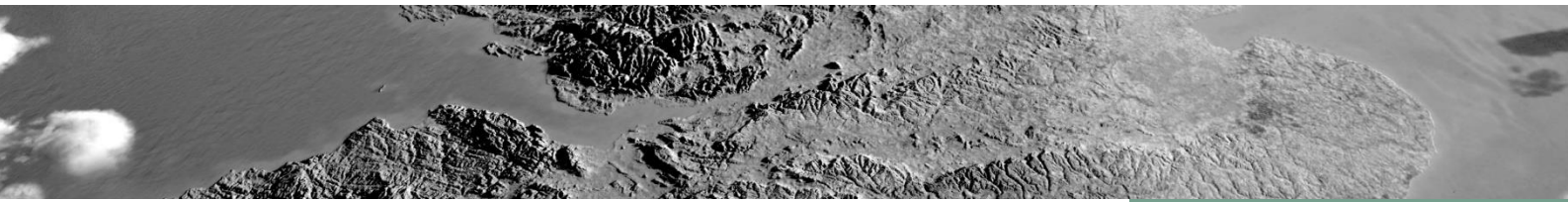


# Ground Report



**OVERALL RESULT** No further investigation required prior to completion.

**Passed**



CON29M

<b>CON29M COAL MINING</b>	<b>Passed</b>
No further action is required.	
Assessment on <b>page 3</b>	

**Address:**

Sample address

**Your ref:**

Sample ref

**Terrafirma ref:**

Sample ref

**Date:**

10/09/2018



ALL OTHER MINING

<b>ALL OTHER MINING</b>	<b>Passed</b>
No further action is required.	
Assessment on <b>page 6</b>	



NATURAL GROUND PERILS

<b>NATURAL GROUND PERILS</b>	<b>Advisory</b>
Features relating to natural ground instability have been identified.	
A prudent purchaser will follow the identified next steps on page 2.	
Assessment on <b>page 8</b>	

**KEY**

Lender – attention required

Conveyancer – further action

Purchaser - prudent advice

No further action

These colour signatures are used throughout the report. For the full key, please see page 16.



<b>GROUND MOVEMENT</b>	See page 10	<b>Not Identified</b>
------------------------	-------------	-----------------------



<b>RADON</b>	See page 12	<b>Not identified</b>
--------------	-------------	-----------------------



<b>OIL AND GAS ACTIVITY</b>	See page 13	<b>Not Identified</b>
-----------------------------	-------------	-----------------------



<b>MINERAL PLANNING</b>	See page 14	<b>Not Identified</b>
-------------------------	-------------	-----------------------

It is important to be fully informed of all mining and ground risks associated with a property before completing a purchase. **Please read the recommendations on the following pages carefully.**

## Next steps

**i** ● Conveyancer ● Purchaser

Please see below for Terraforma's recommendations relating to this transaction. These may be copied into the Report on Title. This information is valid for residential transactions and should not be relied upon for non-residential transactions. No physical site inspection has been carried out. The recommendations on this page only highlight the information that Terraforma has determined should be drawn to the reader's attention. Further information on other hazards is provided in the relevant modules of this report.



### NATURAL GROUND PERILS

### Advisory

No further action is required on the part of the lender or the conveyancer. This transaction is covered by Terraforma's terms and conditions, including the insurance policies listed therein. However, a prudent purchaser may wish to consider the following next steps:

Within the scope of this assessment, ground stability hazards have been identified but any past ground movement should already exist within pre-existing structural defects. Terraforma consider it prudent that an appropriate RICS Survey Level-Two HomeBuyer report is acquired for the property in question to assess, amongst other important considerations, the structural condition of the property. This report will highlight any subsidence-related defects, which may relate to ground instability, while also noting any serious or dangerous issues that may require attention. For further information about the suite of RICS HomeBuyer and Building Surveys, please visit this [www.ricsfirms.com/articles/which-rics-survey-is-best-for-your-needs/](http://www.ricsfirms.com/articles/which-rics-survey-is-best-for-your-needs/), or to find a local Building Surveyor, please visit [www.ricsfirms.com](http://www.ricsfirms.com).

Should such an appropriate survey have already been recently undertaken, a further report may not be necessary. We would recommend that you look for the presence of condition rating 1, which would indicate minimal historical or current ground movement. Should the survey mention condition ratings 3 (& 2 where appropriate) in relation to subsidence or issues relating to ground instability, then we recommend that you seek further expert information or a further detailed (Level-Three) RICS Building Survey. Sections of notable relevance in relation to ground instability are: E1, 2, 4, 8 & 9; F1-5; H1-3 and J1-4. While unlikely, the site's ground conditions and hazards identified means any future ground movement has the potential to impact the structural integrity of the Site. Should any future signs of subsidence or collapse be identified, then we recommend you seek further expert assistance, however currently, no further reporting on ground instability is required. Terraforma can be contacted using the information supplied on the front page of this report.

If the purchaser is considering any future development of the Site, further recommendations may apply. More information relating to the development of the Site and the ground conditions can be found on **page 15**.



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## CON29M Coal Mining

Passed  
NO ACTION

### Professional opinion

# CON29M

Within the scope of this assessment, the Site is not considered to be susceptible to mining-related ground instability. No further information is required within the scope of a typical mortgage application. Below exist relevant interpreted conclusions based on the findings of this report (where applicable):

### What coal mining activity has been identified?

Is the Site within a Coal Authority reporting area?		No	
1. Past underground coal mining	Not Identified	2. Present underground coal mining	Not Identified
3. Future underground coal mining	Not Identified	4. Shafts and adits (mine entries)	Not Identified
5. Coal mining geology	Not Identified	6. Past opencast coal mining	Not Identified
7. Present opencast coal mining	Not Identified	8. Future opencast coal mining	Not Identified
9. Coal mining subsidence claims	Not Identified	10. Mine gas emissions	Not Identified
11. Emergency surface hazard call-out incidents	Not Identified		

### Expert interpretation of identified coal mining activity

#### Q1. Past underground coal mining

*Is the property within the zone of likely physical influence on the surface of past underground coal workings?*

The Site is not within a surface area that could be affected by historical, known deep underground mining.

The Site is not within a surface area that could be affected by historical, known shallow underground mining.

- A.** The Site is not within a surface area that could be affected by historical unrecorded shallow underground mining.

#### Q2. Present underground coal mining

*Is the property within the zone of likely physical influence on the surface of present underground coal workings?*

- A.** The Site is not situated within an area which could be affected by currently active underground coal mining.

#### Q3. Future underground coal mining

*(a) Is the property within any geographical area for which the Coal Authority is determining whether to grant a licence to remove coal by underground methods?*

*(b) Is the property within any geographical area for which a licence to remove coal by underground methods has been granted?*

*(c) Is the property within the zone of likely physical influence on the surface of planned future underground coal workings?*

*(d) Has any notice of proposals relating to underground coal mining operations been given under section 46 of the Coal Mining Subsidence Act 1991?*



- A.** The Site is not situated within an area which could be affected by any future underground coal mining. However, reserves of coal exist in the local area which could be worked at some time in the future. The Site is not situated within the influence of a Section 46 Notice.

