



EARTH ENVIRONMENTAL
& GEOTECHNICAL

Phase I GeoEnvironmental Desk Study

Caterpillar Factory
Desford

March 2024

On behalf of
CATERPILLAR UK



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1.0 INTRODUCTION

1.1 APPOINTMENT

Earth Environmental & Geotechnical Ltd (EEG) have been commissioned by Portland Consulting on the behalf of Caterpillar UK to undertake a Phase I GeoEnvironmental Desk Study for an area of land located on Peckleton Lane, Desford, Leicestershire.

1.2 OBJECTIVE

The purpose of the Desk Study is to collate available geological and environmental data for the site (and its environment) and provide a preliminary geotechnical and geo-environmental appraisal, with a site-specific conceptual site model. This enables a preliminary assessment of geo-environmental risks to be undertaken and, if necessary, provides information for the design of a Phase II Ground Investigation.

1.3 SCOPE

The Phase I GeoEnvironmental Desk Study comprises of a review of the following information sources, which may have been provided by the client:

- British Geological Survey online maps.
- Google Earth aerial imagery.
- Environment Agency (EA) online mapping data
- UXO Risk Maps supplied by Zetica Ltd (Appendix 2).
- Ecological, Archaeological and other relevant environmental data by reference to the Department for Environmental, Food and Rural Affairs (DEFRA) MAGIC website.
- Historical Ordnance Survey maps provided by Landmark (Appendix 1).
- The site and surrounding areas environmental and geological data presented in the site specific Groundsure Report provided by Landmark (Appendix 1).
- Coal Authority Interactive Viewer.
- Historical Information relating to the sampling and testing of corrugated construction materials (Appendix 4)

2.0 SITE LOCATION & DESCRIPTION

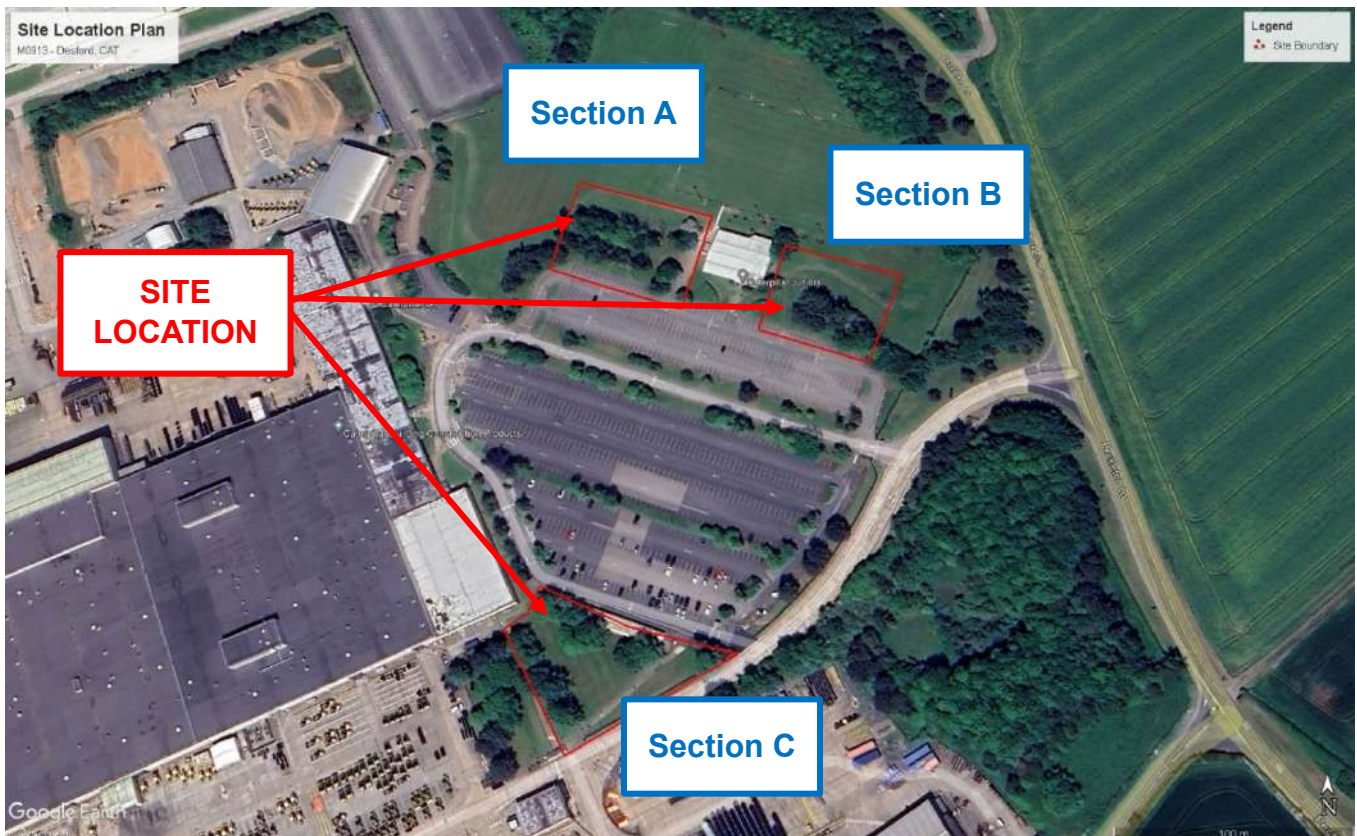
The site is located west of Peckleton Lane, south of Desford, Leicester with the nearest postcode being LE9 9JT. The proposed development site comprises three (3 No.) plots of land, each similar in size with two being rectangular and the other a triangle-like shape, that are located within the vicinity of previously established carparks.

The site consists of three plots of undeveloped land, currently sections of fields covered in grass and mature trees. Two of the plots are located to the north of the carparks and the other is located to the south. The site is situated on the east of the Caterpillar UK site and the Caterpillar Juniors Football Club building sits between the two northernmost sections of the site. The approximate National Grid Reference for the centre of the site is X:448393, Y:301699. The site is accessed from the eastern border at Peckleton Lane.

The immediate surrounding areas to the south and west are part of the Caterpillar UK site, a field comprising two football pitches is located to the immediate north, and agricultural land lies to the east of the site. The nearest residential buildings are located 375m south and 640m east of the site, consisting of farm buildings.

For ease of communication in this report the site has been split into three separate sections (refer to Figure 1 below).

Figure 1 Site Location Plan



2.1 PROPOSED PLANS

The client intends to expand the current carpark to add more parking areas on the areas outlined, it is understood that there will be no buildings erected on the proposed site boundaries and only limited development as surface works will take place.

3.0 SITE HISTORY

The historical development of the site has been determined by reference historical plans and Google Earth aerial imagery. The reviewed historical plans comprise of only readily available records, and therefore may be limited in detail. However, the information available to date indicates that additional searches are unlikely to add to our understanding of the site.

The earliest available historical mapping covering the site dates to 1885. In general, only surrounding historical land uses within 250m of the site and of environmental significance are reported.

The site and significant surrounding land use history is summarised in Table 1, below, followed by selected extracts from the OS historical maps and Google Earth aerial imagery.

Table 1: Summary of Site History

Date	On-Site History	Surrounding Land Use History
1850 1:10,560 & 1886 1:2,500	Site is located within undeveloped land. A narrow stream or drainage ditch runs from the northwest and heads southeast through site section A. A narrow trackway running northwest to southeast appears between the road to south of the site and leads up to the residential buildings to the west, slightly cutting through site section C. A drainage ditch is noted to run parallel to the track and also slightly cuts through the eastern border of site section C.	Hallfields residential buildings located 80m west of the site centre. Undeveloped land with agricultural use surrounding the site in all directions, including structures dividing the fields. Small 10m x 10m pond located in the area between the site sections: approximately 75m from site sections A and B, 90m from site section C. Old gravel pit located 160m south of site section C.
1901-1904 1:10,560 & 1903 1:2,500	No Significant Changes.	Minor development to the residential buildings west of the site, consisting of the construction of two small (1-3m wide) structures and a larger square structure approximately 10m north of the main Hallfields residential area.
1914-1919 1:10,560 & 1916 1:2,500	No Significant Changes.	Development of another small building in the Hallfields residential area located 80m west of site section A.

Date	On-Site History	Surrounding Land Use History
1938 1:10,560	No Significant Changes.	
1950 1:10,560	Narrow stream or drainage ditch is no longer noted on historic OS maps in site section A.	Pond 75m from site sections A and B, and 90m from site section C no longer noted on historic OS map. Surrounding undeveloped land no longer has dividing structures in them and is now designated as an Airfield. Hallfield residential area no longer noted on historic OS map and no remaining structures are noted to have been left after being demolished.
1966 1:10,560 & 1958-63 1:2,500	Site section C is now located in the southern section of a carpark and has tracks and concrete within the site area and on or near its northern boundary. It is likely that made ground is associated with this site section.	Airfield on the land surrounding the site is no longer noted on historic OS maps. Works have been built approximately 0m south comprising a large building structure with smaller structures within its vicinity. A road runs parallel with the southern border of site section C and leads from the previously established road trending north-south to the east of the site. The new road leads to the works to the south of the site. The land to the west of the site appears to have started being developed; tracks and structures are present (labelled as "Works" on historic OS maps but looks different to the building structure to the south of the site) which has access to the carpark north of site section C. A narrow structure within the field below the site contains water and trends west-southwest to east-northeast approximately 15m south of site section C. This is only noted on the 1961 1:2,500 National Grid map.
1980 1:10,000 & 1979-1984 1:2,500	No Significant Changes.	Further development of the Works to the south and west of the site, such as the addition of smaller structures and more paths/tracks. A large building structure has been developed 30m west of site section C. Two tanks are noted approximately 130m south of the site within the Works site area. Another tank is identified approximately 250m southwest of the site within the Works site. An area of approximately 400m by 200m has been sectioned using structures to the northwest of the site

Date	On-Site History	Surrounding Land Use History
		(north of the other Works structures) but no building structures have been noted within this area.
1994 1:2,500	Site section B is within the vicinity of a slope which neighbours its southeast border.	A total of five slopes are located within 100m of the site to the east on the grassy field, with one adjoining the border of site section B, another approximately 20m east of section B and one 50m east of site section C. Two more slopes (small embankments) are noted approximately 110m north of the site. A 30m by 20m pond lies in the middle of a slope (basin) located 85m east of site section C.
2001 1:10,000 & 2003 1:1,250	A small structure has been built in the northeast section of site section A, along with a path leading from the carpark to the building to the east. More concrete pathways have been placed in the northern area of site section C. A carpark has been developed to the south of site sections A and B which slightly overlaps into the site areas in the south of both site sections.	Development of a 30m² building (Caterpillar Juniors Football Club) between site sections A and B (5m from each site boundary). The land directly south of site sections A and B has been developed into another carpark that joins with the previously established carpark to the south. The works to the south have been further developed and now a larger building structure is situated approximately 20m south of site section C.
2010 1:10,000	No Significant Changes.	Further development of the Works to the west of the site to include more smaller building structures within the works site. Works located approximately 400m northwest of the site have also been developed and building structures have been expanded further south to approximately 200m northwest of the site. Another small pond is located 200m northwest of the site with raised ground surrounding it.
2024 1:10,000	Raised ground is noted in the centre of site section A.	The ponds located 200m northwest and 85m east of the site are no longer noted on OS maps. The building that was part of the Works located 20m south of site section C is no longer noted on OS maps. A tarmac road has been instated between the site sections in the pre-existing carpark that loops around to and from the road that lies south of the site. This road also leads to the west of the Works and heads



Date	On-Site History	Surrounding Land Use History
		north, eventually leading back to Peckleton Lane north of the site.

