



***IAN FARMER
ASSOCIATES***

MR AND MRS BROOM

**MAWLES FARM
POUND LANE OX15 5RW**

PRELIMINARY INVESTIGATION REPORT

Contract: 22145

Date: September 2020

Ian Farmer Associates (1998) Limited
1 Fairfield Court, Seven Stars Industrial Estate,
Wheler Road, Coventry, CV3 4LJ
Telephone: 024 7630 3422
Email: coventry@ianfarmer.co.uk

PRELIMINARY INVESTIGATION REPORT

carried out at

MAWLES FARM**POUND LANE OX15 5RW**

Prepared for

MR AND MRS BROOM**Foxbury****Upton****Banbury****OX15 6HT**

Contract: 22145

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EXECUTIVE SUMMARY

On the instructions of Ian O'Brien Studio, architects to Mr and Mrs Broom, a Preliminary Investigation in the form of a desk study and site reconnaissance has been carried out in order to assess the potential hazards on and adjacent to the site and prepare a risk assessment for further consideration. The proposed development comprises the conversion of the existing barns to a single residential property with a new ancillary barn to replace the steel pole barn. Associated hardstanding, car parking, access routes and soft landscaping as shown on the application drawings.

A review of the geological maps has identified the site is not underlain by superficial deposits; the bedrock is indicated to be the Northampton Sand Formation. Although Made Ground is not indicated, it may exist given the site is already developed.

The research has identified a small number of possible geotechnical hazards associated with the possible Made Ground that may be present. The research has however identified a number of potential contamination risks associated with the previous site use and possible Made Ground.

It is recommended that some further work be carried out, particularly to confirm the presence, nature or extent of any contamination that may be present.

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1.0 INTRODUCTION

1.1 General

- 1.1.1 On the instructions of Ian O'Brien Studio, architects to Mr and Mrs Broom, a Preliminary Investigation in the form of a desk study and site reconnaissance has been carried out in order to assess the potential hazards on and adjacent to the site and prepare a risk assessment for further consideration.
- 1.1.2 The proposed development comprises the conversion of the existing barns to a single residential property with a new ancillary barn to replace the steel pole barn. Associated hardstanding, car parking, access routes and soft landscaping as shown on the application drawings.
- 1.1.3 This report has been prepared for the sole use of the Client for the purpose described and no extended duty of care to any third party is implied or offered. Third parties using any information contained within this report do so at their own risk.
- 1.1.4 It is recommended that a copy of this report be submitted to the relevant authorities to enable them to carry out their own site assessment and provide any comments [The site boundaries given on the desk study maps do not exactly match the current site boundaries which have been amended since the original desk study data was obtained].
- 1.1.5 The comments given in this report and the opinions expressed herein are based on the information obtained from the desk study and site reconnaissance. No intrusive investigation has been carried out to confirm the actual ground or environmental conditions.
- 1.1.6 Any risks identified in this report are perceived risks based on information reviewed. Actual risks can only be assessed following a physical investigation of the site.
- 1.1.7 This report has been based, in part, on information supplied by others. The report has been prepared on the basis of that information being accurate.
- 1.1.8 The conclusions presented in this report are based on the guidance available at the time of preparation of the report. No liability can be accepted for the retrospective effects of any changes or amendments to legislation or guidance.
- 1.1.9 This Preliminary Investigation has been conducted in general accordance with CLR 3, ref. 8.1, CLR 11, ref 8.2, BS 10175, ref 8.3, and GPLC 1, ref 8.4.

2.0 SITE

2.1 Site Location

- 2.1.1 The site is situated to the northeast of the cross-roads of Main Street and Pound Lane, Sibford Gower, approximately 11 km to the west of the town centre of Banbury and may be located by Grid Reference SP352378.
- 2.1.2 A site location plan and aerial photograph are included in Appendix 1, Figures A1.1 and A1.2.

