



GEO
Environmental Engineering



PHASE 1: DESK TOP STUDY REPORT
(PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT)

PROPOSED RESIDENTIAL DEVELOPMENT OF LAND AT:
DALELANDS, SANDWITH, WHITEHAVEN, CUMBRIA

FOR

MR R CALVIN

GEO Environmental Engineering

DOCUMENT CONTROL SHEET

Report Ref: 2017-2852

Report Date: 14.03.2018

Report Type: DRAFT DTS v1 for Design Team Review

Prepared By: James Brock *BSc. (Hons), MSc* – Geo Environmental Engineer/Associate

Author Signature: 

Checked By: Andrew Hampson *B.Sc. (Hons) FGS.* – Geo Environmental Engineer/Associate

Authorised By: Curtis Evans *B.Sc. (Hons) FGS* – Geo Environmental Engineer/Director

Client: Mr R Calvin

CONTENTS

Section		Page
1.0	Introduction	4
2.0	Site Location and Development Proposals	6
3.0	Environmental Setting	8
4.0	Conceptual Site Model	13
5.0	Preliminary Qualitative Risk Assessment	15
6.0	Conclusions	17
Appendix I:	Site Location Plan Aerial Photograph Extract Site Images (March 2018)	
Appendix II:	Ground Sure Report (GSR – Geoinsight and Enviroinsight)	
Appendix III:	Historical Ordnance Survey Map Extracts	
Appendix IV:	The Coal Authority Coal Mining Report	

1.0 Introduction

1.1 Instruction

Geo Environmental Engineering Ltd (GEO) has been commissioned by Mr Bob Metcalf of MJN Associates on behalf of Mr R Calvin, herein referred to as the Client to undertake a Phase 1: Desk Top Study Report (Preliminary Environmental Risk Assessment) for land at Dalelands, Sandwith near Whitehaven, Cumbria to determine any potential geohazards that may affect the development of the site.

It is understood that the Client is considering the site for residential development. A proposed layout has not been provided, however, it is anticipated that the development will include residential properties as well as private gardens, general areas of soft landscaping and other infrastructure. Further details relating to the full scope of development should be obtained from the Consultant.

This Phase 1: Desk Top Study Report is suitable for submission to the Local Authority as part of a planning application.

1.2 Aims and Objectives

The main objective of this Phase 1: Desk Top Study (DTS) Report is to assess the geological and environmental sensitivity of the development area and the surrounding environs, with particular attention made to any potentially contaminative industries or processes that may have taken place on site or on immediately adjacent sites, which may be considered as potentially posing a risk of ground/groundwater contamination and ground gas that could negatively affect the proposed end users, adjacent sites and controlled waters. This Phase 1: Desk Top Study Report has been completed in accordance with the following documents:

- CLR11: Model Procedures for the Management of Land Contamination. DEFRA/EA, 2004.
- BS10175:2011: Code of Practice for the Investigation of Potentially Contaminated Sites.
- BS5930:2015: Code of Practice for Site Investigations.
- UK Specification for Ground Investigation, 2nd Edition. Site Investigation Steering Group, 2011.
- Effective Site Investigation. Site Investigation Steering Group, 2013.

During the completion of this DTS information has been obtained and reviewed from the following sources:

- British Geological Survey (BGS) Geological Mapping Data
- Environment Agency (EA).
- Ground Sure Report (Geoinsight and Enviroinsight – GSR – Appendix II)
- Ordnance Survey Historical Map Data (Mapinsight – GSR – Appendix III)
- The Coal Authority Online Database and site-specific Coal Mining Report (Appendix IV).

1.3 Limitations of Use

The information, assessments, conclusions and recommendations presented within this Phase 1: Desk Top Study (DTS) Report are solely based on, and are limited to, the boundaries of the site, the immediate area around the site, and the historical use(s) as described, with the approximate extent of the site marked on the Site Location Plan in Appendix I.

This DTS has been completed utilising information relating to the physical and environmental setting of the development area, highlighting, where possible, any potential geohazards that might be encountered with respect to the proposed Residential end use (i.e. “Best Fit” CLEA classification of *Residential*).

Therefore, if a change in the proposed end use is envisaged, then a reassessment of the development area should be carried out.

Consequently, any comments, opinions, diagrams, cross sections and/or sketches contained within the DTS, and/or any configuration of the findings is purely conjectural and given for guidance only as no intrusive investigation works have been completed by Geo Environmental Engineering Ltd and it is recommended that confirmation of the anticipated ground conditions should be considered before development proceeds.

The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate regulatory authorities and/ or other key stakeholders in order to seek their approval of the findings prior to undertaking any works on site.

Agreement for the use or copying of this report by any Third Party must be obtained in writing from Geo Environmental Engineering Ltd. Reliance on the report is strictly in accordance with the Geo Environmental Engineering Ltd Standard Terms and Conditions, copies of which are available on request.

2.0 Site Location and Development Proposals

2.1 Development Proposal

It is understood that the site will be developed for residential end use. A proposed site layout plan has not been provided, however, it is anticipated that the development will include residential properties with private gardens, general areas of soft landscaping and other associated infrastructure. Further details relating to the proposed development should be obtained from the Consultant.

2.2 Site Location

A site location plan and a selection of site images are included in Appendix I. A brief site walkover was completed during March 2018.

The site, occupying an area of c.0.6ha, is irregular in shape and is situated close to the centre of Sandwith village, approximately 3 miles south of Whitehaven Town Centre. The site lies within a mixed residential and agricultural area, with residential properties to the north and west, with agricultural fields to the east and south.

During the walk over, access onto the site was via the eastern site off Dalelands Road.

- **National Grid Reference:** 296458, 514623
- **Approximate Post Code:** CA28 9UG

2.3 Existing Site Levels

The site undulates slightly, with some level areas. The surrounding topography indicates variations in ground levels. Consequently, it is recommended that a topographical survey of the site is carried out prior to development.

2.4 Existing Site Use, Surfacing and Buildings

During the walk over (March 2018), a single storey detached structure was present in the south-east site area, where some concrete hardstand was also noted. The remaining areas appeared dense vegetation and lawns.

There was no evidence of any contamination or contamination sources within the site boundaries. However, there had been a recent bonfire and some potential made ground was exposed at surface.

2.5 Surrounding Land Uses

Existing residential properties and private gardens are present to the north and west, with agricultural land to the south and east.

There was no visual evidence of any contamination sources (heavy industry, fuel stations, etc.) noted in the surrounding area during the site walkover.

2.6 Existing Infrastructure and Utilities

A review of statutory utility supplier records lies outside the scope of this report. It is possible that buried utilities pass through the site and it is recommended that utility providers are consulted to determine the presence of utilities prior to commencing any development works.

This will determine if any significant or mains utilities are present on site that may require easement strips, alterations to proposed layouts or potentially costly diversions/terminations. Determining the presence of on-site utilities will also protect the workforce by reducing the risk of utility strikes during the construction phase.

3.0 Environmental Setting

This section is based principally upon a search of information available on public registers and obtained through the Ground Sure Report (GSR) to determine any environmental or geological constraints to the proposed development.

- Section 3.1 refers to the Ground Sure Report (Geoinsight) contained in Appendix II.
- Sections 3.2 to 3.4 refer to the Ground Sure Report (Enviroinsight) contained in Appendix II.
- Section 3.5 refers to the Historical Map Extracts contained in Appendix III.

3.1 Development Area Geology

A geological review of the site has been undertaken using information provided on published geological maps (BGS Sheet 28 Whitehaven, Solid and Drift Edition, 1:50,000 scale) and the Ground Sure Report (GSR) contained in Appendix II.

3.1.1 Made Ground

A review of the published geological map and the GSR does not indicate any made ground on the site or within close proximity to the site. However, historical and existing structures would suggest some made ground is present to form current site levels. Made ground could comprise disturbed natural materials with anthropogenic debris.

3.1.2 Drift Geological Deposits

A review of published geological plans indicate that the site and surrounding areas are devoid of drift deposits. During the site walkover, the ground was noted to comprise loamy soils. The loamy soils may be underlain by residual soils following weathering of the shallow bedrock.

The GSR (Geoinsight Section 6.0) within Appendix II identifies the following geohazards and indicates a preliminary level of risk:

■ Shrink-swell clays	negligible risk.
■ Landslides	very low risk.
■ Compressible deposits	negligible risk.
■ Collapsible deposits	very low risk.
■ Running sands	negligible risk.

It is recommended that reference be made to Section 6.0 of the Geoinsight GSR (Appendix II). Consequently, Phase 2: Ground Investigation works would be prudent to aid the design of foundations, any retaining structures and roads, should they be deemed necessary by the Design Team.

3.1.3 Bedrock Deposits

Reference to the published geological map and the GSR indicates the site is underlain by the St Bees Sandstone Formation. As the site and the surrounding area are recorded as being devoid of natural drift deposits, bedrock is likely to be present beneath the site at shallow depth. The St Bees Sandstone Formation is devoid of productive coal seams. The GSR indicates that there is a negligible risk from the dissolution of soluble rock or natural cavities beneath the site.

The St Bees Sandstone Formation is classified as a Principal Aquifer.

3.1.4 Historical Investigation Records

No suitable historical borehole records are indicated within a suitable distance of the site (i.e. within c.250m).

3.1.5 Geological Features

An inspection of the geological map indicates that there are no geological faults on or immediately adjacent to the site.

3.1.6 Mining and Quarrying Assessment

The site is indicated to be underlain by the St Bees Sandstone Formation which is devoid of productive coal seams. However, beneath the St Bees Sandstone is Coal Measure Strata, which contain numerous coal seams of economic value that are known to have been worked.

An inspection of the Coal Authority (CA) online database has been carried out. In view of the nearby workable coal seams, the site is classified as being within a Coal Authority "Coal Mining Reporting Area". A site-specific Coal Mining Report has been procured from the CA that indicates recorded mining at a depth of 150m to 210m below ground levels. This is considered to be too deep to pose a risk at surface level. The CA does not suggest shallow unrecorded coal mining.

The CA online database also indicates the following:

- No shallow coal seams are noted beneath the site or within 250m of the site boundary.
- No areas of past open cast mine workings are present within c.250m.
- No recorded shallow coal mine workings are present beneath the site.
- No suspected shallow unrecorded coal mine workings are present beneath the site.
- No mine entries are recorded within 250m.
- The site does not lie within a Coal Authority defined "High Risk Development Area".

As a result, the site is not currently considered to be at risk of shallow unrecorded coal mining hazards.

The GSR has not identified any quarrying activities within close proximity. The GSR does not indicate any non-coal mining within close proximity.

Information presented within the GSR suggests that there is no risk to the development from brine extraction, tin mining, clay mining and gypsum extraction, although some risk is thought to be present for land to the west (GSR notes c.779m NW). The GSR also notes that the site is not at risk of natural cavities.

3.1.7 Radon Gas Assessment

The GSR indicates that the development site is not located within a Radon Affected Area as defined by the Health Protection Agency (HPA), as less than 1% of properties are above the action level. Consequently, in accordance with BR211 radon protection measures are not necessary.

3.2 Development Area Hydrogeology (Groundwater)

3.2.1 Made Ground/Soils

Any made ground/topsoil materials on site are likely to be classified as high permeability (i.e. worst-case scenario assumed until proven otherwise).

3.2.2 Drift Geology

The GSR indicates that the drift deposits are thin or absent from the site and surrounding area, however, where any residual soils are present, they are likely to be classified as Secondary Aquifer status. This is assigned where it is not possible to attribute either category A or B.

3.2.3 Solid Geology

The underlying bedrock (St Bees Sandstone Formation) is designated a Principal Aquifer status. These are 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.

3.3 Development Area Hydrology

3.3.1 Groundwater

Given the topography and anticipated ground conditions, shallow groundwater is not anticipated.

A review of the Hydrology information in the GSR indicates the following:

- No groundwater abstractions are recorded within c.500m of the site.
- No surface water abstractions are recorded within c.500m of the site.
- No potable water abstraction licences are held within c.2km of the site.
- The site is not recorded as being within or within c.500m of a Source Protection Zone.

3.3.2 Surface Water Features

The nearest surface water feature is c.45m west of the site. This appears to be a partially culverted surface drain or beck.

3.3.3 Current Surface Water Run-off

Given the anticipated ground conditions, it is likely that any surface water will infiltrate directly into the ground. In addition, some overland flow (with the topography) is likely during heavy rainfall events.

3.4 Development Area Environmental Sensitivity

3.4.1 Site Ecology

- No Sites of Special Scientific Interest (SSSI) are noted within c.250m.
- No National Nature Reserves (NNR) are present within c.250m.
- No Special Areas of Conservation (SAC) are noted within c.250m.
- No Special Protection Areas (SPA) are present within c.250m.
- No World Heritage Sites are recorded within c.250m.
- No RAMSAR Sites are noted within c.250m.
- No records of Ancient Woodland are noted within c.250m.

- No Records of Environmentally Sensitive Areas are recorded within c.250m.
- No Areas of Outstanding Natural Beauty (AONB) are recorded within c.250m.
- No National Parks are recorded within c.250m.
- The site lies within a Nitrate Vulnerable Zone (NVZ). This is unlikely to be at risk from the proposed residential development.
- No Nitrate Sensitive Areas are within c.250m.

The Design Team should refer to Section 8.0 of the GSR (Enviroinsight – Appendix II) for further information on the above-mentioned records.

3.4.2 Authorisations, Incidents and Registers

- No records of IPC Authorisations are held within c.250m.
- No records of IPPC Authorisations are held within c.250m.
- No records of Water Industry Referrals are held within c.250m.
- No records of Red List Discharge Consents are held within c.250m.
- No records of List 1 Dangerous Substances Inventory sites are held within c.250m.
- No records of List 2 Dangerous Substances Inventory sites are held within c.250m.
- There are no records of Part A(2) and Part B Activities within 250m of the site.
- No records of Category 3 or 4 Radioactive Substances Authorisations are held within c.250m.
- Four Licensed Discharge Consents are present within c.250m. None appear to be directly attributable to the site, with the nearest being c.29m NW.
- No records of Planning Hazardous Substance Consents or Enforcements are within c.250m.
- No records of COMAH and NIHHS sites are held within c.250m.
- Four Environment Agency Recorded Pollution Incidents (List 2) are recorded within c.250m. None appear to be attributable to the site, with the nearest being c.67m NW.

The Design Team should refer to Section 2.0 of the GSR (Enviroinsight – Appendix II).

3.4.3 Determination of Contaminated Land (Part IIA)

A review of the GSR Enviroinsight has indicated that the site is not currently recorded as being determined as Contaminated Land under Part IIA EPA 1990. In addition, no sites are determined as Contaminated Land under Part IIA EPA 1990 within c.500m of the development area.

3.4.4 Historical Industrial Land Uses

A review of Section 1.0 in the GSR (EnviroInsight) identifies the following:

- Potentially Contaminative Uses (PCU) - None recorded on site. Three recorded within 250m with the nearest located c.64m north. The PCUs included unspecified tanks.
- Historical Tanks – None recorded on site. Five recorded within 250m of the site, the nearest recorded c.64m north.
- Historical Energy Features – None noted within c.250m.
- Historical Petrol and Fuel Site Database – None noted within c.250m.
- Historical Garage and Motor Vehicle Repair Database – None noted within c.250m.
- Potentially Infilled Land – None noted within c.250m

It is recommended that reference be made to Section 1.0 of the GSR for further information (Enviroinsight - Appendix II).

3.4.6 Current Industrial Land Uses

The GSR indicates that there is only one current industrial land uses within 250m of the site. This comprises an electricity substation c.174m north. This is unlikely to pose a significant risk.

3.4.6 Fuel Station Entries

No fuel filling stations are currently active within c.500m of the site.

3.4.7 Landfill and Waste Regulation/Management – Landfill Sites

- No Environment Agency Registered Landfill Sites are recorded within c.250m.
- No Environment Agency Historic Landfill Sites are recorded within c.250m.
- No BGS/DoE Landfill Site Survey Landfill Sites are recorded within c.250m.
- No Operational or Non-Operational Waste Treatment, Transfer or Disposal Sites are recorded within c.250m.
- No Environment Agency Licensed Waste Sites are recorded within c.250m.

It is recommended that reference be made to Section 3.0 of the GSR Enviroinsight (Appendix II) for further information.

3.5 Development Area Historical Plan Appraisal

This section is based on historical Ordnance Survey map data that was obtained as part of the GSR and provides a summary of the site history and highlights any industries, processes or activities that may be considered as Geohazards. Copies of historical maps are provided in Appendix III and a summary of the site history is included below.

3.5.1 On-Site

The first historical map extract dated 1864 indicates that the site had structures across its southern and eastern site areas. Remain parts may have been gardens with some trees. By c.1989, the older structures appear to have been removed, with the existing structure present. As a result, there has been little change on published historical plans.

3.5.2 Off-Site

The first historical map extract dated 1864 indicates that the site was surrounded by residential and possible agricultural properties, with agricultural fields beyond. There is little change to the surrounding area up to the present day (i.e. just an increase in residential properties).

The historical maps do not indicate any significant industrial land uses on or in the vicinity of the site.

4.0 Conceptual Site Model

A Conceptual Site Model (CSM) has been designed using the information presented within this DTS to provide a model of the anticipated ground, groundwater and ground gas conditions below the development area (Existing Site CSM).

The CSM utilises the established *Source – Pathway – Receptor* pollutant linkage model and is designed to provide an improved understanding of the site characteristics. This ensures adequate and appropriate Phase 2: Ground Investigation (P2 GI) Works are designed and undertaken for wide spread and targeted investigations, should they be deemed necessary.

Depending on the results of the ground investigation, the CSM can be refined based upon the outcomes of the intrusive works to ensure that appropriate remediation (if required) is completed to ensure the development area is “fit for purpose” in relation to the proposed residential end use.

The preliminary CSM is presented in the matrix on the following page and considers the anticipated *Source – Pathway – Receptor* pollutant linkage model derived for this site.

Sources:

S1 = Possible Made Ground – No specific sources identified.

Historical information suggests that the site has been partially occupied by some structures, although there is no evidence of industries, processes or potential sources of contamination present on site or within the immediate vicinity. As the client plans to develop the site for residential end use, it would be prudent to carry out some intrusive works to confirm the shallow ground conditions and to screen topsoil materials (where present) to determine their suitability for use in a residential setting in accordance with current standards. If made ground or potential sources of contamination associated with previous/existing structures are encountered, samples should be recovered for chemical laboratory screening to determine the risk to Human Health.

Therefore, it is recommended that excavations be completed on site to confirm the shallow ground conditions. At this stage, with no specific contamination sources identified, it is recommended that the soils are screened for a generic suite of contaminants that should include: Arsenic, Cadmium, Chromium (III and VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide (free), pH, Water Soluble Sulphate, Total Organic Carbon, Asbestos and Speciated PAH.

In addition, a prudent developer should implement a watching brief during the development works to ensure that if made ground and or visual/olfactory evidence of contamination is identified then works should be stopped, the Local Authority notified, and advice should be sought from an appropriately qualified and experienced Geo-Environmental Engineer.

S2 = Ground Gas - Potential Sources Identified.

Deep coal mining is recorded as being present beneath the site. Possible gasses of concern include carbon dioxide and methane. A programme of ground gas monitoring should therefore be completed.

Pathways:

P1 = Inhalation of air (wind-blown particles, vapours, gasses)

P2 = Dermal/direct contact (limited risk through areas of private gardens and soft landscaping)

P3 = Ingestion (limited risk through areas of private gardens and soft landscaping)

P4 = Migration through services (potable water supply)

P5 = Direct contact with building materials (aggressive ground conditions for buried concrete)

P6 = Surface Run-off

P7 = Leaching from Soils (to underlying Principal Aquifer)

Receptors:

R1 = Human Health (End users - Residents)

R2 = Human Health (Construction Workforce)

R3 = Groundwater (Principal Aquifer)

R4 = Building Materials and Buried Utilities

R5 = Flora and Fauna (future private gardens and soft landscaping)

5.0 Preliminary Qualitative Risk Assessment

5.1 Qualitative Geotechnical Risk Assessment – Risk Meter

The following preliminary Geotechnical Risk Meter determines the potential level of risk associated with the geotechnical properties of the site, considering any potential geohazards identified by the information presented within the DTS.

Geotechnical:	↓					
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

A risk level of VERY LOW is determined appropriate for this development area for the following reasons:

- Historical records indicate that the site has been previously (partially) developed and therefore some made ground and possible relict structures are anticipated.
- Geological records indicate that the site is devoid of drift deposits, however, some residual soils or possible weathered bedrock overlying shallow bedrock is anticipated.
- The site is indicated to be underlain by the Whitehaven Sandstone Formation which is devoid of coal seams.
- Information available from the CA, BGS and GSR suggests that the development site is not considered to be at potential risk of coal mining related geohazards (i.e. ground disturbance/movement/mine entries etc.) and therefore no remedial measures are required (i.e. grouting).
- Shallow groundwater is not anticipated although some trapped “perched” water may be present within any drift deposits (residual soils).
- Where clay soils are present, their soil shrinkability could be affected by mature vegetation such as trees.

Consequently, it would be prudent for a Phase 2: Ground Investigation to be completed to confirm the underlying ground conditions (i.e. the presence of any made ground and the drift deposits) and to allow samples to be recovered for geotechnical laboratory analysis to aid the design of foundations, highways and drainage.

5.2 Qualitative Contamination Risk Assessment – Risk Meter

The following Risk Meter determines the potential level of risk associated with the development with respect to ground contamination, groundwater contamination and ground gas. The risk meter takes into account the anticipated *Sources – Pathways – Receptors* within the pollutant linkage model and CSM.

Ground Contamination:	↓					
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Groundwater Contamination:	↓					
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Ground Gas:	↓					
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

A risk level of VERY LOW to LOW is currently determined appropriate for this development with respect to ground contamination. In summary, the site has been developed, although there have been no historical industries/processes on the site or within close proximity (with the exception of the farming activities) that are considered as posing a potential significant risk of widespread or pervasive contamination.

However, as the site will be developed for residential end use, it is recommended that intrusive investigations be completed to confirm the shallow ground conditions, with samples recovered to allow for chemical laboratory analysis to determine the suitability of any topsoil materials for re-use in a residential context in addition to assessing any risks to Human Health.

At this stage, with no specific contamination sources identified, it is recommended that the soils are screened for a generic suite of contaminants that should include: Arsenic, Cadmium, Chromium (III and VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide (free), pH, Water Soluble Sulphate, Total Organic Carbon, Asbestos and Speciated PAH.

If, during the ground investigation, areas of made ground or evidence of contamination are identified, it may be necessary to increase the range of contaminant screening depending on the nature and type of possible contaminants encountered.

In addition to the above, a watching brief should be implemented during the development works to ensure that if additional areas of made ground (that includes anthropogenic debris, i.e. ash, clinker etc.) and/or visual/olfactory (malodorous) evidence of potential contamination (i.e. fuel/oil) are identified then works should be stopped, the Local Authority notified and advice should be sought from an appropriately qualified and experienced Geo-Environmental Engineer.

A risk level of NEGLIGIBLE is currently considered appropriate for the site with respect to potential risks to controlled waters (groundwater, nearby surface water features) and adjacent sites, as limited potential sources have been identified.

A risk level of VERY LOW is currently considered appropriate for the site with respect to potential harmful ground gas from deep coal mining activities. Given the proposed end use (residential), it is recommended that the gas monitoring is carried out on 6 occasions over a minimum period of 3 months.

6.0 Conclusions

When considering the results of this DTS report, the following can be seen:

- The development site is currently considered to represent a very low geotechnical risk.
- The site is currently considered to pose a very low to low risk to the proposed end users from ground contamination.
- The site is currently considered to pose a negligible risk to adjacent sites (the surrounding environment) and controlled waters with respect to potential ground/groundwater contamination.
- The site is currently considered to pose a very low risk to the proposed end users from ground gas.

Should planning permission be granted it is recommended that any permission includes conditions relating to a Phase 2: Ground Investigation to allow the full characterisation of the site to ensure that if made ground and/or contamination is identified then it is dealt with in an appropriate manner to ensure the future suitability of the site for the proposed residential end use. Samples of topsoil should also be screened to ensure its appropriateness for re-use in a residential context.

The Phase 2: Ground Investigation works would also be prudent to aid the design of foundations, highways, drainage and any retaining structures (where necessary).

GEO also recommends that a “watching brief” and “observational technique” be applied to this site to ensure that if ground conditions appear to vary from those identified within this investigation report then advice should be sought from a suitably qualified and experienced Engineering Geologist, Geotechnical or Geo-Environmental Engineer.

The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate regulatory authorities and/ or other key stakeholders in order to seek their approval of the findings prior to undertaking any works on site. The information presented within this report is provided by GroundSure (emapsite) and GEO cannot be held responsible for the accuracy of third party information.