Figure 2 Historical OS Map Extract: 1886

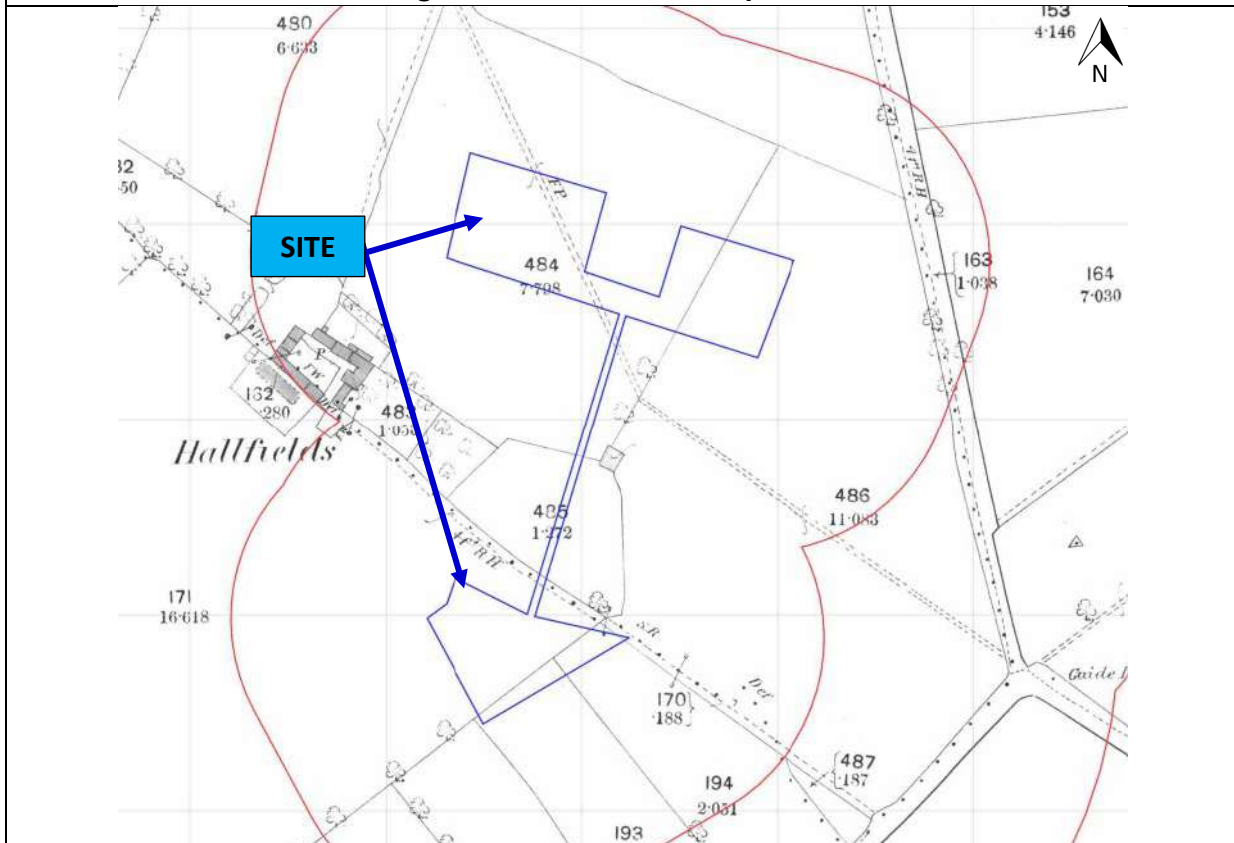


Figure 3 Historical OS Map Extract: 1961

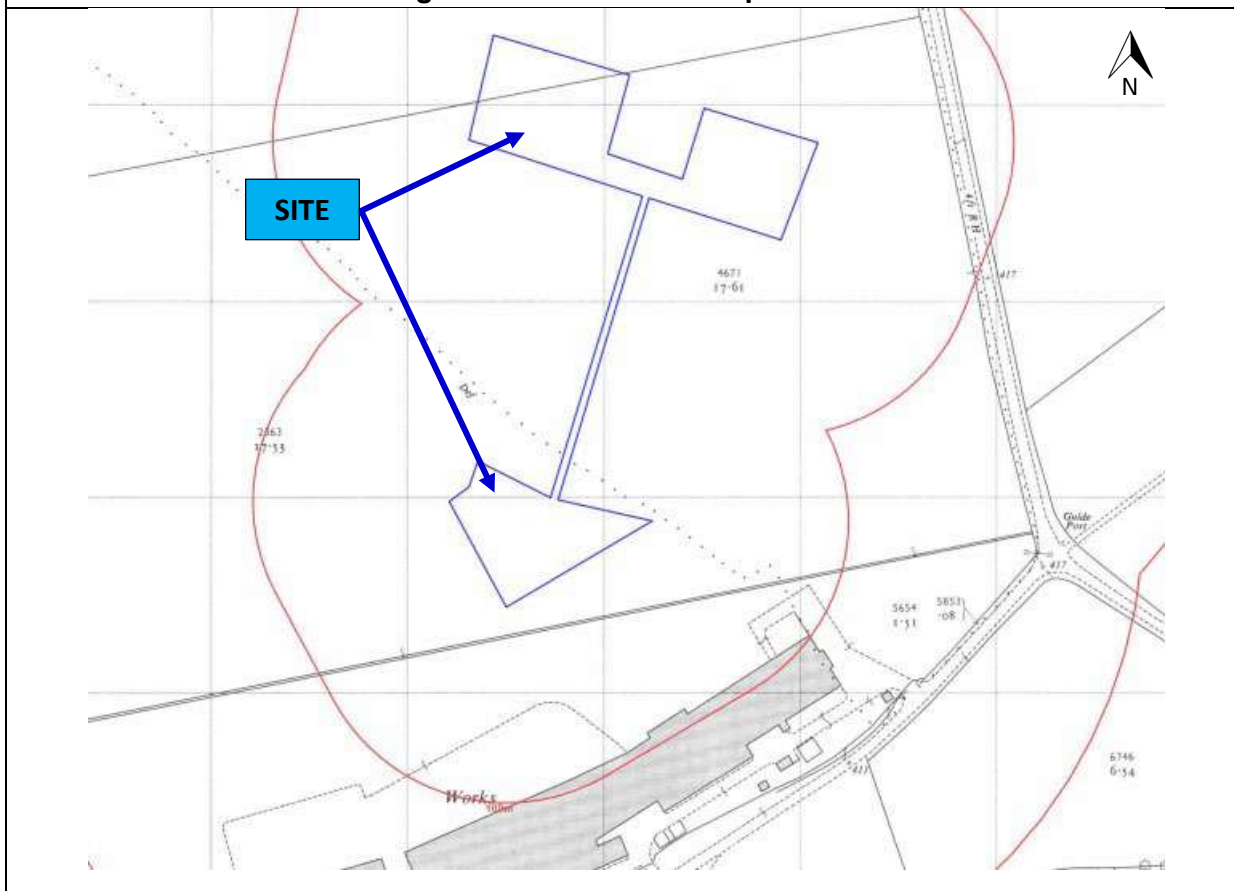


Figure 4 Historical OS Map Extract: 1979-1984

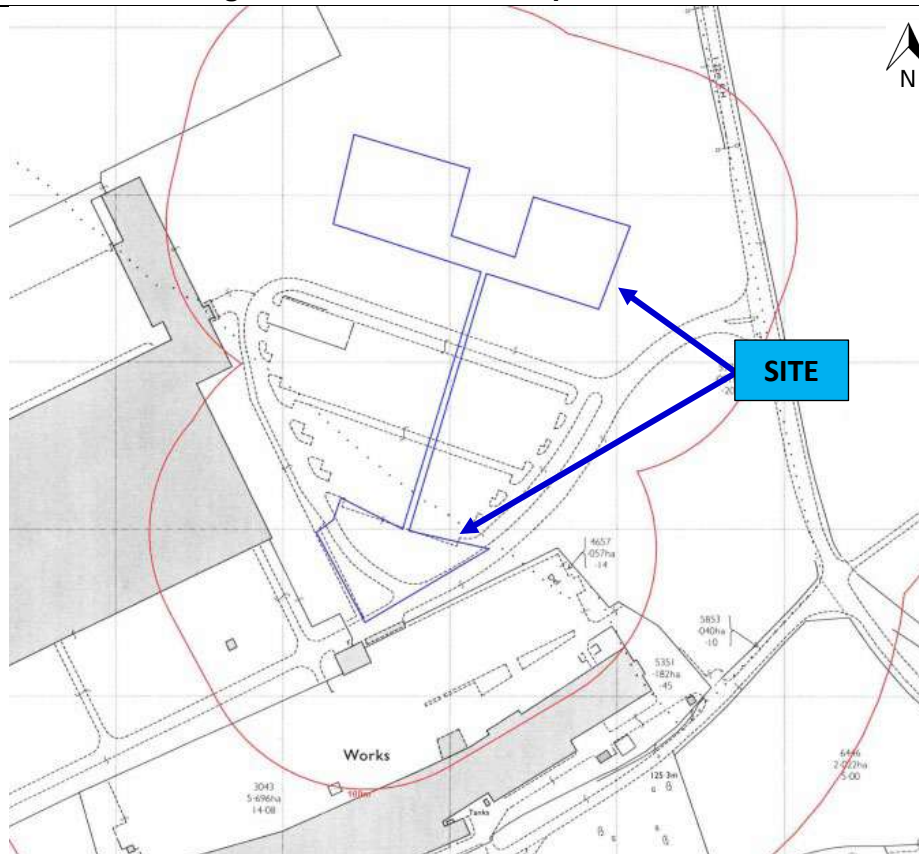


Figure 5 Historical OS Map Extract: 1994

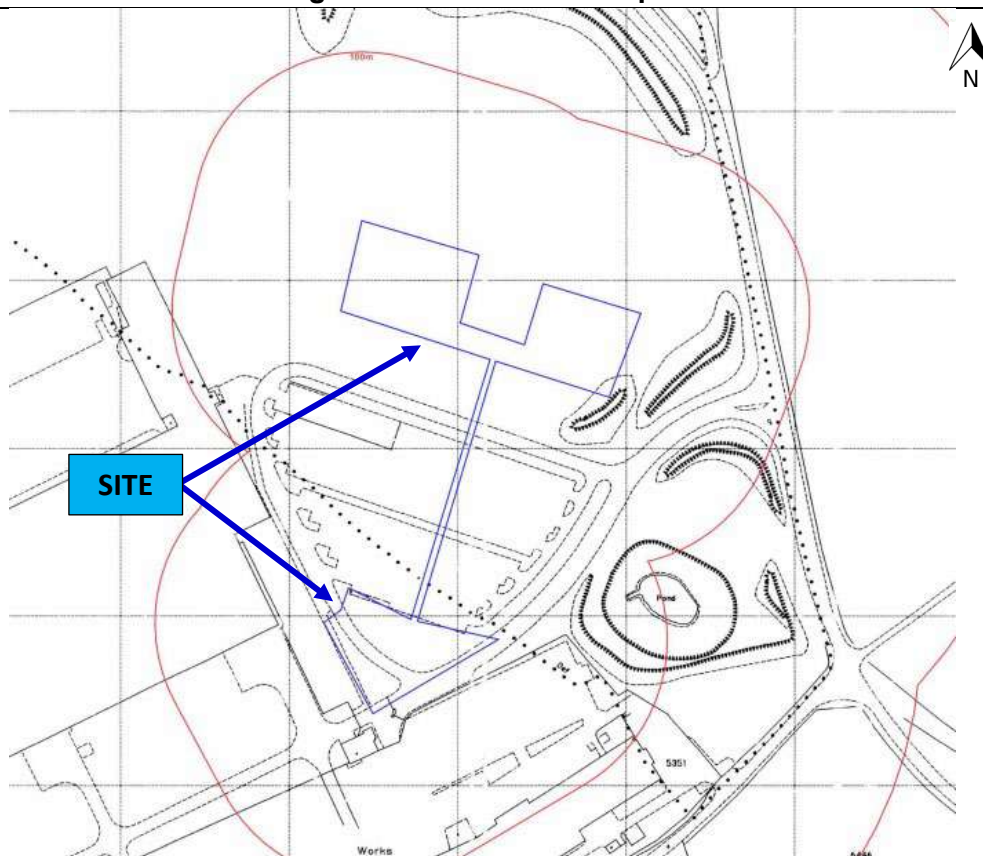


Figure 6 OS Raster Map Extract: 2024

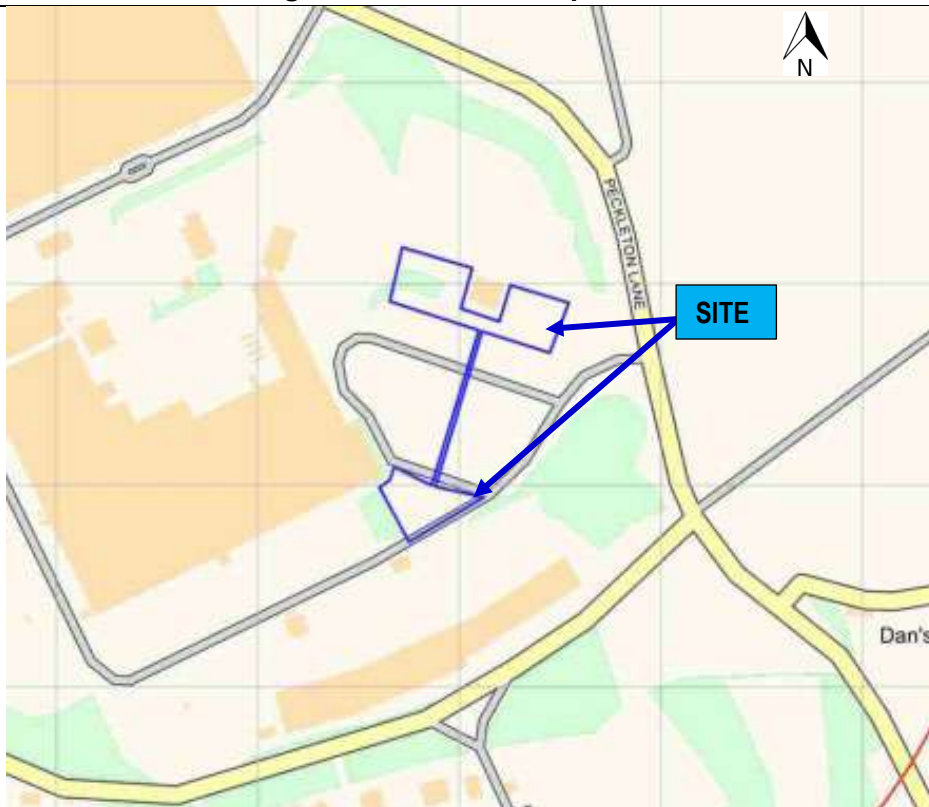
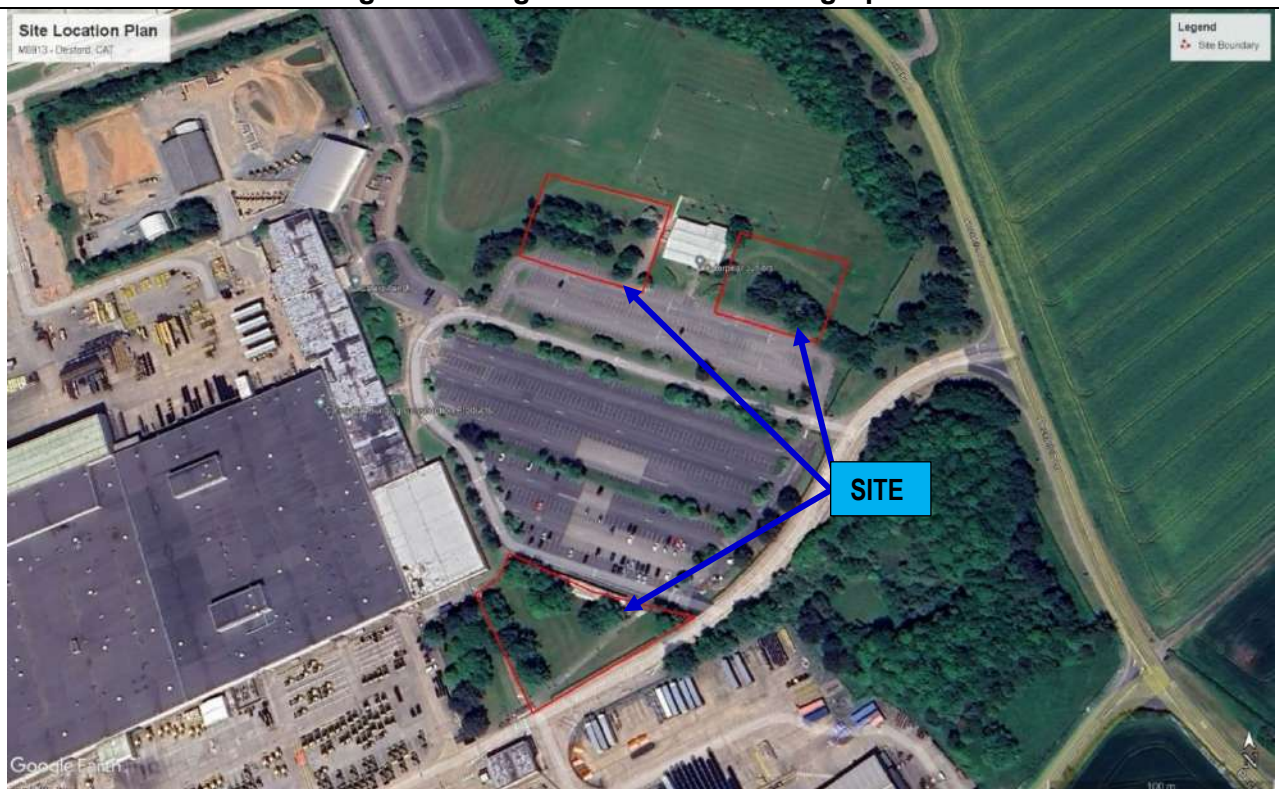


Figure 7 Google Earth Aerial Photograph: 2024



4.0 ENVIRONMENTAL & GEOLOGICAL SETTING

The geology of the site is covered by British Geological Survey (BGS) online data, BGS 1:10,000 Map (Ref: SK40SE) and the site-specific Groundsure report (Appendix 1).

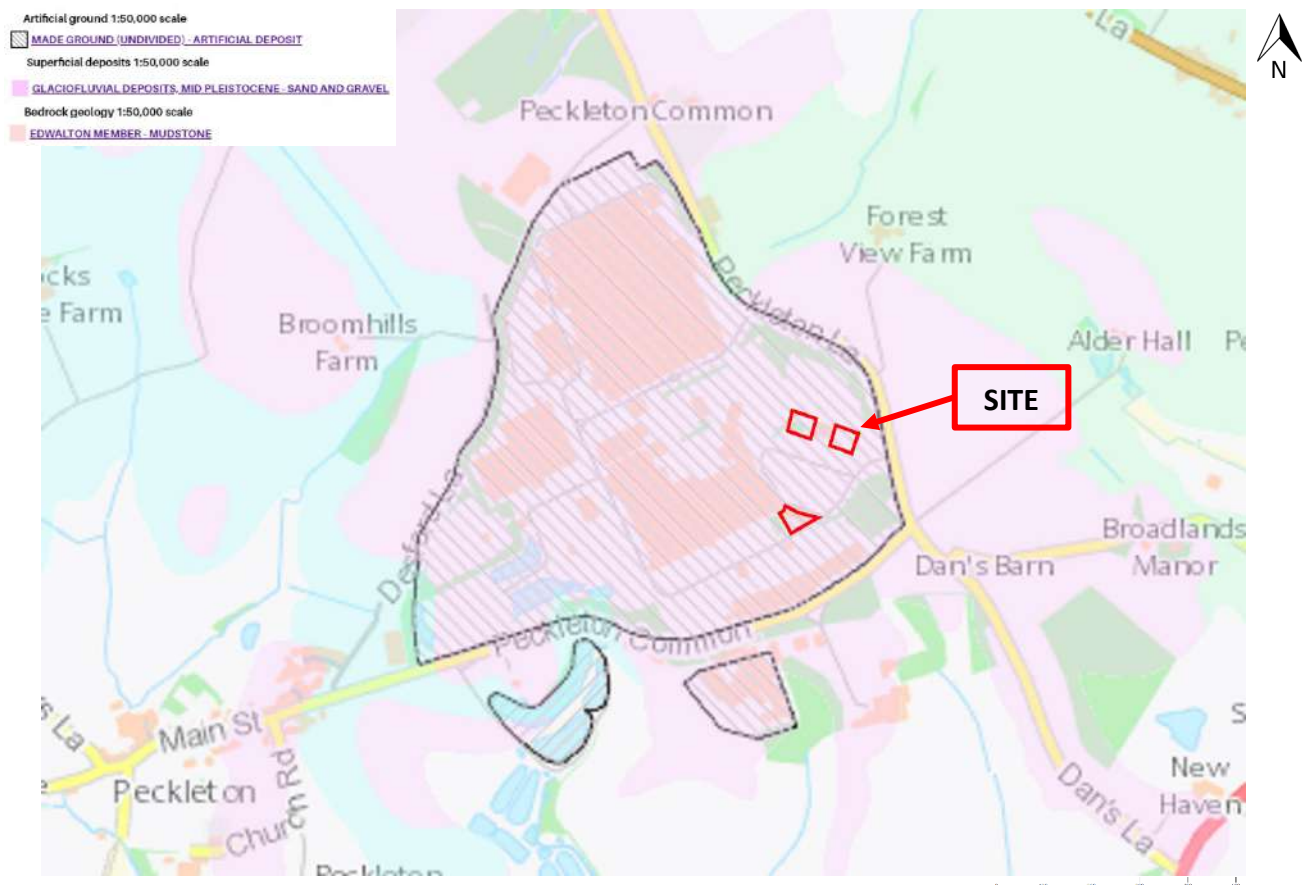
Environmental conditions are covered by Environment Agency (EA) and British Geological Survey (BGS) online data, and the site-specific Groundsure report (Appendix 1)

4.1 GEOLOGY

The BGS indicates that the site is underlain by Superficial Glaciofluvial deposits of Sand and Gravel. Artificial deposits of Made Ground are present throughout the entire Works site area and thus are under the site location.

No Bedrock geology is exposed in the site area, however Mudstone of the Edwalton Member underlies the site area beneath the Artificial and Superficial deposits.

Figure 8: BGS GeoIndex Onshore Map



There are six BGS boreholes recorded 127m west of the site

There are no faults or mass movement deposits within 250m of the site. The six boreholes cover various depths in the same location and show a mixture of granular and clay deposits until 22m depth where mudstone is eventually reached.

The ground stability hazards concerning the site are detailed below in Table 2:

Table 2: Ground Stability Hazards of the Site

Ground Conditions	Recorded Risk within the Site Area
Collapsible Ground	Very Low
Compressible Ground	Very Low
Ground Dissolution	Negligible
Landslides	Very Low
Running Sand	Very Low
Shrinking/Swelling of Clay	Negligible

4.2 QUARRYING/SURFACE EXTRACTION

The Groundsure report records one (1 No.) surface ground workings within 250m of the site, located 190m south. A Britpit (British Pit) is located within the surface ground workings located 214m south of the site and is detailed as Peckleton Common Gravel Pit with a ceased status.

4.3 MINING & OTHER UNDERGROUND WORKINGS

Reference to the Coal Authority Online Interactive Viewer shows the site to not be located within a Coal Mining Reporting Area.

The Groundsure report indicates that there are no records of underground workings within 250m of the site.

4.4 RADON POTENTIAL

The site is located in a lower probability Radon Affected Area where between less than 1% of properties are estimated to be at or above the Action Level. No radon protective measures are necessary in the construction of new properties/structures at the site.

4.5 HYDROGEOLOGY & HYDROLOGY

The site is underlain by superficial deposits which are designated as a **Secondary A Aquifer**.

Secondary A: *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. These are generally aquifers formerly classified as minor aquifers*

The Bedrock Geology at the site is defined as Mudstone of the Edwalton Member and is designated as a **Secondary B Aquifer**.

Secondary B: *Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.*

The report indicates one (1 No.) record of Superficial permeability (50k) within 50m of the site which is located on site. The Flow type, Maximum permeability and Minimum permeability are: Intergranular, Very High, and High, respectively.