2.2 Site Walkover and Description

- 2.2.1 A walkover survey of the site was conducted on 3 September 2019. The walkover was carried out in general accordance with CLR 2, ref. 8.5.
- 2.2.2 The site is irregular in shape and approximately 0.16 hectares in size.
- 2.2.3 At the time of the walkover survey, the site was no longer in use and comprised a yard surrounded by former agricultural buildings.
- 2.2.4 An L-shaped, single-storey, stone agricultural building was located along the southern boundary of the site and was previously used as a dairy with stalls and a grain store with grain silo present. There was also, on the corner of Main Street and Pound Lane, a street level access pit which is approximately 3 m lower than the ground floor of the remainder of the building. The northern section of this building was open. The south eastern section of the L-shaped building was formed of a single-storey brick building (erected in the late 1990s and now to be removed) with a possible asbestos roof.
- 2.2.5 A piggery, which was a small, single-storey, brick building was present within the centre of the site with a more modern storage barn located behind. The modern storage barn was an open steel-frame construction with metal sheet roof. The northern and eastern sides of this barn were formed of concrete walls with higher level ground behind.
- 2.2.6 The ground surface of the site varied and comprised concrete hardstanding, with rough ground/hardstanding forming the main yard area. The northern area of the site was surfaced with rough vegetation.
- 2.2.7 The site lay on three different ground levels. The highest area was in the north and north-east at an approximate elevation of 195 mAOD.
- 2.2.8 The main yard and buildings covering the majority of the site lay at approximately 192 mAOD; in addition was the street-level access pit.
- 2.2.9 The general elevation of the site is approximately 192 mAOD.
- 2.2.10 Two tanks were noted during the site walkover; one was located in the south eastern corner of the site and was used for holding kerosene. A second smaller tank was located within the small building attached to the L-shaped building which was believed to store water.

- 2.2.11 The buildings present on site generally appeared to be sound with no obvious signs of significant deterioration or structural problems. One exception was the open end of the L-shaped agricultural building, which showed a number of large cracks within the stone-work and had some vegetation growing out of the wall along Pound Lane. The roof of the small brick building attached to the dairy end of the L shaped building was sagging and the wooden lintel above the window was broken. The piggery roof also showed signs of sagging in the middle and the brick addition to the building showed some bulging to the brickwork.
- 2.2.12 Photographs from the walkover survey are included within Appendix 2, Figures A2.1 to A2.5. A site plan is included in Appendix 1, Figure A1.1.

2.3 Historical Maps

2.3.1 A review of the history of the site has been conducted based on readily available historical maps. Details of the findings are provided in the table below. All maps are provided in Appendix 4.

Map, Date and Scale	Site Description	Regional Setting
Oxfordshire 1882-1887 1:2,500 1884-1887 1:10,560	The site is shown to contain an L-shaped structure along the southern and western boundary which occupies the same footprint as a present-day barn. The building identified as the piggery during the walkover is present in the centre of the site. Two structures are also present near to the entrance of the site. The remainder of the site to the northeast appears to be fields.	The immediate surrounding area is formed of agricultural fields to the north, residential properties and agricultural fields to the east, Main Street to the south with residential and commercial properties beyond, and Pound Lane to the west with residential properties beyond. A smithy is noted approximately 50 m to the south of the site. A small stream located 400 m south of the site runs towards the southwest and has a small tributary which is located 130 m to the southeast. The surrounding area beyond Sibford Gower is formed of agricultural fields with Burdrop 500 m to the east and Sibford Ferris 600 m to the southeast. A number of springs are labelled beyond 250 m of the site.
Oxfordshire 1990 1:10,560 1905 1:2,500	No significant change noted.	The Smithy is no longer labelled. A quarry is labelled approximately 550 m to the northeast of the site.
Oxfordshire 1922 1:2,500 Oxfordshire and Gloucestershire 1923 1:10,560	No significant change noted.	No significant change noted.
Historical Aerial Photography 1948 1:10,560	The aerial photo concurs with the historic maps.	The aerial photo concurs with the historic maps.
Ordnance Survey Plan 1955 1:10,000	No significant change noted.	There is a small number of residential properties present 100 m to the north of the site.
Ordnance Survey Plan 1974 1:2,500	No significant change noted.	A sewage works is present 500 m to the south of the site.

Map, Date and Scale	Site Description	Regional Setting
1977 1:10,000		
Large-Scale National Grid Data 1993 1:2,500 10k Raster Mapping 1999 1:10,000	No significant change noted.	No significant change noted.
Historical Aerial Photography 1999	The aerial photo shows that there is a swimming pool adjacent to the north eastern area of the site.	The aerial photo concurs with the historic maps.
10k Raster Mapping 2006 1:10,000	No significant change noted.	No significant change noted.
VectorMap Local 2019 1:10,000	No significant change noted.	No significant change noted.
	No observable change from 2019.	The historical map appears to be substantially accurate in comparison to the current setting.