#### Q4. Shafts and adits (mine entries)

*Are there any shafts and adits or other entries to underground coal mine workings within the property or within 20 metres of the boundary of the property?*

- A.** There are no recorded mine entries within 20 metres of the Site.

#### Q5. Coal mining geology

*Is there any record of any fault or other line of weakness due to coal mining at the surface within the boundary of the property that has made the property unstable?*

- A.** There are no recorded faults, fissures or breaklines beneath or within the vicinity of the Site.

#### Q6. Past opencast coal mining

*Is the property situated within the geographical boundary of an opencast site from which coal has been removed in the past by opencast methods?*

- A.** The Site is not situated within or proximal to any past licence areas for the opencast extraction of coal. There are no unlicensed opencast pits or extraction sites within the vicinity of the Site.

#### Q7. Present opencast coal mining

*Is the property within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods?*

- A.** The Site is not situated within an area which could be affected by currently active opencast coal mining.

#### Q8. Future opencast coal mining

*(a) Is the property within 800 metres of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods?*

*(b) Is the property within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted?*

- A.** There are no plans by the Coal Authority to grant a licence to extract coal using opencast methods within 800 metres surrounding the Site.

#### Q9. Coal mining subsidence claims

*(a) Has any damage notice or claim for alleged coal mining subsidence damage to the property been given, made or pursued since 1st January 1984?*

*(b) Does any current "Stop Notice" delaying the start of remedial works or repairs affect the property?*

*(c) Has any request been made under section 33 of the 1991 Act to execute preventive works before coal is worked?*

- A.** There is no record of any coal mining-related damage notices or subsidence claims for the Site or for any Site within 50 metres of the Site. There is no record of a request that has been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

#### Q10. Mine gas emissions



- A. There are no records of any Mine Gas hazards within the influence of the Site and there is no record of any Mine Gas emissions requiring action.

#### Q11. Emergency Surface Hazard Call Out incidents

*Have the Coal Authority carried out any work on or within the boundaries of the property following a report of an alleged hazard related to coal mining under the Authority's Emergency Surface Hazard Call Out procedures?*

- A. The Site is not situated within the influence of a coal mining-related hazard.

*Please see below Terraforma's CON29M conclusions and expert interpretation with regards to the property. Relevant recommendations are highlighted within the report next steps.*

## Expert interpretation of coal mining activity

Within the scope of this assessment, the Site is not considered to be susceptible to mining-related ground instability. No further information is required within the scope of a typical mortgage application. Below exist relevant interpreted conclusions based on the findings of this report (where applicable):

Although no records exist of historical subsidence claims, it is possible that claims may be made in the vicinity of the Site in the future.

### **Conveyancer**

This section is an official CON29M enquiry and a site-specific interpretation of coal mining activity. These enquiries are The Law Society CON29M Coal Mining search enquiries and are used with permission of the Law Society. The Law Society CON29M Coal Mining search enquiries are protected by copyright owned by The Law Society of 113 Chancery Lane, London WC2A 1PL. Terraforma's Terms and Conditions are applicable at the time the report was produced. This report includes Coal & Cheshire Brine Search Insurance (Up to £50,000) and Terraforma's terms & conditions provide liability cover of £10m per report. All Terraforma reports adhere to The Search Code and are regulated by the Council of Property Search Organisations.





## All Other Mining

Passed  
NO ACTION

### Professional opinion

Within the scope of this assessment, the Site is not considered to be susceptible to non-coal mining related ground instability. Any non-coal mining features that have been identified are unlikely to restrict the completion of the transaction or impact the value or security of the Site for normal lending purposes.

### What non-coal mining activity has been identified?

 Sand

 Gravel

	Total within		Nearest mining feature within 250m			
	1000m	250m	Mineral (closest)	Recorded/suspected	Distance	Direction
Mine location <sup>1*</sup>	-	-				
Mineral working <sup>1</sup>	-	-				
Surface extraction <sup>2*</sup>	1	-				
Infilled quarry <sup>2</sup>	-	-				
Mine entry <sup>1,2</sup>	-	-				
Mineral vein/outcrop <sup>1,2</sup>	-	-				
Mineral occurrence <sup>2</sup>	-	-				
Mining cavity <sup>1</sup>	-	-				
Collapse <sup>2</sup>	-	-				

\* Where 1: sub-surface (underground) extraction and 2: surface (over-ground) extraction.

	Class	British Geological Survey summary
Non-coal mining hazards	-	

### Expert interpretation of identified non-coal mining activity

Terraforma has analysed all relevant datasets and has not identified any non-coal mining features that could adversely impact the ground stability of the Site. Any features noted within this module have been interpreted and provide context of non-coal extraction within the vicinity of the Site. Terraforma's interpretive search methodology, developed and undertaken by our specialist search team, assesses both recorded and unrecorded non-coal extraction hazards. However, entirely unrecorded extraction features can still exist.



● Conveyancer ● Purchaser

Included in this assessment:

The non-coal mining section is a site-specific evaluation of past mining and mineral extraction hazards. This section identifies all non-coal mining activity within the local area, before identifying individual mining features specific to the site. These features are interpreted in conjunction with the ground conditions beneath the Site and the history of mining in the area to identify areas of potential unrecorded workings. Features and hazards are compiled using data from our extensive Geographical Information System including historical mapping, data recorded by the British Geological Survey and our internal library of mine plans and records.

- Tin and metals
- Limestone
- Bath stone
- All Brine
- Gypsum
- Chalk
- Clay
- Stone
- Iron