There is one (1 No.) record of Bedrock permeability (50k) within 50m of the site and is located on site. The Flow type, Maximum permeability and Minimum permeability are: Fracture, Low, Low.

There is one (1 No.) record of Groundwater vulnerability within 50m of the site. The on site Groundwater vulnerability is classified as Secondary Superficial Aquifer with High Vulnerability.

The Groundsure report indicates that there are no significant soluble rocks within 1km grid square of the site.

There are five (5 No.) recorded groundwater abstractions within 2000m of the site boundary. All of the water abstractions are located offsite, with the closest being 1073m southeast of the site.

There is one (1 No.) recorded surface water abstraction within 2000m of the site boundary, located 475m southwest of the site.

The site is not located within a Source Protection Zone.

There are no records of OS Water Network Lines or surface water features listed within 250m of the site.

There is one (1 No.) record of WFD Surface water body catchments on site, relating Thurlaston Brook Catchment (tributary of Soar) from Source as Soar River.

There is one (1 No.) record of WFD Groundwater bodies on site, relating Soar – Secondary Combined.

4.6 LANDFILL, WASTE MANAGEMENT ACTIVITY & INFILLED GROUND

There are no records of Historical landfill indicated in BGS records within 500m of the site.

There are 13 Waste exemptions recorded within 500m of the site, but none on site. Most relate to the storage, deposit, burning and disposal of agricultural and non-agricultural waste.

4.7 INDUSTRIAL LAND USE

The report indicates three (3 No.) records of Recent industrial land uses within 500m of the site. The closest is located 84m south of the site boundary.

The report records sixteen (16 No.) Historical industrial land uses within 500m of the site, with one (1 No.) being on site and specified as an Airfield in 1950. The other Historical industrial land uses are commonly specified as Unspecified Works, with occasional Unspecified Tanks, Unspecified Pits, Unspecified Warehouses and Unspecified Heaps. More notably, Old Gravel Pits have been identified within 500m of the site. One is located

approximately 185m south of the site and was present from 1885-1950, and the other is located 320m southwest of the site and was present from 1914-1938.

The report records twenty (20 No.) Historical Tanks (Unspecified Tanks and Tanks) within 500m of the site, but no tanks have been recorded on site. The closest is an unspecified tank located 71m southeast that was present in 1999.

4.8 ENVIRONMENTAL PERMITS, INCIDENTS & REGISTERS

The report records two (2 No.) Licensed Pollutant Releases within 500m of the site. Both records are offsite and are both located 351m west of the site, concerning Hot Dip Galvanizing Processes; Surface Treatment of Metal Processes; Coating Processes.

The report indicates two (2 No.) records of Licensed Discharge to controlled waters within 500m of the site. The closest is located 152m south of the site and pertains Sewage Discharges that occurred in 1977.

The report records one (1 No.) Pollution Incident within 500m of the site, pertaining to an incident involving Unidentified Oil in 2002, located 234m south of the site.

4.9 ENVIRONMENTALLY SENSITIVE SITES

The Groundsure report indicates that there are no records of Sites of Special Scientific Interest (SSSI) within 2000m of the site.

The Magic Map webpage notes that the site is Priority Species for CS Targeting Curlew and Lapwing.