End of Report

Appendix I

- Site Location Plan
- Aerial Photograph Extract
- Site Images

GEO2017-2869: Land at Dalelands, Sandwith – Site Location



GEO2017-2869: Land at Dalelands, Sandwith – Aerial Image



Aerial Photograph Capture date: 16-Aug-2016
Grid Reference: 296458,514623
Site Size: 0.06ha

Website: www.geoenvironmentalengineering.com

Email: info@geoenvironmentalengineering.com

Telephone: 08456 768 895 / 07883 440 186

GEO2017-2869: Land at Dalelands, Sandwith – Site Images



Appendix II

- Groundsure Reports



EmapSite

Masdar House, 1 Reading Road,
Eversley, RG27 0RP

Report Reference: EMS-466498_626241

Your Reference: EMS_466498_626241

Report Date 8 Mar 2018

Report Delivery Email - pdf
Method:

Geo Insight

Address: ,

Dear Sir/ Madam,

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

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

Yours faithfully,

emapsite customer services team

Enc.
Groundsure Geo Insight

Address: ,
Date: 8 Mar 2018
Reference: EMS-466498_626241
Client: EmapSite



Aerial Photograph Capture date: 16-Aug-2016
Grid Reference: 296458,514623
Site Size: 0.06ha

Contents Page

Contents Page.....	3
Overview of Findings.....	5
1:10,000 Scale Availability.....	8
Availability of 1:10,000 Scale Geology Mapping.....	9
1 Geology (1:10,000 scale).....	10
1.1 Artificial Ground map (1:10,000 scale).....	10
1. Geology 1:10,000 scale.....	11
1.1 Artificial Ground.....	11
1.2 Superficial Deposits and Landslips map (1:10,000 scale).....	12
1.2 Superficial Deposits and Landslips.....	13
1.2.1 Superficial Deposits/ Drift Geology.....	13
1.2.2 Landslip.....	13
1.3 Bedrock and linear features map (1:10,000 scale).....	14
1.3 Bedrock and linear features.....	15
1.3.1 Bedrock/ Solid Geology.....	15
1.3.2 Linear features.....	15
2 Geology 1:50,000 Scale.....	16
2.1 Artificial Ground map.....	16
2. Geology 1:50,000 scale.....	17
2.1 Artificial Ground.....	17
2.1.1 Artificial/ Made Ground	17
2.1.2 Permeability of Artificial Ground.....	17
2.2 Superficial Deposits and Landslips map (1:50,000 scale).....	18
2.2 Superficial Deposits and Landslips.....	19
2.2.1 Superficial Deposits/ Drift Geology.....	19
2.2.2 Permeability of Superficial Ground	19
2.2.3 Landslip.....	19
2.2.4 Landslip Permeability.....	19
2.3 Bedrock and linear features map (1:50,000 scale).....	20
2.3 Bedrock, Solid Geology & linear features.....	21
2.3.1 Bedrock/Solid Geology.....	21
2.3.2 Permeability of Bedrock Ground.....	21
2.3.3 Linear features.....	21
3 Radon Data.....	22
3.1 Radon Affected Areas.....	22
3.2 Radon Protection.....	22
4 Ground Workings map.....	23
4 Ground Workings.....	24
4.1 Historical Surface Ground Working Features derived from Historical Mapping.....	24
4.2 Historical Underground Working Features derived from Historical Mapping.....	24
4.3 Current Ground Workings.....	24
5 Mining, Extraction & Natural Cavities.....	27
5.1 Historical Mining.....	27
5.2 Coal Mining.....	27
5.3 Johnson Poole and Bloomer.....	27
5.4 Non-Coal Mining.....	28
5.5 Non-Coal Mining Cavities.....	28
5.6 Natural Cavities.....	29
5.7 Brine Extraction.....	29
5.8 Gypsum Extraction.....	30
5.9 Tin Mining.....	30
5.10 Clay Mining.....	30
6 Natural Ground Subsidence.....	31
6.1 Shrink-Swell Clay map.....	31
6.2 Landslides map.....	32
6.3 Ground Dissolution of Soluble Rocks map.....	33
6.4 Compressible Deposits map.....	34
6.5 Collapsible Deposits map.....	35
6.6 Running Sand map.....	36

6 Natural Ground Subsidence..... 37

 6.1 Shrink-Swell Clays.....37

 6.2 Landslides.....37

 6.3 Ground Dissolution of Soluble Rocks.....38

 6.4 Compressible Deposits.....38

 6.5 Collapsible Deposits.....38

 6.6 Running Sands.....39

7 Borehole Records..... 41

8 Estimated Background Soil Chemistry..... 42

9 Railways and Tunnels map..... 43

9 Railways and Tunnels..... 44

 9.1 Tunnels44

 9.2 Historical Railway and Tunnel Features44

 9.3 Historical Railways.....45

 9.4 Active Railways.....45

 9.5 Railway Projects.....45

Overview of Findings

The Groundsure Geo Insight 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 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal 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 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	No
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	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 of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

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

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

Yes

Section 3: Radon

3. Radon

3.1 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.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

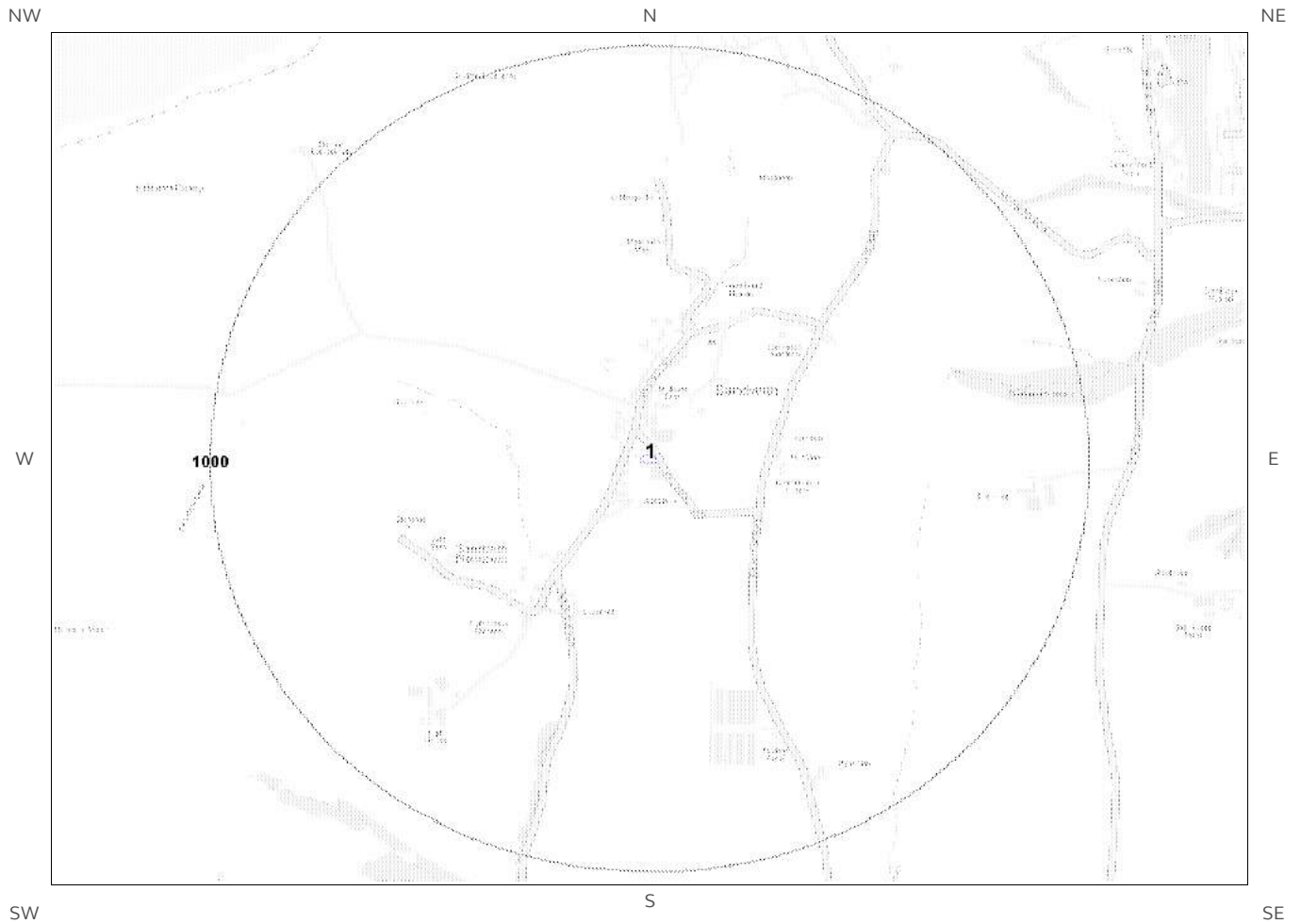
	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	0	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	2
4.3 Current Ground Workings	0	0	0	0	4

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	2
5.2 Coal Mining	1	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	1	3	4
5.5 Non-Coal Mining Cavities	0	0	0	2	8
5.5 Natural Cavities	0	0	0	0	0

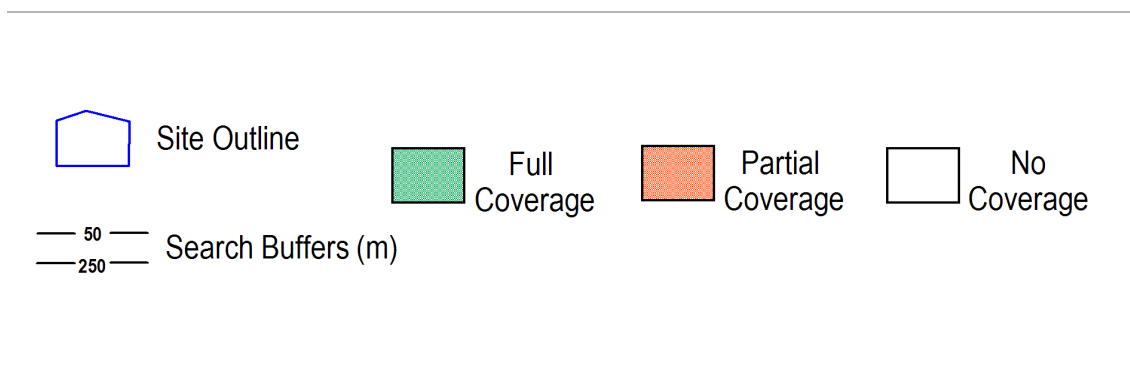
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Very Low				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Moderate				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	0	0		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	1	4	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

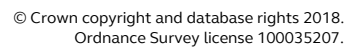
ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	No deposits are mapped	No coverage	No coverage	No coverage

Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

1.1 Artificial Ground map (1:10,000 scale)



Site Outline

Search Buffers (m)

500

1000

Made Ground (undivided)

Worked Ground (undivided)

Infilled Ground

Disturbed Ground (undivided)

Landscaped Ground (undivided)

Reclaimed Ground

1. Geology 1:10,000 scale

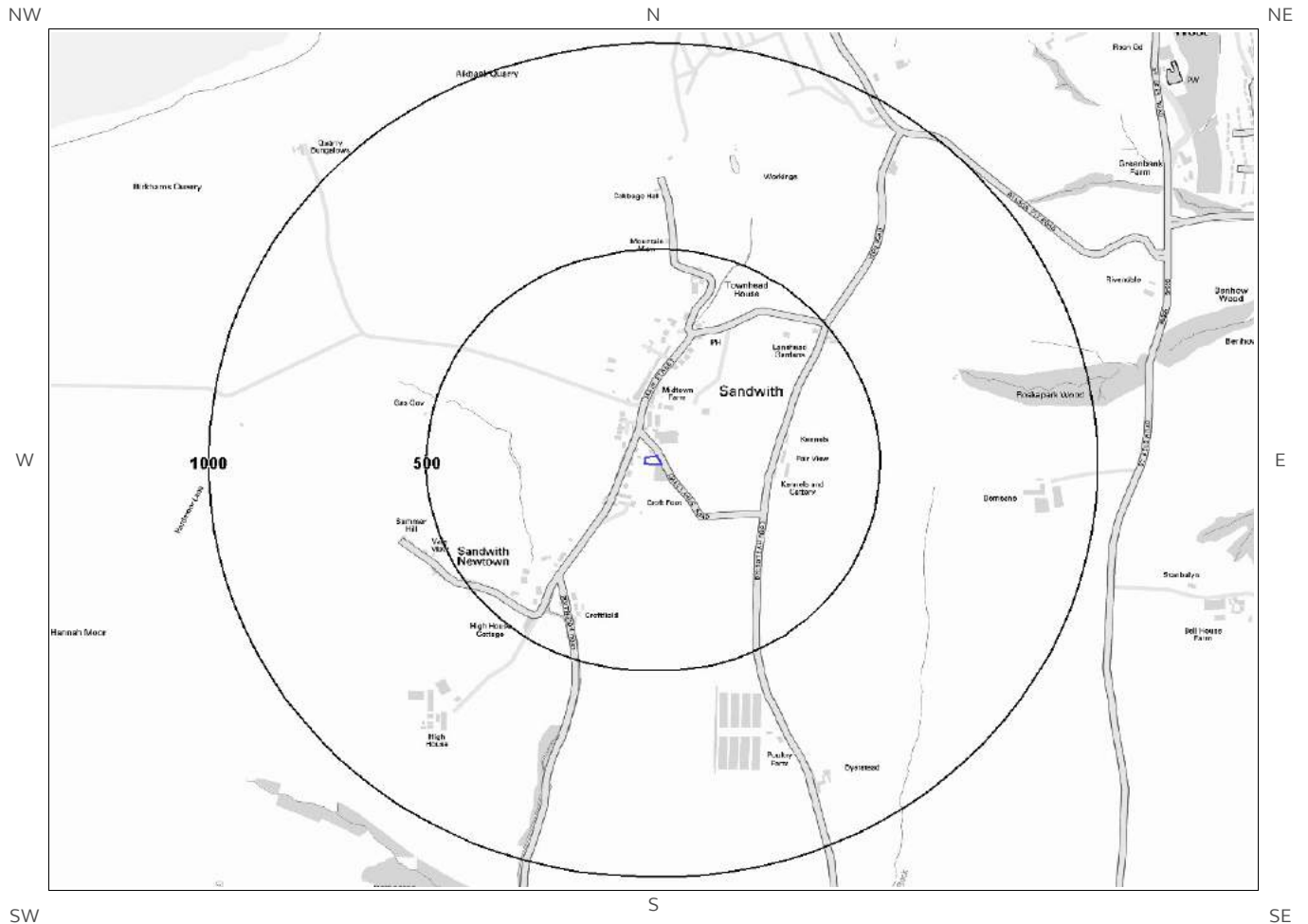
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? No

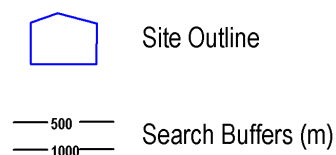
Database searched and no data found.

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.

1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

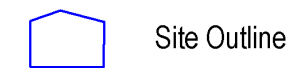
Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

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

The map displays the area around Sandwith and Sandwith Newtown. Two concentric circles are drawn, centered on a point near the intersection of the A166 and A166B roads. The inner circle is labeled '500' and the outer circle is labeled '1000'. Various locations are marked, including Midham Quarry, Workington, Sandwith, Sandwith Newtown, and several farms and estates. A blue rectangle highlights a specific area near the center of the circles.

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

Database searched and no data found at this scale.

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

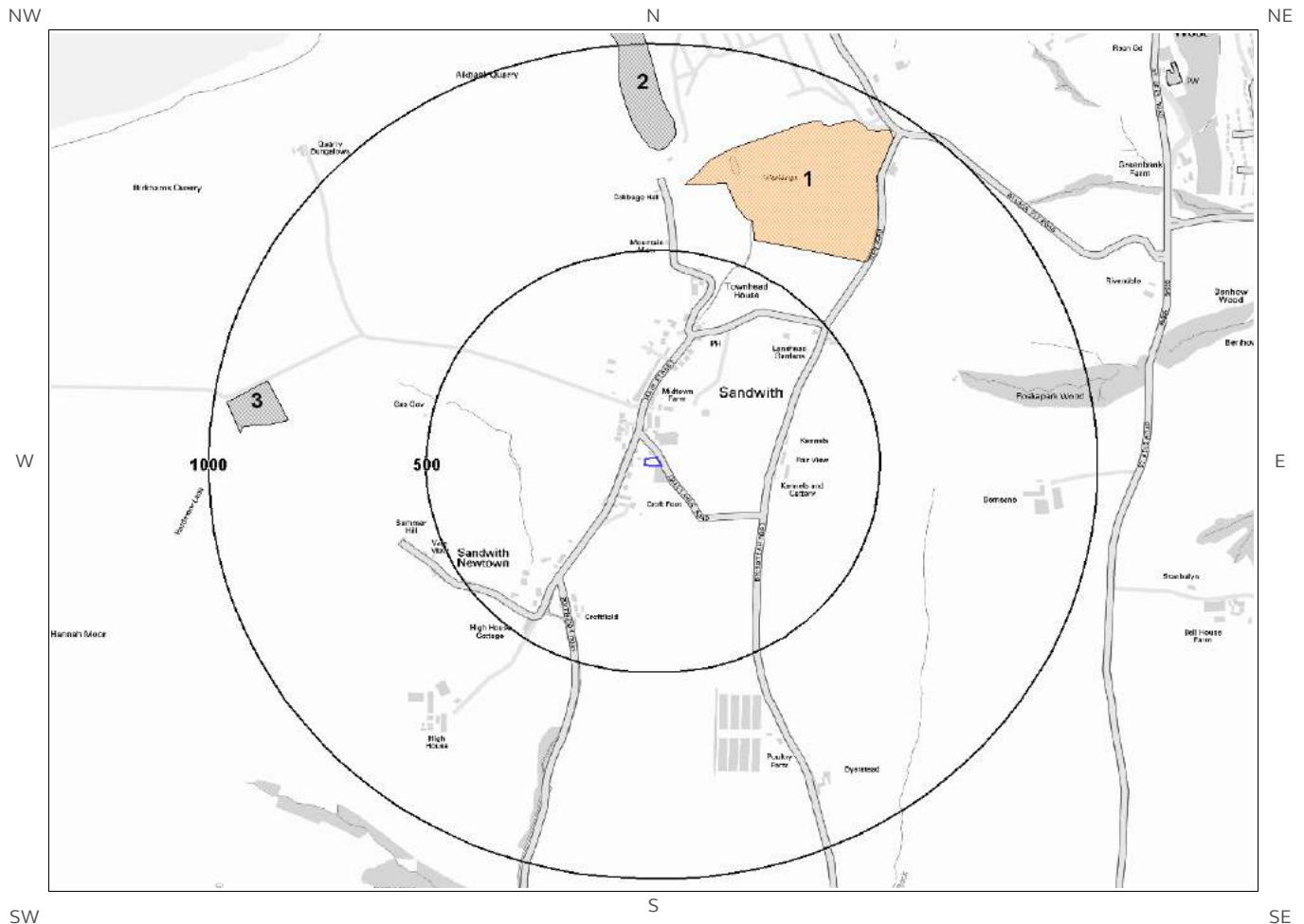
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

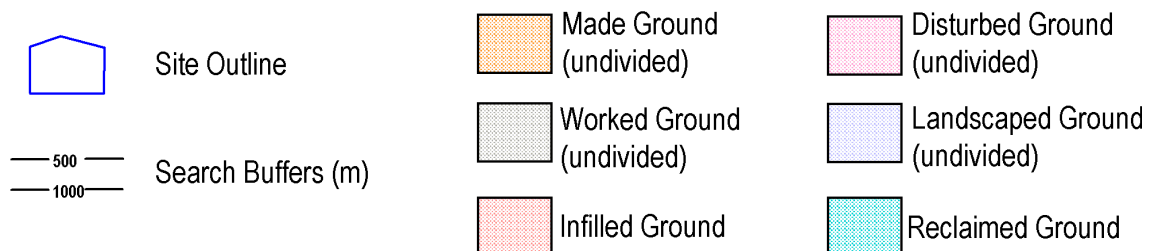
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 028

2.1.1 Artificial/ Made Ground

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

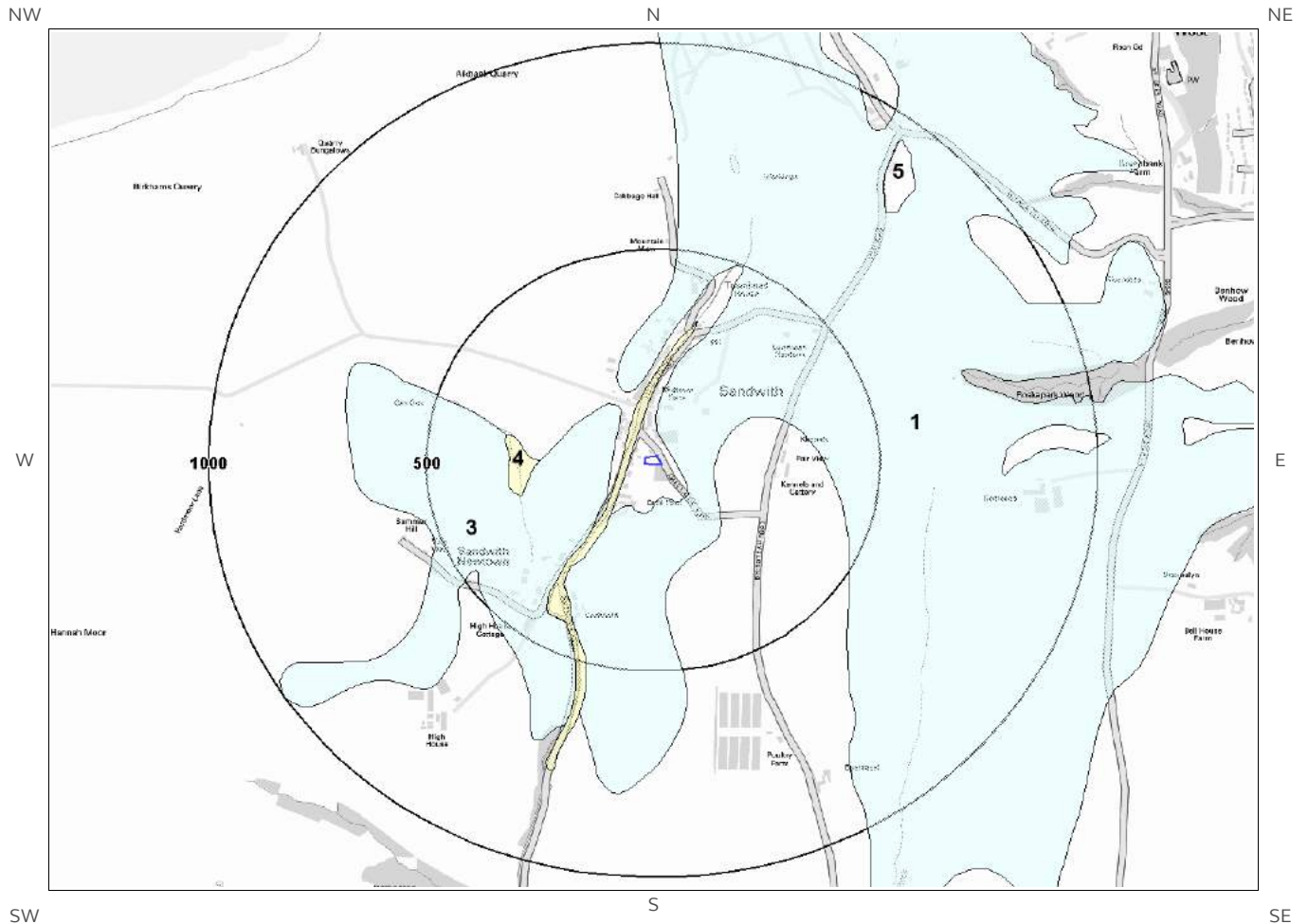
Database searched and no data found.

2.1.2 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.

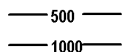
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



Site Outline



Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

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

ID	Distance	Direction	LEX Code	Description	Rock Description
1	28.0	NE	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
2	34.0	W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	74.0	W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
4	240.0	W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

2.2.2 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
28.0	NE	Mixed	High	Low
34.0	W	Intergranular	High	Very Low

2.2.3 Landslip

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

Database searched and no data found.