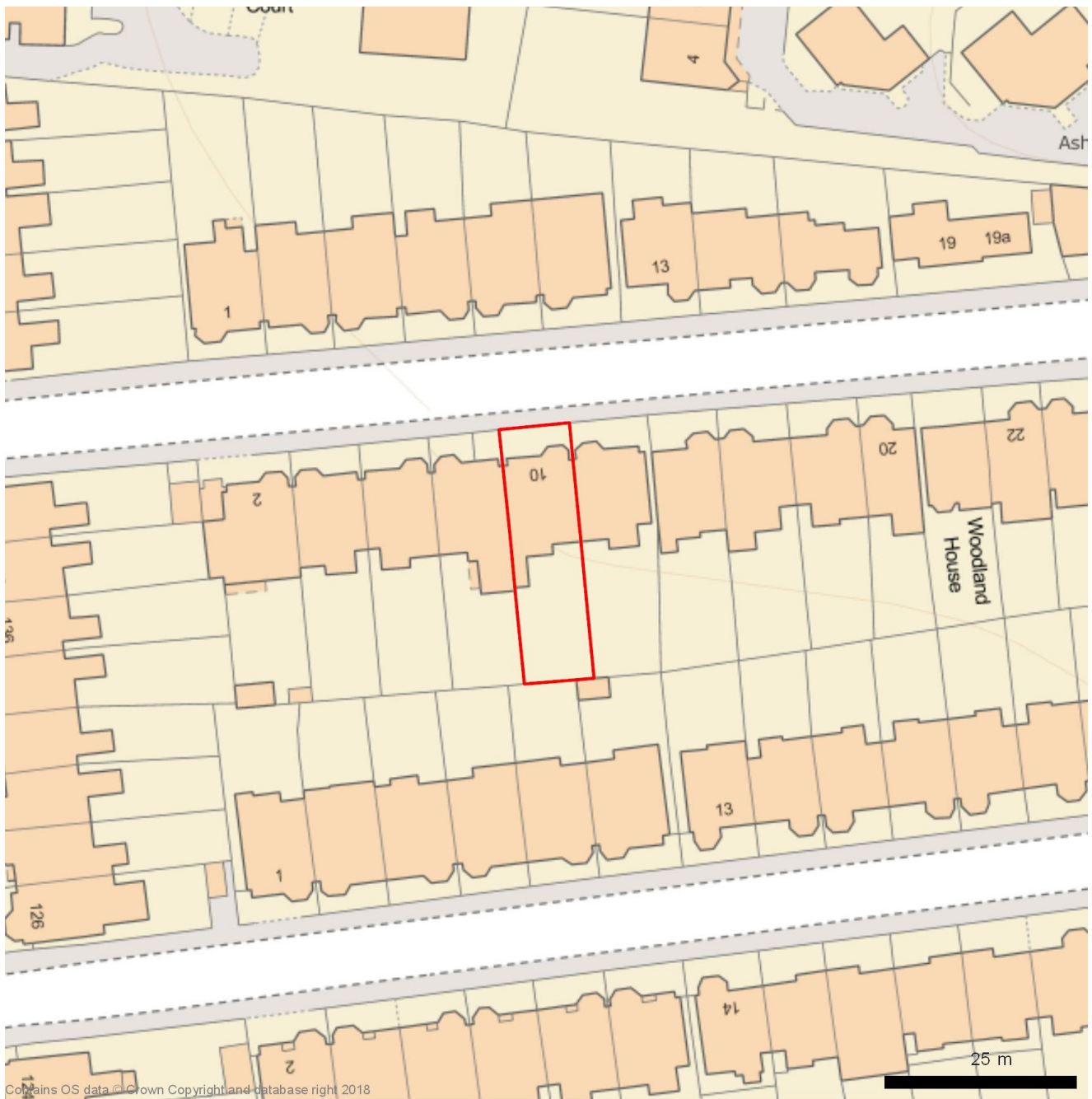


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






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# Coal and all other mining map



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<p><b>Coal Mine Entries</b></p> <ul style="list-style-type: none"> <li> Adit</li> <li> Shaft</li> <li> Zone of Influence</li> <li> Affected Areas</li> </ul>	<p><b>Coal Claims</b></p> <ul style="list-style-type: none"> <li> 01 - Awaiting Decision</li> <li> 02 - Rejected</li> <li> 03 - Admitted</li> <li> 05 - Settled</li> <li> 06 - Withdrawn</li> </ul>	<p><b>Coal/Non-Coal Features</b></p> <ul style="list-style-type: none"> <li> Mining Features</li> <li> Mining Cavities</li> <li> Site Boundary</li> </ul>	<p>N</p> <p>1:810</p>  <p>OS100058210</p>
--	--	--	--

Sample address



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# Natural Ground Perils



Advisory

PURCHASER ACTION

## Professional opinion

Within the scope of this assessment it is considered possible that the Site could be susceptible to natural ground instability. Natural ground perils have been identified within the vicinity of the Site and a prudent purchaser may wish to follow any identified next steps and/or make assurances relating to the stability of the Site.

## What is the risk of clay-related subsidence?

Score 1-5 (low-high)	Is the property vulnerable to clay shrink-swell?
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <div style="background-color: #2c3e50; color: white; padding: 5px; border-radius: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">4</div>  </div> <div style="text-align: center;"> <div style="background-color: #2c3e50; color: white; padding: 5px; border-radius: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">5</div>  </div> </div>	<p>The vulnerability of a property to ground movement associated with clay shrink-swell is considered to be high. Ground movement is likely to have historically occurred or may in the future impact the structural integrity of a property. Subsidence claims are most likely to occur in this area.</p>

## What natural ground perils have been identified?

 Identified  Not Identified

<input checked="" type="checkbox"/> Collapsible deposits	<input checked="" type="checkbox"/> Running sands	<input checked="" type="checkbox"/> Soluble rock
<input checked="" type="checkbox"/> Landslides	<input checked="" type="checkbox"/> Compressible ground	<input checked="" type="checkbox"/> Natural cavities

	GeoSure class*	British Geological Survey conclusion (highest GeoSure class)
Collapsible deposits	B	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
Running sands	A	
Soluble rock	A	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
Landslides	B	
Compressible ground	A	

\*Where class E denotes highest risk, class A denotes lowest risk.

	Approx. distance	Comments
Natural cavities	-	No naturally formed cavities in the ground have been identified.