2.4 Anecdotal Evidence

2.4.1 During the site walkover, it was noted that the storage barn located in the centre of the site is a newer addition to the site, where the original barn was demolished and replaced with a new storage barn.

2.5 Summary

2.5.1 There has been little change seen on the site from the start of its mapped history with the exception of the replacement of the original central barn with the newer barn. The surrounding area since the beginning of its mapped history has also had minimal change with some residential development noted to the north of the site and adjacent swimming pool noted on the 1919 historical aerial photograph; the remainder remained largely unchanged.

3.0 SITE SETTING

3.1 Geological Setting

- 3.1.1 Details of the geology underlying the site have been obtained from the relevant geological map of the area, ref. 8.6.
- 3.1.2 The geological map does not indicate the site to be underlain by superficial deposits; however, Head Deposits are noted within 1000 m of the site of clay, described as 'silt, sand and gravel'.
- 3.1.3 The bedrock underlying the site is indicated to be the Northampton Sand Formation, described as 'ooidal and sideritic ironstone and limonitic sandstone with lenses of mudstone and limestone'.
- 3.1.4 Although not indicated as present on the site from the geological maps, there is the possibility that Made Ground may exist on the site given that the site is developed and has been used as a working farm.

3.2 Hydrogeological Setting

- 3.2.1 The hydrogeological records, provided by the Environment Agency, indicate that the site is situated on a Secondary Aquifer, relating to the variably permeable sandstone and ironstone.
- 3.2.2 The Environment Agency defines Secondary A aquifers as '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'.
- 3.2.3 The site is classified as being within an urban setting as designated by the Environment Agency, which therefore means that the soils are classified as having a high leaching potential.
- 3.2.4 Soils of high leaching potential are soils that readily transmit liquid discharges because they are either shallow or susceptible to rapid by-pass flow directly to rock, gravel or groundwater.
- 3.2.5 The site is not located within a groundwater source protection zone.
- 3.2.6 There are no groundwater abstraction wells within 1000 m of the site.

3.3 Hydrological Setting

- 3.3.1 The nearest surface watercourse is a spring feeding an inland river, located approximately 141 m to the south east of the site at its closest point.
- 3.3.2 There are no ponds or lakes located within 500 m of the site.
- 3.3.3 The surface spring appears to lie approximately 10 m below the level of the site.

- 3.3.4 The site is not situated within an area defined by the Environment Agency as being at risk of flooding from rivers or the sea at the extent of extreme flood. The risk to the site is considered by the Environment Agency to be low. The site is not shown to be situated within an area which benefits from flood defences.
- 3.3.5 There is no available river quality classification data for the nearest watercourse.
- 3.3.6 There is one surface water abstraction within 1000 m of the site, located 909 m west of the site. The water is abstracted from a tributary of the River Stour.

3.4 Radon

- 3.4.1 The British Geological Survey, in conjunction with the Radiation Protection Division of the Health Protection Agency, ref. 8.7, indicates the site to lie within an area where there is a probability of 3% to 10% of present or future homes being above the action level of 200Bq/m³. As such, the site is classified as a Radon Affected Area.
- 3.4.2 Therefore, the guidance recommends that basic radon protective measures should be installed in the proposed development in line with the Building Research Establishment, Report BR211, ref 8.8.

3.5 Soil Geochemistry

- 3.5.1 The British Geological Survey data indicates the following concentrations of naturally occurring metals to be representative of background levels in natural soil underlying the site. The levels are based on those present in rural soils and are not necessarily representative of levels within Made Ground which may be encountered on site:

Element	Concentration (mg/kg)
Arsenic	35-45
Cadmium	<1.8
Chromium	60-90
Lead	<100
Nickel	15-30

4.0 ASSESSMENT OF GEOTECHNICAL RISK

4.1 Geological Constraints

4.1.1 The following are brief findings relating to factors identified during the research from the Envirocheck data that may have a potential impact upon the engineering of the proposed development.