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

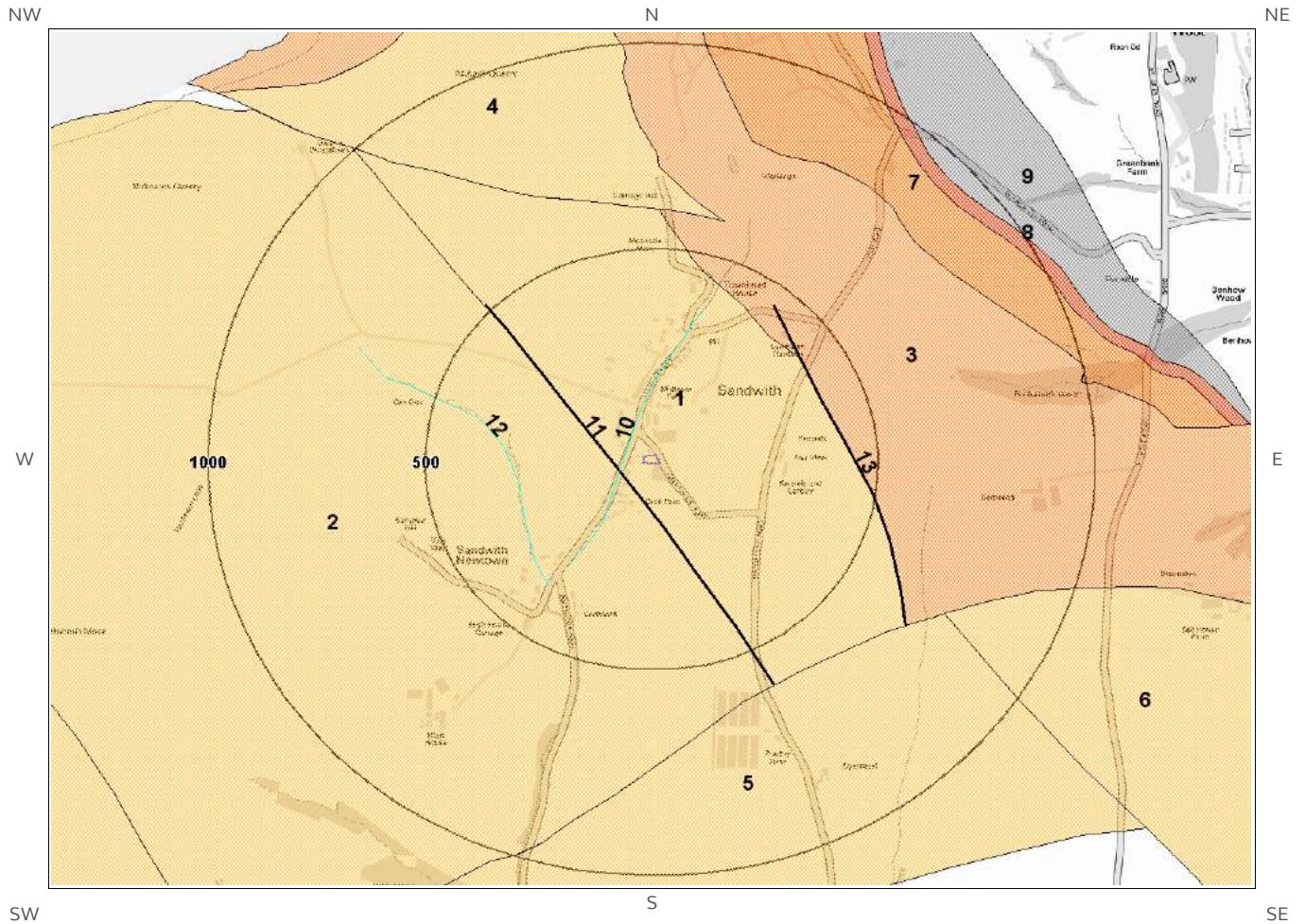
This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

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

Database searched and no data found.

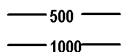
2.3 Bedrock and linear features map (1:50,000 scale)



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 028

2.3.1 Bedrock/Solid Geology

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

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	SBS-SDST	ST BEES SANDSTONE MEMBER - SANDSTONE	-
2	54.0	SW	SBS-SDST	ST BEES SANDSTONE MEMBER - SANDSTONE	-
3	387.0	NE	SBSH-SIMD	ST BEES SHALE FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED	-

2.3.2 Permeability of Bedrock Ground

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

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	High	Moderate

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? Yes

ID	Distance	Direction	Category Description	Feature Description
10	43.0	W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
11	54.0	SW	FAULT	Fault, inferred, displacement unknown
12	290.0	W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
13	399.0	NE	FAULT	Fault, inferred, displacement unknown

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 nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

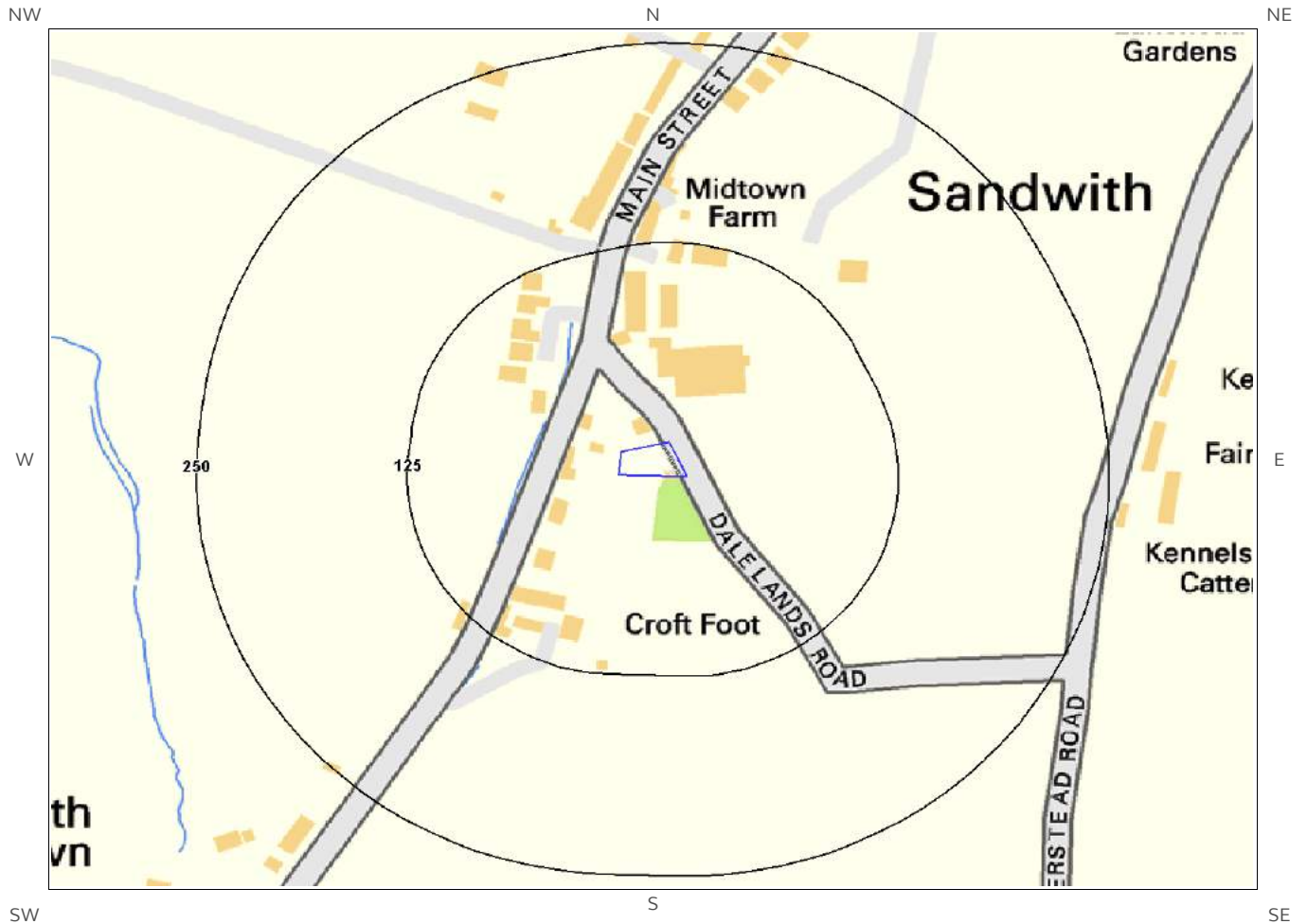
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

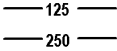
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.

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

4 Ground Workings

4.1 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? No

Database searched and no data found.

4.2 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? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
Not shown	791.0	NE	297019 515316	Old Coal Pit	1863
Not shown	845.0	NE	296982 515313	Old Coal Shaft	1938

4.3 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.

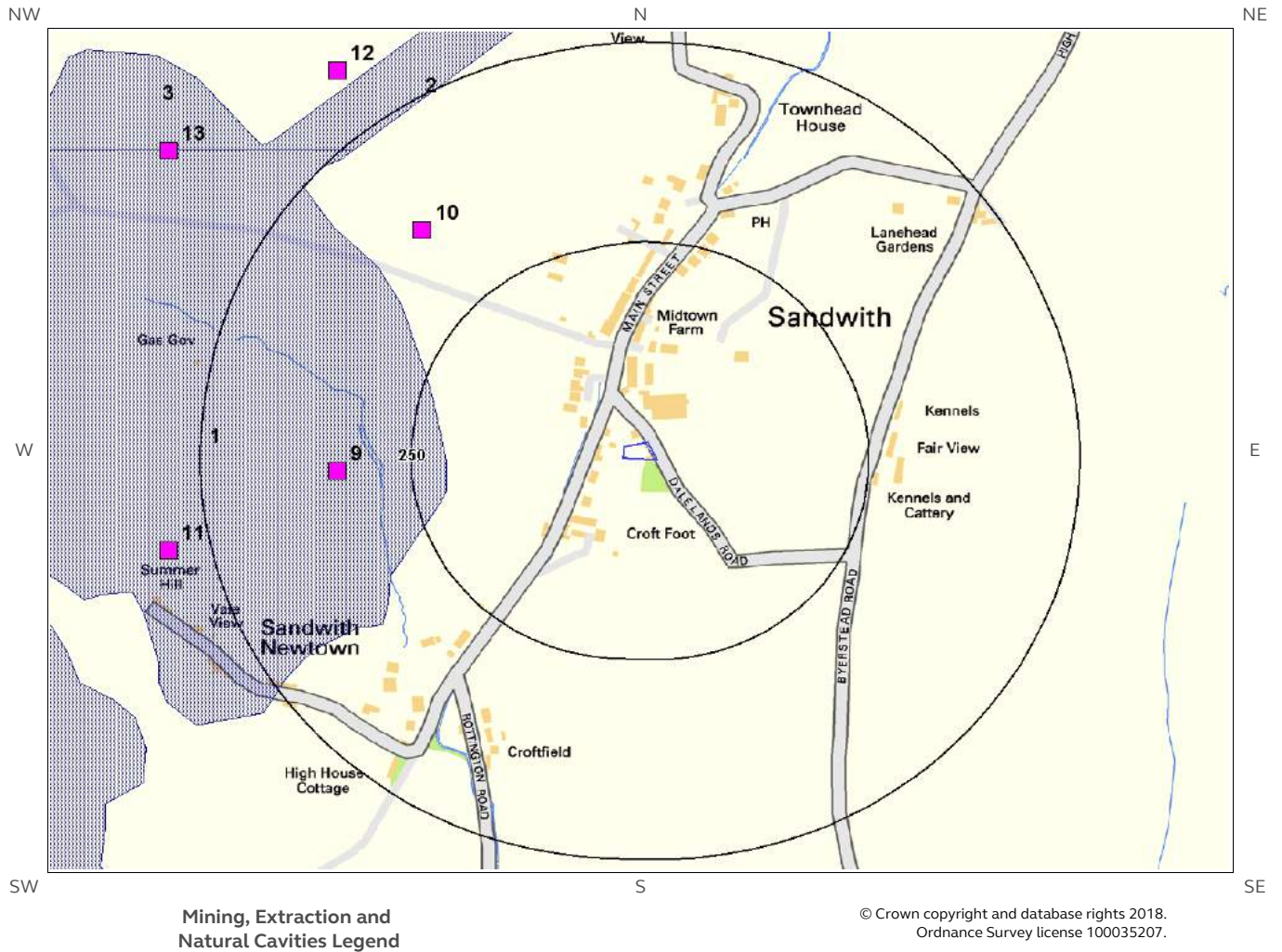
Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

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	668.0	N	296400 515300	Anhydrite	Sandwith Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	850.0	NE	296985 515310	Coal, Deep	Wilson Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	927.0	NE	297262 515115	Dolomite	Roskapark Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	958.0	NE	296965 515455	Dolomite	Far Prestonhows	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

5 Mining, Extraction & Natural Cavities map



5 Mining, Extraction & Natural Cavities

5.1 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	791.0	NE	297019 515316	Old Coal Pit	1863
Not shown	845.0	NE	296982 515313	Old Coal Shaft	1938

5.2 Coal Mining

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

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

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

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

5.3 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.

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	209.0	W	Sandwith	Anhydrite	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
2	490.0	NW	Sandwith	Anhydrite	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
3	490.0	NW	Sandwith	Anhydrite	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
4	490.0	NW	Sandwith	Anhydrite	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
5	558.0	NW	Sandwith	Anhydrite	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
Not shown	779.0	NW	Barrowmouth	Gypsum	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
Not shown	779.0	NW	Barrowmouth	Gypsum	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
Not shown	951.0	NE	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

5.5 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? Yes

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
9	338.0	W	296100 514600	Sandwith Anhydrite Mine (3), Whitehaven, Cumbria	Glacial Till	New Red Sandstone	Anhydrite

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
10	362.0	NW	296200 514900	Sandwith Anhydrite Mine (2), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite
11	550.0	W	295900 514500	Sandwith Anhydrite Mine (4), Whitehaven, Cumbria	Glacial Till	New Red Sandstone	Anhydrite
12	581.0	NW	296100 515100	Sandwith Anhydrite Mine (1), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite
13	655.0	NW	295900 515000	Sandwith Anhydrite Mine (17), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite
Not shown	665.0	N	296500 515300	Sandwith Anhydrite Mine, Whitehaven, Cumbria	Glacial Till	New Red Sandstone	Anhydrite
Not shown	769.0	W	295700 514400	Sandwith Anhydrite Mine (5), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite
Not shown	847.0	SW	295700 514200	Sandwith Anhydrite Mine (6), Whitehaven, Cumbria	Glacial Till	New Red Sandstone	Anhydrite
Not shown	886.0	SW	295800 514000	Sandwith Anhydrite Mine (7), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite
Not shown	963.0	NW	295600 515100	Sandwith Anhydrite Mine (16), Whitehaven, Cumbria	-	New Red Sandstone	Anhydrite

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

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

Database searched and no data found.

5.7 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.

5.8 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.

5.9 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.

5.10 Clay Mining

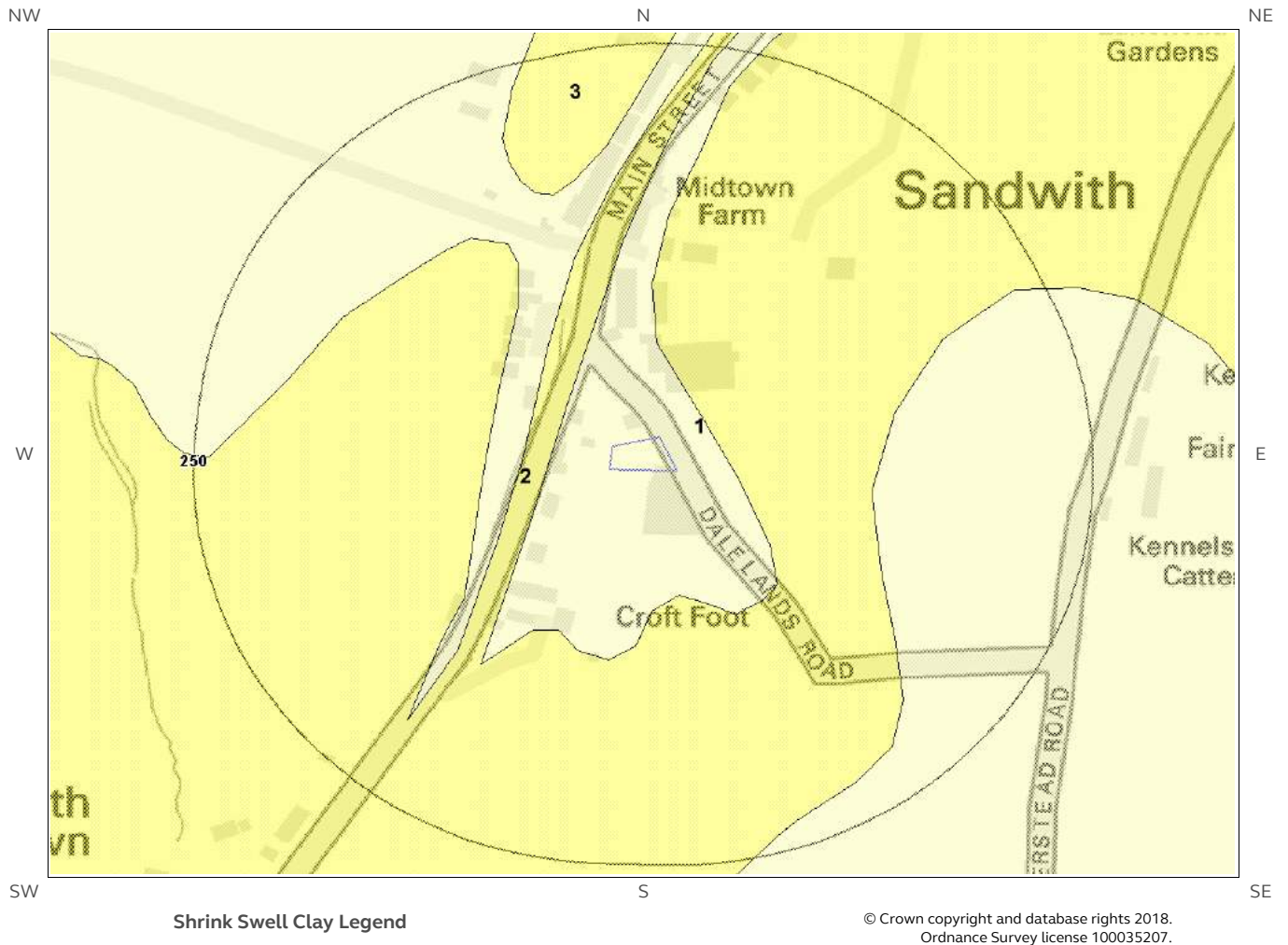
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

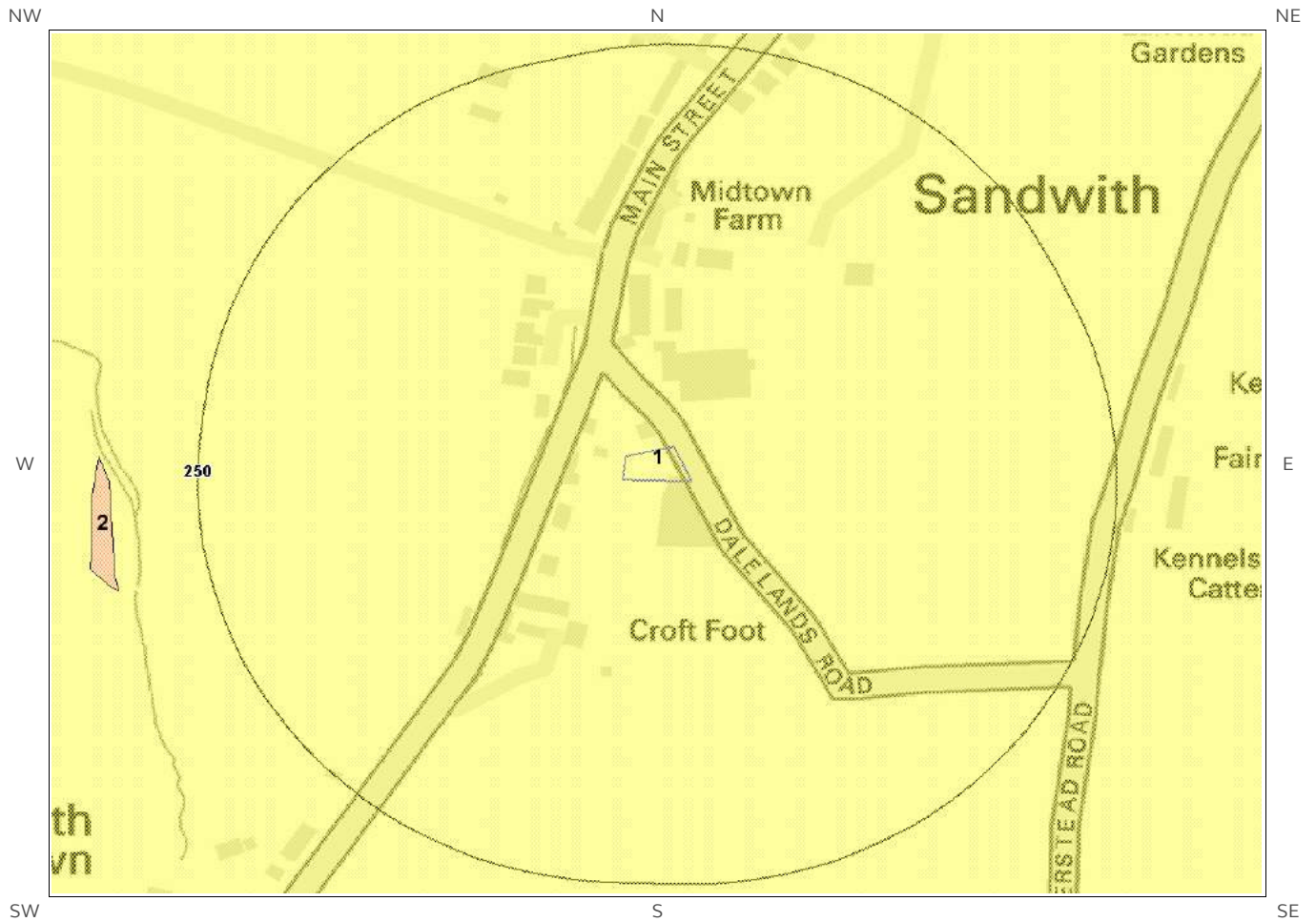
Database searched and no data found.