### Purchaser

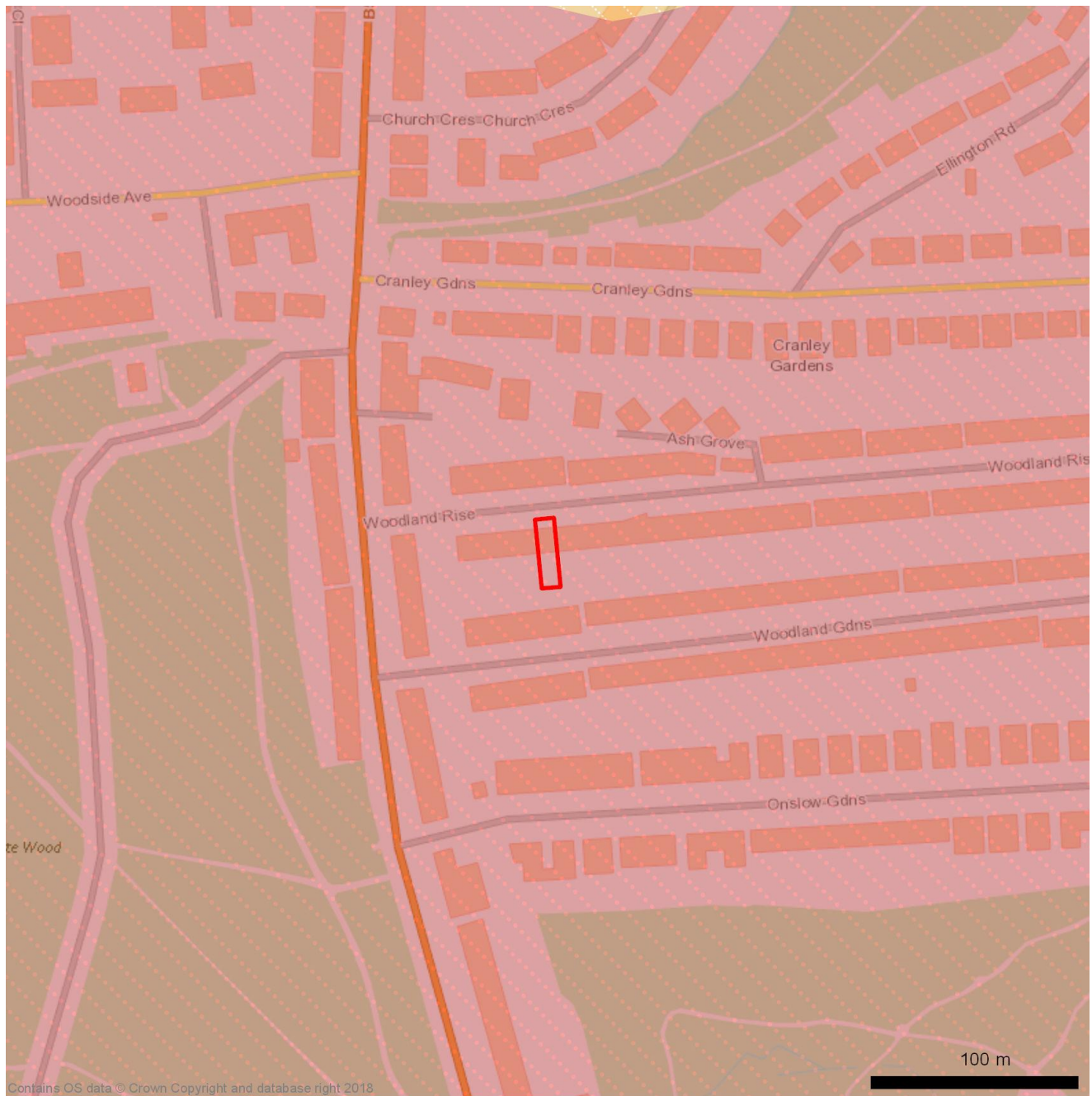
The natural ground perils section is a site-specific realisation of current natural ground hazards underneath and/or in close proximity to the Site. The seasonal shrinkage and swelling of clay soils under a building can pose a significant threat to structural integrity; therefore, Terraforma has used BGS (GeoSure shrink-swell) and Cranfield University (Natural Perils Directory) datasets to reveal an upper limit hazard score for this particular natural peril. Additionally, further BGS GeoSure datasets and the PBA (Peter Brett Associates) natural cavity database are analysed in relation to the Site.





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# Natural ground perils map



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-  Natural Cavities
-  Site Boundary

- GeoSure & Natural Perils Directory**
-  Natural hazards (Identified only)
  -  Natural hazards (Advisory only)
  -  Natural hazards (Highest class)

N  
  
 1:3,000  


OS100058210

Sample address



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## Ground Movement

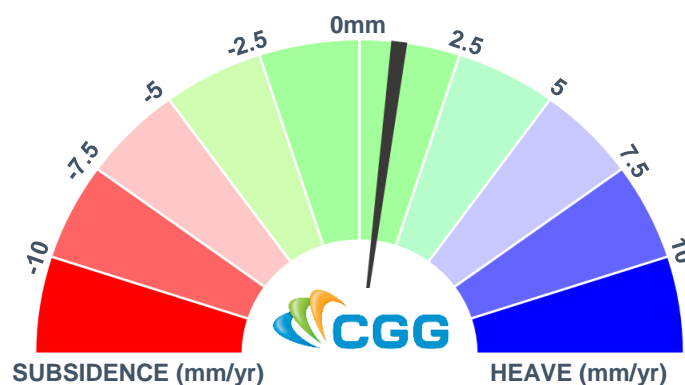
Not Identified

NO ACTION

### Evidence of ground movement:

#### Surface deformation

This dial shows the average velocity of ground movement in a 50m radius of the Site since 2015. When the dial points to below -5mm/year (red zone), subsidence has occurred. When the dial points to above +5mm/year (blue zone), heave (uplift) has occurred. If the dial lies in between these values, the ground is considered 'stable'. The average velocity is obtained from satellite (INSAR) data, which uses licensed data from CGG's MotionMap UK database.



### Recorded sinkholes or ground collapse

0

Recorded ground collapse(s) within 50 metres of the site boundary since 2014

**SinkholeAlert**

### Recorded subsidence claims within 50 metres\*

Date	Address	Distance	Source	Status
-	-			

\*Up to 5 claims shown. Accepted/ recorded subsidence claims prioritised. For further information, please see question 9 of the CON29M module in this report or contact Terraforma directly.

#### NEXT STEPS

There are no subsidence claims or recorded sinkholes identified within the vicinity of the Site. This indicates that there has been negligible ground movement within the local area that has led to structural damage(s) or the disbursement of damages. No further action is required.

#### **i** Purchaser

A prudent homeowner should check with their insurance provider whether subsidence damage is covered under the terms of their home buildings insurance policy. Guidance and further information regarding subsidence and insurance is available at: [http://www.financial-ombudsman.org.uk/publications/technical\\_notes/building-subsidence.htm](http://www.financial-ombudsman.org.uk/publications/technical_notes/building-subsidence.htm). ABI accredited insurers should include cover for subsidence within their policies. It would be prudent to check the terms of your policy to ensure adequate cover is provided. For further information about subsidence within residential home insurance policies, please visit: <https://www.abi.org.uk/products-and-issues/choosing-the-right-insurance/home-insurance/subsidence/>. Prior to purchase, a prudent purchaser may wish to make assurances relating to the structural condition of the property. A building survey may be considered. For further information, please visit [www.ricsfirms.com/articles/which-rics-survey-is-best-for-your-needs/](http://www.ricsfirms.com/articles/which-rics-survey-is-best-for-your-needs/).

