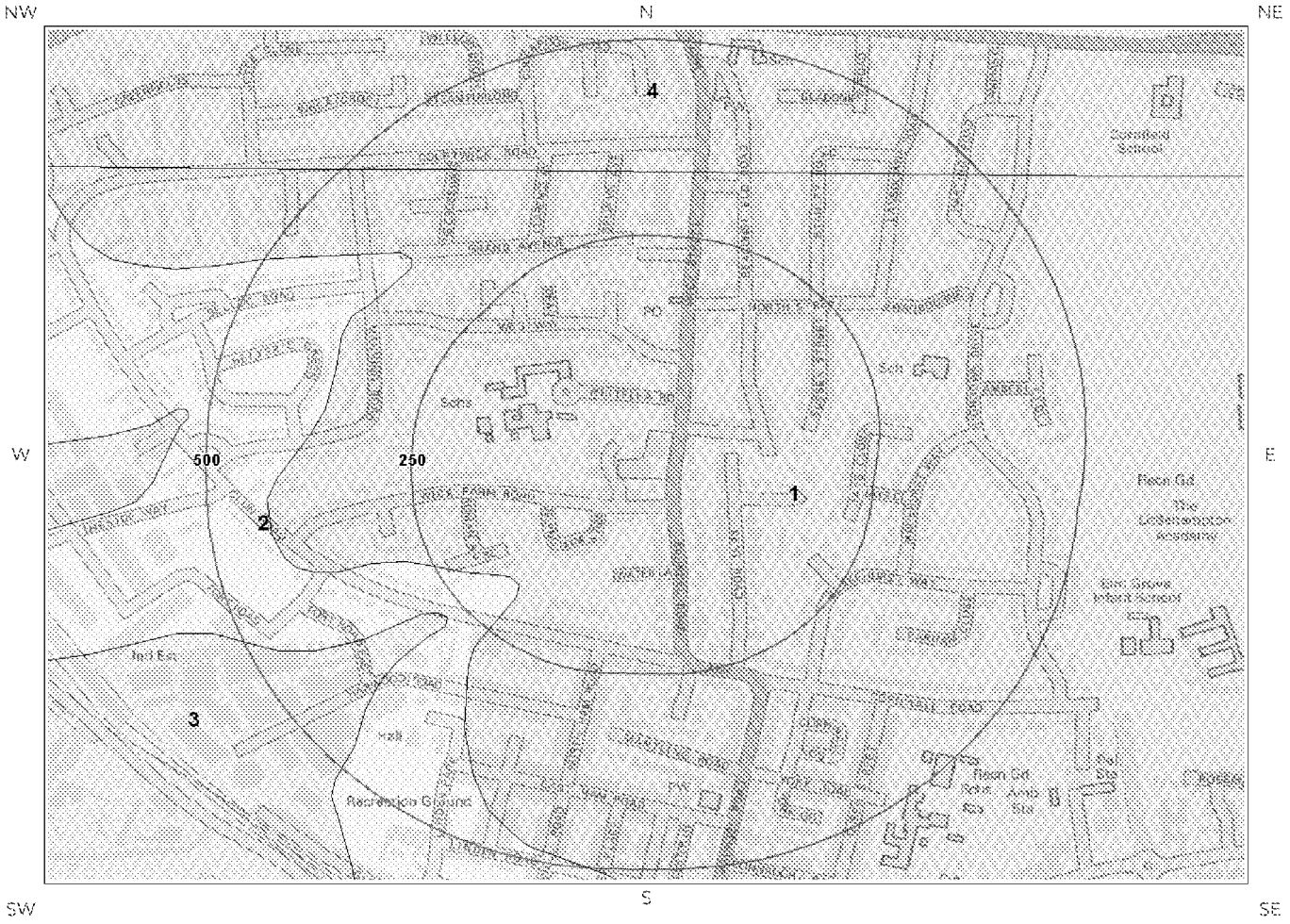
Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend

Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

500
1000
Search Buffers (m)

ARUN DISTRICT COUNCIL LU/316/16/DOC

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	RTDU	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY [UNLITHIFIED DEPOSITS CODING SCHEME]
2	182.0	SW	RBD1	RAISED BEACH DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	274.0	SW	RMD	RAISED MARINE DEPOSITS	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	331.0	N	RTDU	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY [UNLITHIFIED DEPOSITS CODING SCHEME]

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	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.

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.

ARUN DISTRICT COUNCIL LU/316/16/DOC

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.

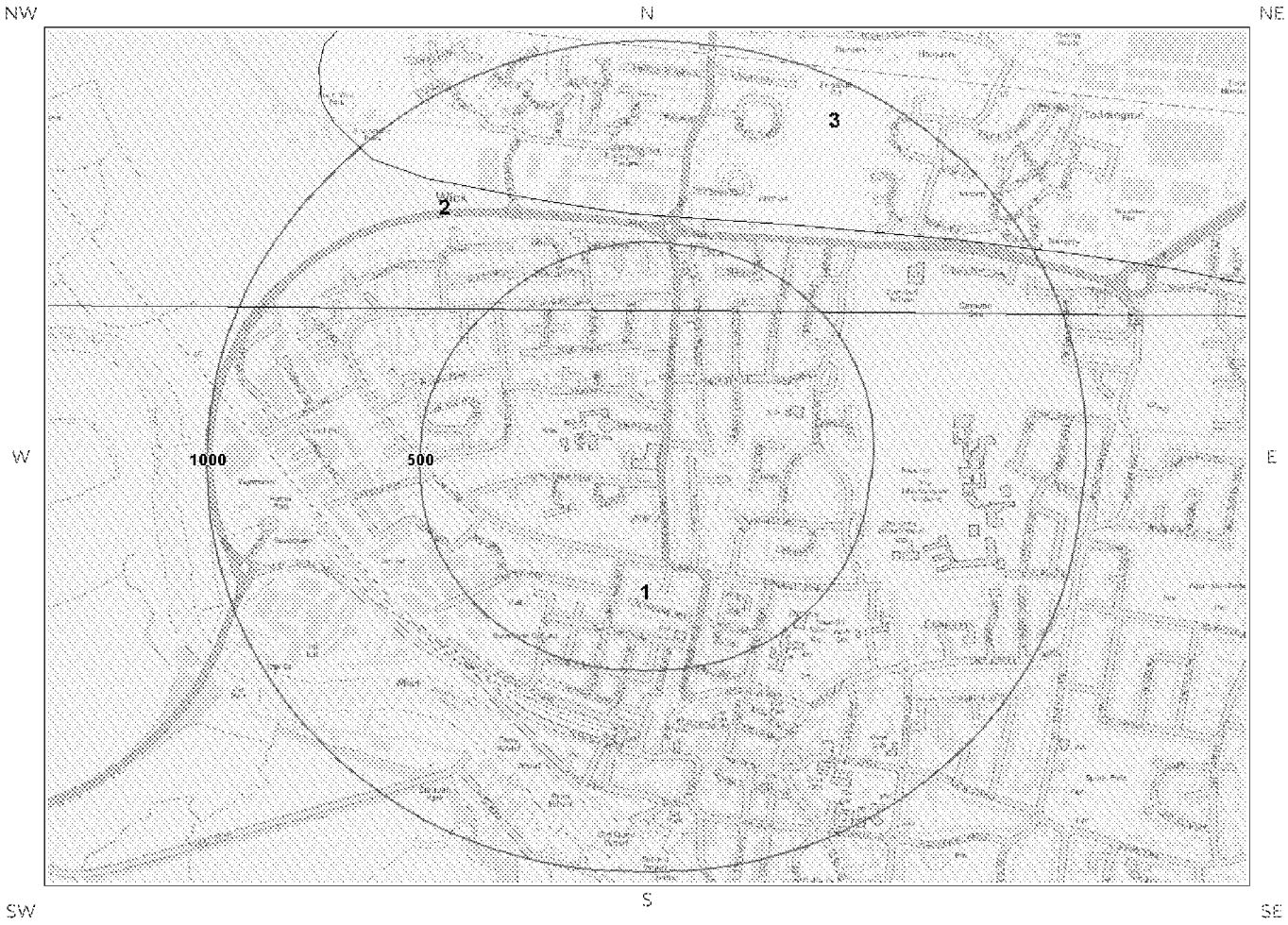
---

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

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

Maps data sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

500
1000
Search Buffers (m)

ARUN DISTRICT COUNCIL LU/316/16/DOC

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:332

1.3.1 Bedrock/ Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LPCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation And Portsdown C	Campanian / Turonian
2	331.0	N	LPCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation And Portsdown C	Campanian / Turonian

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	Very High	Very High

1.3.3 Faults

Are there any records of Faults 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: 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.