6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map



6.2 Landslides map

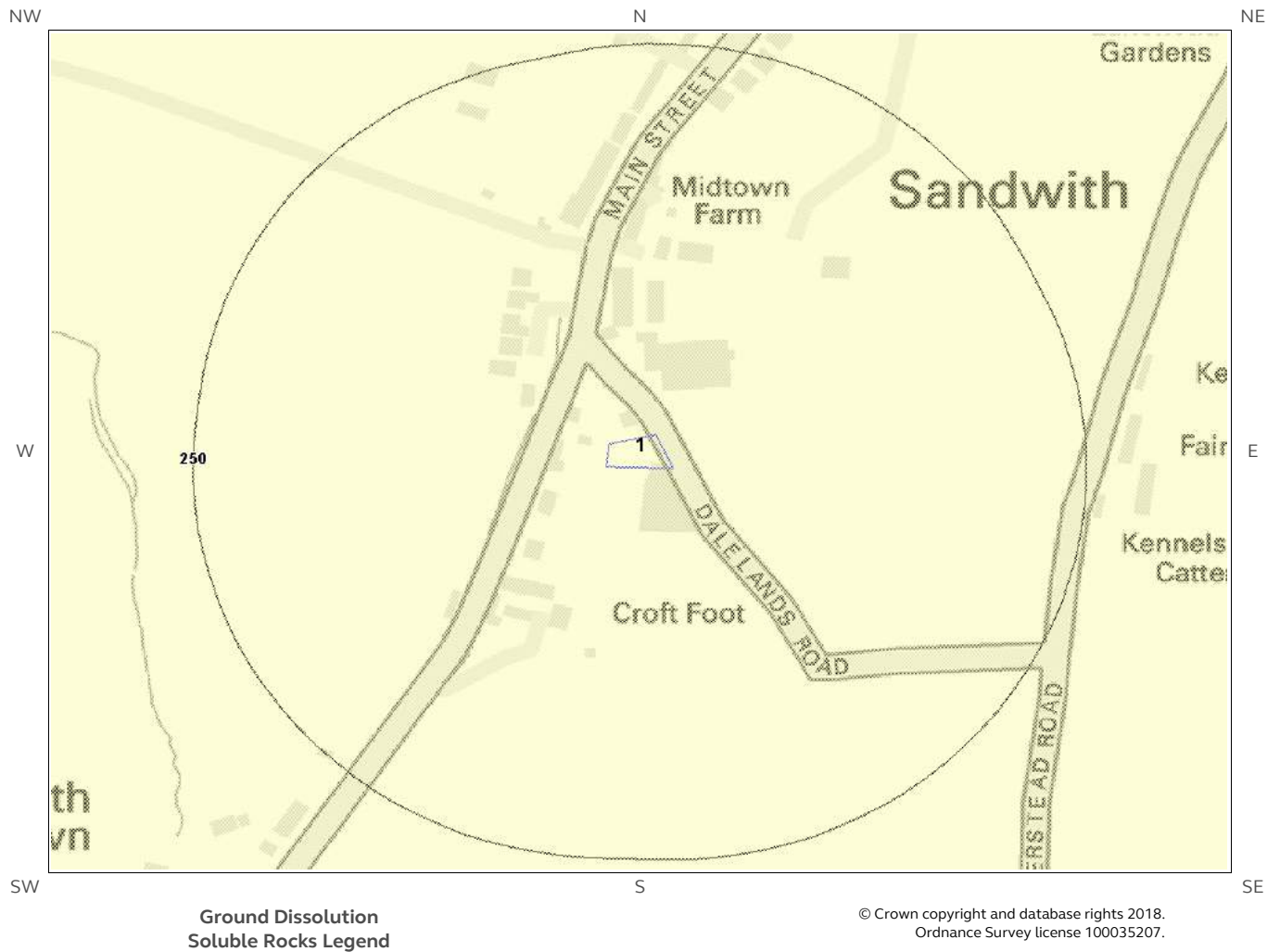


Landslides Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map

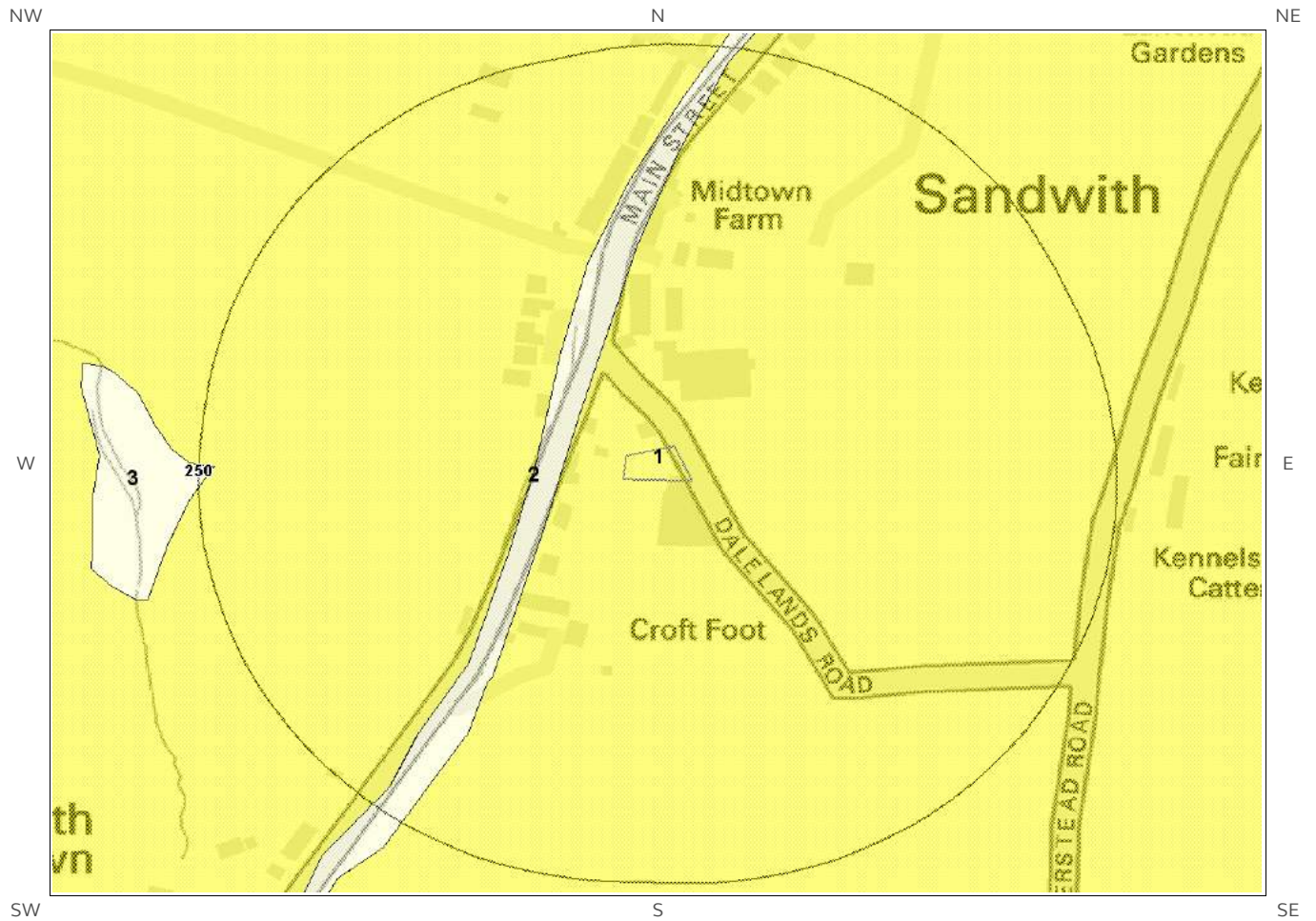


Compressible Deposits Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



6.5 Collapsible Deposits map

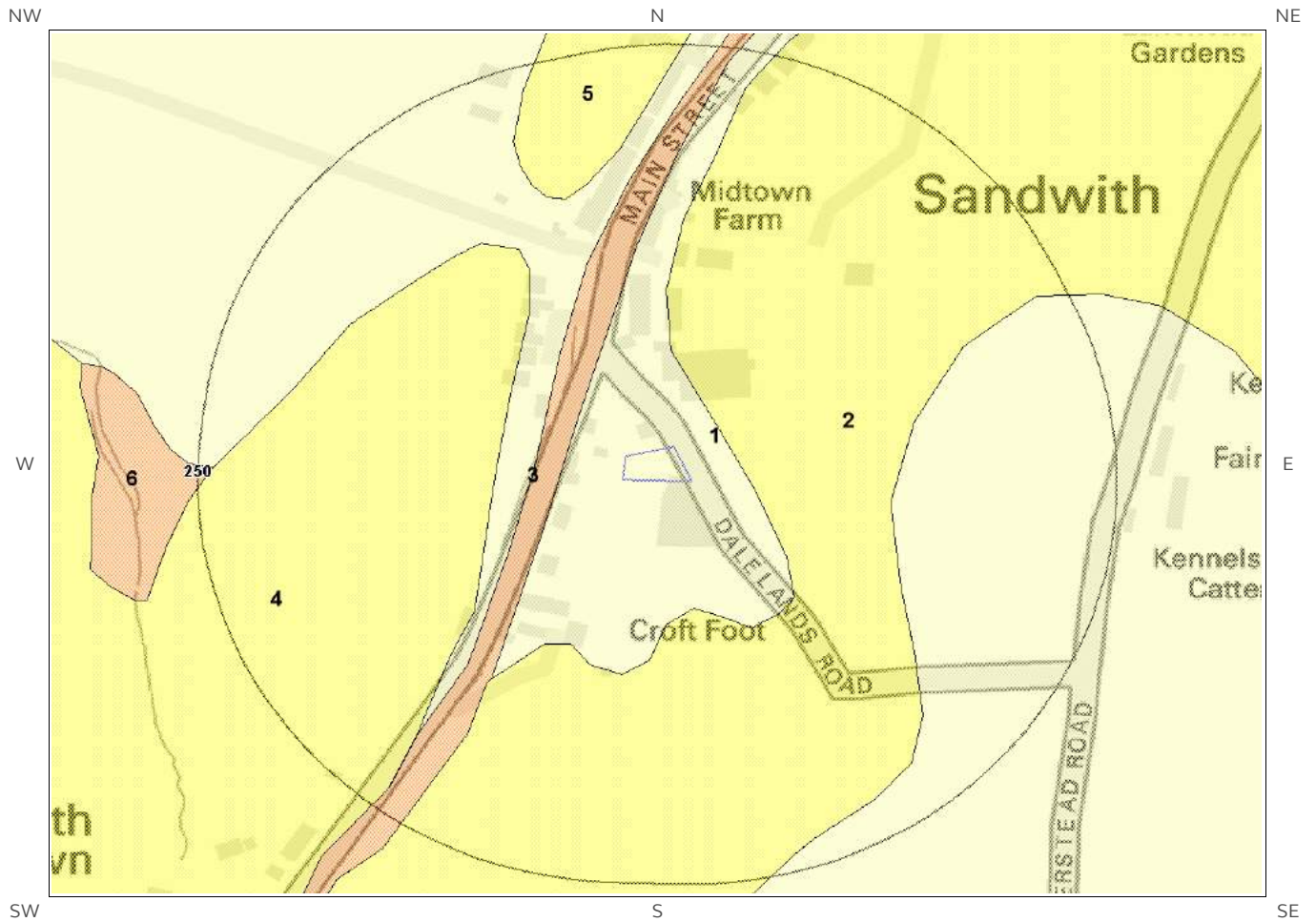


Collapsible Deposits Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



6.6 Running Sand map



Running Sand Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



6 Natural Ground Subsidence

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

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

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

6.1 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	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	28.0	NE	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

6.2 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.

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

6.3 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	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

6.4 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 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.
2	34.0	W	Moderate	Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

6.5 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	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	34.0	W	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

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

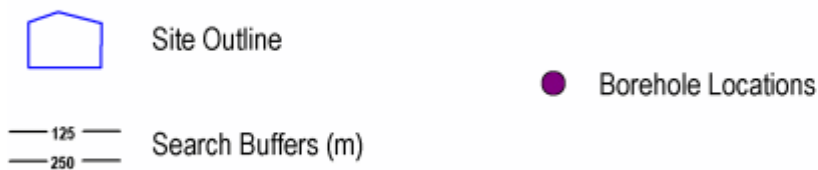
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	28.0	NE	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	34.0	W	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.

7 Borehole Records map



Borehole Records Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



7 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.

8 Estimated Background Soil Chemistry

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

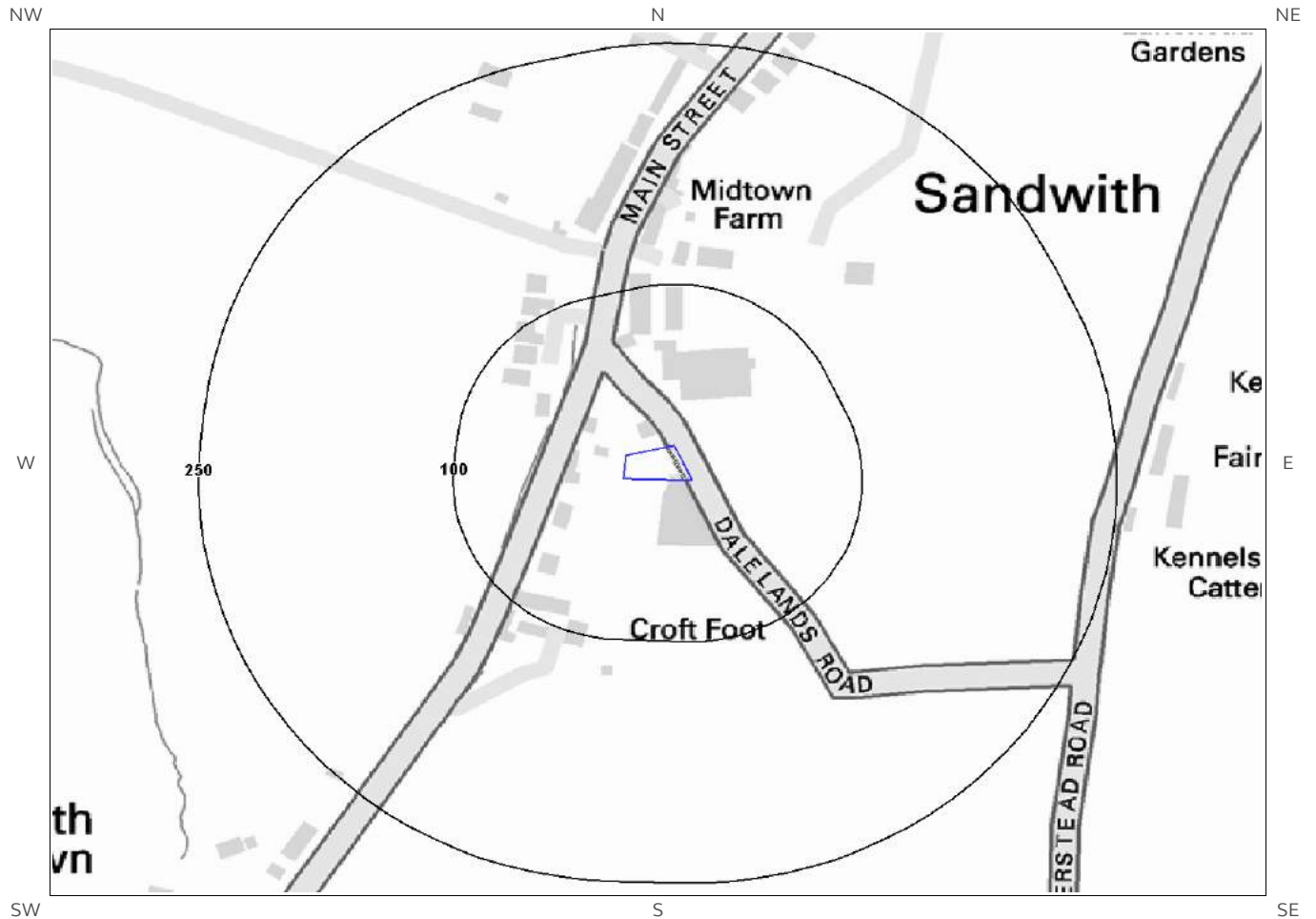
5

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight 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 mg/kg	<100 mg/kg
21.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
28.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
29.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
34.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

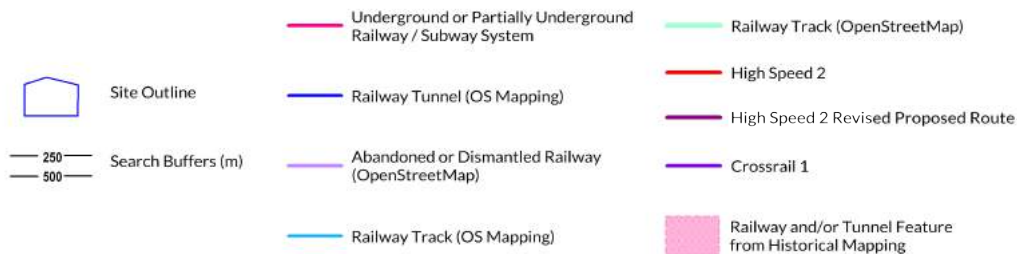
*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.
© OpenStreetMapContributors



9 Railways and Tunnels

9.1 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.

9.2 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.

9.3 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.

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.

9.4 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.

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.

9.5 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.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Contact Details

emapsite
Telephone: 0118 9736883
sales@emapsite.com



British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk



British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX



The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk



The Coal
Authority

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
<https://www.gov.uk/government/organisations/public-health-england>
Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



Public Health
England

Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettell Lane
Brierley Hill, West Midlands
DY5 3LH
Tel: +44 (0) 1384 262 000
Email: enquiries.gs@jpb.co.uk
Website: www.jpb.co.uk



Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505
Website: <http://www.ordnancesurvey.co.uk/>



Getmapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444
Website: <http://www.1.getmapping.com/>



Peter Brett Associates

Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN

Tel: +44 (0)118 950 0761 E-mail: reading@pba.co.uk
Website: <http://www.peterbrett.com/home>



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

Groundsure's Terms and Conditions can be viewed online at this link:
<https://www.groundsure.com/terms-and-conditions-march-2018/>



EmapSite

Masdar House, 1 Reading Road,
Eversley, RG27 0RP

Groundsure
Reference:

EMS-466498_626242

Your Reference:

EMS_466498_626242

Report Date

8 Mar 2018

Report Delivery
Method:

Email - pdf

Enviro Insight

Address: ,

Dear Sir/ Madam,

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

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

Yours faithfully,

emapsite customer services team

Enc.

Groundsure Enviroinsight

Address: ,
Date: 8 Mar 2018
Reference: EMS-466498_626242
Client: EmapSite

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 16-Aug-2016
Grid Reference: 296458,514623
Site Size: 0.06ha

Report Reference: EMS-466498_626242
Client Reference: EMS_466498_626242

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	12
1.3 Additional Information – Historical Energy Features Database	12
1.4 Additional Information – Historical Petrol and Fuel Site Database	12
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	13
1.6 Potentially Infilled Land	13
2. Environmental Permits, Incidents and Registers Map	14
2. Environmental Permits, Incidents and Registers	15
2.1 Industrial Sites Holding Licences and/or Authorisations	15
2.1.1 Records of historic IPC Authorisations within 500m of the study site	15
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site	15
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site	15
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site	15
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	15
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site	15
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	16
2.1.8 Records of Licensed Discharge Consents within 500m of the study site	16
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site	16
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	17
2.2 Dangerous or Hazardous Sites	17
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents	17
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site	17
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site	18
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	18
3. Landfill and Other Waste Sites Map	19
3. Landfill and Other Waste Sites	20
3.1 Landfill Sites	20
3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site	20
3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site	20
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site	21
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site	21
3.2 Other Waste Sites	21
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site	21
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site	22
4. Current Land Use Map	25
4. Current Land Uses	26
4.1 Current Industrial Data	26
4.2 Petrol and Fuel Sites	26
4.3 National Grid High Voltage Underground Electricity Transmission Cables	26
4.4 National Grid High Pressure Gas Transmission Pipelines	27

5. Geology	28
5.1 Artificial Ground and Made Ground.....	28
5.2 Superficial Ground and Drift Geology	28
5.3 Bedrock and Solid Geology	28
6 Hydrogeology and Hydrology	29
6a. Aquifer Within Superficial Geology	29
6b. Aquifer Within Bedrock Geology and Abstraction Licences	30
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences	31
6d. Hydrogeology – Source Protection Zones within confined aquifer	32
6e. Hydrology – Detailed River Network and River Quality	33
6.Hydrogeology and Hydrology	34
6.1 Aquifer within Superficial Deposits.....	34
6.2 Aquifer within Bedrock Deposits.....	34
6.3 Groundwater Abstraction Licences.....	35
6.4 Surface Water Abstraction Licences.....	36
6.5 Potable Water Abstraction Licences.....	36
6.6 Source Protection Zones.....	36
6.7 Source Protection Zones within Confined Aquifer.....	36
6.8 Groundwater Vulnerability and Soil Leaching Potential.....	37
6.9 River Quality.....	37
6.9.1 Biological Quality:.....	37
6.9.2 Chemical Quality:.....	37
6.10 Detailed River Network.....	37
6.11 Surface Water Features.....	38
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)	39
7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS)	40
Map	40
7 Flooding	41
7.1 River and Coastal Zone 2 Flooding.....	41
7.2 River and Coastal Zone 3 Flooding.....	41
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating.....	41
7.4 Flood Defences.....	41
7.5 Areas benefiting from Flood Defences.....	41
7.6 Areas benefiting from Flood Storage.....	42
7.7 Groundwater Flooding Susceptibility Areas.....	42
7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site	42
7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions	42
7.8 Groundwater Flooding Confidence Areas.....	42
8. Designated Environmentally Sensitive Sites Map	43
8. Designated Environmentally Sensitive Sites	44
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:.....	44
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:.....	44
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:.....	44
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:.....	44
8.5 Records of Ramsar sites within 2000m of the study site:.....	45
8.6 Records of Ancient Woodland within 2000m of the study site:	45
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:.....	45
8.8 Records of World Heritage Sites within 2000m of the study site:.....	45
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	45

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	45
8.11 Records of National Parks (NP) within 2000m of the study site:	46
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:.....	46
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:.....	46
8.14 Records of Green Belt land within 2000m of the study site:.....	46
9. Natural Hazards Findings	47
9.1 Detailed BGS GeoSure Data.....	47
9.1.1 Shrink Swell.....	47
9.1.2 Landslides.....	47
9.1.3 Soluble Rocks.....	47
9.1.4 Compressible Ground.....	48
9.1.5 Collapsible Rocks.....	48
9.1.6 Running Sand.....	48
9.2 Radon.....	49
9.2.1 Radon Affected Areas.....	49
9.2.2 Radon Protection.....	49
10. Mining	50
10.1 Coal Mining.....	50
10.2 Non-Coal Mining.....	50
10.3 Brine Affected Areas	50
Contact Details	51
Standard Terms and Conditions	53

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	3	1
1.2 Additional Information – Historical Tank Database	0	0	5	0
1.3 Additional Information – Historical Energy Features Database	0	0	0	0
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	0	0	0	0
1.6 Potentially Infilled Land	0	0	0	0
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	3	1	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/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	4	0
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	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	2	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	0	0	1
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	1	1
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	1
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	10	1

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	1	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 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
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 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified					
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified					
	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	5	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
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

Section 6: Hydrogeology and Hydrology	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales 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	1	4	7	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding						
7.1 Environment Agency Zone 2 floodplains within 250m of the study site	None identified					
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified					
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low					
7.4 Flood Defences within 250m of the study site	None identified					
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified					
7.6 Areas used for Flood Storage within 250m of the study site	None identified					
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential at Surface					
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Low					

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	3
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	2
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
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

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
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	1	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 Maximum risk of natural ground subsidence	Moderate
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Very Low
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Moderate
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Low
9.2 Radon	
9.2.1 Radon Affected Area rating	The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Radon protection measures requirements	No radon protective measures are necessary.

Section 10: Mining

10.1 Coal mining areas within 75m of the study site	Identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

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.

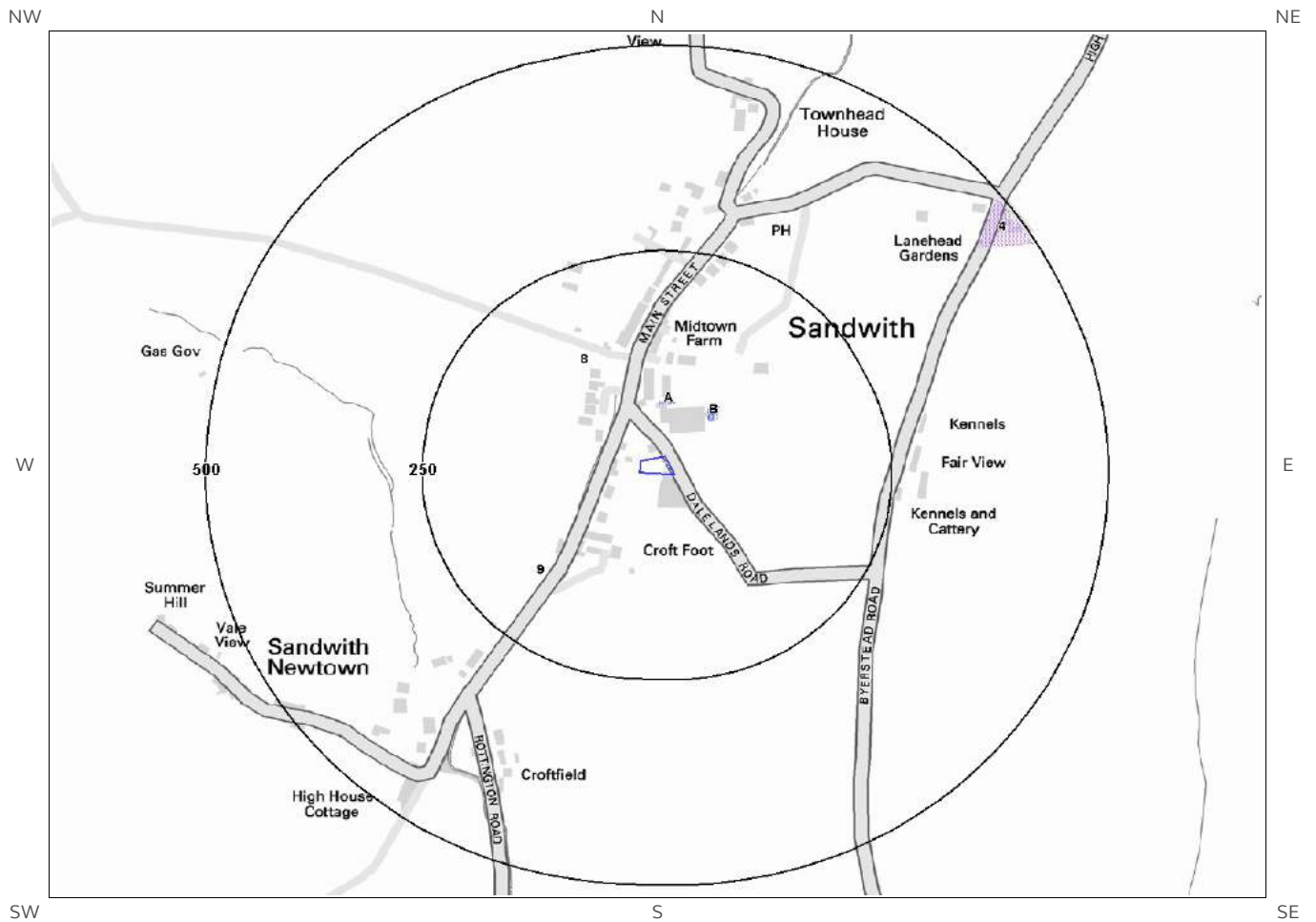
Note: Maps

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).