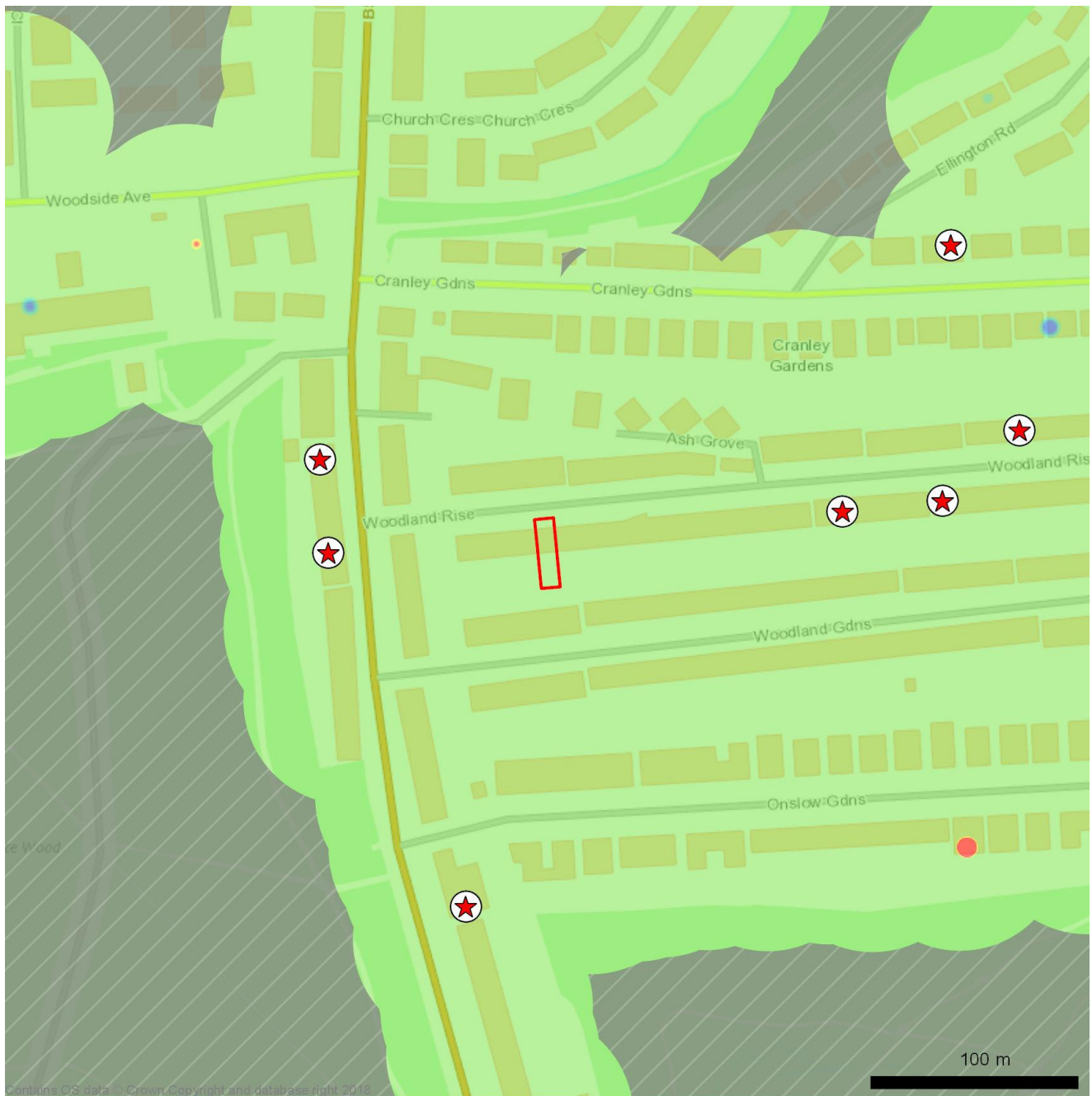


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# Ground movement map



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<b>Ground Movement</b>	Investigated Coal Subsidence Claims	Site Boundary	N  1:3,000 
Uplift	Investigated Subsidence Claim		
Stable	Sinkhole/Ground Collapse		
Subsidence			
No Data			

Sample address



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**Rn****Radon****Not identified**

NO ACTION

## Is the property in a Radon affected area?

	Is the property in a Radon affected area?	Level of measures required
<b>1</b> Radon potential	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). The property is not in a radon affected area.	No protective measures for new buildings in England and Wales

## Impact of local factors on risk of Radon exposure

Local factors	Information	Impact on Radon risk
Local geology	Clay	Decrease risk of exposure
New build property?	No	Increase risk of exposure

**NEXT STEPS** No further action is required prior to purchase.

**i** ● Conveyancer ● Purchaser

Radon searches are a standard part of the CON29 form and appear as section 3.14 under Environmental Searches. If the purchaser is buying in a Radon Affected Area, they should enquire as to whether radon protective measures were incorporated into the construction of the property. More details of the protective measures required can be found for:

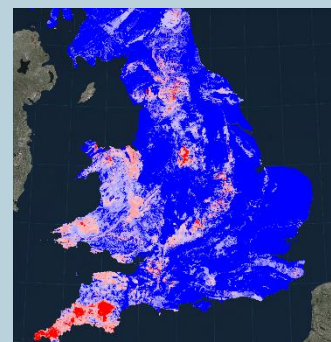
**England and Wales:** BR211 Radon: Guidance on protective measures for new buildings.

**Scotland:** BR376 (1999) Radon: Guidance on protective measures for new dwellings in Scotland.

Additional information and guidance is available from the Building Research Establishment website ([www.bre.co.uk/radon/](http://www.bre.co.uk/radon/)).

The indicative map shows where protective measures may be required in new buildings and extensions, conversions and refurbishments in existing buildings for England and Wales. Further maps are available on the Building Research Establishment website at the following link: [www.bre.co.uk/radon/maps.html](http://www.bre.co.uk/radon/maps.html). Whether or not a building is in fact above or below the radon Action Level can only be established by having the building tested. The HPA provides a radon testing service which can be accessed at: [www.ukradon.org](http://www.ukradon.org) or by telephone.

Basemap imagery sourced from: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



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## Oil and Gas Activity

Not Identified

NO ACTION

### Nearest identified oil and gas activity (including fracking)

Within the scope of this assessment, the Site is not considered to be within an area that could be affected by hydrocarbon extraction. The block was eligible for licensing during the 14th onshore licensing round (July - October 2014), but was not allocated to an Oil and Gas company, due to lack of interest or unsuccessful applications. This means that no legal hydrocarbon extraction can occur near the Site, and cannot occur until at least the next licensing (15th) round.

Operator	License block/reference	Resource	Type
-	TQ28	-	14th Round Offered

#### NEXT STEPS

No further action is required.

#### **i** Purchaser

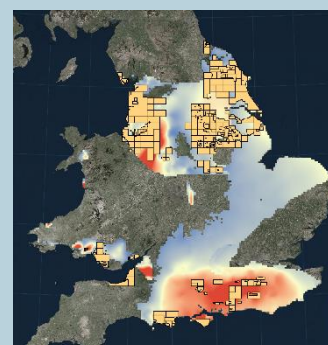
An assessment of Petroleum Exploration and Development Licence areas (PEDL's), has been made by reference to information provided by the Oil and Gas Authority (OGA) and the Department of Energy and Climate Change (DECC). A PEDL offers exclusive rights for the exploration and retrieval of hydrocarbons using conventional oil and gas extraction techniques, coal bed methane extraction, mine gas exploitation or unconventional shale-gas 'fracking' techniques within set Ordnance Survey (OS) referenced 'blocks'.