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

ARUN DISTRICT COUNCIL LU/316/16/DOC

1.4 Radon Data

1.4.1 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

---

1.4.2 Radon Protection

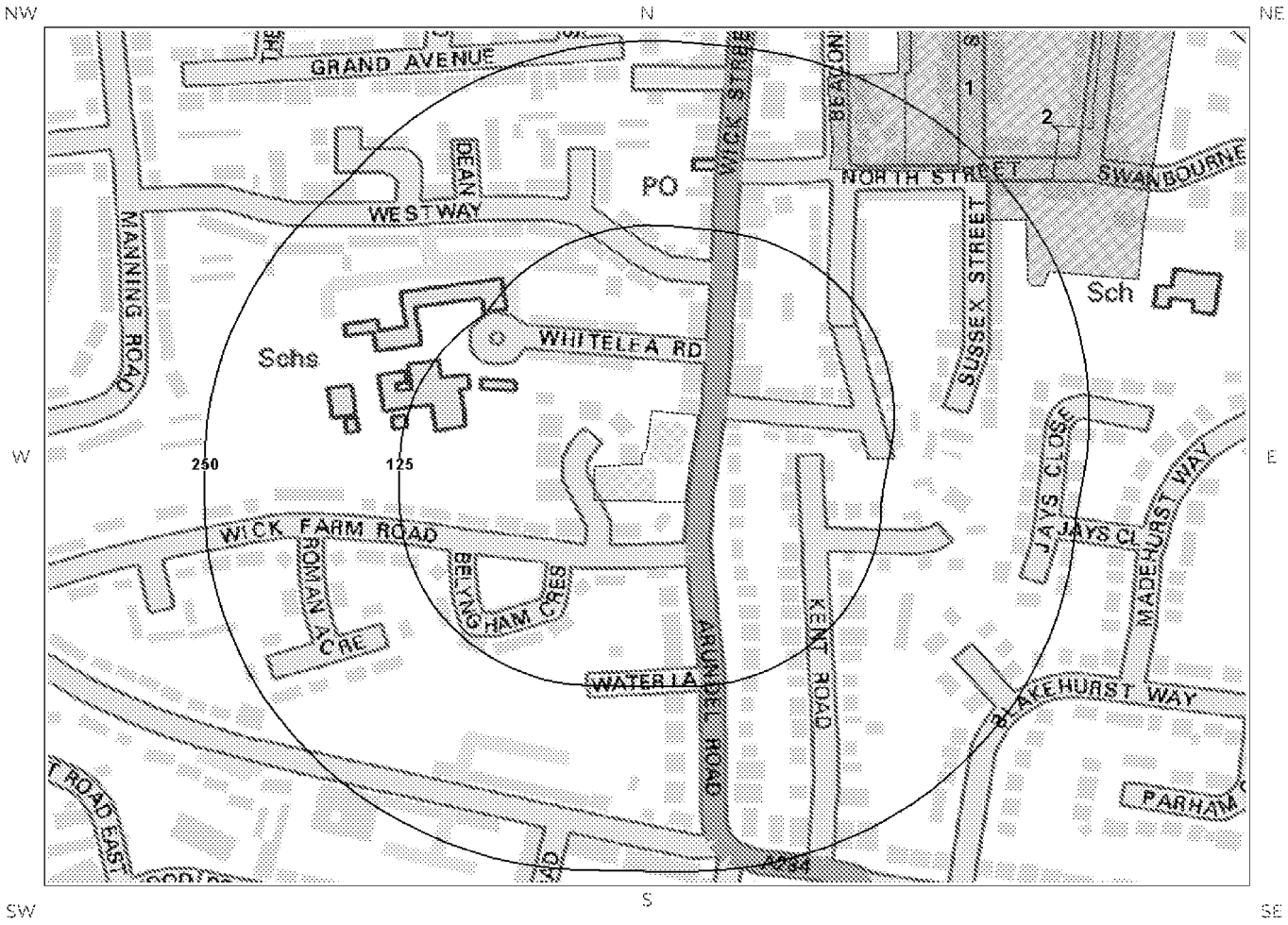
is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

---

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

2 Ground Workings Map



Ground Workings Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

Search Buffers (m)

Historic Surface Ground Workings

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
1	186.0	NE	502804 103171	Brick Works	1896
2	213.0	NE	502842 103162	Brick Field	1910

2.2 Historical Underground Working 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? No

Database searched and no data found.

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 Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	368.0	NE	502830 103210	Clay & Shale	Worthing Road Brickfield	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

