

Contaminated Land Phase One Desk Study for proposed Bed and Breakfast Accommodation on land at Taylors Farm, Long Lane, Scorton, Preston, PR3 1DB.

Prepared for

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Summary

This report consists of a phase one contaminated land desk study produced in support of a discharge of planning application for the conversion of a barn to Bed and Breakfast Accommodation at Taylors Farm, Long Lane, Scorton, PR3 1DB.

Following the site walkover and review of the available information it has been concluded that there is a slim chance of contamination existing on site from presumed made ground which requires either further investigation or mitigation measures to be taken to prevent any significant risk of significant harm to the identified receptors either and to ensure the site is safe and suitable for the intended use.

The report further recommends that a watching brief is maintained throughout the construction of the new dwellings and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary.



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Introduction

Martin Environmental Solutions has been commissioned, to carry out a phase one contaminated land desk study report in relation to a proposed change of use to Bed and Breakfast Accommodation of a barn at Taylors Farm, Long Lane, Scorton, PR3 1DB.

Aims and Objectives of the report

The aims and objectives of this report are as follows:

- Assess the likelihood of contamination affecting the site,
- Identify any likely receptors to be affected by the potential contamination,
- Identify the pathways by which the receptors will be exposed to any potential contamination,
- Identify any areas where further investigation will be required.

Scope of works

This report has been written in line with the 'BS 10175: 2011+A2: 2017 Investigation of potentially contaminated sites – Code of Practice' and Land Contamination Risk Management (LCRM).

The scope of this report covers the phase one desk study only. It will look at relevant information on: -

- the history of the site and surrounding area,
- the current use of the site and surrounding area,
- the geology and hydrogeology of the area,

A site walk-over survey has been undertaken in addition to consultations with the existing site owner, to identify any potential contamination issues.

Evaluation of the above information will be used to construct an initial conceptual model as appropriate, with the identification of any additional investigations that may be required.



The Site:

Site Address: Taylors Farm, Long Lane, Scorton, PR3 1DB.

Grid reference: 352924; 451500

An aerial photograph of the site is included in Figure 1.

Current Site use:

The site currently consists of a farm house, stables, and storage barns. The site is surrounded by agricultural fields. A watercourse runs along the northern boundary and there is an additional property to the north of the entrance way.

Research

Details of Research

This report has been based on information gathered from a number of reputable sources, covering details:

- on the historic and current use of the site,
- any known waste disposal activities in the area,
- any regulated industrial activities within the vicinity of the site including recorded industrial accidents,
- on the geology, hydrogeology, hydrology of the area,
- identification of any environmentally sensitive sites,
- any natural hazards.

Principle sources of this information have been:

- environmental data from Groundsure Limited
- the Local Planning Authority,
- historic maps (Groundsure Ltd),
- site walk-over survey and discussion with the current owners.



Site History

Information on the historic uses of the site has been obtained from historic mapping information (Appendix 2), and environmental data from Groundsure Limited.

Mapping Year	Changes on Site	Changes off Site	
1846	The site has two buildings shown. One being the farm house and the other a barn to the northeast.	The surrounding area is predominantly agricultural. A watercourse runs along the northern boundary. Long Lane runs to the west of the site. The property to the north of the access road is shown. Bradshaw Smithy is shown 500m to the west.	
1891-93	No Change	Bradshaw Smithy is now Street Smithy. No significant changes shown. Woodlands are shown along the watercourse and to the south of the site ~250m away.	
1912-14	A secondary barn is shown to the northeast of the first.	No significant changes. Wyresdale Fishery is shown adjacent to Taylors Planting and fish ponds 250m to the south.	
1956	No changes	An old quarry is shown 450m to the southeast.	
1963-68	No Change	No significant changes	
1978-80	The barns have been further developed. Two more area shown to the east and a third to the south of the original.	No significant changes	
1994	No Change	No significant changes	
2001-03	No Change	No significant changes	
2010	The barn area has been redeveloped into the current layout.	No significant changes	
2024	No Change	No significant changes	
Aerial photos	No changes shown	No significant changes	



Regulatory Information

Relevant information obtained from the Groundsure report (Appendix 1) is summarised below.

No permitted activities have been identified within 500m of the site as defined in the Environmental Permitting (England and Wales) Regulations 2016 or previous legislation.

One pollution incident has been identified in the surrounding area located 20m northwest of the site involving final effluent sewage materials in October 2001 have no impact to the water, land or air environment.

One discharge consent is reported at Angle Bank Fisheries, Wyredale Farm, 443m southwest of the site. The consent was revoked in 1994.

A gas pipeline is also identified crossing the access road to the site.

The above identified sites are unlikely to impact on the development site.

No active landfill site records have been found in the area. A historic landfill is recorded 296m northwest at Bracken Lea, Tinkers Lane which excepted household waste between 1972-74.

One waste exemption has been identified at The Old Forge, 427m west for the use of vehicles for parts.

Given the distances and nature and age of the both sites it is unlikely that the above sites will pose any risk to the development.

No current potentially contaminative sites have been identified.

No historical potentially contaminative land uses have been identified within 250m of the site.