Potential Hazard	Assessed Risk	Comment
BGS Recorded Mineral Sites	Low	Closest recorded at 527 m northeast of the site was an opencast limestone mine which has now ceased.
Coal Mining / Mining Instability	None	Area not known for coal beds.
Other shallow mine workings	No hazard	No other economic minerals are known to have been worked locally.
Quarrying	Very low	Nearest quarry noted on the historic maps was 550 m to the northeast of the site.
Collapsible Ground	Very low	No known superficial deposits on the site.
Compressible Ground	Very low	No known superficial deposits on the site.
Ground Dissolution	Very low to none	Ironstone and sandstone not considered to be susceptible to dissolution.
Landslide	Low to moderate	The site has varying levels with a step up from the main area of the site to the northern area of the site.
Running Sand	Low to moderate	Possible risk if the bedrock sandstone has been weathered to a significant thickness of sand and if there is a high water table.
Shrinking or Swelling Clay	Very low	High plasticity clay not anticipated to underlay the site.
Unconsolidated Made Ground	Low to moderate	There is no evidence for any extensive upfilling; however, there has been development present on the site for a significant period of time.
Bearing Pressure	Low	High strength bedrock anticipated at shallow depths.
Aggressive conditions for construction materials	Low	If significant thickness of Made Ground then there may be aggressive conditions for construction materials.
Shallow or high groundwater table	Low	Site is not expected to have a significantly shallow groundwater table given there is a service pit located within one of the barns which is not flooded.
Buried obstructions	Low to moderate	Buried foundations may be present from historic structures.

4.2 Geotechnical Risk Assessment

4.2.1 An assessment of the main hazards associated with the site is detailed below. Unless stated otherwise, the presence of such hazards are based on information from the research or reconnaissance and have not been confirmed by an intrusive investigation.

- Soil Conditions

The presence of a significant thickness of granular Made Ground, particularly if they are water bearing, may cause instability in excavations for foundations or services trenches.

- Topography

The change in level from the north / north-east of the site to the rest of the site is considered to represent a low to moderate risk to the proposed development.

- Previous Use

Historical mapping indicates previous development on the site including structural and infrastructure changes. Therefore, the presence of buried structures such as services, basements and old foundations is a potential risk.

4.3 Conclusions of Geotechnical Risk Assessment

4.3.1 The research has identified evidence of limited potential hazards associated with underlying ground conditions, either natural or man-made, and therefore it is recommended that further work be carried out to confirm the presence, nature or extent of those hazards anticipated to impact on the site.

5.0 ENVIRONMENTAL SEARCHES

5.1 Potential Sources of Contamination

5.1.1 A search was made of records held by the various regulatory authorities and other statutory bodies to determine the presence or otherwise of past and current activities on or within 500m of the site which have the potential to give rise to the presence on site of contaminants. The findings are given in the table below:

Activity	On Site	Off Site (distance / direction)	Detail
Contaminated Land Register Entries	None	None within 500m	
Discharge Consents	None	None within 500m	
Integrated and Local Authority Pollution Prevention and Controls	None	None within 500m	
Pollution Incidents to Controlled Waters	None	None within 500m	
Prosecutions Relating to Authorised Processes or Controlled Waters	None	None within 500m	
Registered Radioactive Substances	None	None within 500m	
Substantiated Pollution Incident Register	None	None within 500m	
Water Abstractions	None	None within 500m	
BGS Recorded Landfill Sites	None	None within 500m	
Historical Landfill Sites	None	None within 500m	
Licensed Waste Management Facilities	None	None within 500m	
Local Authority Recorded Landfill Sites	None	None within 500m	
Registered Landfill Sites	None	None within 500m	
Registered Waste Transfer Sites	None	None within 500m	
Registered Waste Treatment or Disposal Sites	None	None within 500m	
Hazardous Substances	None	None within 500m	
Explosive Sites	None	None within 500m	
Contemporary Trade Entries	None	One within 250m	Closest at 52 m southeast of the site is an inactive antiques repairing and restoring business.

Activity	On Site	Off Site (distance / direction)	Detail
Fuel Station Entries	None	None within 500m	

1 = Notification of Installations Handling Hazardous Substances

2 = Control of Major Accident Hazards

5.2 Green Belt Areas

5.2.1 There are no designated areas or as yet un-adopted areas of Green Belt land within 1 km of the site.

5.2.2 Green Belt Areas are generally areas that are designated as being under special consideration for development. Local Authorities may restrict the type of development, place particular planning constraints on proposed developments, or potentially restrict any development within a designated Green Belt area.

5.3 Designated Sites

5.3.1 A review of the Natural England website, was undertaken to assess whether there were any Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) or Local Nature Reserves (LNR) which may be impacted by the development.