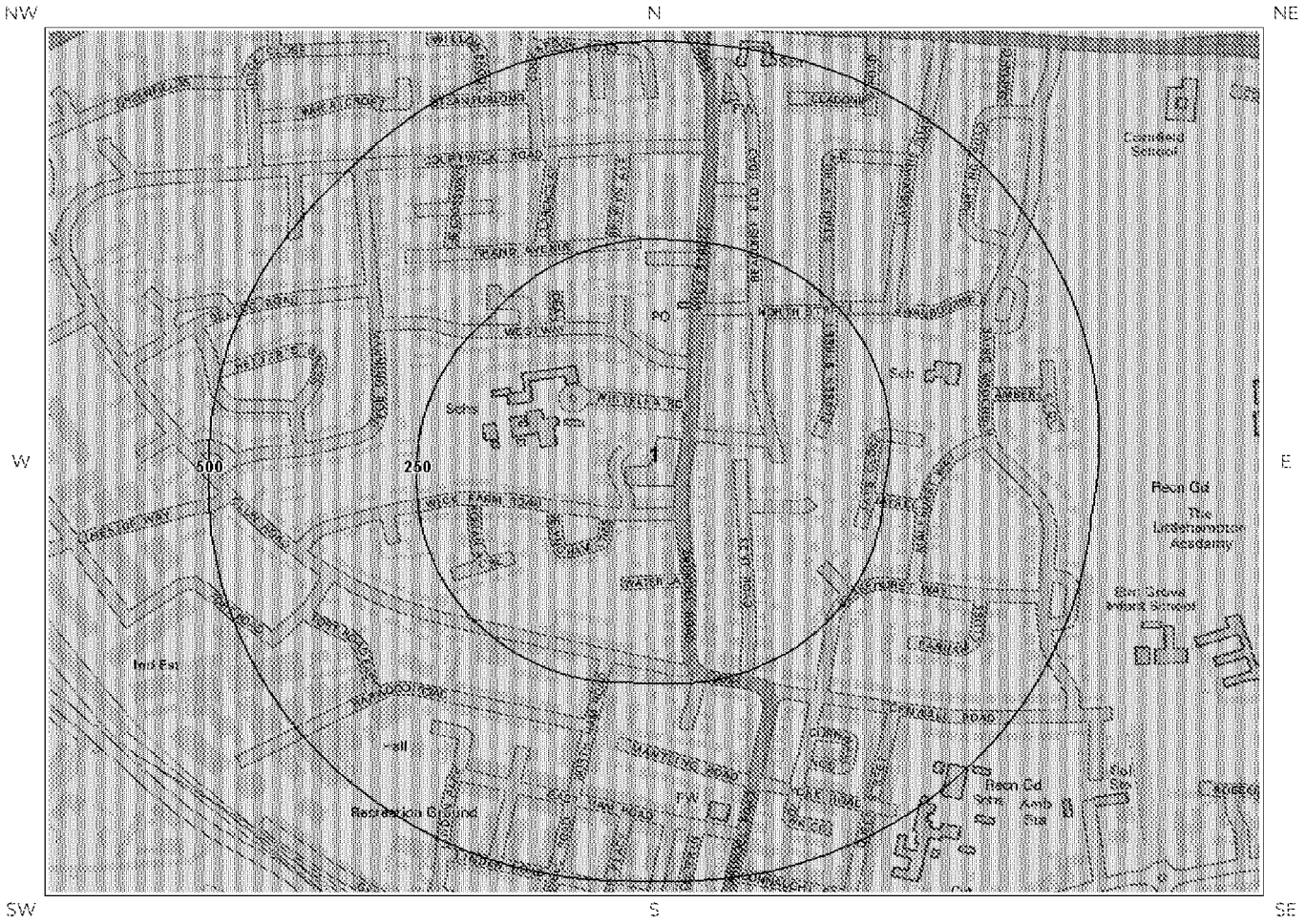
ARUN DISTRICT COUNCIL LU/316/16/DOC

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	427.0	S	502590 102415	Clay & Shale	Littlehampton Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	550.0	NE	503010 103300	Clay & Shale	Worthing Road Brickfield	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	660.0	N	502856 103521	Clay & Shale	Wick Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	698.0	SW	502080 102340	Crushed Rock	Railway Wharf	Sea, river or canal wharf where mineral commodities are unloaded and stored	Active
Not shown	726.0	SW	502040 102340	Marine Sand & Gravel	Littlehampton Quay	Sea, river or canal wharf where mineral commodities are unloaded and stored	Ceased
Not shown	768.0	NE	503325 103230	Clay & Shale	Toddington Brickfield	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.

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
Not shown	951.0	S	502694 101864	Coal Wharf	1910
Not shown	957.0	S	502703 101857	Coal Wharf	1876
Not shown	957.0	S	502703 101857	Coal Wharf	1876

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? No

Database searched and no data found.

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 and no data found.

ARUN DISTRICT COUNCIL LU/316/16/DOC

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? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	Occasional minor mining may have occurred but of restricted extent.

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 data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

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

Database searched and no data found.

ARUN DISTRICT COUNCIL LU/316/16/DOC

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.

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.

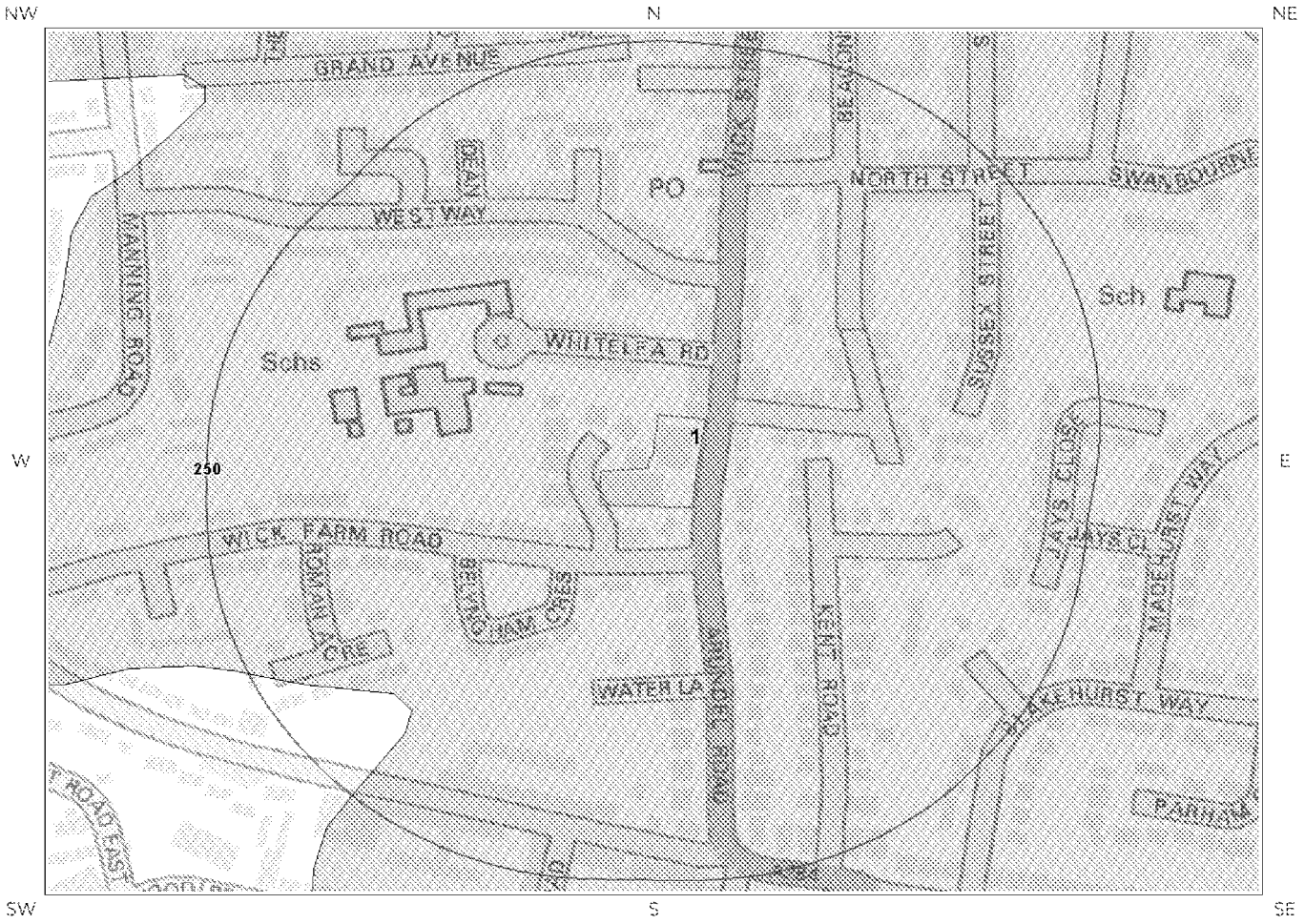
Are there any Clay Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

ARUN DISTRICT COUNCIL LU/316/16/DOC

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map



Shrink Swell Clay Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

Search Buffers (m)