Fracking, or unconventional shale-gas extraction, is a method of gas recovery that involves high pressure fluid injection (defined by set threshold rates in the UK) into shale rocks. This injection opens cracks within the shale and 'stimulates' a flow allowing the gas to be collected and harvested at the surface. Operations tend to occur via drilling sites at the surface, with the main drilling and injections then occurring horizontally, generally at depths of over 1km. The inset image shows the distribution of operational PEDL (all hydrocarbon extraction) blocks and shale outcrops in England and Wales.

Fracking may impact the quiet enjoyment and the value of a Site. Should you like further information regarding shale-gas (fracking) extraction please visit: <https://www.bgs.ac.uk/shalegas/>. It is important to note that any decisions on fracking activities in the UK is subject to the appropriate planning process as outlined within the National Planning Policy Framework (NPPF). Further information can be found at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>. Furthermore, all fracking operations in the UK are also subject to the appropriate regulation by regulators such as the OGA, DECC, Mineral Planning Authority (MPA) Environment Agency (EA) and the Health and Safety Executive (HSE).

Further guidance is available at: <https://www.gov.uk/government/publications/about-shale-gas-and-hydraulic-fracturing-fracking/developing-shale-oil-and-gas-in-the-uk>.

Basemap imagery sourced from: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



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## Mineral Planning

Not Identified

NO ACTION

### Identified mineral planning permissions

Within the scope of this assessment, the Site is not considered to be within an affected area for present or future non-coal mineral extraction. The Site is not located within 1000m of a mineral planning permission. This means that there is no current legal mineral extraction (e.g., mines or quarries) within 1000m of the Site, and that there are no plans to develop extraction facilities within 1000m of the Site. As such, it is thought unlikely that the quiet enjoyment of the Site will be affected by mineral extraction.

### Closest identified mineral planning permission

Site name	Distance	Commodity	Extraction type	Status	Activity
-	-				

### Other identified mineral planning permissions

-	-				
---	---	--	--	--	--

#### NEXT STEPS

No further action is required.

#### **i** Purchaser

An assessment of present or future mineral extraction has been made with reference to Historic Mineral Planning Permissions from licensed British Geological Survey Data. Information provided here refers to either historic or currently active (including future extraction) mineral planning permissions with respect to specific mineral commodities. The presence of permission areas, of any status, does not mean extraction is currently active or planned.

Extraction of minerals can only take place if the operator has obtained planning permission from the local council along with other necessary permits and approvals (licenses from the Environment Agency, Natural England, Coal Authority etc.). Upon approval of any mining or quarrying activities, any operators will be subject to the appropriate regulation in accordance with the **Mines and Quarries Act of 1954**. The principle issues that mineral planning authorities should address are 1) Noise associated with the operation; 2) Dust; 3) Air quality; 4) Traffic; 5) Visual impact. Further information is available at: <https://www.gov.uk/guidance/minerals>.

Basemap imagery sourced from: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.



For any mining or ground related issues  
please contact the experts at Terraforma

Call us on: 0330 900 7500

Email our team: [info@terrafirmasearch.co.uk](mailto:info@terrafirmasearch.co.uk)

## Geological conditions

This page provides useful information on expected or documented ground conditions within the Site boundary and the adjacent area. This information can be used by the developer in the event that the Site is developed or extended. If future development of the property occurs, it is recommended that this information is relayed to the appointed contractor for review.

### Site information

Bedrock geology	Palaeogene London Clay Formation - Clay, Silt And Sand
Superficial geology	There is no superficial geology recorded beneath the Site.
Artificial ground	There is no artificial ground recorded beneath the Site.
Historic landfill	There is no historic landfill recorded beneath the Site.
Linear geological features	There are no linear geological features (such as faults) recorded within 20m of the Site.
Borehole records	There are no boreholes recorded within 25m of the Site.
Groundwater infiltration potential	Rainwater infiltration potential is considered to be low for the ground at the Site.
Superficial thickness	Superficial geology has not been recorded beneath the Site. However, a layer of topsoil, recorded to be 2m thick, has been identified beneath the Site.

### Future Development of the Site

Terraforma consider that while no immediate threats to ground instability exist at the site, poor conditions could exist that may impact the stability during any future development or site works. You may wish to share the findings of this report with your developer prior to any site works. For recently developed sites, you may wish to contact the developer/builder and enquire whether the ground conditions were considered or remediated during the planning, foundation design and construction phases. Should any evidence of poor ground conditions be discovered, or if evidence exists supporting the existence of ground hazards be presented, you may wish to seek further expert interpretation or investigation prior to any site works. Terraforma can be contacted should you require any further information, including the provision of such follow-on services.

#### **i** ● Purchaser

Geological conditions have been compiled to provide an overview of the expected geology beneath the Site. Datasets include those from the British Geological Survey and the Environment Agency. The geological conditions on site, alongside any ground hazards identified in the report, allow Terraforma to provide an assessment relating to future development of the Site. The development or extension of a property can involve significant disturbance to the ground and in areas of poor ground conditions or where mining hazards are present, any such disturbance without prior planning or appropriate consideration could cause ground instability.




# Additional information

## Key and colour information

The below key provides further guidance on the colours and symbols used throughout this report.

### KEY

Lender – attention required	Terraforma has identified mining or ground hazards within the vicinity of the Site, including features (e.g., mine shafts/ adits) that could affect the future value of the Site. A lender may require further information in the form of an interpretative report (e.g., mine entry interpretive report) before deciding on whether to proceed with the transaction.
Conveyancer – further action	Terraforma has identified mining and/ or ground hazards that could affect the future ground stability of the Site. Terraforma does not believe that the transaction should continue until further action has been taken to quantify the risk of subsidence or collapse to the Site. Terraforma recommend that the conveyancer liaises with all necessary parties regarding the report's findings.
Purchaser - prudent advice	The purchaser's attention is drawn to the prudent recommendations outlined in the report. The report results should not hinder the transaction, and Terraforma's Terms & Conditions are valid for the Site. However, Terraforma recommend that the purchaser(s) read this report carefully.
No further action	Terraforma has not identified any mining or ground hazards that influence the Site. Terraforma does not believe that any further actions are required for this transaction and Terraforma's Terms & Conditions are valid for the Site.

 This symbol is used throughout the report to highlight where further information has been provided. This does not affect the risk assessment of the report but may help to provide practical guidance for the relevant parties highlighted.

