



# **Express Preliminary UXO Risk Assessment**

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| <b>Client</b>           | RSK                                  |
| <b>Project</b>          | Ditton Edge                          |
| <b>Site Address</b>     | Kiln Barn Road, Ditton, East Malling |
| <b>Report Reference</b> | EP12400-00                           |
| <b>Date</b>             | 07/12/20                             |
| <b>Originator</b>       | CJ                                   |

## **Assessment Objective**

This preliminary risk assessment is a qualitative screening exercise to assess the likely potential of encountering unexploded ordnance (UXO) at the Ditton Edge, Kild Barn Road site. The assessment involves the consideration of the basic factors that affect the potential for UXO to be present at a site as outlined in Stage One of the UXO risk management process.

## **Background**

This assessment uses the sources of information available in-house to 1<sup>st</sup> Line Defence Ltd to enable the placement of a development site in context with events that may have led to the presence of German air-delivered or Allied military UXO. The report will identify any immediate necessity for risk mitigation or additional research in the form of a Detailed UXO Risk Assessment. It makes use of 1<sup>st</sup> Line Defence’s extensive historical archives, library and unique geo-databases, as well as internet resources, and is researched and compiled by UXO specialists and graduate researchers.

The assessment directly follows CIRIA C681 guidelines “Unexploded Ordnance, a Guide for the Construction Industry”. The document will therefore assess the following factors:

- Basic Site Data
- Previous Military Use
- Indicators of potential aerial delivered UXO threat
- Consideration of any Mitigating Factors
- Extent of Proposed Intrusive Works
- Any requirement for Further Work

It should be noted that the vast majority of construction sites in the UK will have a low or negligible risk of encountering UXO and should be able to be screened out at this preliminary stage. The report is meant as a common sense ‘first step’ in the UXO risk management process. The content of the report and conclusions drawn are based on basic, preliminary research using the information available to 1<sup>st</sup> Line Defence at the time this report was produced. It should be noted that the only way to entirely negate risk from UXO to a project would be to support the works proposed with appropriate UXO risk mitigation measures. It is rarely possible to state that there is absolutely ‘no’ risk from UXO to a project.





| Risk Assessment Considerations  |  |
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| <p>Site location and description/current use</p>  | <p>The site is located in the village of Ditton, in civil parish in the borough of Tonbridge and Malling, Kent.</p> <p>The site primarily comprises a large area of undeveloped agricultural land. A large farm structure is located in the south-west border of the site. A hard-ground pathway intersects the site south-west to north-east in the western section of the site. The site is bordered to the north by residential properties with attached gardens, to the east by Kind Barn Road, to the south by a hard-ground roadway, and to the west by a hard-ground roadway. The site is located approximately 1.3km south-west of the Aylesford Railway Station.</p> <p>The site is approximately centred on the OS grid reference: <b>TQ 70980 57679</b></p>  |
| <p>Are there any indicators of current/historical military activity on/close to the site?</p> | <p>In-house records do not indicate that the site footprint had any former military use. No features such as WWII defensive positions, encampments or firing ranges are recorded to have been located at or in the immediate vicinity of the site. In addition, no information of ordnance being stored, produced, or disposed of within the proposed site boundary could be found.</p> <p>The closest recorded Heavy Anti-Aircraft (HAA) battery was situated approximately 2km to the south-west of the site. The conditions in which unexploded anti-aircraft ordnance may have fallen unrecorded within the proposed site are analogous to that of aerially delivered Luftwaffe bombs. For a discussion on these conditions, see the relevant sections below.</p>  |
| <p>What was the pre- and post-WWII history of the site?</p>                                   | <p>Pre-WWII OS mapping dated 1936 indicates the site comprised several allotted sections of undeveloped open land, comprised largely of dense foliage. The site was surrounded to the north, south and west of the site by further undeveloped open land, with Kiln Barn Road to the east of the site. Several residential properties are in close proximity north of the site.</p> <p>Post-WWII OS mapping dated 1962 shows no major structural developments to have occurred on-site. Several allotted areas of undeveloped land in the east of the site have been amalgamated into one large field.</p>   |
| <p>Was the area subject to bombing during WWII?</p>   | <p>During WWII, the site was located within the Rural District of Malling. According to Home Office statistics, Malling was subject to an overall low-moderate density of bombing, with an average of 43.9 items of ordnance recorded per 1,000 acres. This comprised 1,812 high explosive (HE) bombs, 16 parachute mines, 39 oil bombs, 32 phosphorous bombs, 99 V1 pilotless aircraft and five V2 rockets. This resulted in a total of 2,003 items of ordnance over 45,665 acres.</p> <p>Kent daily bomb mapping records several HE bomb strikes within the wider area of the site. Due to the large scale of these bomb maps, it has not been possible to precisely plot where these bombs fell in relation to the site boundary.</p>   |