No Data / Null

Negligible

Very Low

Low

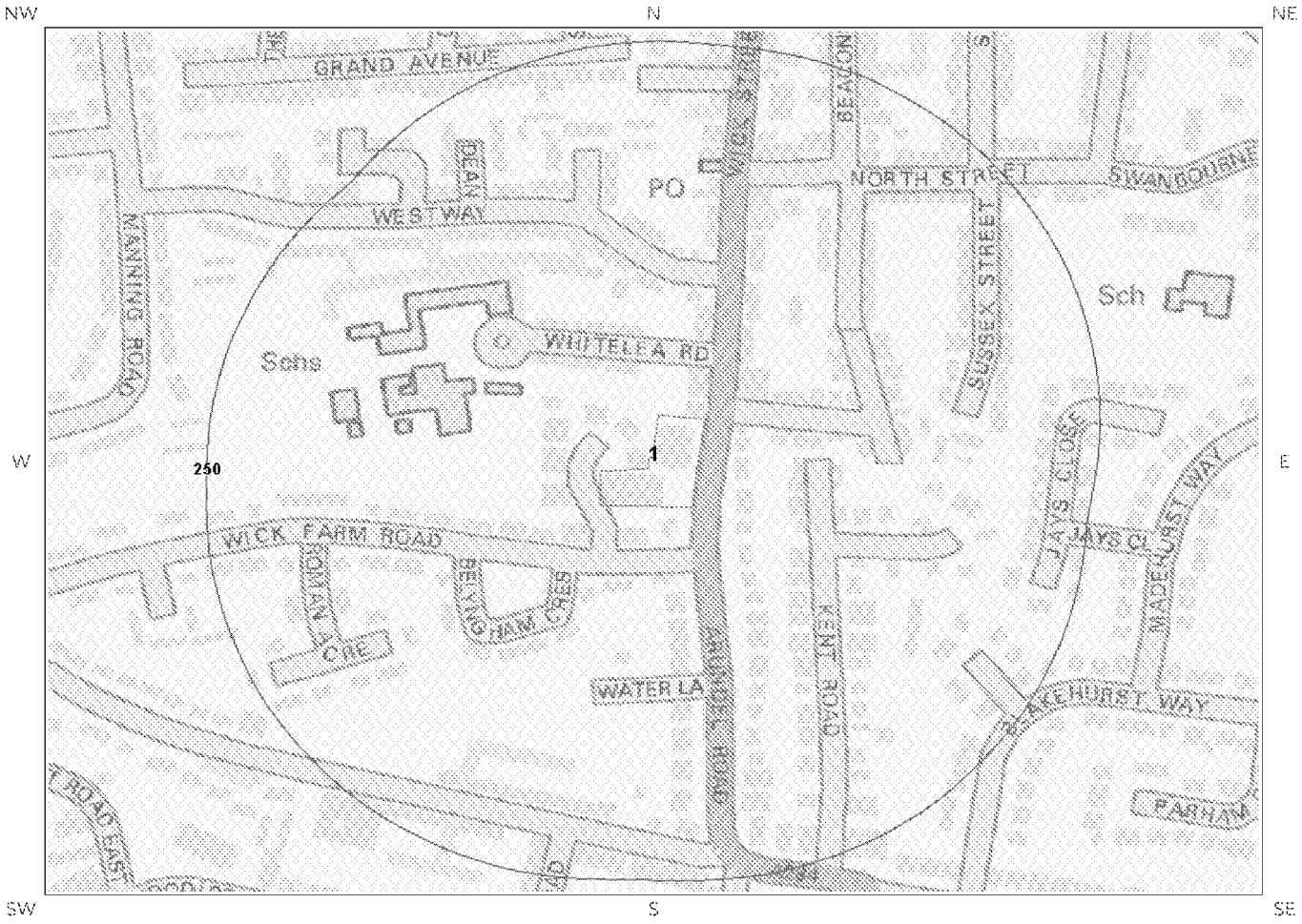
Moderate

High

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

4.2 Landslides Map



Landslides Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

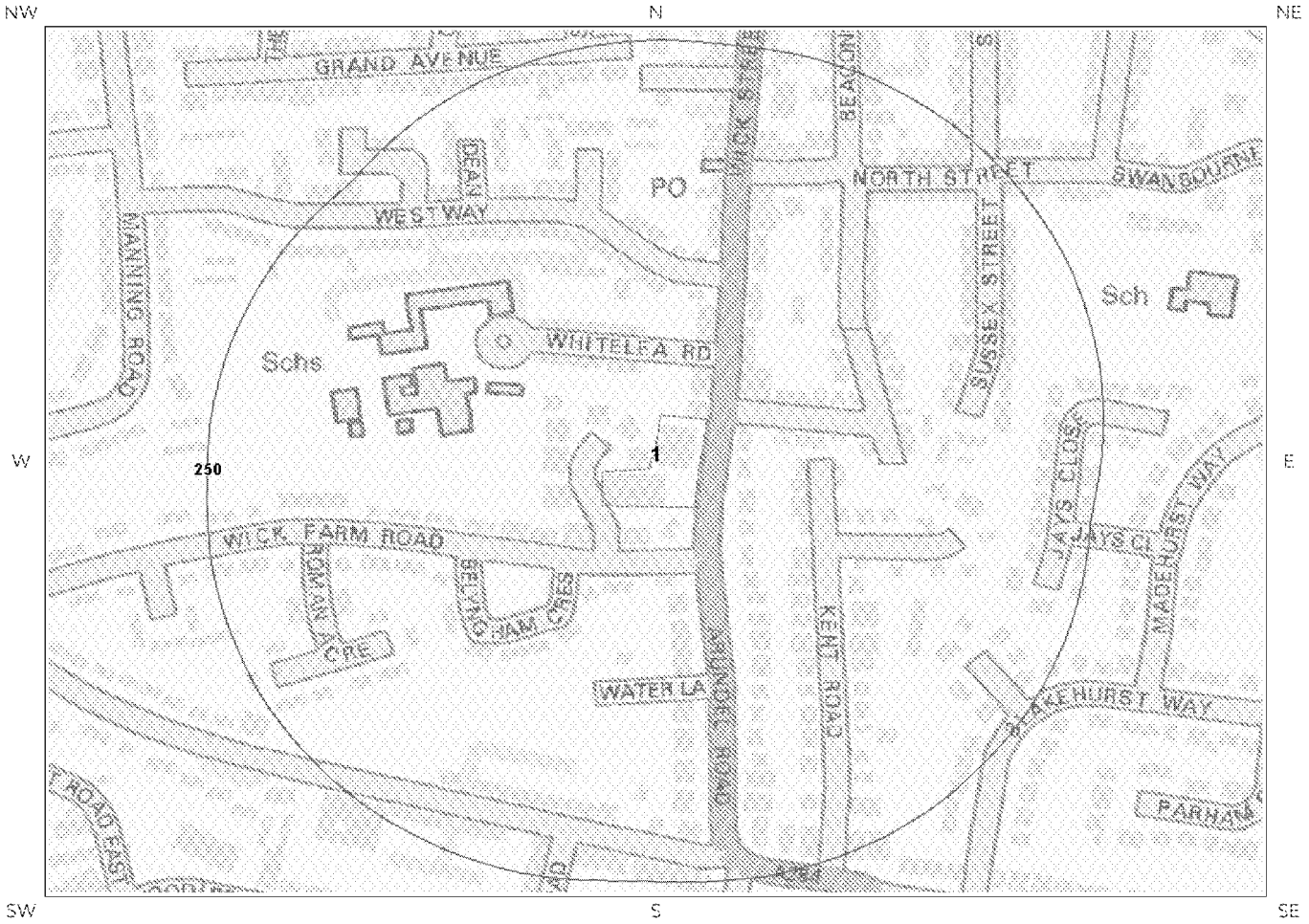
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.3 Ground Dissolution Soluble Rocks Map



Ground Dissolution Soluble Rocks Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015. Ordnance Survey license 100035207.

