KDL LIMITED

Desktop Site Assessment

FOR

THE PROPOSED RESIDENTIAL DEVELOPMENT

AT

BROOKHOUSE FARM

FOR

ASCALON PROPERTIES LTD.

October 2018

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1.0 Introduction

1.1 Background

KDL have been commissioned by White Acre Estates to produce a Geo-Environmental Desk Top summary for the proposed residential development at Brookhouse farm.

This report assesses the existing information for the site identifying preliminary levels of risk associated with potential and known contamination.

1.2 Objectives

The primary objective of the desk study is to assess whether the site has the potential to be affected by contamination. The detailed objectives are:

To review of the available geological, historical and environmental information in order to establish the likely ground conditions at the site.

To assess historical activities, referring to past Ordnance Survey maps at the site with respect to their potential impact on the site environment;

To assess historical and current surrounding land use, referring to past Ordnance Survey maps, in relation to known or potential off-site contamination issues that may impact the subject property

2 Limitations

The summary report and the assessment within are based on the information available at the time of production. The study area (the 'Site') is limited to the areas of interest as shown in Appendix 1.

3. CURRENT SITUATION

The site, also referred to as the study site, comprises approximately 0.80ha of land proposed for residential development, centred at National Grid Reference SJ916471. The site is located to the south of Werrington Rd and comprises former farm buildings and grazing land.

Modern residential development bounds the north, west and east sides of the study site, with woodland to the south. The site location plan is provided in Appendix 1.

4. PROPOSED DEVELOPMENT

4.1 Development Proposals

The proposed development for the site comprises a planning application in outline for a proposed residential development.

5. GEOLOGY, TOPOGRAPHY AND SITE CONDITIONS

5.1 Geology

5..1 The underlying solid geology of the study site comprises Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone, which is overlain by Devensian - Diamicton Till.

5.2 Radon

According to the Health Protection Agency (HPA) Radon atlas of England and Wales (2007), the property is in a lower probability radon area <1%. As such, no radon protection measures are expected to be necessary.

5.3 Local Geotechnical Data

Reviewing the British Geological Society (BGS) website, the closest boreholes show topsoil overlaying gravelly clay and marl to depth

5.4 Site Conditions and Topography

The study site is currently comprises derelict farm buildings to the northern part of the site and open grazing land to the south

The study site gently rises from south to north. A brick wall marks the perimeter of the site to the north.

The nearest watercourse is Causley Brook which is approximately 50m from the site at its closest point

6. SITE HISTORY

6.1 The 1888 OS map shows the area around the site undeveloped and the land in agricultural use with the farm buildings and associated farmhouse already constructed. It remains undeveloped on the 1900 and 1926 maps. By 1947 the first adjacent properties on Werrington Road have been developed but the study site is still in agricultural use. In 1947 the land to the south of the site has

been developed as Cheadle RDC sewage works as shown on the attached map extract at Appendix 2. The site itself remains unchanged until the present day, but the sewage works is later decommissioned and is no longer evident on later plans

7. COMMENTARY

7.1 On-site sources

There is a recorded landfill site within the boundary of the property (see attached plan Appendix 3)

However the review of historical maps indicates the Site has remained unchanged and in agricultural use since the mid 1800's

The adjoining sewage works site has been constructed and decommissioned during that period and it seems possible that the landfill activities indicated on the EA map are associated with the decommissioning of the sewage works.

The proximity of the historic sewage works site and the likelihood of contamination arising from both the previous use and the recorded landfill mean that there will be a need for further intrusive site investigation works on the site prior to any commencement of development. These works will need to establish the extent of any landfill within the boundaries of the site, and identify any leaching or cross contamination linkages. The analysis will need to include ground gas monitoring and chemical sampling and screening.

The historic farm buildings on site may be a source of contamination through historic use of prohibited building materials. Asbestos surveys will be required prior to demolition.

7.2 Off-site sources

As stated above, the former sewage works is a significant adjacent potential contamination source

7.3 Pathways and receptors

Causley Brook is within 50m of the site

With reference to Environment Agency data, the hydrogeology underlying the Site is classified as being a Minor Aquifer with an intermediate leaching potential

8. CONCLUSION

Considering the information reviewed during this assessment potential significant contaminant linkages have been identified. Accordingly contamination liabilities need to be further investigated at the appropriate stage.

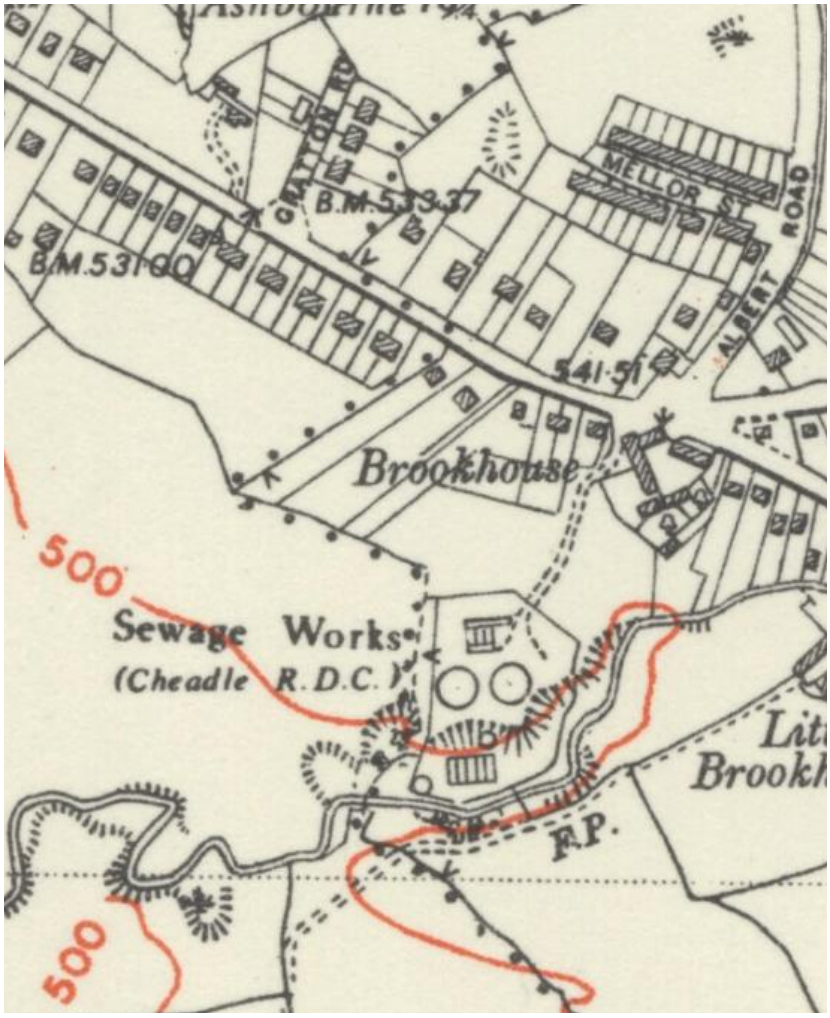
October 2018

APPENDIX 1

Aerial Photograph of Study Site



APPENDIX 2


B.M.533·37
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MELLOR ST.
ALBERT ROAD
541·51
Brookhouse
500
Sewage Works
(Cheadle R.D.C.)
F.P.
500

Appendix 3

3 Landfill and Other Waste Sites Map



Landfill & Other Waste Sites Legend

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