4.10 POTENTIAL FLOOD RISKS

A detailed assessment of flood risk is outside the scope of this report. However, the Groundsure report identifies that the entire site and surrounding area is **not** at risk of Extreme Flooding (Flood Zone 2) or Flooding (Zone 3) from rivers or sea without defences.

A review of the BGS Flood GFS Data within the Groundsure report shows that the highest risk for groundwater flooding on the entirety of the site and within 125m of the site boundary is Moderate.

The Groundsure report indicates that the highest risk of surface water flooding on site is 1 in 30 year between 0.3m-1m depth. The highest risk within 50m of the site is also 1 in 30 year between 0.3m-1.0m depth.

4.11 ASBESTOS

There is always the possibility that asbestos fibres may also be present in any Made Ground beneath the site and/or the possibility that asbestos sheeting was used as trench shuttering or pipe materials for infrastructure located within 250m of the site.

Prior to any works occurring on-site, it is recommended that site soils are tested for the presence of asbestos.

4.12 UNEXPLODED ORDANANCE/BOMB (UXO/UXB) RISK

A UXB Risk Map has been obtained from Zetica Ltd. This indicates that the site is in a Low-risk area, with respect to UXB. The Risk Map is presented as Appendix 2.

4.13 PREVIOUS SITE INVESTIGATIONS

EEG have not been made aware of any previous investigations undertaken on site.

5.0 SITE WALKOVER

A walkover survey was completed on the 29th February 2024.

The site consists of grass covered ground with occasional trees and shrubs. Three carparks are situated to the south of sections A and B, with one slightly overlapping the southern site boundary for both sections. The Caterpillar Juniors Football Club is located between site section A and B. The three carparks are to the north of section C and a road leading into the Caterpillar Site sits directly adjacent to the southern site boundary. The Caterpillar Site is located to the west of the site.

During the site walkover the mounds located to the north and east of the site were identified. They appeared 2-3m above the original ground level and were covered in grassy vegetation with occasional trees and shrubs. No overhead lines or electrical substations were present with no olfactory or visual evidence of contamination noted on site.

A Site Features Plan is presented as Figure 9 overleaf and a Site Constraints Plan is presented as Figure 10 on page 19. Site photographs taken during the walkover are presented in Appendix 4.

Figure 9 Site Features Plan

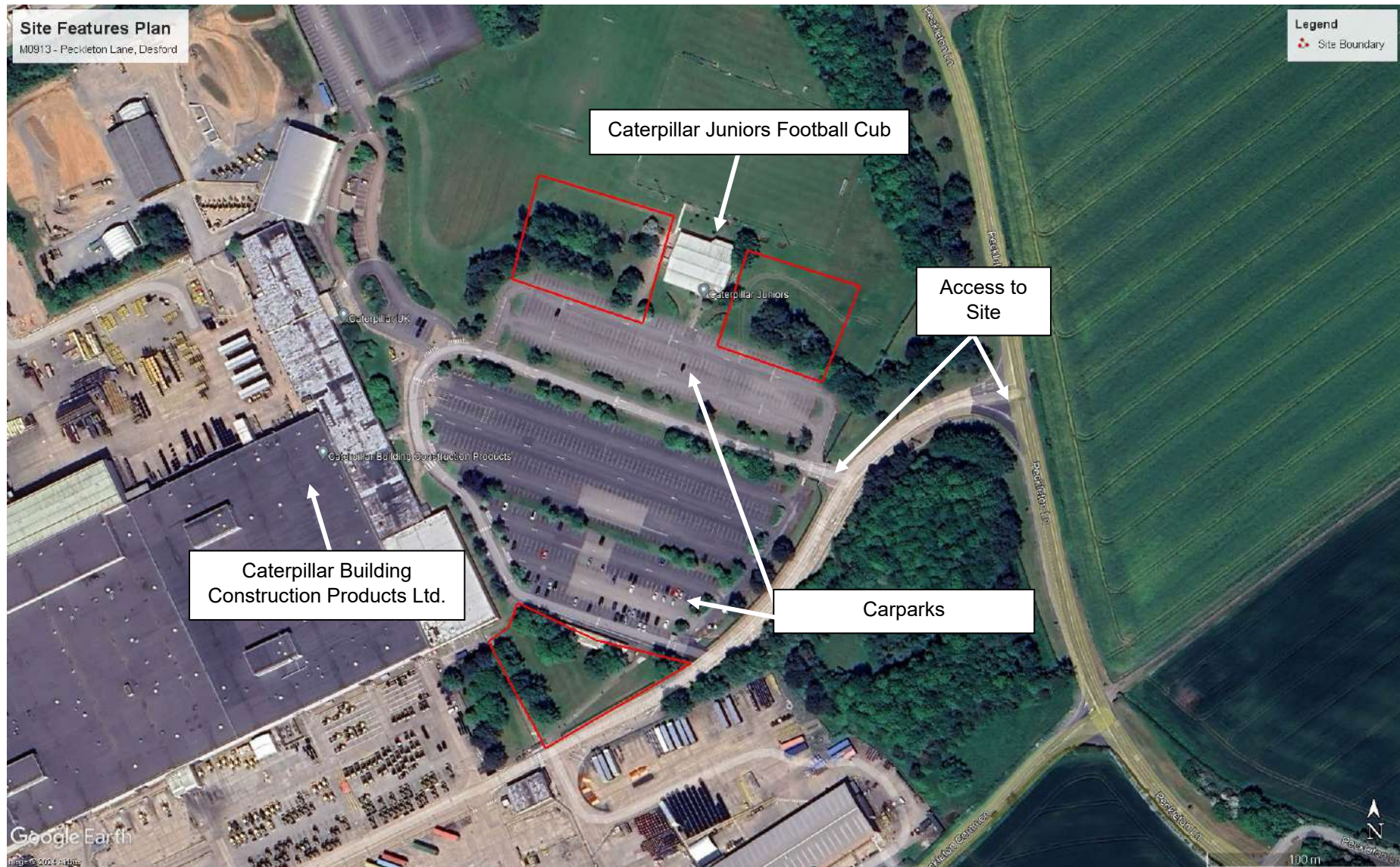


Figure 10 Site Constraints Plan



6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

6.1 INTRODUCTION

The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site based on the above desk study information as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, LCRM⁽²⁰²⁰⁾.

Table 5 provides a Preliminary Conceptual Model (PCM) which considers the Source-Pathway-Receptor linkages present alongside the likelihood, severity and risk level as defined within Table 3 and Table 4 below. The assessment of probability, a modified risk table, and certain consequence definitions are based on CIRIA C552 and LCRM.

Table 5 considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

The PCM/PRA is based on the proposed commercial end use.

Table 3: Probability, Consequence & Risk Definitions

Probability	Consequence	Risk
High Likelihood- There is a pollution linkage and an event either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution	Very High – acute risk to the human health likely to result in significant harm. Risk of severe or irreversible effect on ground/surface water quality. Catastrophic damage to buildings / property.	Very High – there is a high potential that the source-pathway-receptor scenarios may give rise to harm to human health, or the environment and remedial action is likely to be required.
Likely – there is a pollution linkage, and all the elements are present, which means that it is probable an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	High – Severe or irreversible effect on human health. Temporary severe or irreversible effect on ground/surface water quality. Reduction of water quality rendering groundwater or surface water unfit to drink and/or substantial adverse impact on groundwater dependant environmental receptors.	High – it is likely that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, which may require remediation and/or control measures to mitigate risks
Low likelihood– there is a pollutant linkage and circumstances are possible for an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term	Moderate – Long term or short term moderate effect on human health. Moderate effect on ground/surface water quality, reversible with time. Reduced reliability of a supply at a groundwater or surface water abstraction source	Moderate – it is possible that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, however it is either relatively unlikely that such would be severe, or if any harm were to occur it is more likely that harm would be mild.
Unlikely – there is a pollution linkage, but circumstances are such that it is doubtful that an event would occur even in the very long term.	Low – Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc.) Slight effect on ground/surface water quality, reversible with time. Marginal reduced reliability of a supply at a groundwater or surface water abstraction source.	Low – it is possible that harm could arise at the source, however it is likely that this would at worst be mild.
		Very Low – it is unlikely that the source-pathway-receptor scenarios will give rise to an impact on human health or the environment.

Table 4: Estimation of Level of Risk by Comparison of Consequence & Probability

		Consequence			
		High	Moderate	Low	Very Low
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate to Low Risk
	Likely	High Risk	Moderate Risk	Moderate to Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate to Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate to Low Risk	Low Risk	Very Low Risk	Very Low Risk

6.2 POTENTIAL SOURCES

The site is situated on developed land that overlies made ground, with the three site sections all consisting of grassy areas with occasional mature trees. The surrounding land is also developed and largely relates to the Works industrial site, containing building structures and occasional tanks. Undeveloped agricultural land is located east of the site to the east of the road.

There is potential for the presence of contamination associated with the following:

- Made Ground underlying the site from previous on-site developments or domestic activities, possibly associated with ground gas.
- Possible spills and leakages from the tanks within 250m of the site.
- Asbestos containing materials (ACM) within any Potential shallow Made Ground could be possible.
- Ground gas associated with Disused sand and gravel pit located 190m south of the site.

6.3 POTENTIAL PATHWAYS

The following pathways have been considered for the construction and operational stages of the proposed works:

- Dermal contact, ingestion, inhalation pathways of potentially contaminated soils
- Downward, horizontal and vertical migration of leachable contaminants through granular lenses in the underlying soils to shallow groundwater and watercourses
- Vertical or lateral migration of ground gas.

6.4 POTENTIAL RECEPTORS

The following receptors have been considered for the construction and operational stages of the proposed works:

- Current site users
- Adjacent land users.
- Future land users
- Construction/maintenance workers during site development/maintenance works.
- OS Water Network line on site (surface water).
- Groundwater within the underground water table at unknown depth

Table 5: Preliminary Conceptual Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comments
Potential Made Ground	Dermal Contact, Ingestion, and Inhalation of Soils Dust	Current Site Users	Low Likelihood	Low	Low Risk	The site is currently located next a carpark so is likely in frequent contact with current site users but for short periods of time and remains unoccupied so there are no long-term or significant potential risks for direct contact between contaminated soils and current site users. The risk of mobilisation of contaminants within the sub-surface soils is considered to be unlikely. During the proposed works, measures should be taken to reduce dust from potentially contaminated arisings. The risk is therefore considered to be LOW .
		Adjacent Land Users	Low Likelihood	Low	Low Risk	The surrounding area, especially to the south and west, comprise Works buildings that are situated upon made ground. The surrounding buildings are commercial so are not permanently occupied, therefore the risk is considered LOW . Dust control measures should be implemented as part of good site working practices during construction to reduce dust generation and its prevailing effects on neighbouring land users.
		Future Land Users	Low Likelihood	Low	Low Risk	The proposed development entails the development of carparks in the site sections which will be unoccupied but frequently in contact with future land users for very short periods of time. The risk is therefore considered to be LOW .
		Construction/Maintenance Workers	Low to Likely Likelihood	Moderate	Moderate to Low Risk	Construction workers are likely to be directly exposed to the underlying soils and any potential contamination present. The risk to construction workers is considered to be MODERATE to LOW . During the proposed works, measures should be taken to reduce dust from potentially contaminated arisings and minimize risk to the workers.
	Downward, horizontal and vertical migration of leachable contaminants through underlying soils (sand	Groundwater (Groundwater within the underlying Secondary A Aquifer)	Low Likelihood	Moderate	Moderate to Low Risk	The made ground is spread across the site and in the surrounding area, however the Superficial aquifer is a Secondary A Aquifer so the risk to groundwater is considered MODERATE to LOW .

Source	Pathway	Receptor	Probability	Consequence	Risk	Comments
	and gravel) to potential shallow groundwater					
	Migration of leachable contaminants to surface water features	Surface water	Unlikely	Moderate	Low Risk	Although made ground is located throughout the site areas, the closest surface water feature is located 475m southwest of the site and so the risk to surface water is considered LOW .
Leaks and spillages associated with the current tank located 133m south of the site, and the Historical Unspecified Tank 73m southeast of the site.	Dermal Contact, Ingestion, and Inhalation of Soils Dust	Current Site Users	Unlikely	Low	Very Low Risk	The site is currently unoccupied and the tanks are located offsite, the nearest current tank being 133m south of the site and the nearest historical tank being 73m southeast of the site. The risk of mobilisation of contaminants within the sub-surface soils is considered to be unlikely. During the proposed works, measures should be taken to reduce dust from potentially contaminated arisings. Therefore, the risk is considered to be VERY LOW .
		Adjacent Land Users	Unlikely	Low	Very Low Risk	The tanks are located offsite so the risk of mobilisation of contaminants within the sub-surface soils is unlikely, thus it is unlikely any contaminants within the sub-surface soils will be mobilised during groundworks. Therefore, the risk to adjacent land users is considered VERY LOW . Dust control measures should be implemented as part of good site working practices during construction to reduce dust generation and its prevailing effects on neighbouring land users.
		Future Land Users	Unlikely	Low	Very Low Risk	Both the Historical and current tanks are located offsite so contamination is unlikely to be present. The risk is considered to be VERY LOW .
		Construction/Maintenance Workers	Unlikely	Low	Very Low Risk	Construction workers are likely to be directly exposed to the underlying soils and any potential contamination present. However, both the Historical and current tanks are located offsite, the nearest being 73m southeast of the site, so it is unlikely contamination is present at the site. The risk to construction workers is considered to be VERY LOW .