Site Outline

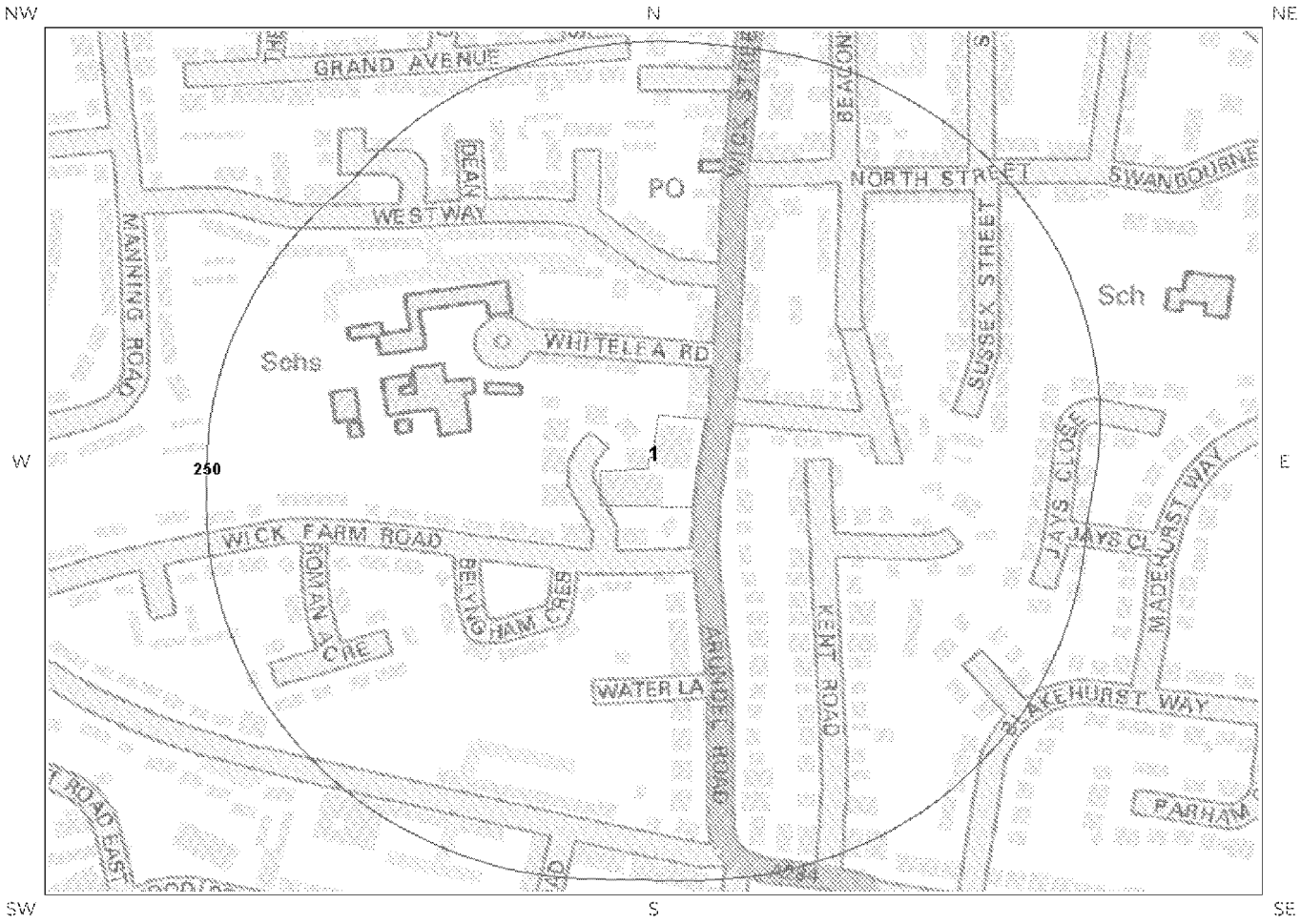
125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

Groundsure
LOCATION INTELLIGENCE

4.4 Compressible Deposits Map



Compressible Deposits Legend

Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

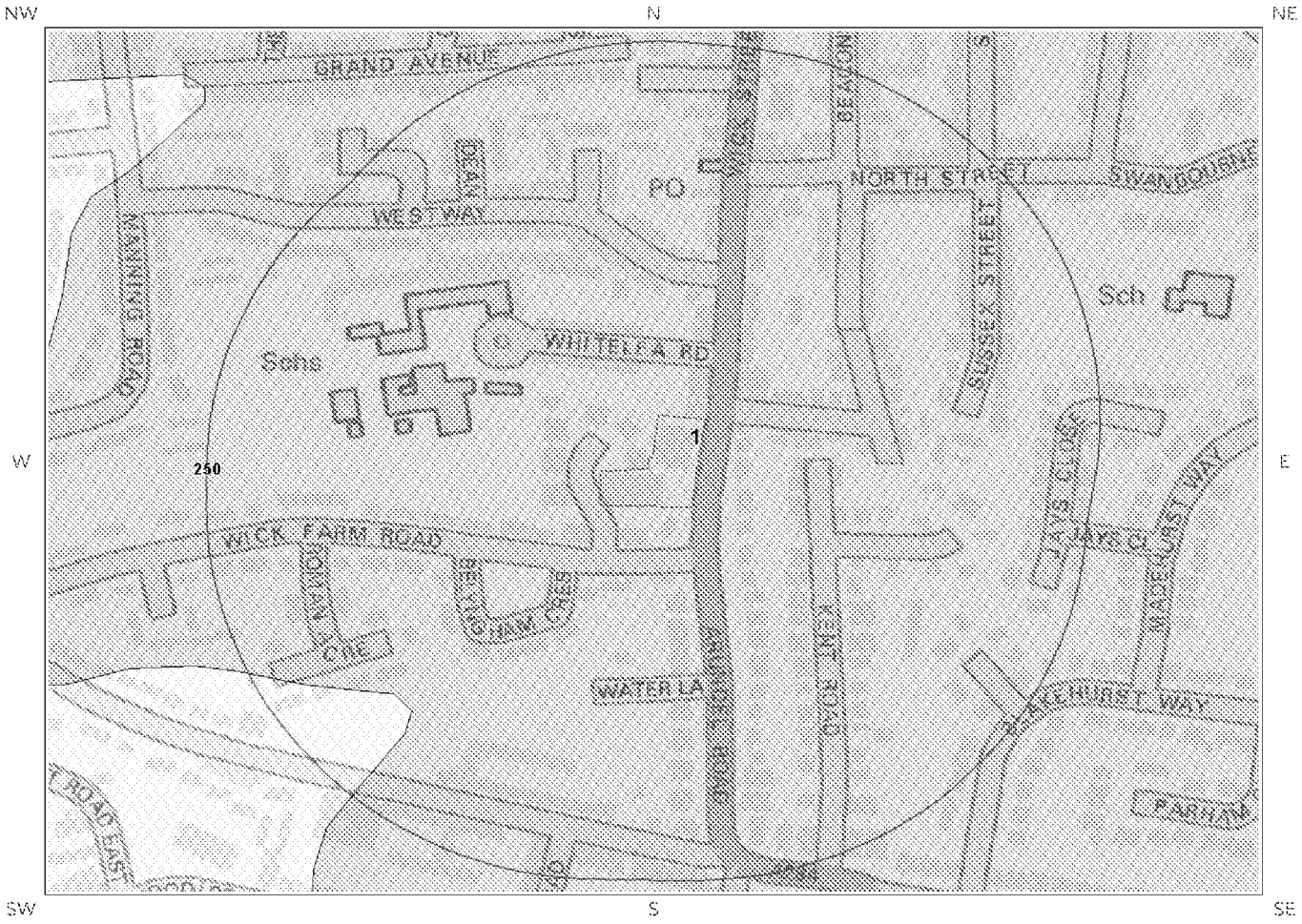
125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