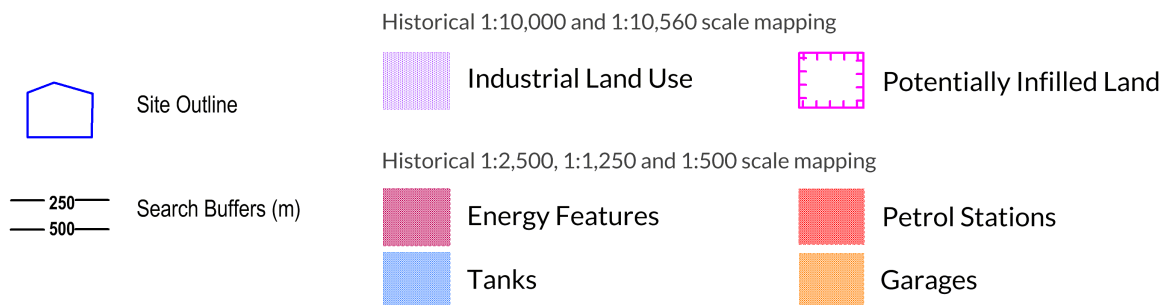
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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.

1. Historical Land Use



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



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: 4

ID	Distance [m]	Direction	Use	Date
1A	64	N	Unspecified Tank	1926
2A	65	N	Unspecified Tank	1951
3B	65	NE	Unspecified Tanks	1993
4	442	NE	Smithy	1898

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: 5

ID	Distance (m)	Direction	Use	Date
5A	64	N	Unspecified Tank	1961
6A	64	N	Unspecified Tank	1925
7B	67	NE	Tanks	1994
8	135	NW	Tank or Trough	1865
9	166	SW	Tank or Trough	1864

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: 0

Database searched and no data found.

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: 0

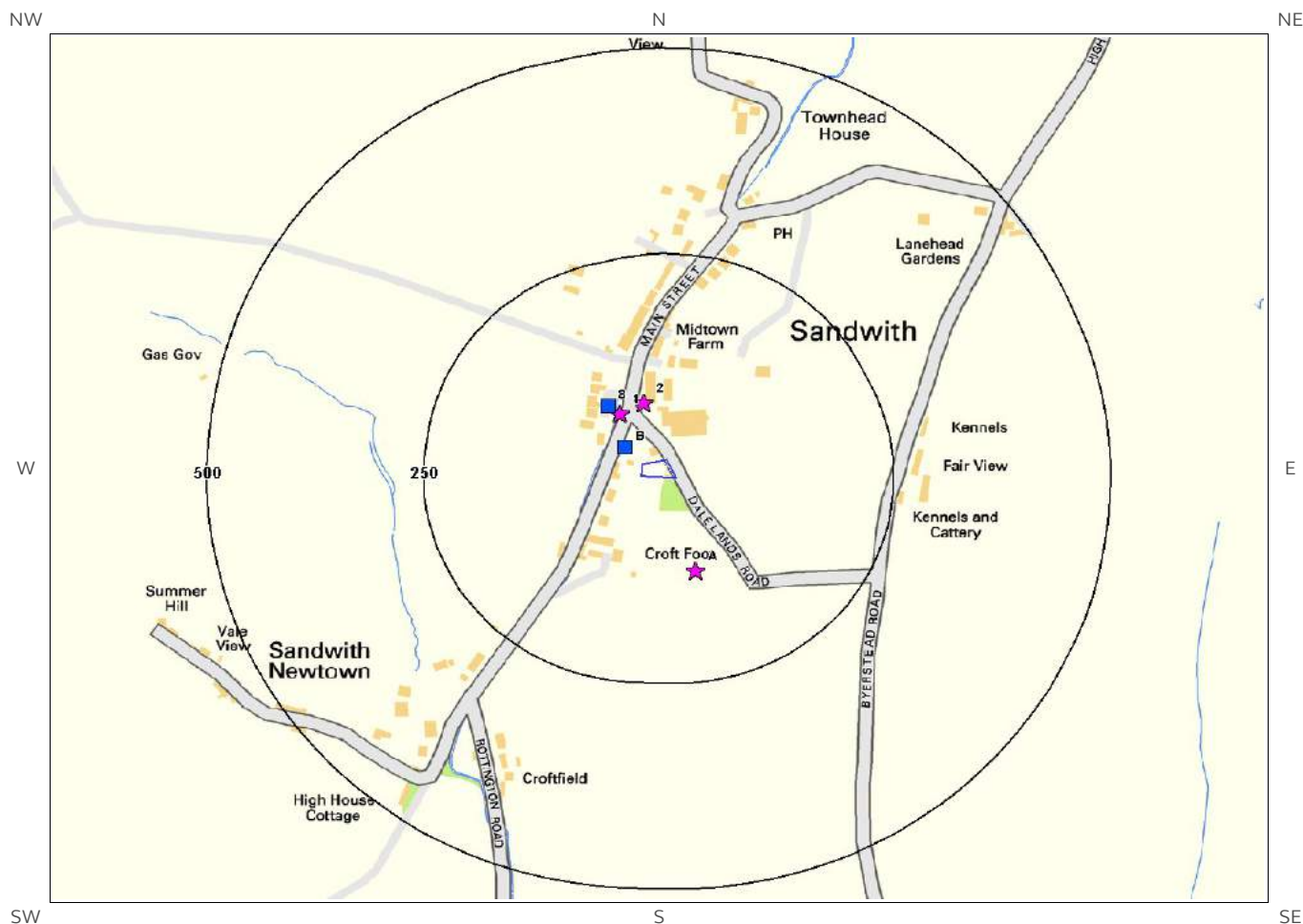
Database searched and no data found.

1.6 Potentially Infilled Land

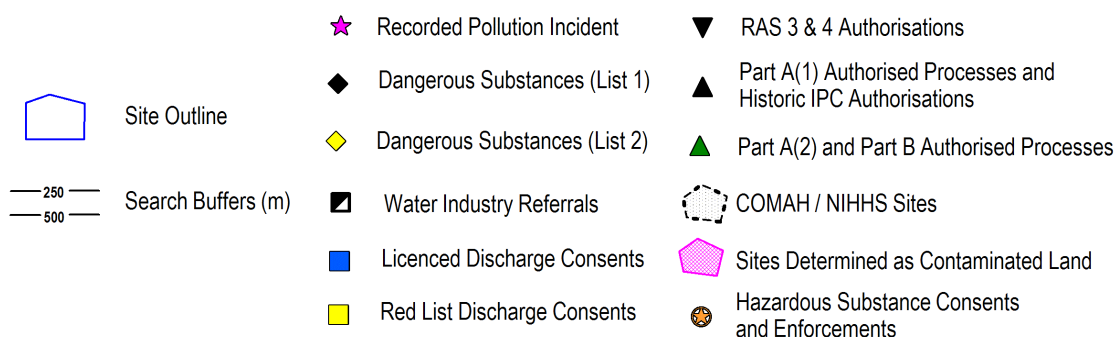
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 0

Database searched and no data found.

2. Environmental Permits, Incidents and Registers Map



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales 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:

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:

4

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
5B	29	NW	296420 514650	Address: SANDWITH SPS, SANDWITH, WHITEHAVEN, CUMBRIA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470039 Permit Version: 1 Receiving Water: ROTTINGTON BECK Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 12-Jan-1980 Revocation Date: 30/01/1985
6B	29	NW	296420 514650	Address: SANDWITH SPS, SANDWITH, WHITEHAVEN, CUMBRIA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470039 Permit Version: 3 Receiving Water: ROTTINGTON BECK Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 10-Sep-1985 Revocation Date: 18/02/1993
7B	29	NW	296420 514650	Address: SANDWITH SPS, SANDWITH, WHITEHAVEN, CUMBRIA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470039 Permit Version: 2 Receiving Water: ROTTINGTON BECK Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 31-Jan-1985 Revocation Date: 09/09/1985
8	81	NW	296400 514700	Address: SANDWITH SPS, SANDWITH, WHITEHAVEN, CUMBRIA Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 017470039 Permit Version: 4 Receiving Water: SANDWITH BECK Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 19/02/1993 Effective Date: 19-Feb-1993 Revocation Date: -

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/Natural Resources Wales Recorded Pollution Incidents

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

4

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	67	NW	296413 514691	Incident Date: 04-Nov-2002 Incident Identification: 118622 Pollutant: Sewage Materials Pollutant Description: Grey Water Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	73	N	296440 514704	Incident Date: 19-Aug-2002 Incident Identification: 101510 Pollutant: Sewage Materials Pollutant Description: Grey Water Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3A	116	S	296500 514500	Incident Date: 16-Mar-2001 Incident Identification: 457 Pollutant: Agricultural Materials and Wastes Pollutant Description: Other Agricultural Material or Waste Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4A	116	S	296500 514500	Incident Date: 16-May-2001 Incident Identification: 5688 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) 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

Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site

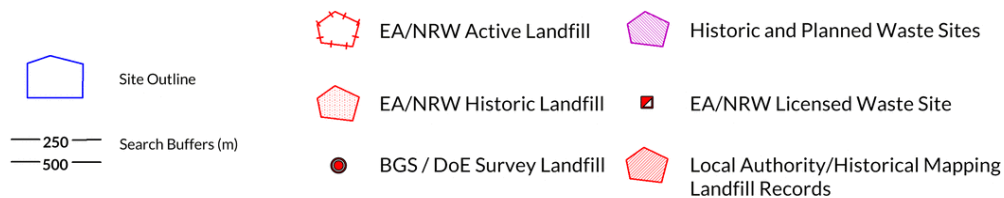
0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

2

The following Environment Agency/Natural Resources Wales landfill records are represented as polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
3	579	NE	296800 515300	Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28 9QJ Landfill Reference: 57181.0 Environmental Permitting Regulations (Waste) Reference: WHI261 Landfill Type: A07: Industrial Waste Landfill (Factory curtilage) Operator: Whitehaven Developments Ltd Status: Modified IPPC Reference: EPR Reference:
Not shown	785	N	296500 515500	Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Landfill Reference: 57028.0 Environmental Permitting Regulations (Waste) Reference: WHI260 Landfill Type: A07: Industrial Waste Landfill (Factory curtilage) Operator: Whitehaven Developments Ltd Status: Modified IPPC Reference: EPR Reference:

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

1

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
Not shown	1280	N	295900 515900	Site Address: Marchon Tip, Barrowmouth Kells, Whitehaven, Cumbria Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

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

2

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

ID	Distance (m)	Direction	NGR	Details
Not shown	967	N	296400.0 515600.0	Address: Marchon Tip, Lingydale, Kells, Whitehaven, Cumbria BGS Number: 1235.0 Risk: Risk to major aquifer Waste Type: Toxic waste-
Not shown	1345	N	296000.0 515900.0	Address: Marchon Tip, Barrowmouth Kells, Whitehaven, Cumbria BGS Number: 24.0 Risk: Risk to minor aquifer Waste Type: N/A

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

1

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	1466	N	295993 516046	Refuse Tip	1961 mapping	Polygon

3.2 Other Waste Sites

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

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

11

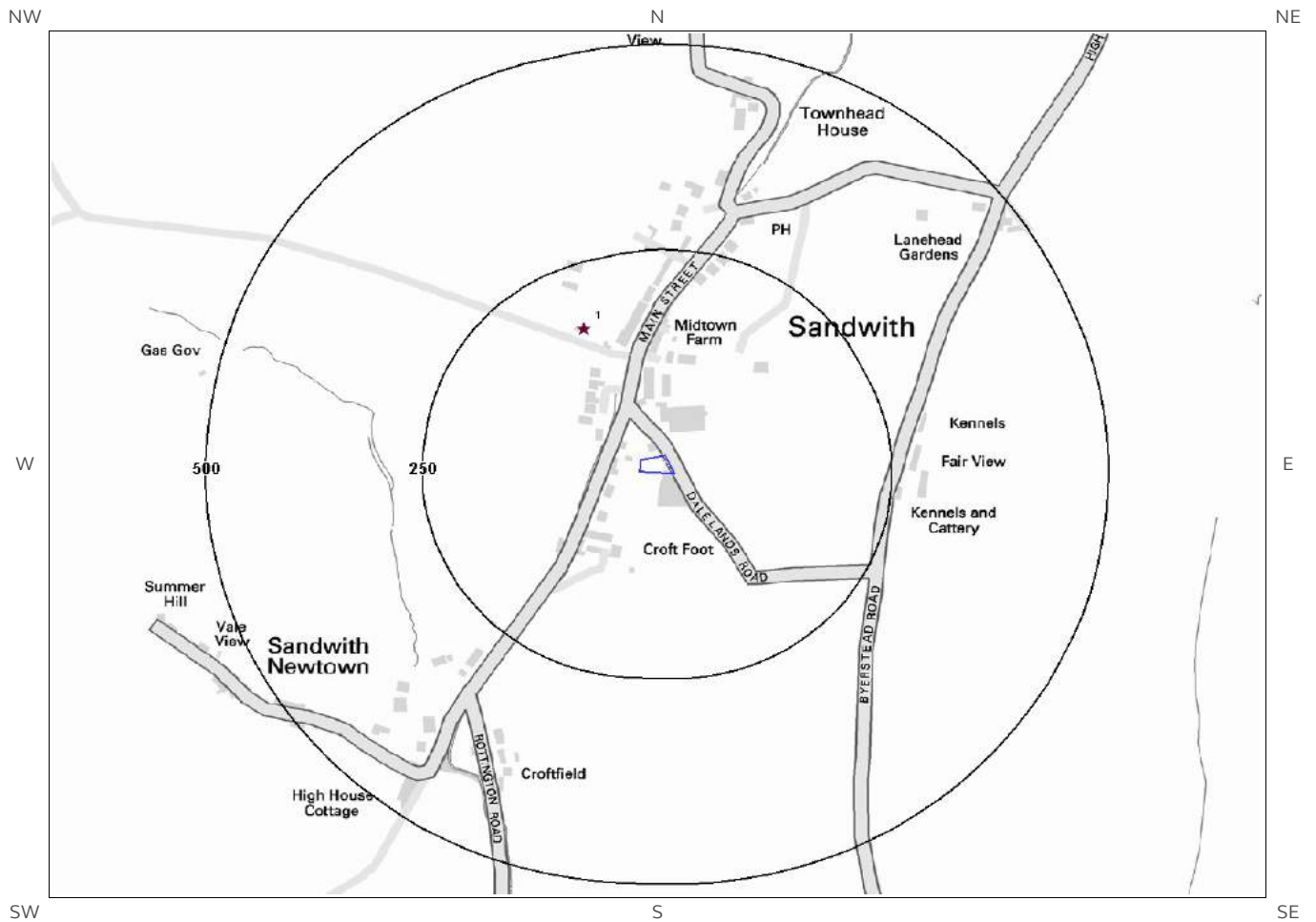
The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
Not shown	743	NE	296800 515300	Site Address: P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALB002 EPR reference: - Operator: Rhodia Consumer Specialities Ltd Waste Management licence No: 57181 Annual Tonnage: 50000.0 Issue Date: 22/05/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Ufex Raffinate Correspondence Address: Whitehaven Works, P O Box 15, Whitehaven, Cumbria, CA28 9QQ
Not shown	743	NE	296800 515300	Site Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28 9QJ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WHI261 EPR reference: EA/EPR/GB3733AX/T001 Operator: Whitehaven Development Ltd Waste Management licence No: 57181 Annual Tonnage: 249999.0 Issue Date: 22/05/1992 Effective Date: 11/05/2012 Modified: 24/01/2008 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Ufex Landfill Correspondence Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28
Not shown	743	NE	296800 515300	Site Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28 9QJ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALB002 EPR reference: EA/EPR/TP3293ZD/V002 Operator: Rhodia U K Ltd Waste Management licence No: 57181 Annual Tonnage: 249999.0 Issue Date: 22/05/1992 Effective Date: - Modified: 24/01/2008 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Ufex Raffinate Correspondence Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28
Not shown	743	NE	296800 515300	Site Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28 9QJ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WHI261 EPR reference: EA/EPR/GB3733AX/V002 Operator: Whitehaven Developments Ltd Waste Management licence No: 57181 Annual Tonnage: 249999.0 Issue Date: 22/05/1992 Effective Date: 11/05/2012 Modified: 04/02/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Ufex Landfill Correspondence Address: Land / Premises At, Off High Road, Whitehaven, Cumbria, C28
Not shown	864	NE	297020 515300	Site Address: Wilson Put Yard, Sandwith, Whitehaven, Cumbria, CA28 9QJ Type: 75kte HCl Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WES666 EPR reference: EA/EPR/HP3992EQ/A001 Operator: West Coast Composting Ltd Waste Management licence No: 101717 Annual Tonnage: 149998.0 Issue Date: 06/07/2010 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Wilson Pit Yard Correspondence Address: Wilson Put Yard, Sandwith, Whitehaven, Cumbria, CA28

ID	Distance (m)	Direction	NGR	Details	
Not shown	865	N	296500 515500	Site Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WHI260 EPR reference: EA/EPR/GB3732RY/T001 Operator: Whitehaven Development Ltd Waste Management licence No: 57028 Annual Tonnage: 50000.0	Issue Date: 31/08/1977 Effective Date: 11/05/2012 Modified: 24/01/2008 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Hutbank Landfill Correspondence Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28
Not shown	865	N	296500 515500	Site Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALB001 EPR reference: - Operator: Rhodia Consumer Specialities Ltd Waste Management licence No: 57028 Annual Tonnage: 50000.0	Issue Date: 31/08/1977 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Hutbank Quarry Correspondence Address: Whitehaven Works, P O Box 15, Whitehaven, Cumbria, CA28 9QQ
Not shown	865	N	296500 515500	Site Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WHI260 EPR reference: EA/EPR/GB3732RY/V002 Operator: Whitehaven Developments Ltd Waste Management licence No: 57028 Annual Tonnage: 50000.0	Issue Date: 31/08/1977 Effective Date: 11/05/2012 Modified: 04/02/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Hutbank Landfill Correspondence Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28
Not shown	865	N	296500 515500	Site Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALB001 EPR reference: - Operator: Rhodia Consumer Specialities Ltd Waste Management licence No: 57028 Annual Tonnage: 50000.0	Issue Date: 31/08/1977 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Hutbank Quarry Correspondence Address: Whitehaven Works, P O Box 15, Whitehaven, Cumbria, CA28 9QQ
Not shown	865	N	296500 515500	Site Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28 9QQ Type: Industrial Waste Landfill (Factory curtilage) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALB001 EPR reference: EA/EPR/XP3593ZX/V002 Operator: Rhodia U K Ltd Waste Management licence No: 57028 Annual Tonnage: 50000.0	Issue Date: 31/08/1977 Effective Date: - Modified: 24/01/2008 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Hutbank Quarry Correspondence Address: Hutbank Quarry Landfill, P O Box 15, Whitehaven, Cumbria, CA28

ID	Distance (m)	Direction	NGR	Details	
Not shown	1227	N	296640 515850	Site Address: Whitehaven Developments Site Restoration, High Road, Mirehouse, Whitehaven, Cumbria, CA28 9QQ Type: Deposit of waste to land as a recovery operation Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RHO023 EPR reference: EA/EPR/AB3009CY/V004 Operator: Whitehaven Developments Limited Waste Management licence No: 400343 Annual Tonnage: 484098.0	Issue Date: 17/10/2013 Effective Date: - Modified: 01/09/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Whitehaven Developments Site Restoration Correspondence Address: Whitehaven Developments Site Restoration, High Road, Mirehouse, Whitehaven, Cumbria, CA28

4. Current Land Use Map



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 1

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	174	N	Electricity Sub Station	296374 514790	CA28	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
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

5.3 Bedrock and Solid Geology

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

Lex Code	Description	Rock Type
SBS-SDST	ST BEES SANDSTONE MEMBER	SANDSTONE

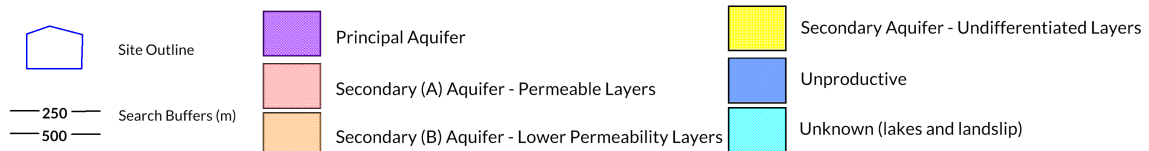
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

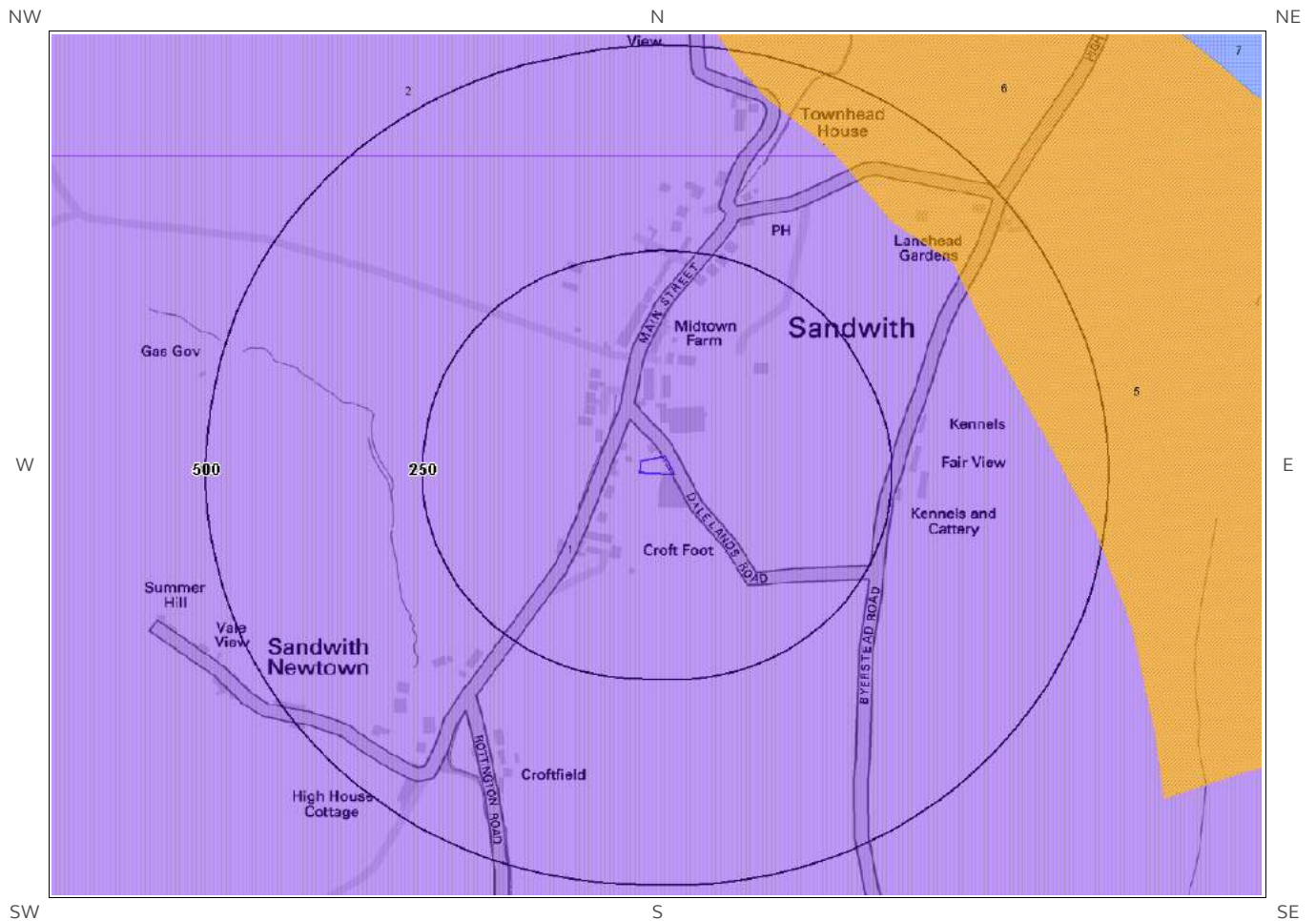
6a. Aquifer Within Superficial Geology



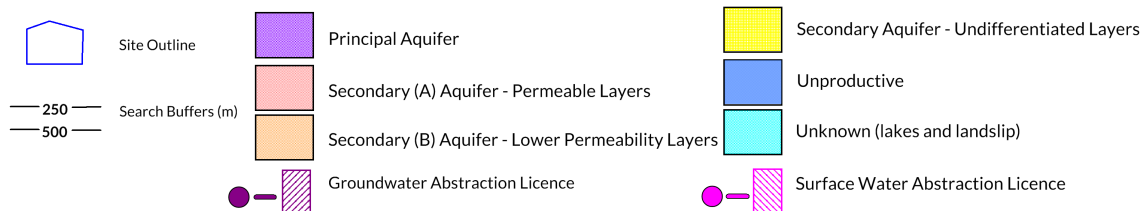
© Crown copyright and database rights 2018
Ordnance Survey license 100035207.