Source	Pathway	Receptor	Probability	Consequence	Risk	Comments
	Downward, horizontal and vertical migration of leachable contaminants through underlying soils (sand and gravel) to potential shallow groundwater	Groundwater (Groundwater within the underlying Secondary A Aquifer)	Unlikely to Low Likelihood	Moderate	Moderate to Low Risk	The Historical and current tanks are located offsite so contamination to the underlying soils on the site is unlikely but the underlying Superficial Aquifer is Secondary A so the consequence is moderate. The risk to groundwater is therefore considered MODERATE to LOW .
	Migration of leachable contaminants to surface water features	Surface water (located offsite, 475m southwest of the site)	Unlikely	Moderate	Low Risk	Given the 475m distance between the site and the nearest surface water feature, along with the offsite location of Historical and current tanks, the risk to surface water is considered LOW .
Ground Gas Associated with the Made Ground underlying the site	Vertical or Lateral Migration of Ground Gas	Current Site Users	Likely	Low	Moderate to Low Risk	The site is currently unoccupied with people only occupying the site for short periods of time. Made ground has been identified underlying the whole site area, plus the surrounding area occupied by the Works, so the presence of ground gas is likely. The risk to current site users from ground gas is considered MODERATE to LOW .
		Adjacent Land Users	Likely	Moderate	Moderate to Low Risk	The site surrounding the site is unoccupied, consisting of carparks, fields and the Works buildings with Made Ground identified to be underlying the whole site area. Therefore the risk to adjacent land users from ground gas is considered MODERATE to LOW .
		Future Land Users	Likely	Low	Moderate to Low Risk	The proposed plans for the site is commercial and will be a carpark, therefore the risk of round gas yo future land users is MODERATE to LOW .
		Construction/Maintenance Workers	Likely	Low	Moderate to Low Risk	Construction workers may be exposed to ground gas/depleted oxygen conditions in confined spaces and excavations; however, work specific risk assessments (in line with CDM regulations and best practice) and the use of correct PPE should prevent significant risk to workers. However, the presence of Made ground throughout the site area increases the probability and thus the risk to construction workers from ground gas is considered LOW .
Asbestos/ACM within any		Current Site Users	Unlikely	Low	Very Low Risk	Asbestos may be present within any shallow Made Ground materials present.

Source	Pathway	Receptor	Probability	Consequence	Risk	Comments
potential Made Ground	Dermal Contact, Ingestion, and Inhalation of Soils Dust					Asbestos/ACM are not thought to be present in the site so the risk to current site users is considered to be VERY LOW .
		Adjacent Land Users	Unlikely	Low	Very Low Risk	Asbestos may be present within any potential shallow Made Ground materials present. Dust control measures (dampening down) should be implemented as part of good site working practices in order to reduce the risk. Assuming dust control measures are implemented, the risk to adjacent users would be considered to be VERY LOW .
		Future Land Users	Unlikely	Low	Very Low Risk	Asbestos may be present within any shallow Made Ground materials present. The risk to future land users is VERY LOW due the assumption that no ACM are present on site.
		Construction/Maintenance Workers	Low Likelihood	Moderate	Moderate to Low Risk	Construction workers may be exposed to potential asbestos in soils and any existing structures interacted with during the construction phase. The risk is considered MODERATE to LOW .

7.0 CONCLUSIONS & RECOMMENDATIONS

7.1 CONCLUSIONS

The site is currently unoccupied and is surrounded by fields, car parks, roads and building structures that are part of the Works. The site is directly underlain by Made Ground associated with the development of the Works to the west of the site.

The BGS indicates that the Superficial geology beneath the site comprises Glaciofluvial deposits of sand and gravel and designated as a Secondary A Aquifer. The underlying Bedrock geology is Mudstone of the Edwalton Member, classified as a Secondary B Aquifer, and is not seen to directly underlie the site. Borehole data from 114m southwest of the site shows that Mudstone of the Edwalton Member was present at 22m depth.

The overall risk in terms of contamination to current/future site users is **LOW**, with the main risk arising from the Made Ground which underlies the whole site area.

The overall risk to construction workers is concluded to be at worst case **MODERATE to LOW** due to risks posed by potential soil contamination and asbestos within the Made Ground at the site. However, these risks can be readily controlled by the undertaking of appropriate risk assessment and subsequent use of appropriate PPE/RPE and good standards of hygiene.

The site is underlain by a Secondary A Aquifer associated with the Glaciofluvial deposits of Sand and Gravel which are assumed to be permeable. A Secondary B Aquifer underlies the Superficial deposits, associated with the Mudstone of the Edwalton Member but is not identified within the site area. Made Ground overlies the Superficial deposits which is a significant contamination source concludes that the risk to groundwater is **MODERATE TO LOW**.

7.2 RECOMMENDATIONS

Contamination

It is recommended that in advance of any future development of the site, or other activities which could disturb soils and increase the potential for a contaminant linkage, an intrusive ground investigation is undertaken to assess possible presence of shallow soil contamination at the site.

Hazardous Ground Gases

Made Ground is present throughout the site area so migration of ground gas is likely, however the proposed development will be commercial and unoccupied visited by the public for short periods of time. Therefore a **ground gas risk assessment is considered unnecessary**.

The site does not lie within an area in which specific precautions to protect against radon gas are required.

Recommended Outline Scope of Intrusive Ground Investigation

The finalised scope of an intrusive ground investigation should be determined following confirmation of the nature of the development works. However, at this stage, it is recommended that the following be considered:

- Trial Pitting or shallow window sample boreholes to investigate shallow ground conditions, undertake in situ geotechnical testing.
- Laboratory analysis of soil samples for geotechnical parameters, e.g CBR Testing.
- Laboratory analysis of soil, if any obviously contaminated material is encountered.
- Production of a Phase 2 GeoEnvironmental report.

APPENDIX 1

GROUNDSURE REPORT

&

HISTORICAL OS MAPS

448398.7922964666,301717.9696641788,

Order Details

Date: 15/02/2024
Your ref: M0913
Our Ref: GS-KZZ-LGL-3U5-HII

Site Details

Location: 448399 301683
Area: 1.17 ha
Authority: [Hinckley and Bosworth Borough Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	1	2	5	8	-
16 >	1.2 >	Historical tanks >	0	0	4	16	-
17 >	1.3 >	Historical energy features >	0	0	0	1	-
18	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	0	0	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	1	3	8	9	-
20 >	2.2 >	Historical tanks >	0	0	4	23	-
22 >	2.3 >	Historical energy features >	0	0	0	2	-
22	2.4	Historical petrol stations	0	0	0	0	-
22	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
24	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
24	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
24	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24 >	3.7 >	Waste exemptions >	0	0	2	11	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
27 >	4.1 >	Recent industrial land uses >	0	0	3	-	-
28	4.2	Current or recent petrol stations	0	0	0	0	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
28	4.5	Sites determined as Contaminated Land	0	0	0	0	-



28	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
29	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
29 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	0	0	2	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
30 >	4.13 >	Licensed Discharges to controlled waters >	0	0	1	1	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
31	4.16	List 1 Dangerous Substances	0	0	0	0	-
31	4.17	List 2 Dangerous Substances	0	0	0	0	-
31 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	1	0	-
32	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
35 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
36 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
37	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
37	5.5	Groundwater vulnerability- local information	None (within 0m)				
38 >	5.6 >	Groundwater abstractions >	0	0	0	0	5
40 >	5.7 >	Surface water abstractions >	0	0	0	1	0
40	5.8	Potable abstractions	0	0	0	0	0
40	5.9	Source Protection Zones	0	0	0	0	-
40	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
42	6.1	Water Network (OS MasterMap)	0	0	0	-	-



42	6.2	Surface water features	0	0	0	-	-
43 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
43 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
44 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
45	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
45	7.2	Historical Flood Events	0	0	0	-	-
45	7.3	Flood Defences	0	0	0	-	-
46	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
46	7.5	Flood Storage Areas	0	0	0	-	-
47	7.6	Flood Zone 2	None (within 50m)				
47	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
48 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
50 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
51	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
51	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
51	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
51	10.4	Special Protection Areas (SPA)	0	0	0	0	0
52	10.5	National Nature Reserves (NNR)	0	0	0	0	0
52	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
52	10.7	Designated Ancient Woodland	0	0	0	0	0
52	10.8	Biosphere Reserves	0	0	0	0	0
53	10.9	Forest Parks	0	0	0	0	0
53	10.10	Marine Conservation Zones	0	0	0	0	0
53	10.11	Green Belt	0	0	0	0	0
53	10.12	Proposed Ramsar sites	0	0	0	0	0



53	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
54	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
54	10.15	Nitrate Sensitive Areas	0	0	0	0	0
54 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	0
55 >	10.17 >	SSSI Impact Risk Zones >	2	-	-	-	-
56	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
57	11.1	World Heritage Sites	0	0	0	-	-
57	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
57	11.3	National Parks	0	0	0	-	-
57	11.4	Listed Buildings	0	0	0	-	-
58	11.5	Conservation Areas	0	0	0	-	-
58	11.6	Scheduled Ancient Monuments	0	0	0	-	-
58	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
59 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
60 >	12.2 >	Open Access Land >	0	0	1	-	-
60	12.3	Tree Felling Licences	0	0	0	-	-
61	12.4	Environmental Stewardship Schemes	0	0	0	-	-
61	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	13.1 >	Priority Habitat Inventory >	0	2	3	-	-
63	13.2	Habitat Networks	0	0	0	-	-
63	13.3	Open Mosaic Habitat	0	0	0	-	-
63	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
64 >	14.1 >	10k Availability >	Identified (within 500m)				
65 >	14.2 >	Artificial and made ground (10k) >	1	0	1	0	-
66 >	14.3 >	Superficial geology (10k) >	1	0	0	2	-

67	14.4	Landslip (10k)	0	0	0	0	-
68 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
69	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
70 >	15.1 >	50k Availability >	Identified (within 500m)				
71 >	15.2 >	Artificial and made ground (50k) >	1	0	0	1	-
72 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
73 >	15.4 >	Superficial geology (50k) >	1	0	0	2	-
74 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
74	15.6	Landslip (50k)	0	0	0	0	-
74	15.7	Landslip permeability (50k)	None (within 50m)				
75 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
76 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
76	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	16.1 >	BGS Boreholes >	0	0	6	-	-
Page	Section	Natural ground subsidence >					
79 >	17.1 >	Shrink swell clays >	Negligible (within 50m)				
80 >	17.2 >	Running sands >	Very low (within 50m)				
81 >	17.3 >	Compressible deposits >	Very low (within 50m)				
82 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
83 >	17.5 >	Landslides >	Very low (within 50m)				
84 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
86 >	18.1 >	BritPits >	0	0	1	0	-
87 >	18.2 >	Surface ground workings >	0	0	5	-	-
87	18.3	Underground workings	0	0	0	0	0
88	18.4	Underground mining extents	0	0	0	0	-
88	18.5	Historical Mineral Planning Areas	0	0	0	0	-



88	18.6	Non-coal mining	0	0	0	0	0
88 >	18.7 >	JPB mining areas >	Identified (within 0m)				
89	18.8	The Coal Authority non-coal mining	0	0	0	0	-
89	18.9	Researched mining	0	0	0	0	-
89	18.10	Mining record office plans	0	0	0	0	-
89	18.11	BGS mine plans	0	0	0	0	-
90	18.12	Coal mining	None (within 0m)				
90	18.13	Brine areas	None (within 0m)				
90	18.14	Gypsum areas	None (within 0m)				
90	18.15	Tin mining	None (within 0m)				
90	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
91	19.1	Natural cavities	0	0	0	0	-
91	19.2	Mining cavities	0	0	0	0	0
91	19.3	Reported recent incidents	0	0	0	0	-
91	19.4	Historical incidents	0	0	0	0	-
92	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
93 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
95 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	1	-	-	-
95	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
95	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
96	22.1	Underground railways (London)	0	0	0	-	-
96	22.2	Underground railways (Non-London)	0	0	0	-	-
96	22.3	Railway tunnels	0	0	0	-	-
96	22.4	Historical railway and tunnel features	0	0	0	-	-
96	22.5	Royal Mail tunnels	0	0	0	-	-



97	22.6	Historical railways	0	0	0	-	-
97	22.7	Railways	0	0	0	-	-
97	22.8	Crossrail 1	0	0	0	0	-
97	22.9	Crossrail 2	0	0	0	0	-
97	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 11/07/2022