5.3.2 The enquiries indicated there are no SSSIs, NNRs or LNRs within 1 km of the site.

5.4 Nitrate Vulnerable Zone

5.4.1 The site is not located within an area designated as a nitrate vulnerable zone.

5.4.2 The Nitrates Directive defines a nitrate vulnerable zone as:

- a) Surface freshwater which contains or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l.
- b) Groundwater which contains or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l.
- c) Natural freshwater lakes or other freshwater bodies, estuaries, coastal waters and marine waters, which are eutrophic or may become so in the near future if protective action is not taken.

5.5 Contemporary Trade Entries

5.5.1 There is one contemporary trade entry located within 500 m of the site.

5.5.2 The closest trade is an inactive antiques restoration and repair business located 52 m southeast of the site which is not anticipated to pose a significant risk. The nearest active trade is a horse box and transporting business located 750 m to the south east.

6.0 ASSESSMENT OF GEOENVIRONMENTAL RISK

6.1 General

- 6.1.1 The definition of ‘contaminated land’, along with the relevant details on legislation and guidance is set out in Appendix 3.
- 6.1.2 The assessment of potential risk has been based on the guidelines given in CIRIA report C552, ref 8.9. These guidelines are summarised in Appendix 3.
- 6.1.3 The assessment of environmental risk is aimed at identifying the possible risk, if any, arising from substances used or deposited on the site, or from any other sources of land contamination, based on the principles of the pollutant linkage.
- 6.1.4 The assessment is based on the proposed development end use, taking account of present and previous use. It is based only on a review of historical maps, desk based data and site reconnaissance; therefore it contains some elements of conjecture based on professional judgement. A comprehensive risk assessment can only be made following an intrusive investigation and testing regime.
- 6.1.5 The proposed development comprises the conversion of the existing barns into two, two-storey residential properties with associated hard standing car parking and access routes and soft landscaping areas.

6.2 Potential Sources of Contamination Identified

- 6.2.1 The research has identified the following potential sources of contamination which may form part of a pollutant linkage:
- Contamination associated with former agricultural use
 - Contamination associated with vehicular storage within the central modern barn and the maintenance/lower road access pit in the dairy barn
 - Contamination associated with Made Ground due to previous development on-site
 - Radon

6.3 Potential Pathways Identified

- 6.3.1 The research has identified a number of potential pathways which are relevant to the potential sources of contamination identified above and may form part of a pollutant linkage.
- 6.3.2 Those identified are detailed within the Conceptual Site Model, along with the receptors relevant to the development on a site specific basis.

6.4 Hazard Identification

6.4.1 The research has identified a number of potential sources and pathways which are considered 'likely' to be present which, taking into account the potential receptors identified, form potential pollutant linkages and have been used in the formulation of the Conceptual Site Model.

6.5 Hazard Assessment

6.5.1 An assessment of the main sources of contamination and the potential for unacceptable risk to receptors is detailed below. Unless stated otherwise, it is considered 'likely' that a potential source is present at this stage, in order to provide a preliminary estimation of the risk and therefore determine the need for further work.

- Human Health

There is evidence for the potential for radon to be present at levels for which basic protection measures have been recommended. The risk to end-users is considered to be moderate.

There is the potential for contamination to be present associated with the former use as a farm and vehicle storage area within the newer barn area. There is considered to be a valid pathway and as such, the risk is considered to be low to moderate.

- Construction Material

There is considered to be a moderate to low risk due to chemical attack on construction materials emplaced within the Made Ground.

If any contamination is present associated with the storage of vehicles on the site, then there is considered to be a moderate risk to water supply pipes.

- Controlled Waters

The site is located on a secondary aquifer and as such, any consequence of contamination to the water environment is considered to be moderate, and therefore a low to moderate risk level has been assigned.

6.6 Conceptual Site Model

6.6.1 The research has therefore identified the following pollutant linkages that require further consideration and have been used to formulate the Conceptual Site Model.

Potential Contamination Sources	Potential Contaminants of Concern	Potential Pathways	Receptor Group
Possible contamination associated with former agricultural use / vehicle storage	Inorganic Compounds <ul style="list-style-type: none"> • Metals • Cyanide • Sulphates Organic Compounds <ul style="list-style-type: none"> • TPH • PAH Others <ul style="list-style-type: none"> • Asbestos • pH • E.Coli 	<ul style="list-style-type: none"> • Soil ingestion • Vegetable uptake • Dermal contact • Inhalation of contaminated dust • Vapour inhalation 	Human Health <ul style="list-style-type: none"> • Site occupants • Site users • Construction workers
		<ul style="list-style-type: none"> • Plant uptake and accumulation of contaminants 	Ecology <ul style="list-style-type: none"> • Landscaped areas
		<ul style="list-style-type: none"> • Lateral migration • Surface run-off • Infiltration 	Controlled Waters <ul style="list-style-type: none"> • Groundwater
		<ul style="list-style-type: none"> • Direct contact of contaminants with building materials 	Building Materials or Services <ul style="list-style-type: none"> • Concrete • Plastic pipes and services • Structural iron & steel work
Natural Geology	<ul style="list-style-type: none"> • Radon 	<ul style="list-style-type: none"> • Inhalation 	<ul style="list-style-type: none"> • Human Health