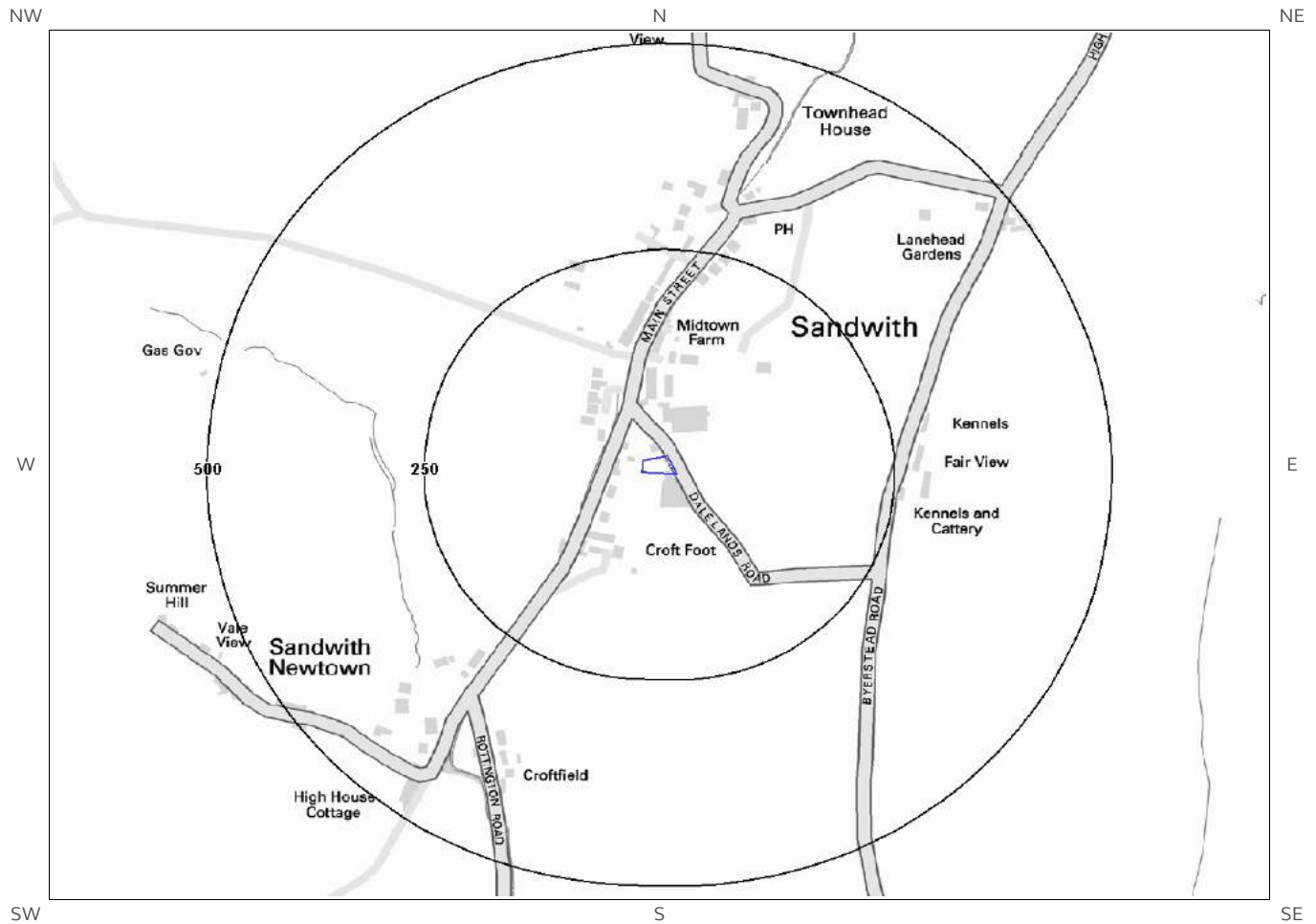
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



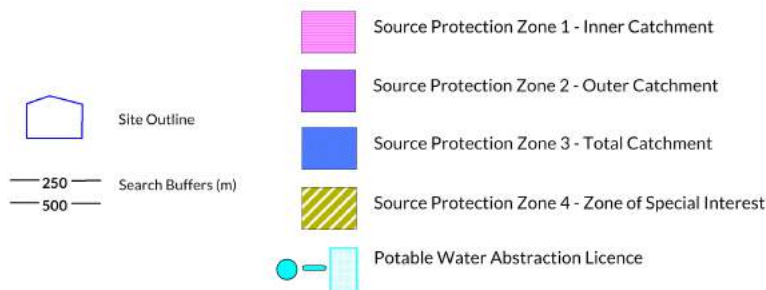
© Crown copyright and database rights 2018
Ordnance Survey license 100035207.



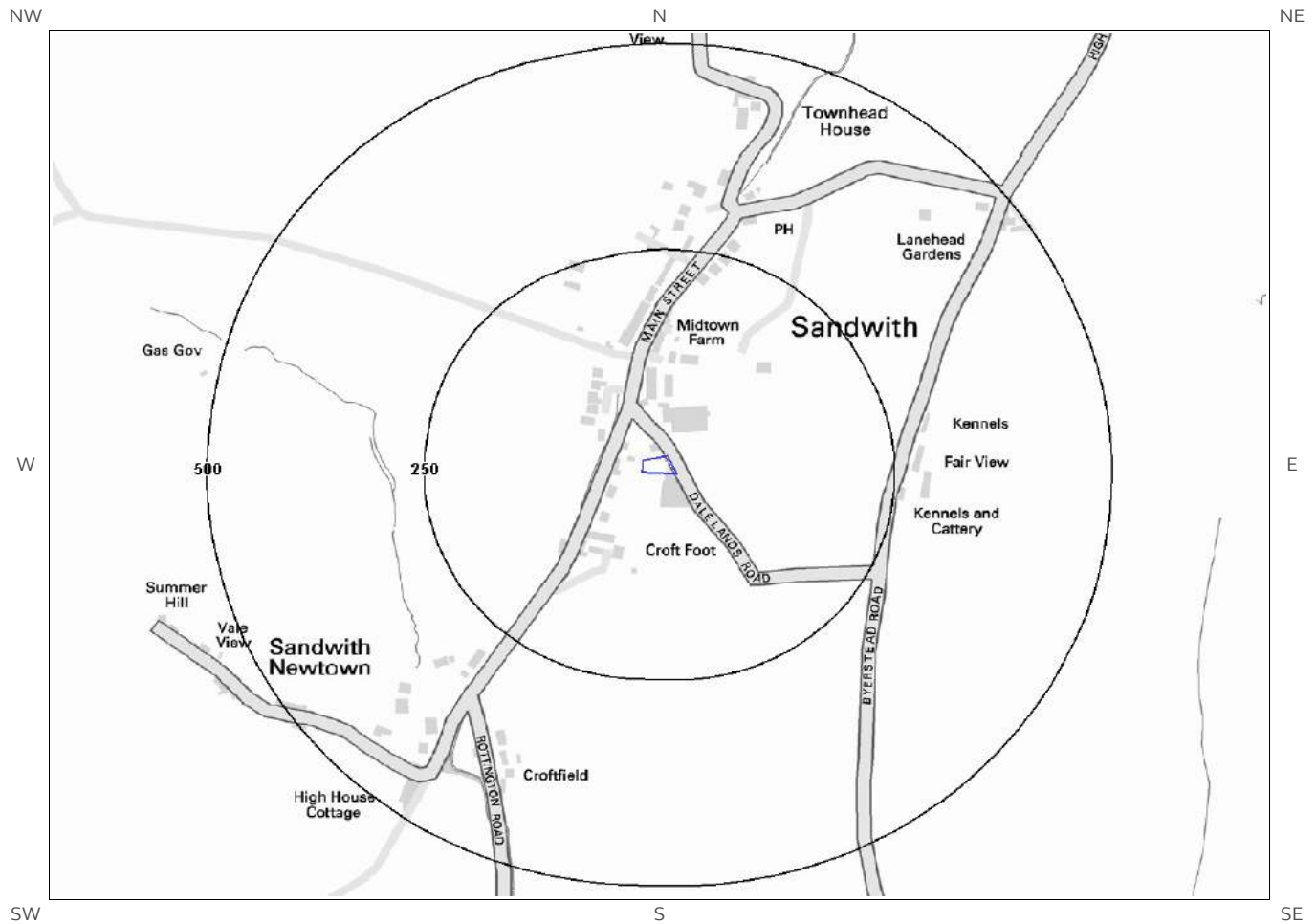
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



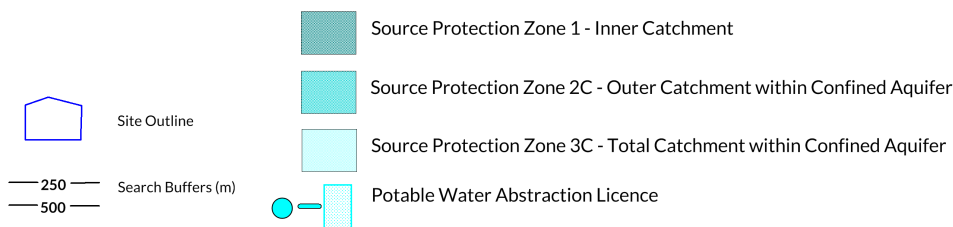
© Crown copyright and database rights 2018
Ordnance Survey license 100035207.



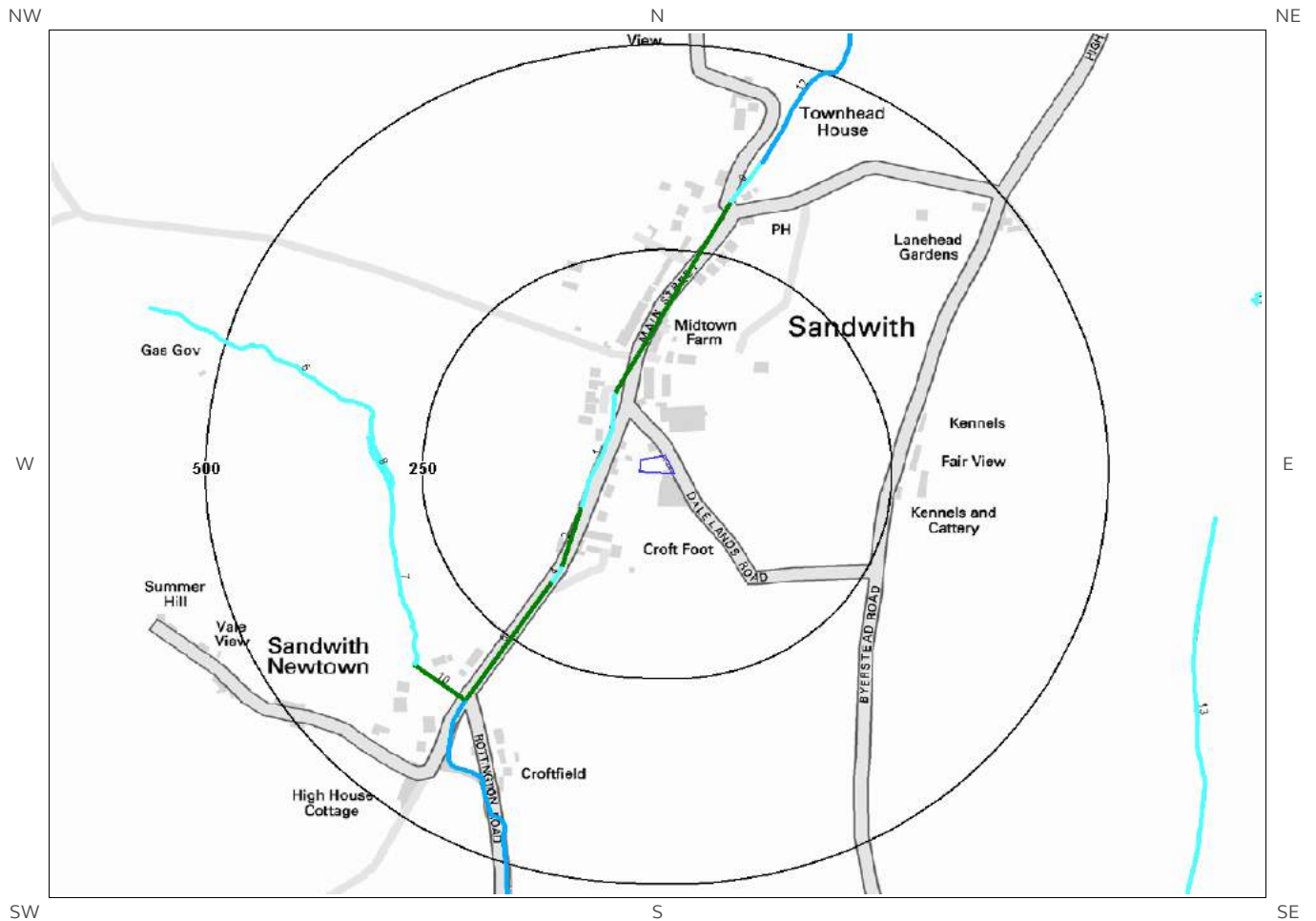
6d. Hydrogeology – Source Protection Zones within confined aquifer



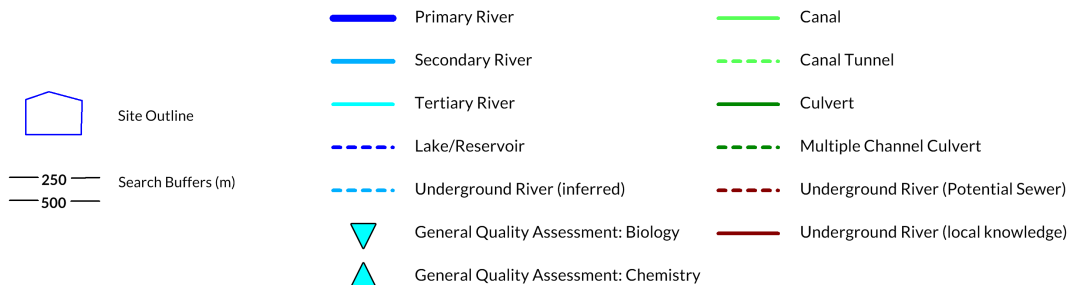
© Crown copyright and database rights 2018
Ordnance Survey license 100035207.



6e. Hydrology – Detailed River Network and River Quality



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales'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 Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
3	28	NE	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
1	34	W	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
4	74	W	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	163	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	240	W	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	365	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales'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 Enviro Insight 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
2	365	N	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

ID	Distance (m)	Direction	Designation	Description
5	387	NE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
6	415	NE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

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
Not shown	717	S	296750 513950	Status: Historical Licence No: 2774002009 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: "borehole @ Byerstead Poultry Farm, Sandwith, Whitehaven" Data Type: Point Name: FRANK BIRD POULTRY LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 9597 Original Start Date: 29/5/1997 Expiry Date: - Issue No: 101 Version Start Date: 22/7/2002 Version End Date:
Not shown	717	S	296750 513950	Status: Historical Licence No: 2774002009 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole @ Byerstead Poultry Farm, Sandwith, Whitehaven Data Type: Point Name: FRANK BIRD POULTRY LTD Annual Volume (m³): 17653 Max Daily Volume (m³): 114.5 Original Application No: - Original Start Date: 29/5/1997 Expiry Date: - Issue No: 102 Version Start Date: 18/9/2007 Version End Date:
Not shown	717	S	296750 513950	Status: Historical Licence No: 2774002009 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: Borehole @ Byerstead Poultry Farm, Sandwith, Whitehaven Data Type: Point Name: FRANK BIRD POULTRY LTD Annual Volume (m³): 17653 Max Daily Volume (m³): 114.5 Original Application No: - Original Start Date: 29/5/1997 Expiry Date: - Issue No: 102 Version Start Date: 18/9/2007 Version End Date:
Not shown	717	S	296750 513950	Status: Active Licence No: 2774002009/R01 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole @ Byerstead Poultry Farm, Sandwith, Whitehaven Data Type: Point Name: FRANK BIRD POULTRY LTD Annual Volume (m³): 17653 Max Daily Volume (m³): 98.4 Original Application No: NPS/WR/022486 Original Start Date: 2/8/2016 Expiry Date: 31/3/2026 Issue No: 1 Version Start Date: 2/8/2016 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	717	S	296750 513950	Status: Active Licence No: 2774002009/R01 Details: General Farming & Domestic Direct Source: Ground Water - North West Region Point: Borehole @ Byerstead Poultry Farm, Sandwith, Whitehaven Data Type: Point Name: FRANK BIRD POULTRY LTD	Annual Volume (m³): 17653 Max Daily Volume (m³): 98.4 Original Application No: NPS/WR/022486 Original Start Date: 2/8/2016 Expiry Date: 31/3/2026 Issue No: 1 Version Start Date: 2/8/2016 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site None identified

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site None identified

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

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site None identified

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

Detailed River Network entries within 500m of the study site Identified

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details
1	44	W	River Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Main River Status: Currently Undefined
2	80	SW	River Name: - Welsh River Name: - Alternative Name: - River Type: Culvert Main River Status: Currently Undefined
3	87	N	River Name: - Welsh River Name: - Alternative Name: - River Type: Culvert Main River Status: Currently Undefined
4	146	SW	River Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
5	167	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
6	285	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	287	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
8	288	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
9	316	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10	343	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
11	343	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
12	371	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined

6.11 Surface Water Features

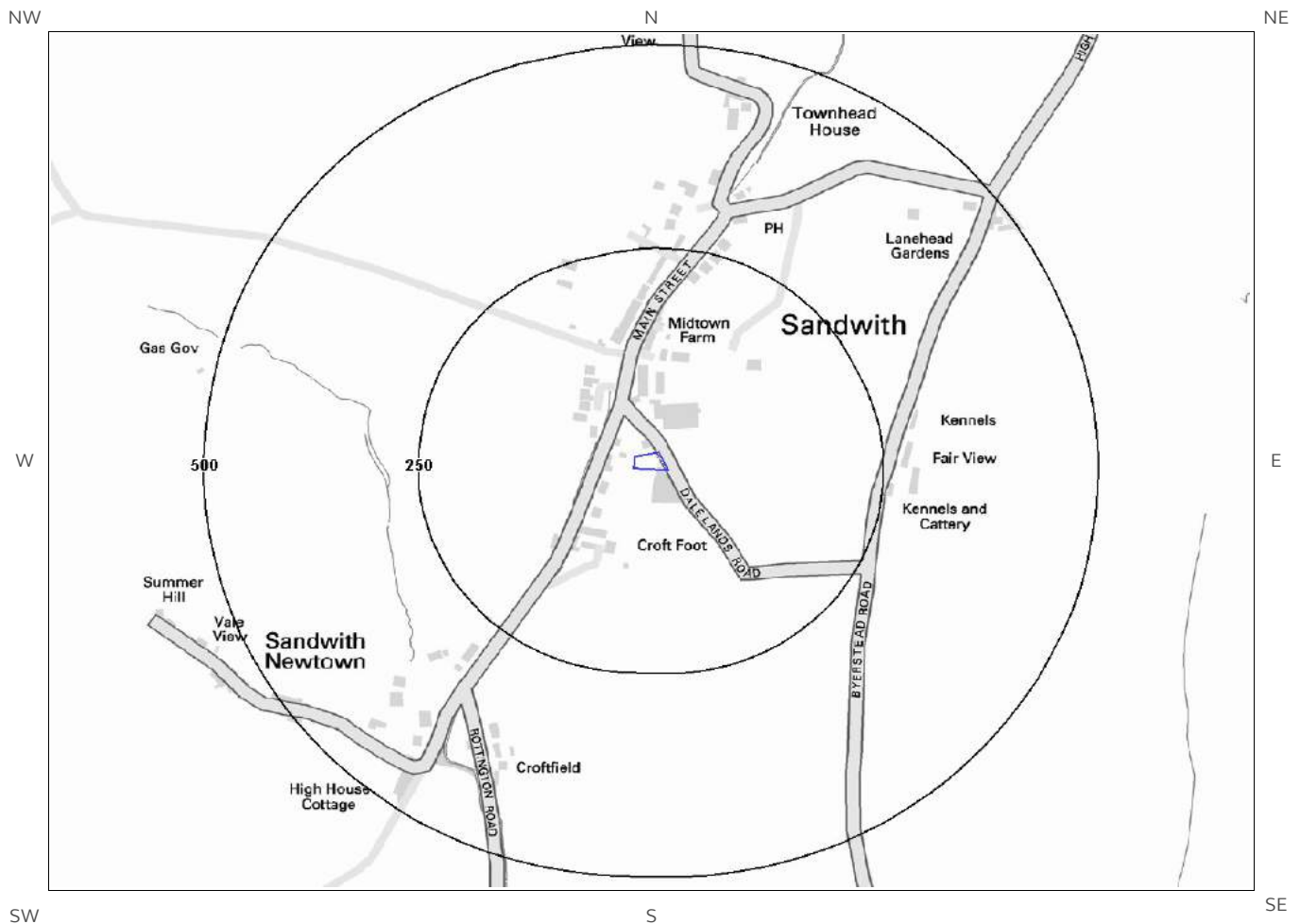
Surface water features within 250m of the study site

Identified

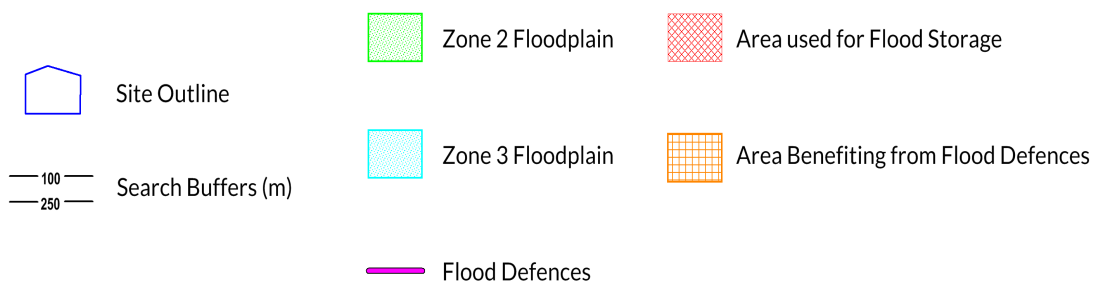
The following surface water records are not represented on mapping:

Distance (m)	Direction
45	W
51	NW
146	SW

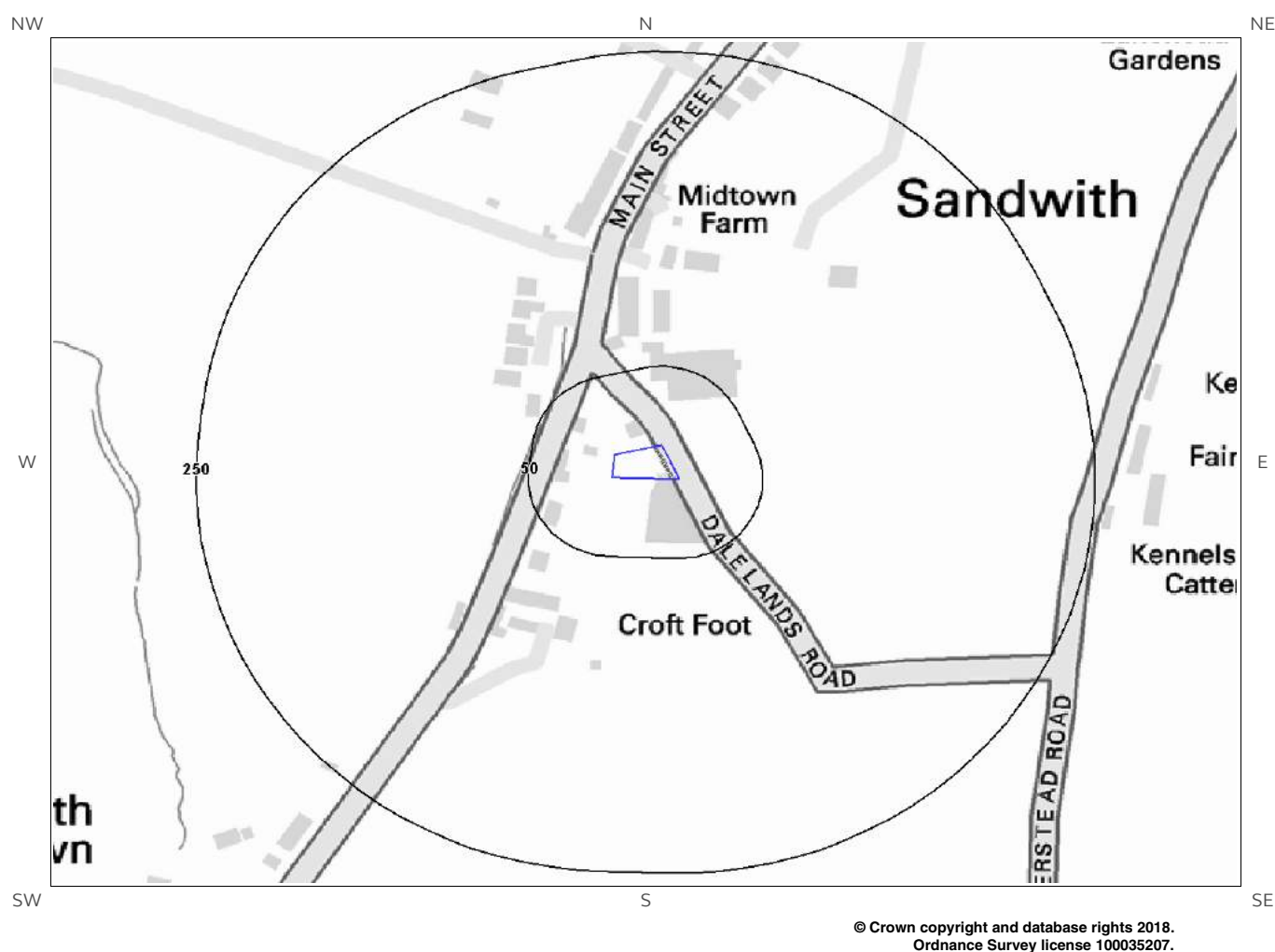
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



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



 Site Outline

 100m

 250m Search Buffers (m)

RoFRaS Rating

 Very Low

 Low

 Medium

 High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None identified

Environment Agency/Natural Resources Wales 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:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None identified

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.