## Notice of Statutory Cover

### Coal

In the unlikely event of any future damage, the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994) apply\*, and the Coal Authority / Licensee has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land and/or property in connection with lawful coal-mining operations. Typically, these actions will not need to involve either your insurance company or mortgage lender and therefore the end user(s) should not incur any costs or liability. *\*Note: this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.*

In addition to the above, it should also be noted that the Coal Authority offer a Public Safety and Subsidence Department that provides a 24-hour 7 day a week call out service (see Emergency Contact Tel below) to take remedial action in respect of hazards associated with the movement or collapse of any coal mineshaft or entrances to coal mines and from other coal mining-related surface hazards.

#### For further information

Website: [www.groundstability.com](http://www.groundstability.com)

Emergency Contact Tel: **01623 646333** (24-hour/ 7 day a week call out service).

### Cheshire Brine

For sites located within the Cheshire Brine Compensation District, the provisions of the 1952 and 1964 Cheshire Brine Pumping (Compensation for Subsidence) Acts may apply.

#### For further information

Website: [www.cheshirebrine.com](http://www.cheshirebrine.com).



# Coal and Cheshire Brine Search Insurance conditions

## Definitions

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.

### Definitions

Coal & Cheshire Brine Search Insurance means the insurance policy provided by ERGO Versicherung AG, UK Branch (“Insurer”) which is authorised by Bundesanstalt für Finanzdienstleistungsaufsicht and subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority.

**ERGO Versicherung AG, UK Branch is wholly owned by Munich Re, and is rated AA- (Very strong) by Standard & Poor’s.**

“Insurance” means the Insurance covering the loss in Market Value of the Property (and all other costs and expenses which have been agreed) directly attributable to any changes in the Information revealed in a subsequent TerraFirma or TerraSearch Report which was not revealed in the TerraFirma Ground Report (“Report”) appended to this Insurance.

“Market Value” means the value determined by an appointed RICS surveyor, such loss to be calculated at the date of the subsequent Report.

“Information” means the information in the Report, or in any report appended thereto, compiled from:

1. The Coal Authority’s records in relation to past, present and planned 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, as recorded in the CON29M (2018) report; and
2. The records of the Cheshire Brine Subsidence Compensation Board (CBSCB) in relation to Cheshire Brine, as specifically recorded in the CON29M (2006) report or reported in Questions 3 and 4 of the CBSCB Cheshire Salt Search.

**Subject to the terms of the Insurance, each Report issued for a single residential dwelling includes Insurance up to a maximum of £50,000, effective from the date of issue of the Report (“Effective Date”) until the Property is sold or, in respect of a mortgagee, until the debt secured by the mortgage is repaid.**

The Insurance applies only to the Purchaser, being:

1. the person who asked for the Report (and the mortgagee) in connection with purchase of the Property
2. the person who purchased the Property (and the mortgagee) if the person selling the Property has asked for a 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.
3. the owner of the Property (and the mortgagee) if the Property is being re-mortgaged or the owner of the Property who has chosen to obtain a Report.

The Purchaser’s estate and beneficiaries, to whom the benefit of the Policy will pass in the event of the Purchaser’s death during the Period of Insurance.

The Insurance is not applicable:

1. if at the date of the claim, the Purchaser is 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 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 – future underground coal mining and– future opencast coal mining.
6. if the Information in any subsequent Report after the Effective Date also appears in the Report.
7. to any problem revealed by the first Report after the Effective Date if the Purchaser or their legal representative knew about the problem on or before the Effective Date.
8. to any change to the CON29M (2018) Search form and/or the Report made after the Effective Date which affects the Insurer’s responsibility under this Policy, if the Insurer would not have been responsible for the loss before such change.
9. to any change in the interpretation of Information upon which the Report was produced, provided such Information 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. If the Purchaser receives information about any claim, loss or incident for which the Insurer may be responsible under this Policy, the Purchaser must contact the Insurer as soon as possible.
2. If there is any claim under this Policy which is also covered by any other insurance, the Insurer will pay no more than their rateable proportion of the loss and any costs and expenses connected with it.
3. The Purchaser agrees to do and permit to be done all things that the Insurer considers necessary to minimise loss under the Policy. The Insurer will be responsible for any expense incurred in complying with this Condition.
4. The Purchaser must not make any offer promise or payment or incur any costs or expenses unless the Insurer has agreed in writing to cover such costs and expenses.
5. If there is a claim under the Insurance, the Insurer has the right to instruct a Surveyor to assess the Market Value of the Property.
6. Where the Insurer has accepted a claim and there is disagreement over the amount to be paid, the dispute can be referred to an agreed arbitrator (or in the absence of an agreement an arbitrator appointed by the President of the Chartered Institute of Arbitrators) in accordance with the law at the time.

**ERGO Versicherung AG, UK Branch is wholly owned by Munich Re and is covered by the Financial Services Compensation Scheme.**



Further information on the insurance cover is available on request.



# Terraforma Report terms and conditions

This report is prepared in accordance with The Law Society Guidance Notes 2018; under which all replies to these enquiries are made. The Law Society has no responsibility for information provided in response to CON29M (2018) Coal Mining search enquiries within this report or otherwise. Terraforma's Terms and Conditions (v2.1) are applicable at the time this Terraforma report (v1.0) was produced and a copy is available at:

<https://www.terrafirmasearch.co.uk/s/CONDITIONS-OF-CONTRACT-FOR-TERRARESEARCH-REPORTS-v21.pdf>. They provide a limit of liability per report of £10 million, backed by Professional Indemnity Insurance; details available on request.

## Report Methodology & Limitations

### General & Data

The Terraforma Ground Report has been carried out with reference to official licensed British Geological Survey, Coal Authority data and Terraforma's bespoke GIS, which includes an extensive collection of abandoned mine plans, maps, records and archives in our possession. **The report does not currently consider instability relating to coastal erosion.**

This report is confidential to the client, the client's legal advisor and the client's Mortgage lender, as defined in the TerraSearch® terms & conditions, and as such may be used by them for conveyancing or related purposes. We have no liability toward any person or organisation not party to commissioning this report. This report or any part of it is not permitted to be reproduced, copied, altered or in any other way distributed by any other person or organisation.

### Methodology

From this material, we have endeavoured to provide as accurate a report as possible. This report is a 'remote' or 'desktop' investigation and reviews only information provided by the client and from the databases of publicly available (either freely or by licence) information that have been chosen to enable a desk based environmental assessment of the Site. The report does not include a Site Investigation, nor does Terraforma make specific information requests of the regulatory authorities for any relevant information they may hold. This report is concerned solely with the Site searched and should not be used in connection with adjacent properties as we may have only referenced relevant known ground features that could potentially have a direct influence upon the target Site. Other features which may be present in the general area may have been omitted for clarity. This report has been completed in accordance with the Terraforma academically reviewed methodology, produced to evaluate the process of analysing multiple datasets with professional interpretation to provide a risk assessment of ground stability. This report is split up into modules, with the first three modules (CON29M, All other mining and Natural Ground Perils) representing our risk assessment, professional interpretation and risk transfer relating to the ground stability at the Site in question. Other following modules (Ground Movement, Radon, Oil & Gas

and Mineral Planning) provide additional useful information and risk assessments however are not necessarily specific to ground instability. The prudent recommendations or further actions should be read carefully and the following text outlines specific comments to all modules within this report:

It should be realised that totally unrecorded or unindicated surface mineral workings can exist between known past underground mineral workings. Similarly, ground perils, by nature, are natural in occurrence and therefore entirely unrecorded or unexpected hazards can exist. Therefore, Terraforma cannot be held responsible for any settlement or subsidence problems as a result of a Site being affected by such completely unrecorded hazards.