Groundsure
LOCATION INTELLIGENCE

4.5 Collapsible Deposits Map



Collapsible Deposits Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

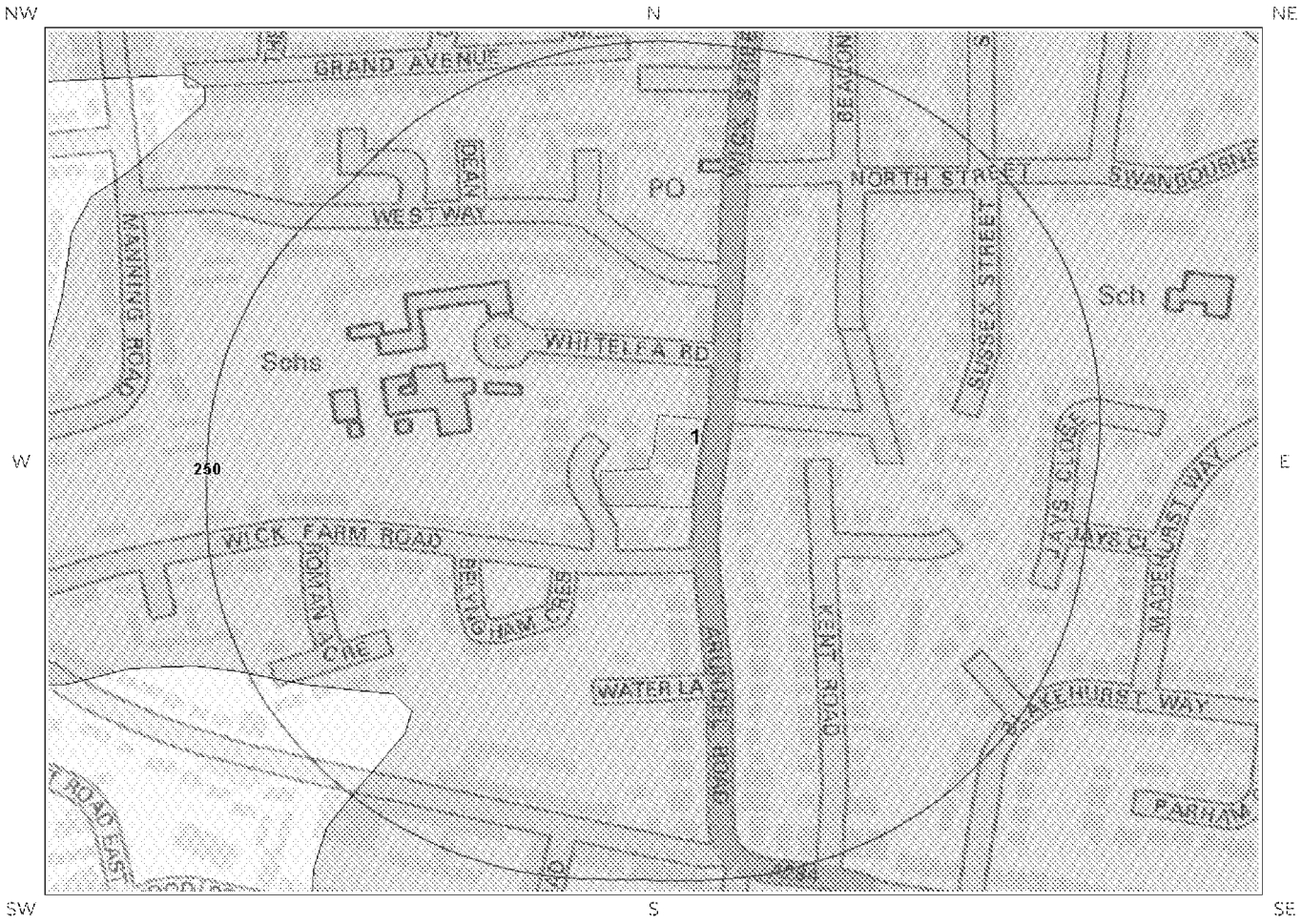
125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

Groundsure
LOCATION INTELLIGENCE

4.6 Running Sand Map



Running Sand Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

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? Low

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	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

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 Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

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

ARUN DISTRICT COUNCIL LU/316/16/DOC

4.4 Compressible Deposits

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

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

4.5 Collapsible Deposits

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.

4.6 Running Sands

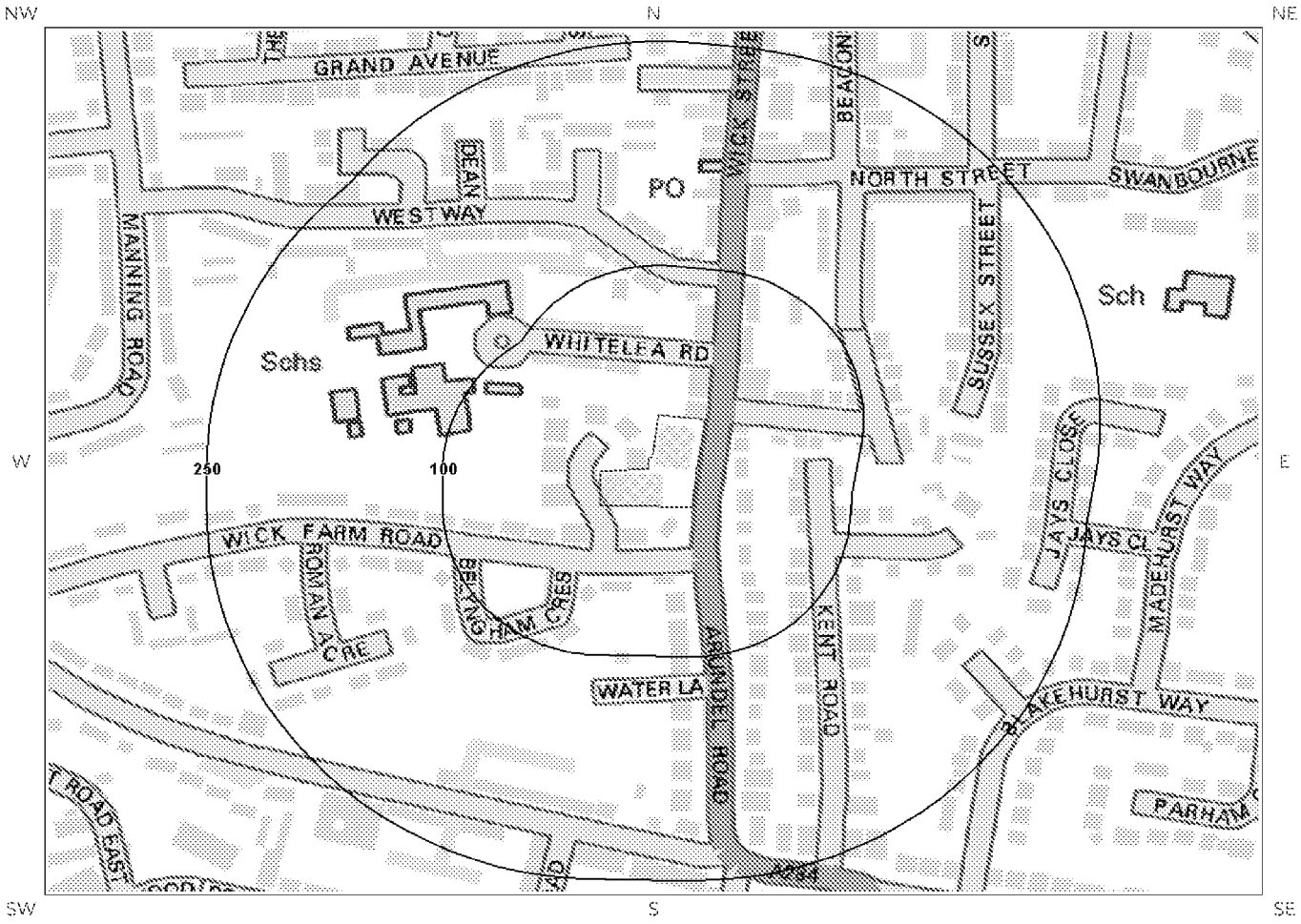
The following Running Sands information provided by the British Geological Survey:

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.