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| Is there any evidence of bomb damage on/close to the site?     | As the site was comprised of open, undeveloped land for the duration of the war, it has not been possible to accurately determine the degree to which the site may have suffered bomb damage.  |
| To what degree would the site have been subject to access?     | As the site comprised undeveloped open land for the duration of the war with no on-site structures, the site is not expected to have experienced a high degree of inspection. However, given the site’s proximity to residential structures and roadway, it may have been more frequently accessed than the average agricultural land in a rural area. |
| To what degree has the site been developed post-WWII?          | The site has been minimally developed post-war, with a large farm structure being built in the south-west section of the site  |
| What is the nature and extent of the intrusive works proposed? | The nature and extent of works proposed was not available at the time of writing.  |

**Summary and Conclusions**

During WWII, the site was located within the Rural District of Malling. According to Home Office statistics, Malling was subject to an overall low-moderate density of bombing, with an average of 43.9 items of ordnance recorded per 1,000 acres. This comprised 1,812 high explosive (HE) bombs, 16 parachute mines, 39 oil bombs, 32 phosphorous bombs, 99 V1 pilotless aircraft and five V2 rockets. This resulted in a total of 2,003 items of ordnance over 45,665 acres.

Kent daily bomb mapping records several HE bomb strikes within the wider area of the site. Due to the large scale of these bomb maps, it has not been possible to precisely plot where these bombs fell in relation to the site boundary.

Moreover, as the site was comprised of open, undeveloped land for the duration of the war, it has not been possible to accurately determine the degree to which the site may have suffered bomb damage.

As the site comprised undeveloped open land for the duration of the war with no on-site structures, the site is also not expected to have experienced a high degree of inspection. However, given the site’s proximity to residential structures and roadway, it may have been more frequently accessed than the average agricultural land in a rural area.

**Recommendations**

In accordance with CIRA guidelines, it is recommended that a **Detailed UXO Risk Assessment** should be undertaken to account for the location/damage caused by bomb strikes and confirm the exact wartime conditions present on site. Further investigation would entail the analysis of data such as any WWII-era aerial photography, available written records. The report would also outline work specific UXO risk mitigation measures.

Depending on the quality and quantity of information available, it may be possible to negate the perceived risk from UXO across the site, if it can be confirmed that the site was not significantly affected by wartime bombing.

**Prior to or in lieu of a Detailed Assessment, it is recommended that appropriate UXO Risk Mitigation Measures are provided for intrusive works proposed.**

If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1<sup>st</sup> Line Defence.



It should be noted that although the risk from unexploded ordnance on this site has been assessed as low/minimal, this does not mean there is 'no' risk of encountering UXO. This preliminary report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified within this report. Our reports take a common-sense and practical approach to the assessment of UXO risk, and we strive to be reasonable and pragmatic in our conclusions. As referenced, it would be possible to undertake further research into this site, but based on the evidence to hand, this is not deemed strictly necessary, and no reasonably justifiable requirement for proactive on-site mitigation has been identified.

It should however be stressed that if any suspect items are encountered during the proposed works, 1<sup>st</sup> Line Defence should be contacted for advice/assistance, and to re-assess the risk as necessary. Furthermore, we would recommend that ground personnel are always made aware of the potential for encountering UXO, what to look out for and what to do in the unlikely event that a suspect item is encountered, and that a UXO Risk Management Plan is put together for the proposed works. We would be happy to provide a template and guidance for this – contact us on 01992 245020. Should the scope of works change or additional works be proposed, 1<sup>st</sup> Line Defence should be contacted to re-evaluate the risk.