Site Area: 1.17ha



Recent site history - 2019 aerial photograph

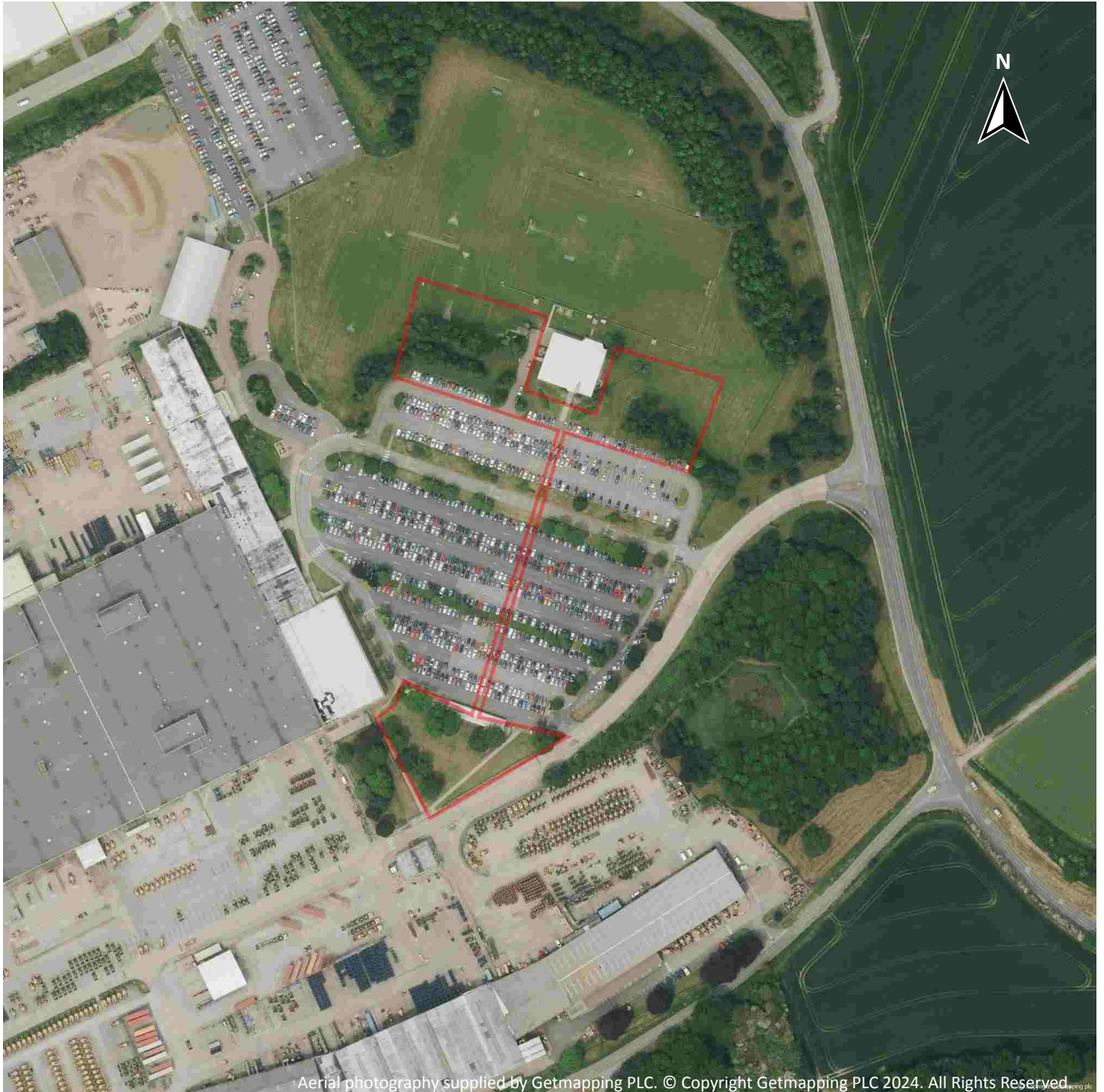


Capture Date: 20/04/2019

Site Area: 1.17ha



Recent site history - 2016 aerial photograph



Capture Date: 07/06/2016

Site Area: 1.17ha



Recent site history - 2011 aerial photograph

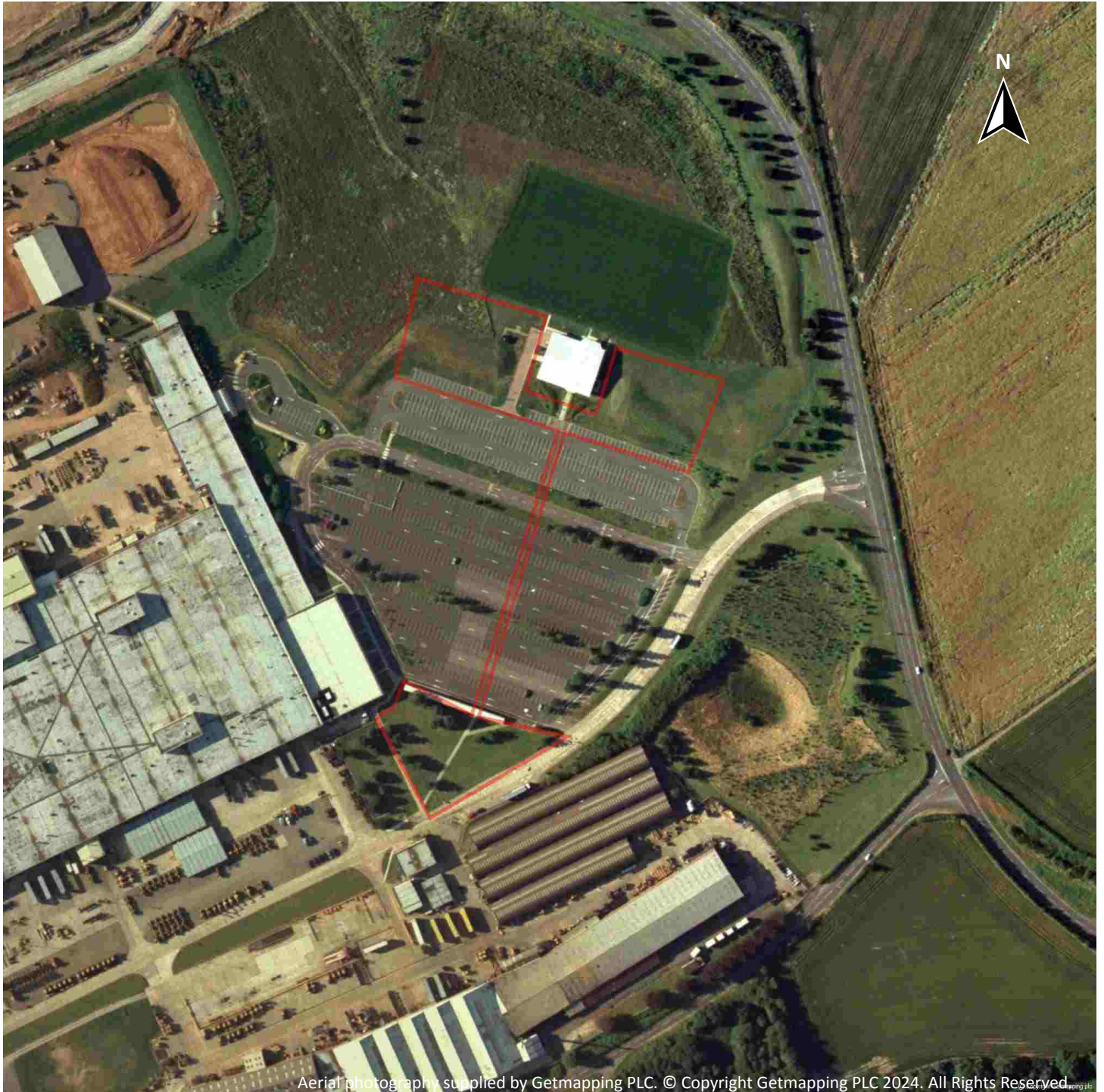


Capture Date: 09/10/2011

Site Area: 1.17ha



Recent site history - 1999 aerial photograph

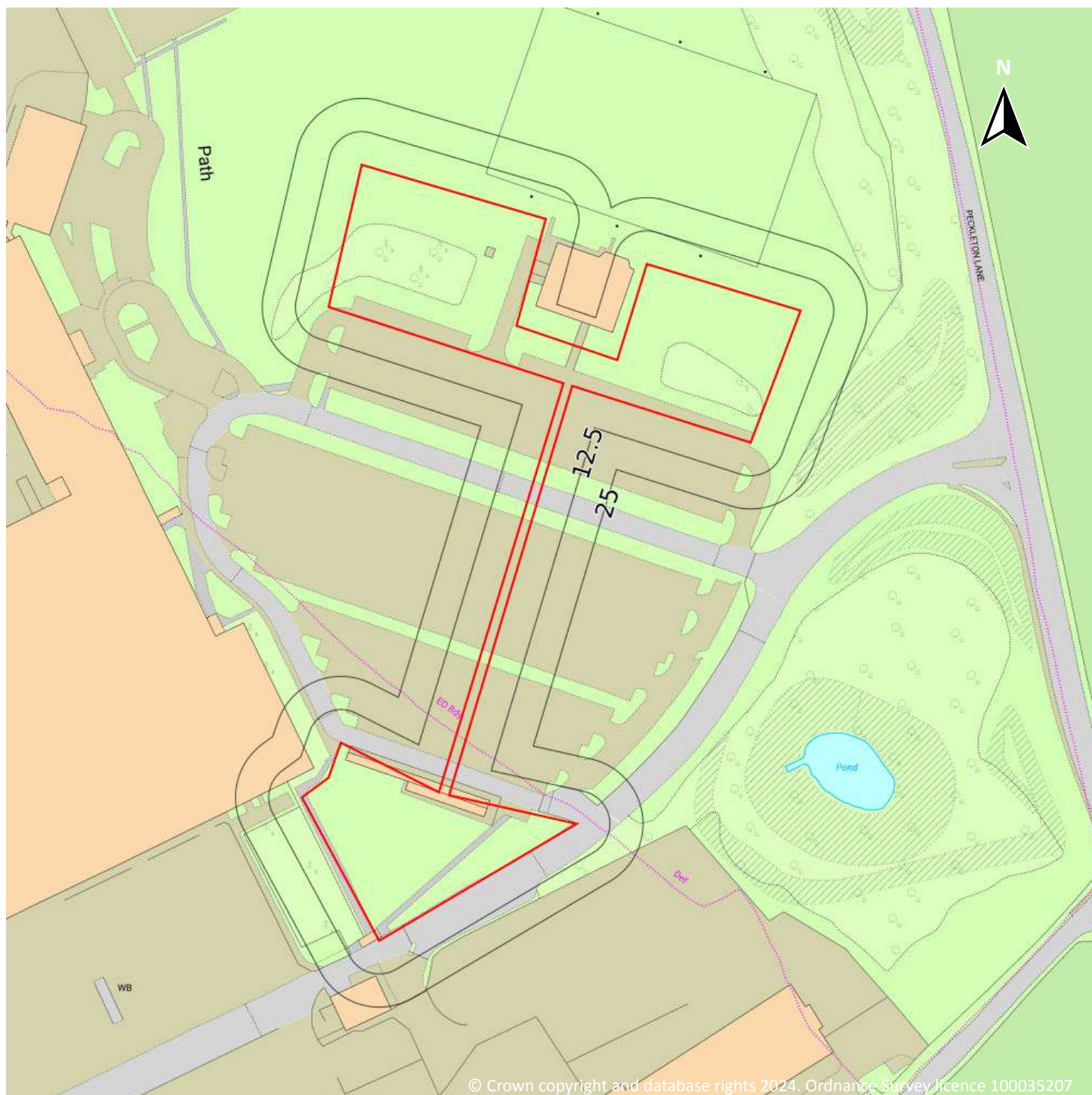


Capture Date: 11/07/1999

Site Area: 1.17ha



OS MasterMap site plan



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Site Area: 1.17ha



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- Site Outline
- Search buffers in metres (m)
-  Historical industrial land uses
-  Historical tanks
-  Historical energy features

Records within 500m	16
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Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	On site	Airfield	1950	1573801

ID	Location	Land use	Dates present	Group ID
A	6m S	Unspecified Works	1980	1746828
2	14m S	Unspecified Works	1966 - 1980	1691087
C	183m S	Old Gravel Pit	1914 - 1938	1620147
C	184m S	Old Gravel Pit	1885 - 1903	1738705
C	186m S	Old Gravel Pit	1950	1657606
D	196m SW	Unspecified Works	1980	1746935
4	233m S	Unspecified Works	1966 - 1980	1651779
5	267m NW	Unspecified Works	1980	1742495
D	268m SW	Unspecified Tank	1980	1594583
E	320m SW	Old Gravel Pit	1914 - 1938	1669495
E	324m SW	Unspecified Pit	1903	1611352
7	392m SW	Unspecified Heap	1966	1570572
H	408m W	Unspecified Tank	1980	1594584
I	429m NW	Unspecified Works	1966	1683111
I	472m NW	Unspecified Warehouse	1980	1572432

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

20

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
3	71m SE	Unspecified Tank	1999	258174
B	126m S	Unspecified Tank	1999	258175
B	128m S	Tanks	1979	261850