### Ground Movement Module

Evidence of ground movement is shown within the dial graphic and reflects ground deformation near the Site. The data is derived from a licenced copy of CGG's MotionMap UK database. Surface deformation measurements within this database have been derived using InSAR processing of Sentinel-1 satellite imagery. The recordings shown here are for information purposes only, with the intent of visualising ground movement trends in the immediate area of the Site. Movement velocities of  $\leq -5\text{mm/year}$  are indicative of subsidence,  $\geq +5\text{mm/year}$  are indicative of heave (uplift).

**Values between -5 and +5 (mm/year) are 'stable'.** This section is provided to supplement information provided with the three ground instability modules. While data coverage is good, it is not complete and Terraforma do not accept any responsibility for any ground movement not highlighted within this section. Values indicative of 'subsidence' or 'heave' do not necessarily mean these hazards are present or even expected specifically at the site in question, just that such values have been recorded within the local area.

The SinkholeAlert is used for indicative purposes only and does not influence the overall risk assessment of the Site. Terraforma define a sinkhole as a: *"colloquial term for any hole, collapse, void or depression in the ground, formed by natural or man-made processes and enlarged by erosion, loading the ground and/or the drainage of water."*

SinkholeAlert is generated by querying a combination of the Coal Authority's Coal Mining-Related Hazard database and Terraforma's 'live' sinkhole database, which is composed of all available and accessible media-reported sinkholes since 2014. This database is updated weekly and currently contains over 9000 entries.

The sinkhole databases comprising the subject matter of the SinkholeAlert are made up of information supplied to Terraforma by third parties and of which Terraforma has no direct knowledge. Terraforma has endeavoured to verify all database entries, however, given the nature of this third-party information, Terraforma can have no liability for the accuracy of the information comprising the databases or for any loss of whatever nature directly or indirectly caused which may result from any reliance placed upon it.



Recorded subsidence claims are shown within 50 metres of Site and represented investigated insurance claims at a Site specifically relating to subsidence or structural damages. Data of investigated claims is compiled by various sources and also licensed from the Coal Authority. Terraforma cannot accept responsibility for any claims not highlighted in this section nor the accuracy of the claims. This section is provided for information purposes only and is designed to provide an indication of any known claims that have occurred within the local area. It should not be assumed that proximal claims indicate claims are more likely for the Site in question or *vice versa*.

### **Radon**

The assessment of Radon risk is compiled from the HPA-BGS (Public Health England & British Geological Survey) Joint Radon Potential Dataset for Great Britain. This module follows the guidance from this dataset and provides information on the indicative radon potential in the local area. It is important to note that the actual radon levels at a Site can only be determined by having a building tested and therefore Terraforma cannot be held responsible for any inaccuracies or discrepancies within values reported here to those in such physical tests. Terraforma provide additional interpretation of risk factors relating to Radon levels, however these are indicative only as actual levels can only be established by physical testing.

### **Oil & Gas**

An assessment of Petroleum Exploration and Development Licence areas (PEDL's), has been made by reference to information provided by the Oil and Gas Authority (OGA) and the Department of Energy and Climate Change (DECC). Information supplied within this section are for guidance and to aid a prudent purchaser. Terraforma do not attempt to predict fracking or conventional hydrocarbon activity. Terraforma cannot be held responsible for any past extraction not identified or for any current/planned extraction licensed to occur. Any next steps are for a prudent purchaser to establish, that is possible at the time of writing, any information regarding any current or future plans for hydrocarbon extraction and how this may impact the quiet enjoyment of the Site in question.

### **Mineral Planning**

The assessment of the 'risk' of ground instability arising from existing or planned mineral exploration or extraction is based on extant mineral planning or safeguarding areas as defined by the relevant Mineral Planning Authority (MPA) policies at the time of writing. Terraforma cannot be held liable for any updates or changes in existing mineral operations or policies. Terraforma do not attempt to predict any mining or surface extraction activities. Terraforma cannot be held responsible for any current/planned extraction that occurs. Any next steps are for a prudent purchaser to establish, that is possible at the time of writing, any further information regarding any current or future plans for nearby mineral extraction and how this may impact the quiet enjoyment of the Site in question.

## Report licensing

This report contains Data provided by the Coal Authority. Any and all analysis and interpretation of Coal Authority Data in this report is made by Terraforma Mine Searches Ltd and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Terraforma Mine Searches Ltd prior to any re-use.

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The Law Society

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### Important consumer information

This search has been produced by TERRAFIRMA MINE SEARCHES LTD

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Registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.



## The Search Code

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

### The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

## Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

### TPOs contact details

The Property Ombudsman scheme  
Milford House, 43-55 Milford Street  
Salisbury, Wiltshire SP1 2BP,  
Tel: 01722 333306 Fax: 01722 332296  
Email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk) | Website: [www.tpos.co.uk](http://www.tpos.co.uk).

You can get more information about the PCCB from [www.propertycodes.org.uk](http://www.propertycodes.org.uk) or from our website at [www.terrafirmasearch.co.uk](http://www.terrafirmasearch.co.uk).

## Complaints Procedure

Terraforma is registered with the Property Codes Compliance Board as a subscriber to the Search Code. A key commitment under the Code is that firms will handle any complaints both speedily and fairly.

If you want to make a complaint directly to Terraforma, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to:

The Property Ombudsman scheme (TPOs):

Tel: 01722 333306 E-mail: [admin@tpos.co.uk](mailto:admin@tpos.co.uk) | Website: [www.tpos.co.uk](http://www.tpos.co.uk).

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

Complaints should be sent to:

#### **Director & Senior Executive, Terraforma**

2440 The Quadrant, Aztec West Business Park  
Almondsbury Bristol BS32 4AQ  
Telephone: 0330 900 7500  
Email: [info@terrafirmasearch.co.uk](mailto:info@terrafirmasearch.co.uk)

**TERRA  
FIRMA** understand the ground



Contact Terraforma if you would like a copy of the search code.

We trust this report provides the information you require, however should you have any queries, please contact us.



For any mining or ground related issues  
please contact the experts at Terraforma

Call us on: 0330 900 7500  
Email our team: [info@terrafirmasearch.co.uk](mailto:info@terrafirmasearch.co.uk)