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

5 Borehole Records Map



Borehole Records Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.

Site Outline

Borehole Locations

125
250
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: 0

Database searched and no data found.

ARUN DISTRICT COUNCIL LU/316/16/DOC

6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 5

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

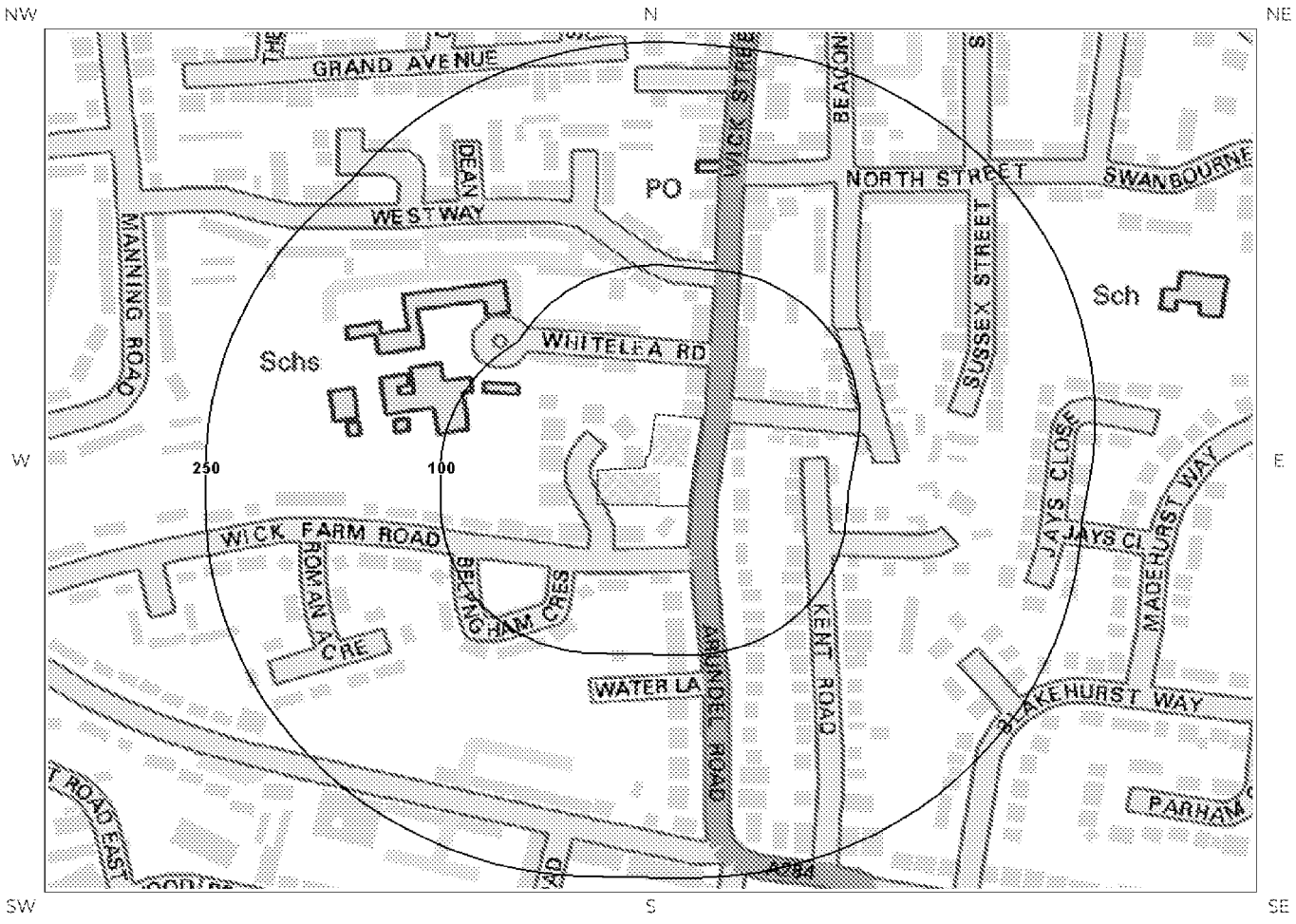
Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
65.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
97.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
141.0	NW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
182.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 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.

ARUN DISTRICT COUNCIL LU/316/16/DOC

Groundsure
LOCATION INTELLIGENCE

7 Railways and Tunnels Map



Railways and Tunnels Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2015.
Ordnance Survey license 100035207.
© OpenStreetMapContributors

- Site Outline
- 250 / 500 — Search Buffers (m)
- Underground or Partially Underground Railway / Subway System
- Railway Tunnel (OS Mapping)
- Abandoned or Dismantled Railway (OpenStreetMap)
- Railway Track (OS Mapping)
- Railway Track (OpenStreetMap)
- High Speed 2
- Crossrail 1
- Railway and/or Tunnel Feature from Historical Mapping

7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?	No
Have any underground railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?	No
Have any other railway tunnels been identified within 250m of the site boundary?	No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary?	No
Have any historical railway or tunnel features been identified within 250m of the study site boundary?	No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

ARUN DISTRICT COUNCIL LU/316/16/DOC

7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a ***Groundsure HS2 and Crossrail 1 Report.***

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

ARUN DISTRICT COUNCIL LU/316/16/DOC

Contact Details

Groundsure

LOCATION INTELLIGENCE

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

Groundsure

LOCATION INTELLIGENCE

[redacted]

British Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

British Gypsum

The Coal Authority

Public Health England

JOHNSON POOLE & BLOOMER CONSULTANTS

Mapping sourced from Ordnance Survey

getmapping

pba peterbrett

Contact Details

Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028].
This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:
"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.
"Client" means the party or parties entering into a Contract with Groundsure.
"Commercial" means any building or property which is not Residential.
"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.
"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.
"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.
"Data Reports" means reports comprising factual data with no accompanying interpretation.
"Fees" has the meaning set out in clause 5.1.
"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.
"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.
"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.
"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.
"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.
"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.
"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.
"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.
"Residential" means any building or property used as or intended to be used as a single dwelling.
"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.
"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.
"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.
"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.
"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.
2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.
2.3 Subject to clause 7.3 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 writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.
2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.
2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.
3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.
3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.
4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(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, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.
4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. 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 (together "Fees").
5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, 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 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;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey.