ID	Location	Land use	Dates present	Group ID
A	243m W	Unspecified Tank	1979	258160
D	270m SW	Unspecified Tank	1979	271458
D	274m SW	Unspecified Tank	1999	271669
6	292m S	Unspecified Tank	1979	258171
F	358m S	Unspecified Tank	1999	258170
F	361m S	Unspecified Tank	1979	258169
F	382m S	Unspecified Tank	1979	258168
G	403m W	Tanks	1988 - 1999	268047
H	413m W	Unspecified Tank	1958 - 1999	277576
G	418m W	Tanks	1999	279278
G	419m W	Tanks	1958 - 1988	276348
G	419m W	Tanks	1988 - 1999	273033
G	420m W	Unspecified Tank	1958	258166
G	424m W	Tanks	1958 - 1988	264329
G	430m W	Tanks	1958 - 1988	267446
J	435m N	Unspecified Tank	1984	258173
J	439m N	Unspecified Tank	1984	258172

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

1

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
8	416m SW	Electricity Substation	1979 - 1999	162246



This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

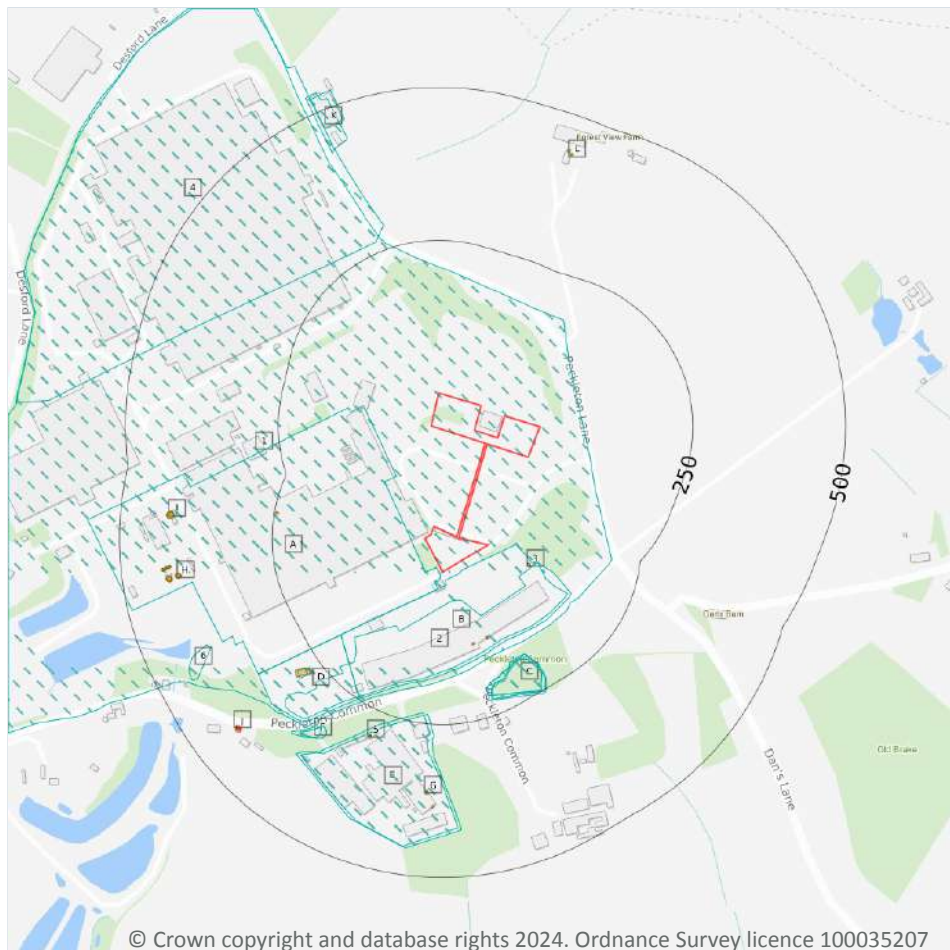
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

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2.1 Historical industrial land uses

Records within 500m

21

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Airfield	1950	1573801
A	6m S	Unspecified Works	1980	1746828
B	14m S	Unspecified Works	1980	1691087



ID	Location	Land Use	Date	Group ID
2	49m S	Unspecified Works	1966	1691087
C	183m S	Old Gravel Pit	1938	1620147
C	183m S	Old Gravel Pit	1914	1620147
C	184m S	Old Gravel Pit	1903	1738705
C	184m S	Old Gravel Pit	1885	1738705
C	186m S	Old Gravel Pit	1950	1657606
D	196m SW	Unspecified Works	1980	1746935
E	233m S	Unspecified Works	1966	1651779
E	234m S	Unspecified Works	1980	1651779
4	267m NW	Unspecified Works	1980	1742495
D	268m SW	Unspecified Tank	1980	1594583
F	320m SW	Old Gravel Pit	1938	1669495
F	320m SW	Old Gravel Pit	1914	1669495
F	324m SW	Unspecified Pit	1903	1611352
6	392m SW	Unspecified Heap	1966	1570572
I	408m W	Unspecified Tank	1980	1594584
K	429m NW	Unspecified Works	1966	1683111
K	472m NW	Unspecified Warehouse	1980	1572432

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

27

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
3	71m SE	Unspecified Tank	1999	258174
B	126m S	Unspecified Tank	1999	258175



ID	Location	Land Use	Date	Group ID
B	128m S	Tanks	1979	261850
A	243m W	Unspecified Tank	1979	258160
D	270m SW	Unspecified Tank	1979	271458
D	274m SW	Unspecified Tank	1999	271669
5	292m S	Unspecified Tank	1979	258171
G	358m S	Unspecified Tank	1999	258170
G	361m S	Unspecified Tank	1979	258169
G	382m S	Unspecified Tank	1979	258168
H	403m W	Tanks	1999	268047
H	404m W	Tanks	1988	268047
I	413m W	Unspecified Tank	1999	277576
I	413m W	Unspecified Tank	1988	277576
I	413m W	Unspecified Tank	1958	277576
H	418m W	Tanks	1999	279278
H	419m W	Tanks	1988	276348
H	419m W	Tanks	1958	276348
H	419m W	Tanks	1999	273033
H	420m W	Tanks	1988	273033
H	420m W	Unspecified Tank	1958	258166
H	424m W	Tanks	1988	264329
H	424m W	Tanks	1958	264329
H	430m W	Tanks	1988	267446
H	430m W	Tanks	1958	267446
L	435m N	Unspecified Tank	1984	258173
L	439m N	Unspecified Tank	1984	258172

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

2

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
J	416m SW	Electricity Substation	1999	162246
J	418m SW	Electricity Substation	1979	162246

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

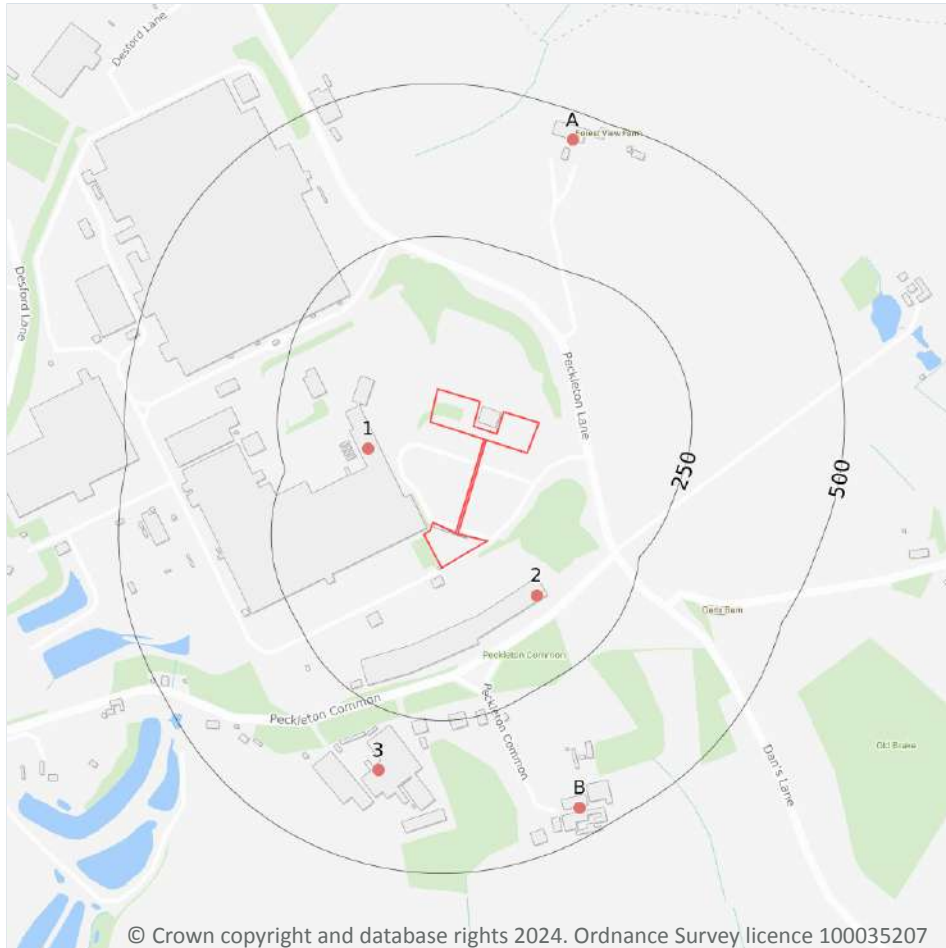
0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m**0**

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m**0**

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m**0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m**0**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m**13**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 23](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
1	111m W	Caterpillar Peckleton Lane Leicestershire LE9 9JT	EPR/GF0104SV /A001	Treating waste exemption	Non- Agricultural Waste Only	Recovery of scrap metal



ID	Location	Site	Reference	Category	Sub-Category	Description
2	120m SE	PECKLETON LANE DESFORD LEICESTER LE9 9JT	EPR/XF0504LH /A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in secure containers
3	348m S	UNIT 2A, PECKLETON LANE BUSINESS PARK, PECKLETON COMMON, PECKLETON, LEICESTER, LE9 7RN	WEX138135	Disposing of waste exemption	Not on a farm	Disposal by incineration
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Disposing of waste exemption	Both agricultural and non- agricultural waste	Deposit of waste from dredging of inland waters
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Treating waste exemption	Both agricultural and non- agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Using waste exemption	Both agricultural and non- agricultural waste	Use of waste in construction
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Using waste exemption	Both agricultural and non- agricultural waste	Burning of waste as a fuel in a small appliance
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Disposing of waste exemption	Both agricultural and non- agricultural waste	Burning waste in the open
A	453m N	Forest View Farm Peckleton Lane LEICESTER LE9 9JU	EPR/XH0179Q M/A001	Using waste exemption	Both agricultural and non- agricultural waste	Spreading waste on agricultural land to confer benefit
B	453m S	Tooly Park Farm Peckleton Common Road LEICESTER LE9 7RF	EPR/YF0638VH /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
B	453m S	Tooly Park Farm Peckleton Common Road LEICESTER LE9 7RF	EPR/YF0638VH /A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in secure containers

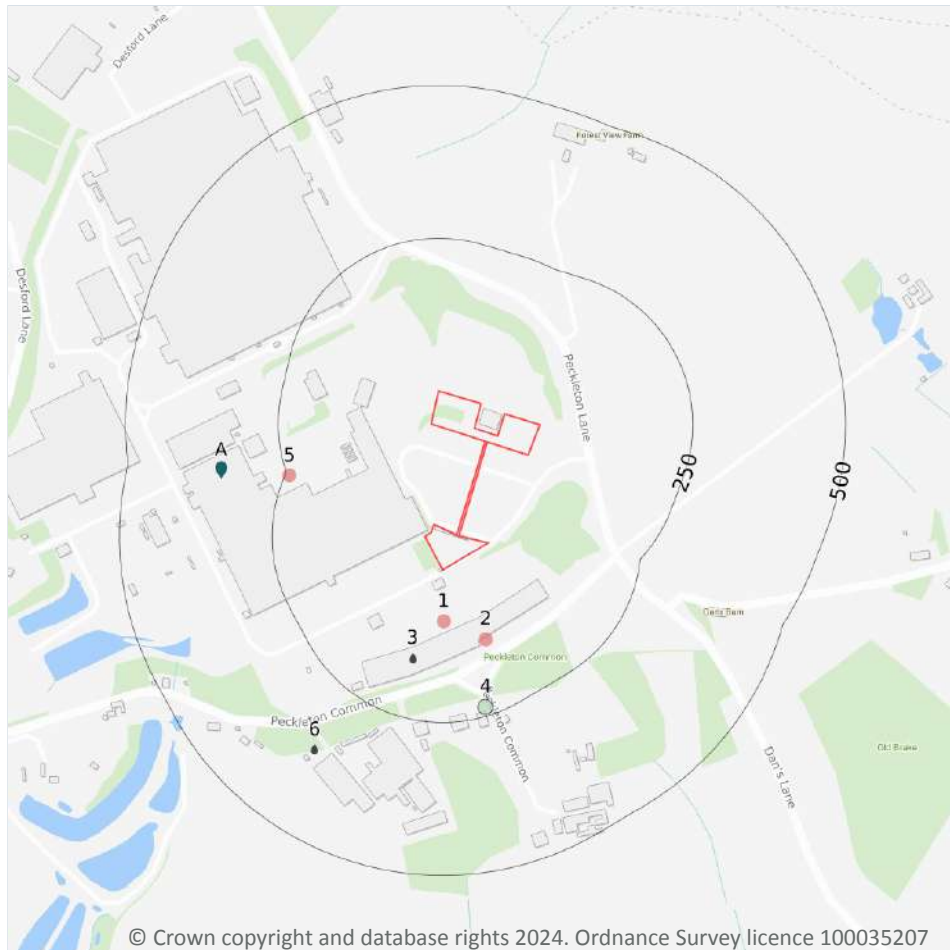


ID	Location	Site	Reference	Category	Sub-Category	Description
B	453m S	Tooly Park Farm Peckleton Common Road LEICESTER LE9 7RF	EPR/YF0638VH /A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
B	453m S	Tooly Park Farm Peckleton Common Road LEICESTER LE9 7RF	EPR/YF0638VH /A001	Treating waste exemption	Agricultural Waste Only	Recovery of scrap metal

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 27](#) >

ID	Location	Company	Address	Activity	Category
1	84m S	Works	Leicestershire, LE9	Unspecified Works Or Factories	Industrial Features
2	133m S	Tank	Leicestershire, LE9	Tanks (Generic)	Industrial Features
5	243m W	Works	Leicestershire, LE9	Unspecified Works Or Factories	Industrial Features



This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.