Geology and Hydrogeology

Information from the British Geology Survey 1:50,000 mapping identifies the bedrock in the area as Roeburndale member, Mudstone, Sandstone and Siltstone, overlaid with Glaciofluvial Deposits of Till, Devensian, Diamicton and Tover Terrace Deposits of Sand and gravel.

The information obtained on the hydrogeology of the area identifies the site as having a Secondary A aquifer in the bedrock 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, with a Secondary A & Secondary Undifferentiated aquifer in the superficial layer.

Three groundwater abstraction licenses have been identified relating to two sites. The first 1739m northeast a historic well at Higher Swainhead Farm was revoked in February 2001. The second site 1876m north at Dolphinholme Farm House for general farming and domestic use.

Eight surface water abstraction licenses are identified, all historical. The nearest 372m southwest at Taylors planting for fisheries, followed by a spring 830m east.

The site is not located within a Source Protection Zone.

The Groundwater vulnerability is described as low in all geological layers.

Hydrology

The nearest watercourse is located along the northern boundary and runs from the east to the west.

The site is not within a floodplain, and the risk of flooding is classified as low.

Environmental Sensitivity

Identified environmentally sensitive sites include the Bowland Fells Sites of Special Scientific Interest (SSSI) 355m southeast, the site is also a Special Protection Areas (SPA).

Six ancient woodlands have also been identified these include Wyre Wharf Wood 1093m west, Mill Wood 1392m northwest, Weir Wood 1918m north and Cleveley Woods 1985m west. An unnamed wood is also located 181m northeast.

The property is in an area identified as having between 0% to 1% -3% of properties above the action level of 200 Becquerel's per cubic metre, based on specific property



search. The buildings being 0%. Radon protection measures are not required in line with BR211.

No additional natural hazards have been identified & the site has very low/negligible risk of shrink swell, running sand, and compressible ground.

There are no mining activities identified in the immediate area.



Site Walkover

A site walkover was undertaken on the 1st February 2024 and confirmed much of what had already been identified from the information obtained on the site. The photographs in Appendix 3 provide some indication of the current layout and condition of the site.

The site is accessed from Long Lane to the west of the site via a long driveway. The driveway is constructed from compacted hardcore. A new entrance is in the process of being constructed. The rises from the road and the first structure is the farm house. The driveway splits to the farm house and runs past it to the stable block.

The farm house is a two storey stone built building with a slate roof. A septic tank is located to the west of the farm house within the garden area. A double skinned plastic and elevated oil storage tank is located to the rear of the farm house to provide heating fuel for the house.

The stable buildings are located at a higher elevation to the farm house. The first building running along the northern boundary consists of a stone and wooden fronted building with slate roof. The internal leaf of the cavity wall is blockwork. A concrete base is provided to the building which extends around the site for a couple of meters. The building is used primarily for storage with the eastern section consisting of stables.

To the rear of the building a generated has recently been moved to the site for storage. Along the eastern boundary the land rises again with a retain wall along the boundary.

Behind the second building is muck heap. The second building consists of a stable block constructed from concrete block an wooden cladding to the outer walls. The roof is tiled. The floor is concrete and in a good condition. To the south of this a paddock with rubber crumb as a base, this has overspilled onto a carparking area.

The final building located in the centre of the site is a steel framed, concrete block building with concrete floor. Car repairs are being undertaken within the building.

The yard to the site is constructed from compacted hardcore and concrete.

No signs of contamination, discoloration or olfactory evidence, dead or dying vegetation were seen during the walkover.

The current owners are unaware of any issues on site which could have led to contamination and the site has been used as a garden since the property was purchased.



Conclusions

Potential Contaminants

Following a review of the information gathered on the history of the site and the surrounding area and following the site walk-over survey there are no contaminants identified on or off site that are likely to present a significant possibility of significant harm to any identified receptor.

Receptors and Pathways

Potential receptors which may be affected by any unknown contamination on site will include:

- Construction workers who are likely to be affected by any potential contamination as they will initially be working in the ground and are likely to be the ones who unearth any potential contaminants.
- Future users of the site, including residents, staff and visitors to the site.
 For the purpose of evaluating any effects from any contamination found during any intrusive investigation future users/visitors to the site should be regarded as the 0-6-year-old female child.
- Any building on site e.g., foundations which may be attacked by any contaminants in the ground or services.
- The underlying groundwater which may be contaminated by migrating pollutants present on the site. There is also the potential for further pollution of the groundwater or the watercourse from disturbing any potential contaminants on site.

The pathways by which these receptors may be exposed to any unforeseen potential contamination will include:

Construction workers

- Inhalation, of gases or vapours released during ground work or fine particles.
- Ingestion of the contaminants, principally from cross contamination with contaminated soil and inadequate hand washing before smoking and eating.

Absorption through the skin following contact with contaminated soil.

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Future users and visitors

- Inhalations of gas/vapours or fibres, particularly if these are allowed to enter the new structures through the ground and build up in an enclosed area.
- Ingestion of contaminants, through the ingestion of contaminated soil from the garden area via direct contact, e.g., playing in the garden.
- Absorption of contaminants from dermal contact with contaminated soil.