Database searched and no data found.

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

Highest risk of flooding onsite Very Low

The Environment Agency/Natural Resources Wales 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.

7.4 Flood Defences

Flood Defences within 250m of the study site None identified
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

Identified

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 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

7.8 Groundwater Flooding Confidence Areas

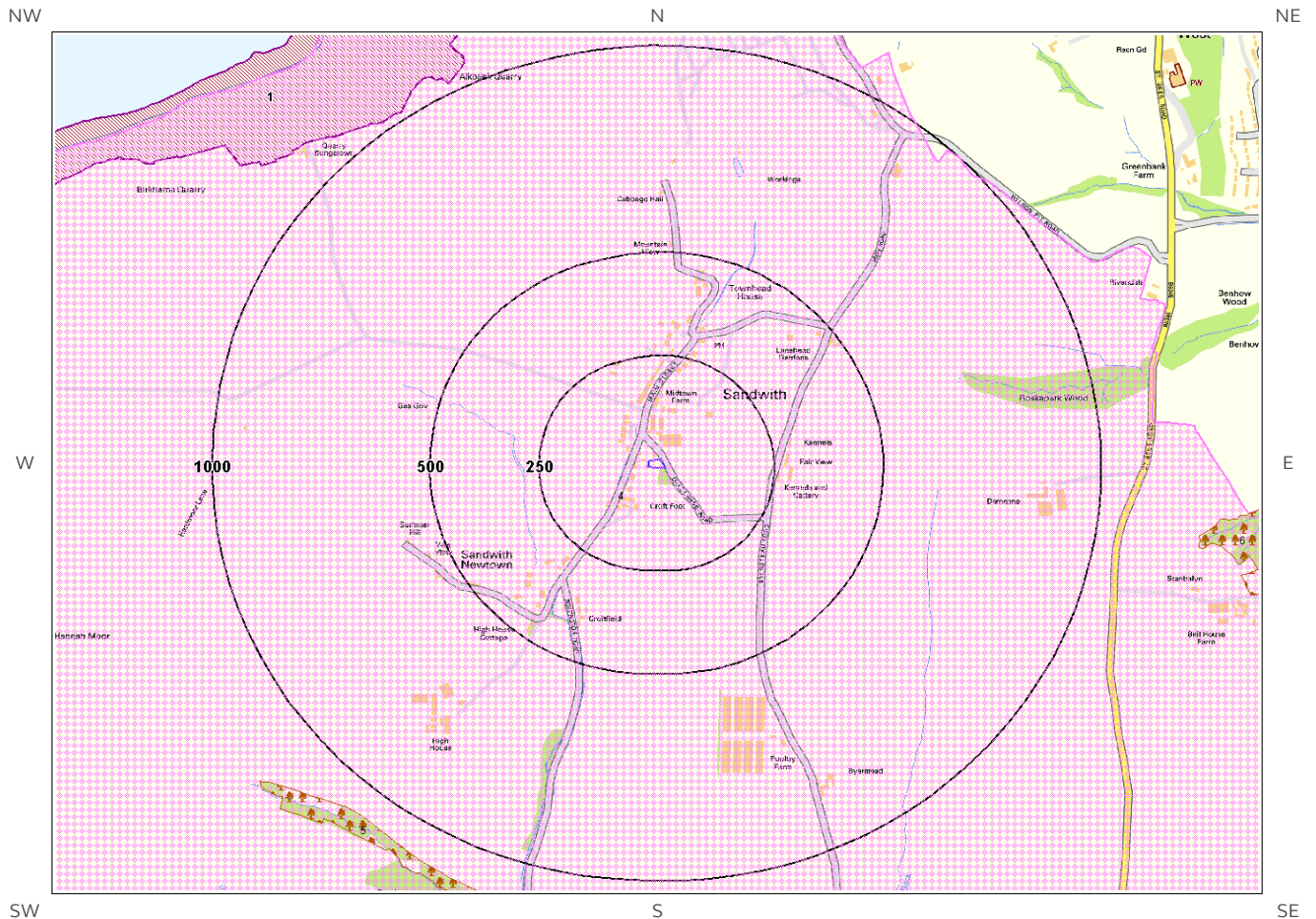
British Geological Survey confidence rating in this result

Low

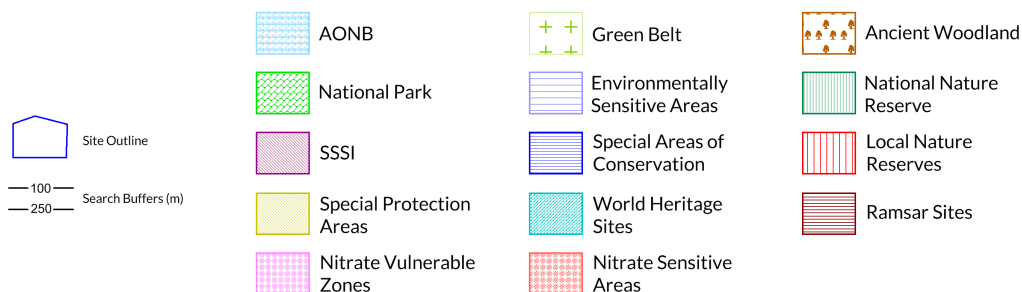
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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

8. Designated Environmentally Sensitive Sites Map



© Crown copyright and database rights 2018.
Ordnance Survey license 100035207.



8. Designated Environmentally Sensitive Sites

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

Identified

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

3

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
1	1018	NW	St. Bees Head	Natural England
Not shown	1379	NW	St. Bees Head	Natural England
Not shown	1525	W	St. Bees Head	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:

2

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
5	1069	SW	UNKNOWN	Ancient Replanted Woodland
6	1235	E	UNKNOWN	Ancient Replanted Woodland

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

0

Database searched and no data found.

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
4	0	On Site	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 Geo Insight**, available from our **website**. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell** hazard rating identified on the study site Very Low

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

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

9.1.2 Landslides

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

Maximum Soluble Rocks* hazard rating identified on the study site Negligible

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

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

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

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site

Moderate

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

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

9.1.5 Collapsible Rocks

Maximum Collapsible 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
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

Maximum Running Sand** hazard rating identified on the study site

Low

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

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

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

9.2.1 Radon Affected Areas

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

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

Radon protection measures requirements 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

Coal mining areas within 75m of the study site

Identified

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

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

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

Contact Details

emapsite
Telephone: 0118 9736883
sales@emapsite.com

emapsite™

British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:

Web: www.bgs.ac.uk

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



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506

Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk



Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



**Public Health
England**

The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk



**The Coal
Authority**

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Copeland Borough Council
Phone: 0845 054 8600

Web: <http://www.copeland.gov.uk>

Address: The Copeland Centre, Catherine Street, Whitehaven,

Gemapping PLC

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



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

Groundsure's Terms and Conditions can be viewed online at this link:
<https://www.groundsure.com/terms-and-conditions-march-2018>

Appendix III

- Historical Map Extracts

Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: County Series

Map date: 1864-1865

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1864
 Revised 1864
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1865
 Revised 1865
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1864
 Revised 1864
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1864
 Revised 1864
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

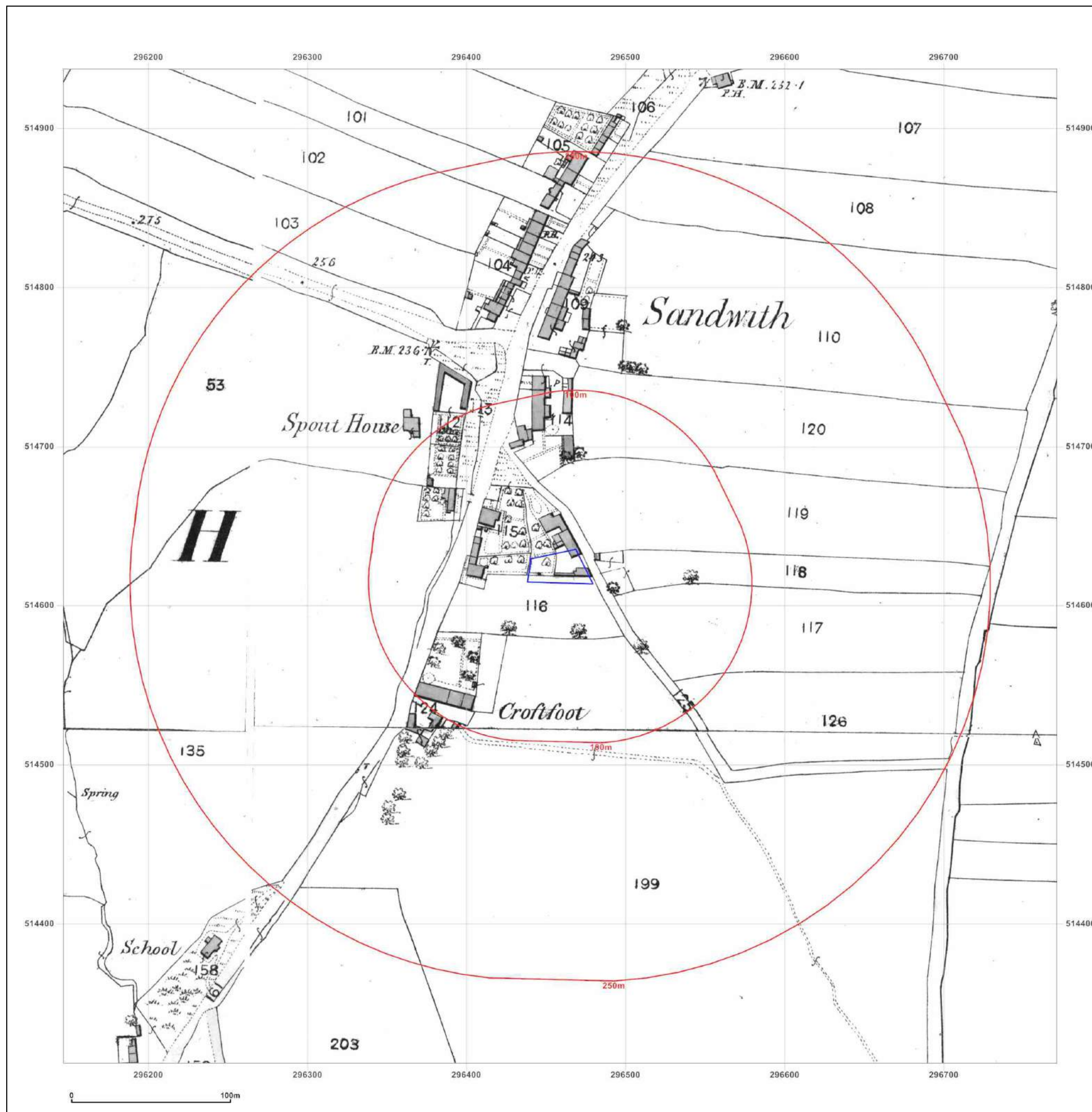


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: County Series

Map date: 1899

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1899
 Revised 1899
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1899
 Revised 1899
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1899
 Revised 1899
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1899
 Revised 1899
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

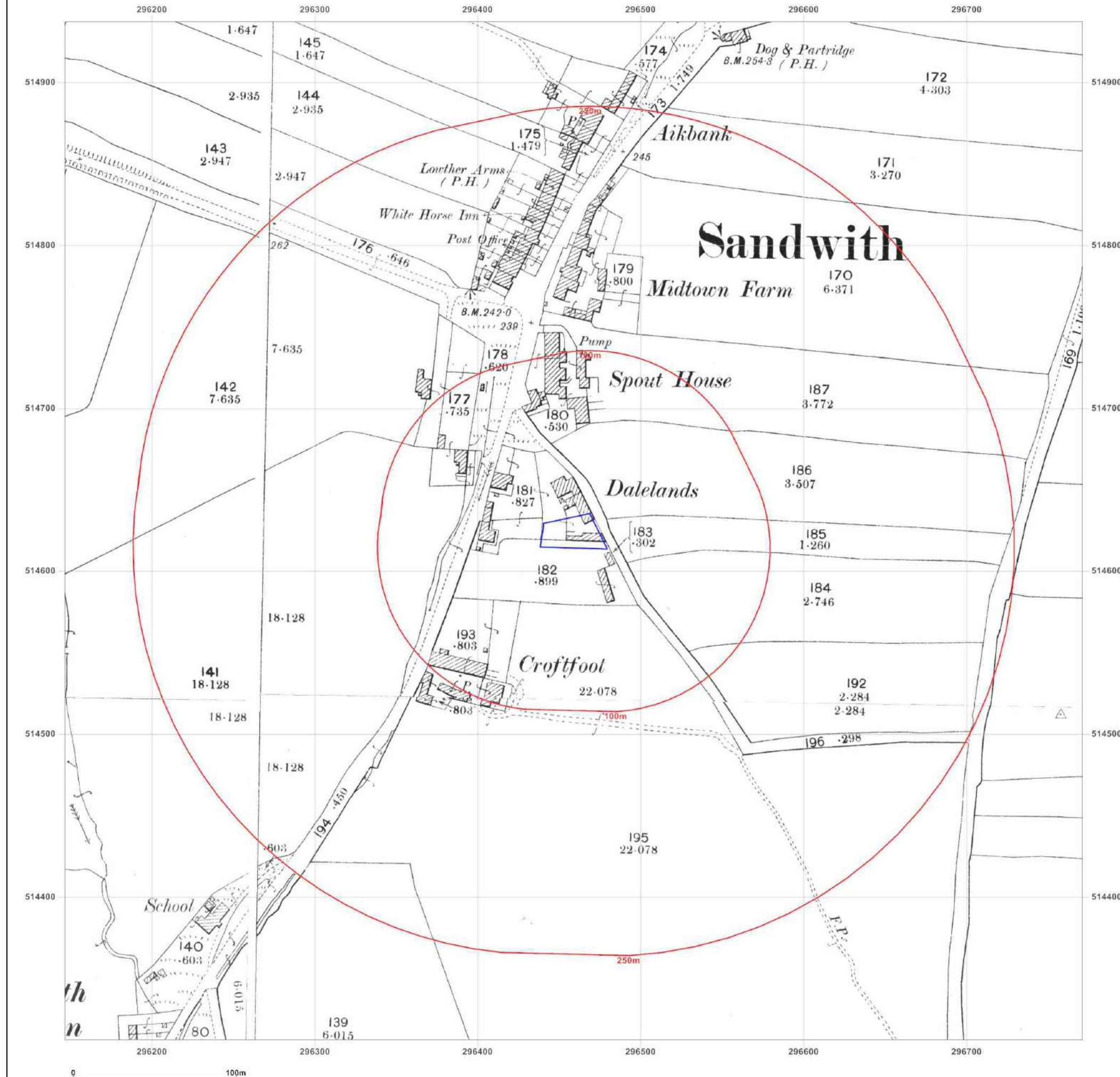


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: County Series

Map date: 1925

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1925
 Revised 1925
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1925
 Revised 1925
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1925
 Revised 1925
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1925
 Revised 1925
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

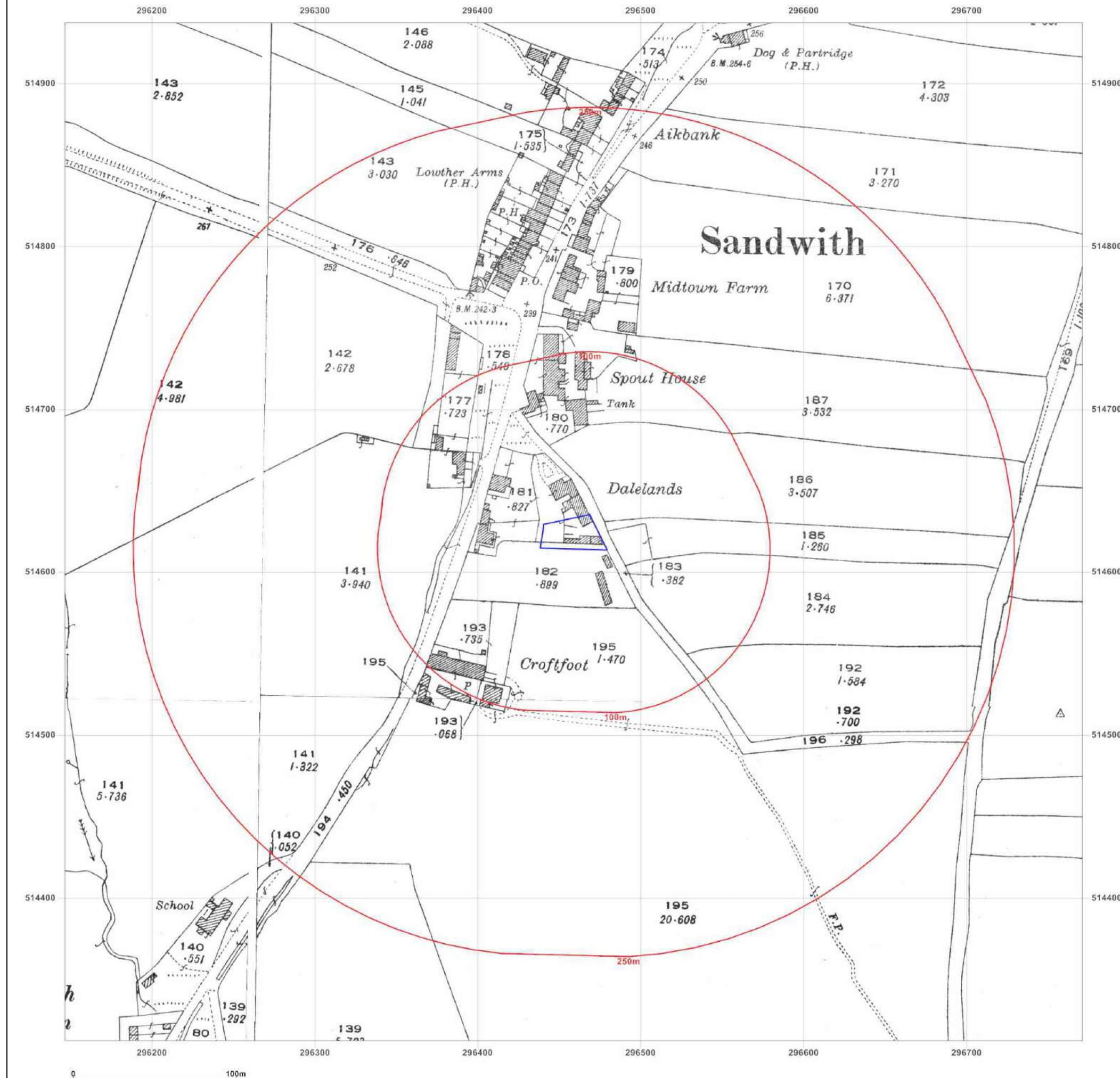


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: County Series

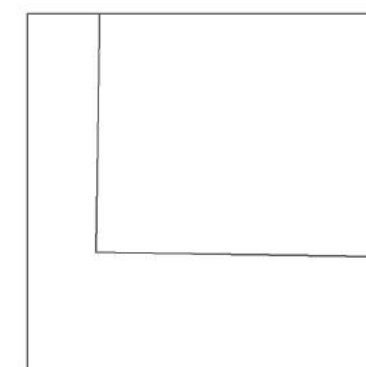
Map date: 1938

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1938
 Revised 1938
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

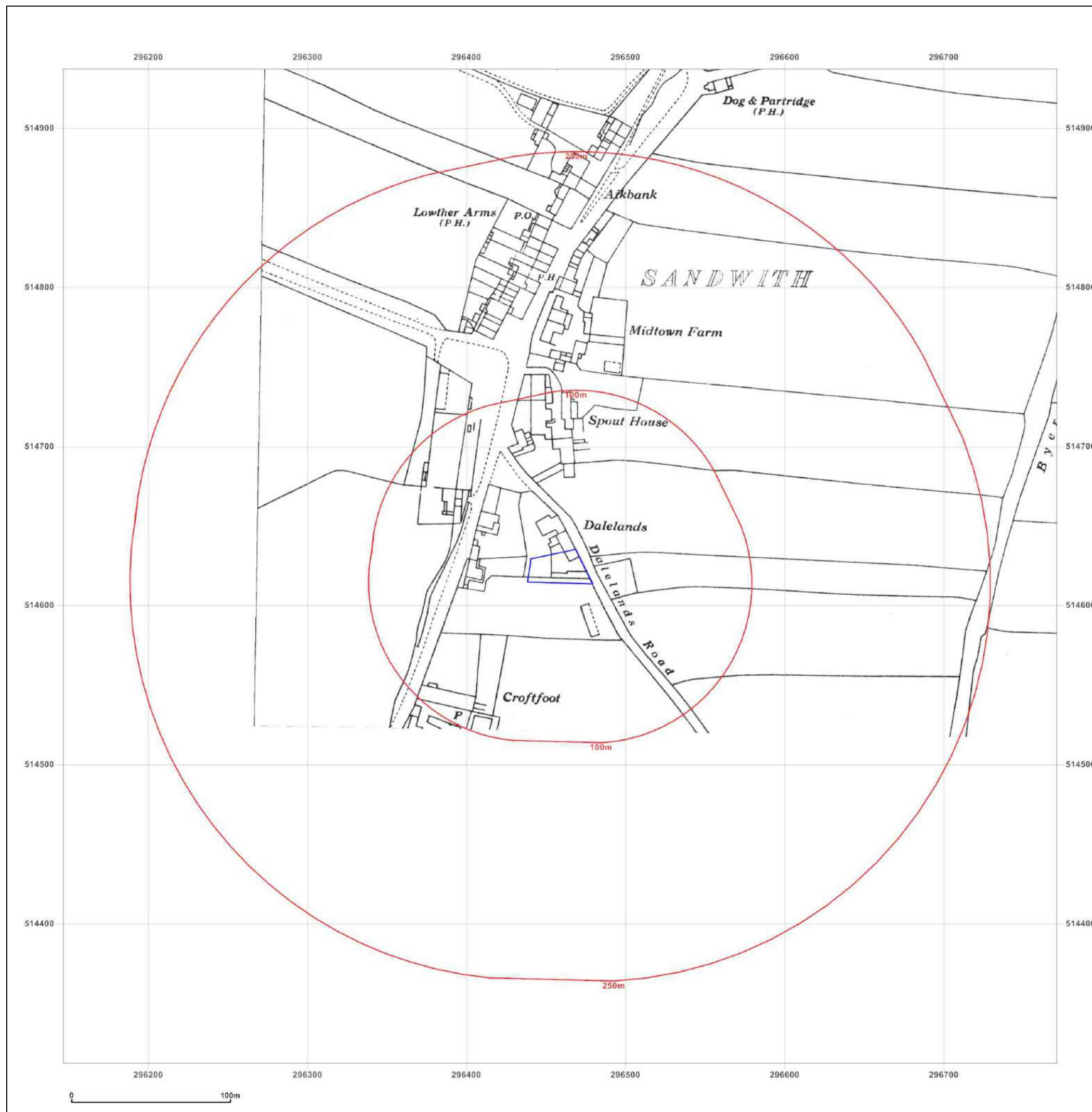


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: National Grid

Map date: 1961

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1961
 Revised 1961
 Edition N/A
 Copyright 1962
 Levelled 1956



Produced by
 Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf





Site Details:

Client Ref: EMS_466498_626240
Report Ref: EMS-466498_626240
Grid Ref: 296459, 514625

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



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



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 08 March 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Appendix IV

- The Coal Authority Coal Mining Report



The Coal
Authority

Resolving the **impacts** of mining

CON29M Residential Mining Report

DALELANDS
SANDWITH
SANDWITH
CUMBRIA
CA28 9UG

Date of enquiry: 12 March 2018
Date enquiry received: 12 March 2018
Issue date: 12 March 2018

Our reference: 51001807384001
Your reference: GEO2018-2869



CON29M Residential Mining Report

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

Client name

Curtis Evans

Enquiry address

DALELANDS, SANDWITH, SANDWITH, CUMBRIA,
CA28 9UG

How to contact us

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

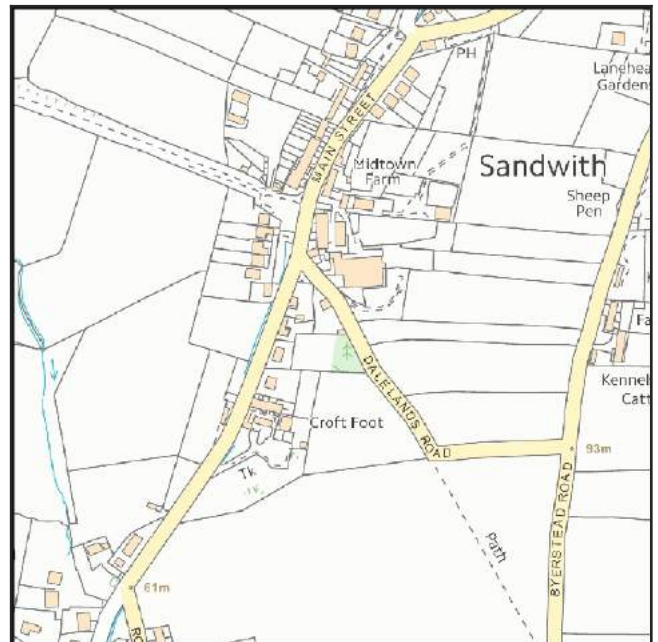
200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

 /company/the-coal-authority

 /thecoalauthority

 /coalauthority



Approximate position of property



Reproduced by permission of
Ordnance Survey on behalf of
HMSO. © Crown copyright and
database right 2018. All rights
reserved.