6.7 Conclusions of Geoenvironmental Risk Assessment

6.7.1 The research has identified evidence of potential sources of contamination on or which may impact on the site, with plausible pathways to the likely receptors, and therefore potential pollutant linkages have been suggested.

6.7.2 It is recommended that further work be carried out to confirm the presence, nature or extent of any contamination which is anticipated to impact on the site.

6.8 Consultation

6.8.1 During development, consultation may be required for a number of reasons with a number of regulatory Authorities. The following provides an indication as to the most likely Authorities with which consultation may be required:

- **Local Authority.** There may be a planning condition regarding contamination and consultation will be required with a designated Contaminated Land Officer within the Environmental Health Department. The Local Authority is generally concerned with human health risks.
- **Environment Agency.** Where a site is within a groundwater protection zone or has been designated as a special site, the Environment Agency is likely to be involved to ensure that controlled waters are protected.

- **National House Building Council, NHBC.** Section 4.1 of the NHBC Standards, ref 8.10, requires land management to be addressed. For a new housing development to be approved by the NHBC, any contamination will require remediation accompanied by a validation report.
- 6.8.2 Based on the results of any consultation, there may be specific investigation and/or remediation requirements imposed by one or more of the Authorities.

7.0 RECOMMENDATIONS

7.1 Further Work

7.1.1 An intrusive investigation should be undertaken to address the issues raised in Chapter 4.0 and Chapter 6.0.

7.1.2 The following scope of works is suggested in order to collect the required data:

- The sinking of boreholes for the recovery of samples for geotechnical and chemical contamination analysis.
- Remediation of the site to provide basic gas measures to address the risk of radon.

7.1.3 Any proposed residential development will require the installation of basic radon protective measures.

7.2 Other Considerations

7.2.1 There are several other areas of research which are beyond the scope of this report. All or none of the following may be applicable to the site, either on the outcome of consultation with a regulatory body or as a result of the research for this Preliminary Investigation. They include:

- **Archaeology.** Should the site be situated on or within an area of archaeological sensitivity, the advisor to the relevant local authority should be consulted. The requirement for an archaeological report may be identified within a planning condition, if appropriate, for the site.
- **Ecology.** There may be a requirement for a detailed ecological report, dependant on the type or size of the development, or due to evidence identified during the site reconnaissance or desk study. This requirement may be identified within a planning condition, or recommended within Section 7.0.
- **Unexploded Ordnance (UXO).** There may be a requirement for a UXO report, dependant on the site location, historical use and surrounding site history, as well as the type or size of the development. Areas of low potential for UXO may include rural greenfield sites, well away from any military installations; however this does not mean there is no risk in such areas. The risk increases within urban areas, particularly those with wartime installations and infrastructure (e.g. power stations, industrial centres). Clearly wartime military establishments and their close surroundings have to be classed as high risk. This requirement may be identified within a planning condition.

8.0 REFERENCES

- 8.1 CLR 3, '*Documentary research on industrial sites*', Report by RPS Consultants Ltd, DoE, 1994
- 8.2 CLR 11, '*Model Procedures for the Management of Land Contamination*' Report by Defra and the Environment Agency, 2004
- 8.3 BS 10175: 2011 '*Investigation of potentially contaminated sites. Code of practice*', British Standards Institute, 2011
- 8.4 GPLC1, '*Guiding principles for land contamination*', Environment Agency, 2010
- 8.5 CLR 2, '*Guidance on preliminary site inspection of contaminated land*', Report by Applied Environmental, DoE, 1994
- 8.6 British Geological Survey, Sheet No. 218, '*Chipping Norton*', solid and drift edition, 1:63360 scale, published 1968.
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For and on behalf of Ian Farmer Associates (1998) Limited

J Walker Westgate
Senior Environmental Geologist
BSc(Hons.) FGS

Han Pan
Senior Engineering Geologist
BSc MSc FGS