Buildings

Contaminants on site have the potential to affect the foundations to the new building or the services supplying it.

Watercourses

As discussed above, if they exist on site, there is a potential for any contaminants to migrate through the ground into the groundwater and aquifer or via run-off into the watercourse.

Neighbouring sites

If present on site contaminates have the potential to migrate to neighbouring sites through ground water or air blown transfer.



Conceptual Model

The table represents a basic conceptual model. It highlights the potential sources of pollutants identified from the gathered information,

and potential pathways in which any contaminants could reach the identified receptors.

Pathway	Description	Identified sources	Receptor at risk	Likelihood
1	Run off and seepage into	-	Watercourse/ Environment	V. Low
	groundwater from any			
	spillages			
2	Migration of gases into	-	Future users	V. Low,
	the building.			
3	Inhalation of gases/	-	Construction workers/future users	V. Low
	vapours outside			
4	Inhalation of fine	-	Construction workers/future users	V. Low
	particles			
5	Direct ingestion of	-	Construction workers	V. Low
	contaminated soil			
6	In-direct ingestion of	-	Future users	V. Low
	contaminated soil			
7	Absorption via direct	-	Construction workers/future users	V. Low
	dermal contact with			
	contaminated soil			



Recommendations

As a result of the investigation into the historical use of the site and surrounding area. No sources of contamination have been identified on or off site which present a significant possibility of significant harm to the any of the identified receptors. The property is therefore considered to be safe and suitable for the intended use.

It is further recommended that a watching brief is maintained throughout the construction of the new building and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary and the local planning authority informed of the findings.



Figure 1 – Aerial Photograph





Appendix 1 – Groundsure Data



Appendix 2 – Historical Mapping



Appendix 3 – Site Walkover Photographs

Access Road from the entrance way



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The Farm house, from the garden in the west around the rear of the house to the access road.

Septic tank

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First floor

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far end (east of the building)

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Building Three

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Eastern boundary, inc generator to rear of building One

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Appendix 4 Report limitations and exclusions

Basis of Risk Assessment

The methods used follow a risk-based approach with the potential risk assessed using the 'Source – pathway – receptor pollution linkage concept.

Limitations and Exceptions of this Report

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The findings and opinions provided in this document are made in good faith and are based on data provided by third parties (Groundsure, Environment Agency, The Coal Authority, and Regulatory Bodies) and the report should be read in conjunction with the limitations on the document control form. The accuracy of map extracts cannot be guaranteed and it should be recognised that different conditions on /adjacent to the site may have existed between and subsequent to the various map surveys.

This report is prepared and written in the context of the purposes stated above and should not be used in a different context. Furthermore, new information, improved practices and legislation may necessitate an alteration to this report in whole or in part after its submission.

The conclusions and recommendations of this report are based on the development described, for any other development the report may require revision.

All of the comments and opinions contained in this report, including any conclusions, are based on the information obtained by *Martin Environmental Solutions*. The conclusions

drawn by *Martin Environmental Solutions* could therefore differ if the information obtained is found to be misrepresentative, inaccurate, or misleading. *Martin Environmental Solutions* reserves the right to amend their conclusions and recommendations in the light of further information that may become available.

The report should be read in its entirety, including all associated drawings and appendices.

Martin Environmental Solutions cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

This report does not comprise a geotechnical assessment of the strata underlying the site.

Any borehole data from the British Geological Survey sources is included on the following basis: 'The British Geological Survey accept no responsibility for omissions or misinterpretations of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation'.

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Any risks identified in a Phase I Desk Study Report are perceived risks. Actual risks can only be assessed following a physical investigation of the site.

The findings of this report are based on finite information obtained from research and consultations. Martin Environmental Solutions cannot guarantee the reliability of all such information and the searches should not be considered exhaustive. The findings of the report may need to be reviewed as any future exploratory investigations progress and in the event that additional archive information becomes available.

Notwithstanding the findings of this study (and any subsequent investigations), if any indication of contaminated soil (visual or olfactory) is encountered at any stage of the development further investigation may be required.

Arboricultural Survey and advice on arboricultural issues are considered to be outside the scope of this report except for their effect on the foundations to the proposed buildings.

Where identification of any species is made, especially invasive plants such as Japanese Knotweed, Himalayan Balsam or Giant Hogweed, this should only be considered as a preliminary assessment and subject to confirmation by a professional Arboriculturist. Martin Environmental Solutions takes no responsibility for failing to identify, or the incorrect identification of, any tree or plant species on site.

Our investigations exclude surveys to identify the presence or indeed absence of asbestos in buildings/infrastructure on site. If asbestos is suspected to be present, we recommend specialists in the identification and control / disposal of asbestos are appointed prior to commencement of any works on site or, if appropriate, purchase of the site. The presence of asbestos on site may have considerable effects on the cost / timescale in developing the site. There is good guidance in relation to Asbestos available on the Health and Safety Executive (HSE) web site.

Whilst a site walkover has been undertaken as part of this report, the survey does not constitute either an asbestos or structural survey and all areas of the site may not have been visited / inspected.