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
6.6 The Client shall procure that any person 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: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
7.4 Groundsure shall not be liable for

(i) loss of profits;
(ii) loss of business;
(iii) depletion of goodwill and/or similar losses;
(iv) loss of anticipated savings;
(v) loss of goods;
(vi) loss of contract;
(vii) loss of use;
(viii) loss or corruption of data or information;
(ix) business interruption;
(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;
(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
(xiii) loss or damage to a computer, software, modem, telephone or other property; and
(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 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 term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) 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 and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) 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 or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.
12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.
12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
12.5 Save as expressly provided in this Contract, 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.
12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
12.7 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 Third Party Data Providers;
(viii) changes in law; or
(ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 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.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 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.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

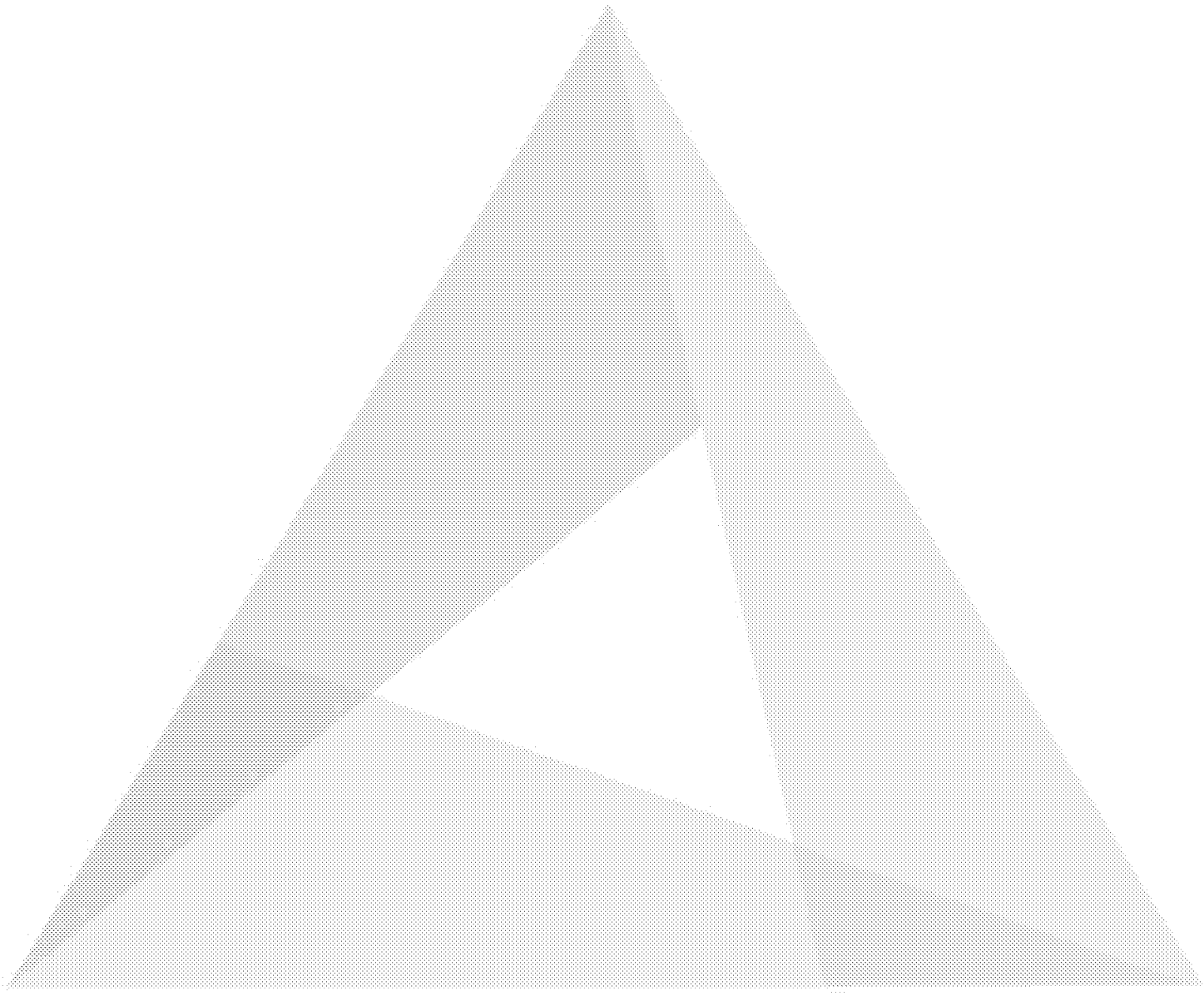
12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent
required by law

© Groundsure Limited June 2013

Appendix III



131-135 Arundel Road, Littlehampton
Delta-Simons Project No. 15-0733.01

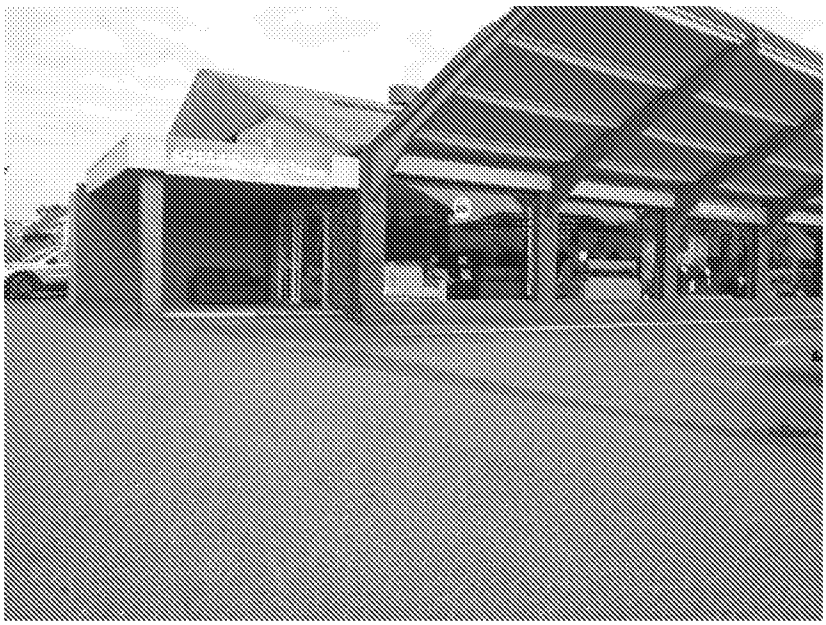


Photograph 1 – Car Wash Area

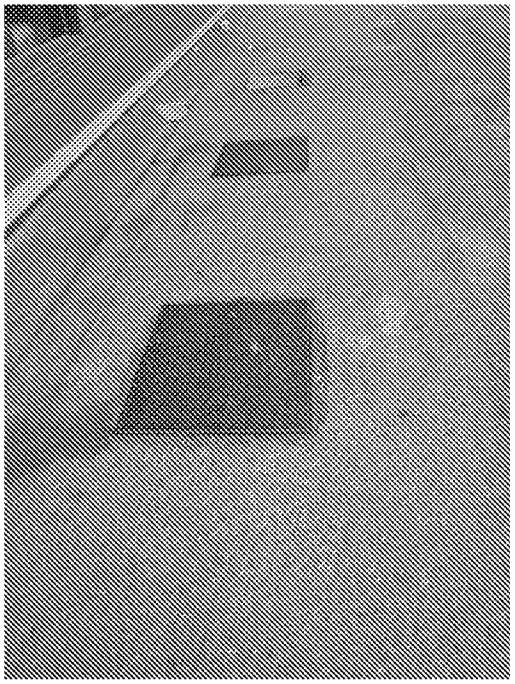


Photograph 2 – Car Parking

131-135 Arundel Road, Littlehampton
Delta-Simons Project No. 15-0733.01



Photograph 3 – Sofa bed shop



Photograph 4 – Potential locations of tanks

131-135 Arundel Road, Littlehampton
Delta-Simons Project No. 15-0733.01



Photograph 5 – Potential Interceptors



Photograph 6 – Storage Warehouse

131-135 Arundel Road, Littlehampton
Delta-Simons Project No. 15-0733.01



Photograph 7 – Car wash