Ordnance Survey Licence number: 100020315

Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	No
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Information from the Cheshire Brine Subsidence Compensation Board	No

For detailed findings, please go to page 4.

Detailed findings

1. Past underground coal mining

The property is in a surface area that could be affected by underground mining in 2 seams of coal at 150m to 210m depth, and last worked in 1933.

Any movement in the ground due to coal mining activity should have stopped.

2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

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

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4. Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

5. Coal mining geology

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

6. Past opencast coal mining

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

7. Present opencast coal mining

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

8. Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

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

9. Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

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

10. Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11. Hazards related to coal mining

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

12. Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions applicable at the time the report was produced.

If this Report is for a residential property, insurance is included to cover any loss in property value caused by any changes in the information contained in this report. Please see the attached certificate of insurance for the terms and conditions of this insurance. The insurance does not cover non-residential property or interpretive reports.

Disclaimer

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

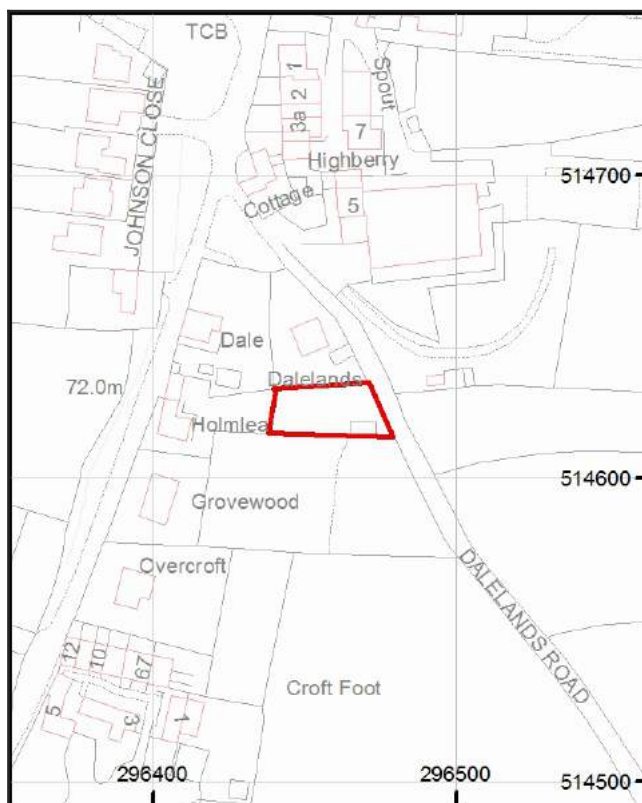
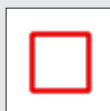
Alternative formats

If you would like this report in an alternative format, please contact our communications team.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

 /company/the-coal-authority

 /thecoalauthority

 /coalauthority



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

Key facts document

General summary

This is a summary of the policy and does not contain the full terms and conditions of the cover which can be found in the policy document. It is important that you read the policy document carefully when you receive it. If you are a solicitor you should also disclose this document to your client, their lender and/or the purchaser's solicitors for the benefit of their client.

Name of insurer

The insurer is Liberty Legal Indemnities, part of Liberty Mutual Insurance Europe Limited. The underwriting agency is Legal and Insurance Services Limited, PO Box 234, Tunbridge Wells, Kent TN3 0LX.

Legal and Insurance Services Limited is regulated by the Financial Conduct Authority (FCA) and authorised to arrange general insurance contracts. Register number: 305910.

The Coal Authority

The Coal Authority, a NDPB (non-departmental public body) sponsored by BEIS (Department for Business, Energy and Industrial Strategy) 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG, is responsible for producing the Coal & Brine Search Report, issuing the policy, collecting the premium and declaring the existence of the policy to Liberty Legal Indemnities.

Type of insurance and cover

- a. The policy is evidenced by the policy that is attached to the Coal & Brine Search Report provided by the Coal Authority in respect of a search in form CON29M (2006).
- b. Where a Coal & Brine Search Report has been obtained in connection with a sale of the property, cover is provided for the benefit of a purchaser and their lender; in the case of a re-mortgage or where the existing owner chooses to obtain a Coal & Brine Search Report, cover is provided for the benefit of the owner and their lender.
- c. The policy offers protection against loss sustained by the owner of the property if any new problems or adverse entries are revealed in a subsequent Coal & Brine Search Report which were not revealed by the original report to which the policy was attached.

Significant features or benefits under the policy and the term/duration of the policy

- a. Cover is provided for loss that you suffer up to an amount of £50,000.00.
- b. For the purposes of the policy loss includes:
 - (i) any reduction in the market value of the property directly attributable to changes in the information revealed in the Coal & Brine Search Report compiled against the property; and
 - (ii) all other costs and expenses incurred which we have agreed, in writing, to cover.
- c. A single premium has been paid in respect of the cover provided under the policy; the policy remains in effect until you sell the property, or if you are the lender, the debt secured by the mortgage has been repaid.
- d. You cannot transfer the benefits of the policy to anyone else. However, if you die whilst you still have the benefit of the cover provided by the policy, the benefit will pass to your estate and beneficiaries.

Significant or unusual Exclusions or Conditions under the policy

- a. Full details can be found in the Cover and Exclusions sections of the policy.
- b. The policy does not cover your costs in relation to the loss of a transaction for the sale or purchase of the property.
- c. The property must be an existing (i.e. it must have been lived in) single residential house, flat or maisonette in the United Kingdom.
- d. The policy does not cover loss relating to structural or other physical damage caused to the property by subsidence, flooding or otherwise.
- e. The policy does not cover you for any loss in relation to any matter revealed in the Coal & Brine Search Report to which the policy is attached nor in relation to any matter that you were otherwise aware of on or before the policy was issued.

Cancellation rights

You can cancel your policy within 14 days of the commencement date. Please telephone or email Legal and Insurance Services Limited on 01892 863863 or at enquiries@goodtitle.co.uk quoting your policy number.

How to claim

If you need to make a claim, please write to Legal and Insurance Services Limited, PO Box 234, Tunbridge Wells, Kent TH3 0LX quoting your policy number. You can also telephone 01892 863863 or contact them via email at enquiries@goodtitle.co.uk. Please enclose your policy and the Coal & Brine Search Report attached to it together with the subsequent report giving rise to the claim.

If you have a complaint

In the first instance, please contact the Underwriting Manager (Complaints) Legal and Insurance Services Limited, PO Box 234, Tunbridge Wells, Kent TN3 0LX.

Tel: 01892 863863

Fax: 01892 861025

Email: enquiries@goodtitle.co.uk

If you are unable to resolve your complaint with the above please contact:

Liberty Specialty Markets

20 Fenchurch Street

London

EC3M 3AW

Tel: 020 3758 0000

Complaints that cannot be resolved may be referred to the Financial Ombudsman Service (www.financial-ombudsman.org.uk). Further details will be provided at the appropriate stage of the complaints process.

Financial services compensation scheme

Legal and Insurance Services Limited are members of the Financial Services Compensation Scheme (FSCS). You may be entitled to compensation from this scheme if they cannot meet their obligations, depending on the type of insurance and the circumstances of your claim.

Further information about the scheme is available from:

The Financial Services Compensation Scheme, 10th Floor, Beaufort House, 15 St. Botolph Street, London, EC3A 7QU. The FSCS website may be viewed at www.fscs.org.uk



On behalf of the insurer

Coal & Brine Search Report Insurance Policy

Schedule

Policy number: **24930410**

The insurer: **Liberty Legal Indemnities – underwritten by Liberty Mutual Insurance Europe Limited**

Binding Authority contract number: **RNMFP1703841**

Property: **DALELANDS, SANDWITH, SANDWITH, CUMBRIA, CA28 9UG**

Report reference number: **51001807384001**

Limit of cover: **£50,000.00**

Dated: **12 March 2018**

This policy and schedule shall be read together and any word or expression to which a specific meaning has been attached in either shall bear such meaning wherever it may appear.

Where a Coal & Brine Search Report has been obtained in connection with a sale of the property, cover is provided for the benefit of a purchaser and their lender; in the case of a re-mortgage or where the existing owner chooses to obtain a Coal & Brine Search Report, cover is provided for the benefit of the owner and their lender.

The policy offers protection against loss sustained by the owner of the property if any new problems or adverse entries are revealed in a subsequent Coal & Brine Search Report which were not revealed by the original report to which the policy was attached.

The insured shall at all times comply with the requirements of the Conditions of this Policy.

Definitions

In this policy unless the context requires otherwise the following words or expressions shall have the following meanings:

Date of the report means the date of the Coal & Brine Search Report attached to this policy.

Coal & Brine Search Report means the attached Coal & Brine Search Report that the Coal Authority has prepared for the property following a Coal & Brine Search Report providing information compiled from:

- i. the Coal Authority's records in relation to past, present and future underground and opencast coal-mining activity, shafts and adits (vertical and horizontal entries to mines) coal-mining geology, coal-mining related hazards, coal-mining subsidence and mine gas and
- ii. the records of the Cheshire Brine Subsidence Compensation Board in relation to Cheshire Brine

The Coal Authority is a NDPB (non-departmental public body) sponsored by BEIS (Department for Business, Energy and Industrial Strategy) 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG. The Coal Authority is responsible for producing the Coal & Brine Search Report, issuing this policy, collecting the premium and declaring the existence of this policy to the insurer.

Insurer means Liberty Legal Indemnities – part of Liberty Mutual Insurance Europe Limited.

Insured means the person insured by this policy. This may be:

- i. the person who asked for the Coal & Brine Search Report in connection with your purchase of the property (and your mortgagee)
- ii. the person who purchased the property (and your mortgagee) if the person selling the property has asked for a Coal & Brine Search Report for the benefit of the purchaser as part of a seller's pack or if the property has been purchased by way of auction
- iii. the owner of the property (and your mortgagee) if you are re-mortgaging the property or the owner of the property who has chosen to obtain a Coal & Brine Search Report

Knowledge means actual knowledge or notice but not knowledge or notice which may be imputed to the insured by reason of the public records as defined in this policy or any other records which impute notice of matters affecting the property.

Market value means the average of the estimates given by 2 independent valuers (one to be appointed by and paid for by the insurer and the other by the insured) as to the price which could have been obtained for the property on the open market at the date on which the insured first becomes aware of the existence of the defect and under normal sale conditions at the time.

Property means the residential property at each address shown in the Schedule to this Policy and in respect of which the Coal Authority has provided the attached Coal & Brine Search Report.

Public records means records established by the Crown or any local or statutory authority at the date of the mortgage pursuant to the Land Registration Acts 1925 and 2002 the Land Charges Act 1972 and the Local Land Charges Act 1975 including any replacement or amending legislation.

Period of insurance means the period from the date of the report until:

- i. the property is sold
- ii. the debt secured by the mortgage is repaid if the insured is a mortgagee

Premium means the total amount paid in consideration of the cover provided by this policy which includes Insurance Premium Tax at the appropriate rate.

Cover

Subject to the terms and conditions of this policy and provided the Coal Authority has collected the premium cover will be provided up to the limit of cover for all claims made during the period of insurance in respect of:

- i. the loss in market value of the property directly attributable to any changes in the information revealed in a subsequent Coal & Brine Search Report which was not revealed in the Coal & Brine Search Report attached to this policy which was carried out on the date of the report, such loss in market value to be calculated at the date of the subsequent Coal & Brine Search Report, and
- ii. any costs and expenses incurred with the consent of the insurer

Exclusions

This policy does not cover any loss:

- 1. if at the date of the claim you are not the legal or beneficial owner of the property
- 2. if the property is not a single private home in the United Kingdom which is used only for residential purposes
- 3. in relation to loss of a transaction for the sale or for the purchase of the property nor for any costs incurred by you in relation to the loss of such transaction
- 4. in respect of structural or other physical damage caused to the property by subsidence, flooding or otherwise
- 5. as a result of any change in information in response to questions 3(a), 3(b), 8(a) or 8(b) of a Coal & Brine Search Report (form CON29M (2006))
- 6. for any entry on any subsequent Coal & Brine Search Report after the date of the report if this entry also appears on the attached Coal & Brine Search Report

7. for any problem revealed by the first Coal & Brine Search Report after the date of the report if the insured or their legal representative knew about the problem on or before the date of the report
8. for any change in the interpretation of data upon which the Coal & Brine Search Report was produced provided such data remains unchanged

The insurer will not be responsible for any loss for which the Coal Authority or the Cheshire Brine Subsidence Compensation Board may be required to pay by law.

Conditions

1. On becoming aware of any potential or actual claim against this policy the insured must:
 - a) provide written notice and details to the insurer without unnecessary delay
 - b) provide all information and assistance that the insurer (and/or their agents solicitors or surveyors) require at the insured's own expense
2. Any act or omission by the insured or anyone acting on the insured's behalf which in whole or in part induces a claim under this policy (save as may already have occurred and be recorded in this policy or schedule and save in relation to carrying out the insured use) shall void this policy.
3. If at the time of a claim under this policy there is other insurance (whether incepted by the insured or any other party) under which the insured may be entitled to make a claim either wholly or partly in respect of the same interest or risk covered by this policy the insurer will not be liable to pay or contribute more than their rateable proportion of the claim.
4. The law of England and Wales will apply to this contract unless at the date of the report you are a resident of Scotland or Northern Ireland in which case the law of that country will apply.

Cancellation rights

You can cancel a policy by contacting us within 14 days of the policy commencement date provided all parties that have an interest in the policy (for example mortgage lender) also consent to the cancellation. Please telephone or email us in the first instance on 01892 863863 or at enquiries@goodtitle.co.uk referencing the policy number.

Non-invalidating clause

The interest of any insured under this policy will not be invalidated or affected by any other party breaching the policy terms and conditions, or providing false or misleading information to the insurer, unless:

- a) such party acted on the insured's behalf or with the insured's knowledge and consent
- b) where the insured is a successor in title or mortgagee, chargee or lessee, they had knowledge of a breach of the policy terms or conditions, or that false or misleading information has been provided to the insurer prior to the date of commencement

General

1. Unless otherwise indicated, no term of this insurance contract is intended to limit or affect the statutory rights or obligations of any of the parties to this contract under, and/or the effect of, parts 2, 3, 4 or 5 of the Insurance Act 2015 (the "2015 Act").
2. Any term of this insurance contract which would, but for this clause, put the insured in a worse position as respects any of the matters provided for in parts 2, 3, 4 or 5 of the 2015 Act than it would be by virtue of the provisions of those parts is, to that extent, of no effect, unless the insurer has complied with the transparency requirements in section 17 of the 2015 Act.
3. The insured should ask the insurer or its broker or solicitor for clarification of any matters which are not clear to it regarding the scope of disclosure required or the provisions of this insurance contract.

The duty of fair presentation

1. Before this insurance contract is entered into, the insured (including anyone acting on behalf of the insured in arranging this insurance contract) must make a fair presentation of the risk to the insurer, in accordance with section 3 of the 2015 Act. In summary, they must:
 - a) disclose to the insurer every material circumstance which the insured knows or ought to know. Failing that, they must give the insurer sufficient information to put a prudent insurer on notice that it needs to make further enquiries in order to reveal material circumstances. A matter is material if it would influence the judgement of a prudent insurer as to whether to accept the risk, or the terms of the insurance (including premium)
 - b) make the disclosure in clause 1 a) above in a reasonably clear and accessible way
 - c) ensure that every material representation of fact is substantially correct, and that every material representation of expectation or belief is made in good faith

2. For the purposes of clause 1 a) above, the insured is expected to know the following:
- a) if the insured is an individual, what is known to the individual and anybody who is responsible for arranging his or her insurance
 - b) if the insured is not an individual, what is known to anybody who is part of the insured's management; or anybody who is responsible for arranging the insured's insurance
 - c) whether the insured is an individual or not, what should have reasonably been revealed by a reasonable search of information available to the insured. The information may be held within the insured's organisation, or by any third party (including but not limited to the broker, solicitor, subsidiaries, affiliates or any other person who will be covered under the insurance). If the insured is insuring subsidiaries, affiliates or other parties, the insurer expects that the insured will have included them in its enquiries, and that the insured will inform the insurer if it has not done so. The reasonable search may be conducted by making enquiries or by any other means

Breach of warranty: suspensory

If the insured breaches a warranty in this insurance contract, the insurer's liability under the contract shall be suspended from the time of the breach until the time when the breach is remedied (if it is capable of being remedied). The insurer will have no liability to the insured for any loss which occurs, or which is attributable to something happening, during the period when the insurer's liability is suspended.

Terms not relevant to the actual loss

Where: (i) there has been a failure to comply with a term (express or implied) of this insurance contract, other than a term that defines the risk as a whole; and (ii) compliance with such term would tend to reduce the risk of loss of a particular kind and/or loss at a particular location and/or loss at a particular time, the insurer cannot rely on the breach of such term to exclude, limit or discharge its liability if the insured shows that the failure to comply with such term could not have increased the risk of the loss which actually occurred in the circumstances in which it occurred.

Fraudulent claims clause

1. If the insured makes a fraudulent claim under this insurance contract, the insurer:
 - a) is not liable to pay the claim
 - b) may recover from the insured any sums paid by the insurer to the insured or to any third party in respect of the claim
 - c) may by notice to the insured treat the contract as having been terminated with effect from the time of the fraudulent act
2. If the insurer exercises its right under Clause 1 c) above:
 - a) the insurer shall not be liable to the insured in respect of a relevant event occurring after the time of the fraudulent act. A relevant event is whatever gives rise to the insurer's liability under the insurance contract (such as the occurrence of a loss, the making of a claim, or the notification of a potential claim)
 - b) the insurer need not return any of the premiums paid

Fraudulent claims - group insurance

If this insurance contract provides cover for any person or entity who is not a party to the contract (a covered person), and a fraudulent claim is made under the contract by or on behalf of a covered person, the insurer may exercise the rights set out in the preceding clause above as if there were an individual insurance contract between the insurer and the covered person. However the exercise of any of those rights shall not affect the cover provided under the contract for any other person or entity.

Remedies for breach of the duty of fair presentation

1. If, prior to entering into this insurance contract, the duty of fair presentation shall have been breached, the remedies available to the insurer are set out below:
 - a) if the breach of the duty of fair presentation is deliberate or reckless:
 - i) the insurer may avoid the contract, and refuse to pay all claims
 - ii) the insurer need not return any of the premiums paid

- b) if the breach of the duty of fair presentation is not deliberate or reckless, the insurer's remedy shall depend upon what the insurer would have done if the duty of fair presentation had been complied with:
 - i) if the insurer would not have entered into the contract at all, the insurer may avoid the contract and refuse all claims, but must return the premiums paid
 - ii) if the insurer would have entered into the contract, but on different terms (other than terms relating to the premium), the contract is to be treated as if it had been entered into on those different terms from the outset, if the insurer so requires
 - iii) in addition, if the insurer would have entered into the contract, but would have charged a higher premium, the insurer may reduce proportionately the amount to be paid on a claim (and, if applicable, the amount already paid on prior claims). In those circumstances, the insurer shall pay only X% of what it would otherwise have been required to pay, where $X = (\text{premium actually charged/higher premium}) \times 100$
- 2. If, prior to entering into a variation to this insurance contract, the duty of fair presentation shall have been breached, the remedies available to the insurer are set out below:
 - a) if the breach of the duty of fair presentation is deliberate or reckless:
 - i) the insurer may by notice to the insured treat the contract as having been terminated from the time when the variation was concluded
 - ii) the insurer need not return any of the premiums paid
 - b) if the breach of the duty of fair presentation is not deliberate or reckless, the insurer's remedy shall depend upon what the insurer would have done if the duty of fair presentation had been complied with:
 - i) if the insurer would not have agreed to the variation at all, the insurer may treat the contract as if the variation was never made, but must in that event return any extra premium paid
 - ii) if the insurer would have agreed to the variation of the contract, but on different terms (other than terms relating to the premium), the variation is to be treated as if it had been entered into on those different terms, if the insurer so requires
 - iii) if the insurer would have increased the premium by more than it did or at all, then the insurer may reduce proportionately the amount to be paid on a claim arising out of events after the variation. In those circumstances, the insurer shall pay only X% of what it would otherwise have been required to pay, where $X = (\text{premium actually charged/higher premium}) \times 100$
 - iv) if the insurer would not have reduced the premium by more than it did or at all, then the insurer may reduce proportionately the amount to be paid on a claim arising out of events after the variation. In those circumstances, the insurer shall pay only X% of what it would otherwise have been required to pay, where $X = (\text{premium actually charged/reduced total premium}) \times 100$

Notice to the insured

Any enquiry or complaint should be addressed in the first instance to:

Legal and Insurance Services Limited
PO Box 234
Tunbridge Wells
Kent
TN3 0LX

Tel: 01892 863863

Fax: 01892 861025

Email: enquiries@goodtitle.co.uk

If you are unable to resolve your enquiry or complaint with the above please contact:

Liberty Specialty Markets
20 Fenchurch Street
London
EC3M 3AW

Tel: 020 3758 0000

Complaints that cannot be resolved may be referred to the Financial Ombudsman Service (www.financial-ombudsman.org.uk). Further details will be provided at the appropriate stage of the complaints process.

Notifying a claim

If anything should happen which might give rise to a claim under the policy please forward full details to Legal and Insurance Services Limited at the above address. Please include mention of the Policy Number shown at the top of the Schedule to the policy.

If you do not receive a reply or acknowledgement within 10 working days please forward the details to Liberty Specialty Markets at the above address.

VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	12 March 2018
Issued to	CURTIS EVANS 4 CULGARTH AVENUE COCKERMOUTH CUMBRIA CA13 9PL
Property search for	DALELANDS SANDWITH SANDWITH CUMBRIA CA28 9UG
Reference number	51001807384001
Date of issue	12 March 2018
Cost	£33.00
VAT @ 20%	£6.60
Total received	£39.60
VAT registration	598 5850 68



GEO Environmental Engineering Ltd
Geotechnical
&
Environmental
Drilling Experts
&
Consultants

Intellectual Copyright 2018
(GEO Standard Terms and Conditions
Apply)