4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

2

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Address	Details	
A	351m W	Caterpillar, Peckleton Lane, Desford, LE9 9JT	Process: Hot Dip Galvanizing Processes; Surface Treatment of Metal Processes ; Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
A	351m W	Caterpillar, Peckleton Lane, Desford, LE9 9JT	Process: Hot Dip Galvanizing Processes; Surface Treatment of Metal Processes ; Coating Processes Status: Current Permit Permit Type: Part A2	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0
----------------------------	----------

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	2
----------------------------	----------

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Address	Details	
3	152m S	PECKLETON COMMON PS - EMERG OFLOW, PECKLETON COMMON, HINCKLEY, LEICESTERSHIRE	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: T/50/07291/O Permit Version: 1 Receiving Water: NORMANTON PARK BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 17/01/1977 Effective Date: 17/01/1977 Revocation Date: -
6	361m SW	PECKLETON COMMON, PECKLETON COMMON, LEICESTER, MIDLANDS, ENGLAND, LE67 9QB	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: TSC3755 Permit Version: 1 Receiving Water: LOCAL DITCH	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 12/08/2011

This data is sourced from the Environment Agency and Natural Resources Wales.



4.14 Pollutant release to surface waters (Red List)

Records within 500m**0**

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m**0**

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m**0**

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m**0**

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m**1**

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on [page 27 >](#)



ID	Location	Details	
4	234m S	Incident Date: 14/08/2002 Incident Identification: 100096 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0
----------------------------	----------

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0
----------------------------	----------

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

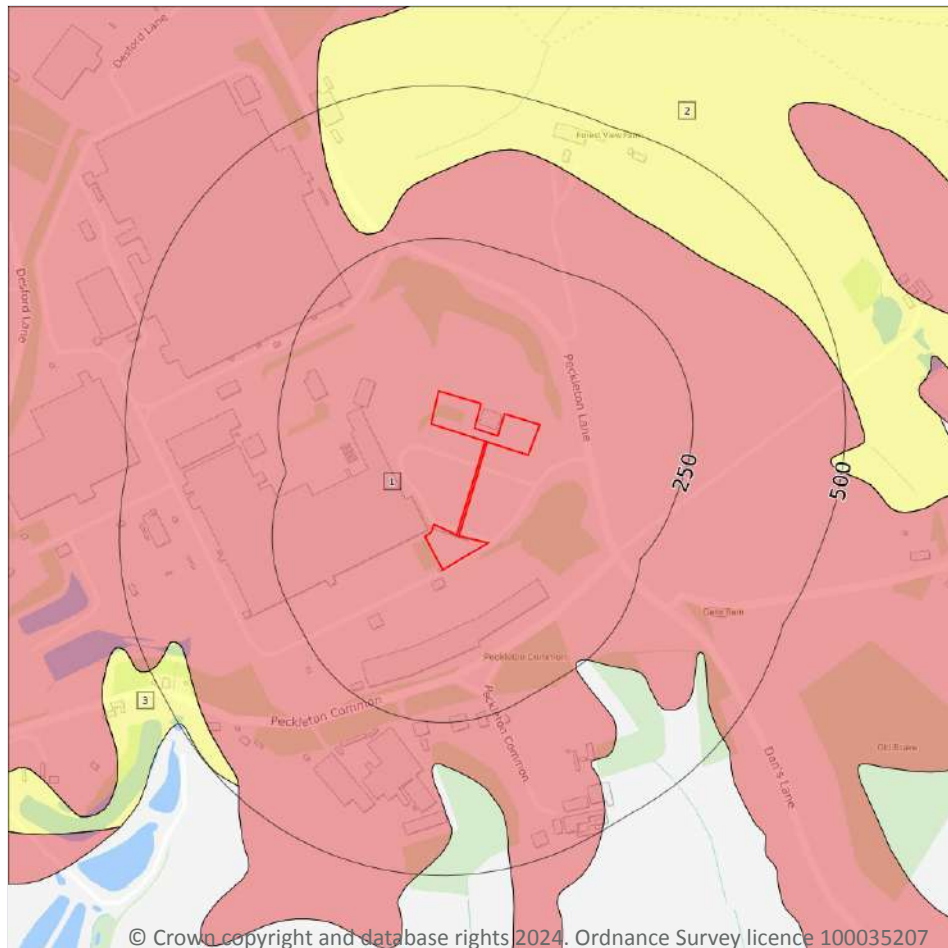
4.21 Pollution inventory radioactive waste

Records within 500m	0
----------------------------	----------

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 33](#) >

ID	Location	Designation	Description
1	On site	Secondary A	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. These are generally aquifers formerly classified as minor aquifers
2	278m NW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

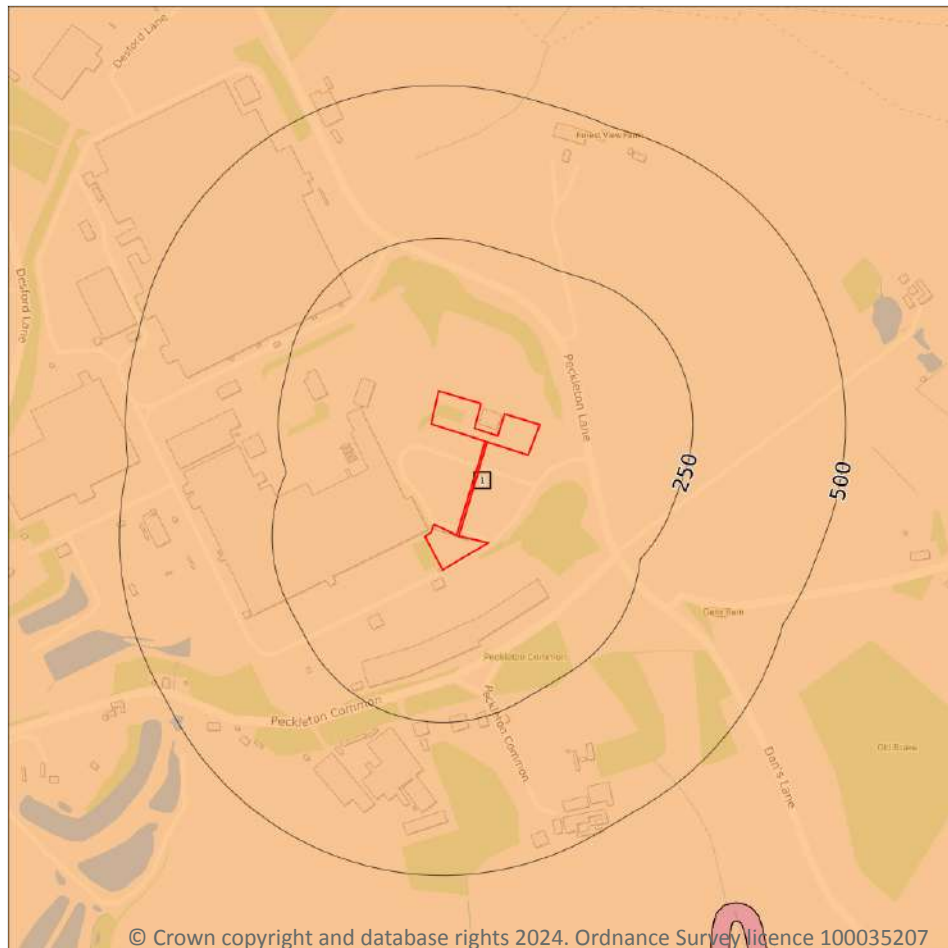


ID	Location	Designation	Description
3	437m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

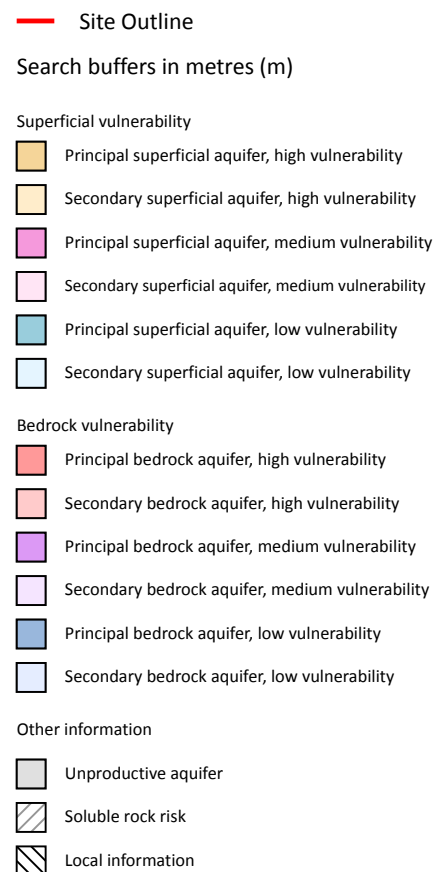
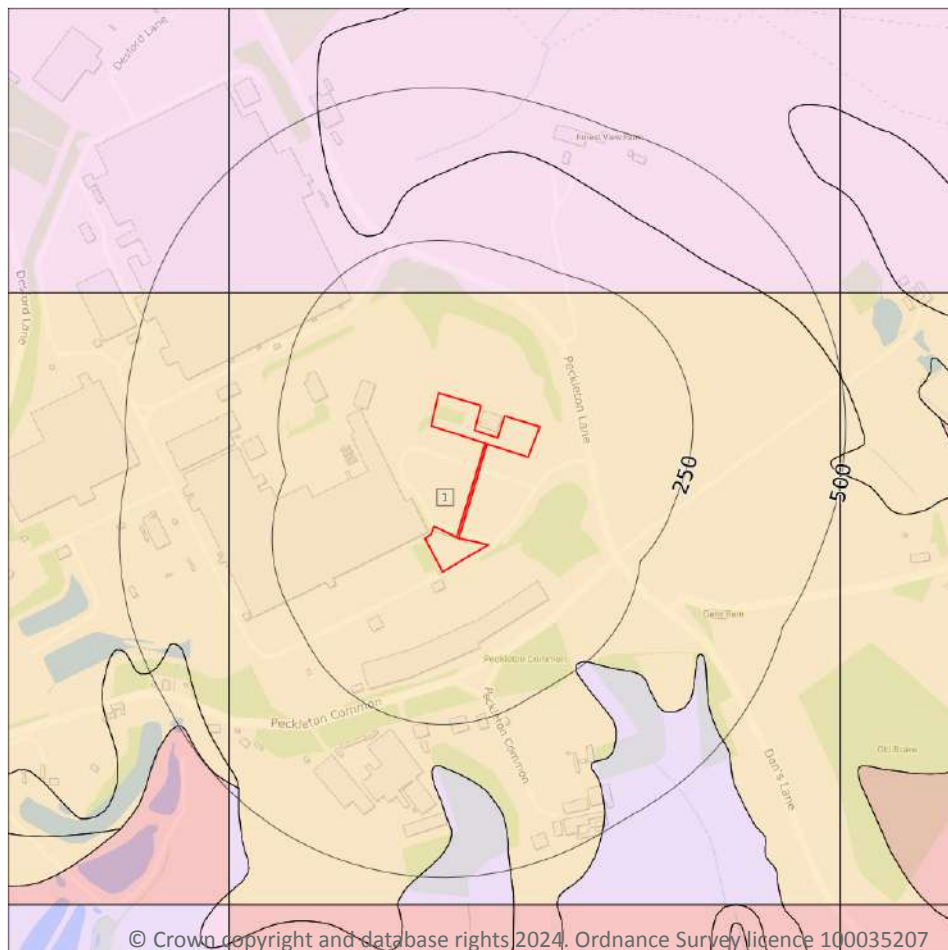
Features are displayed on the Bedrock aquifer map on [page 35](#) >

ID	Location	Designation	Description
1	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 36](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

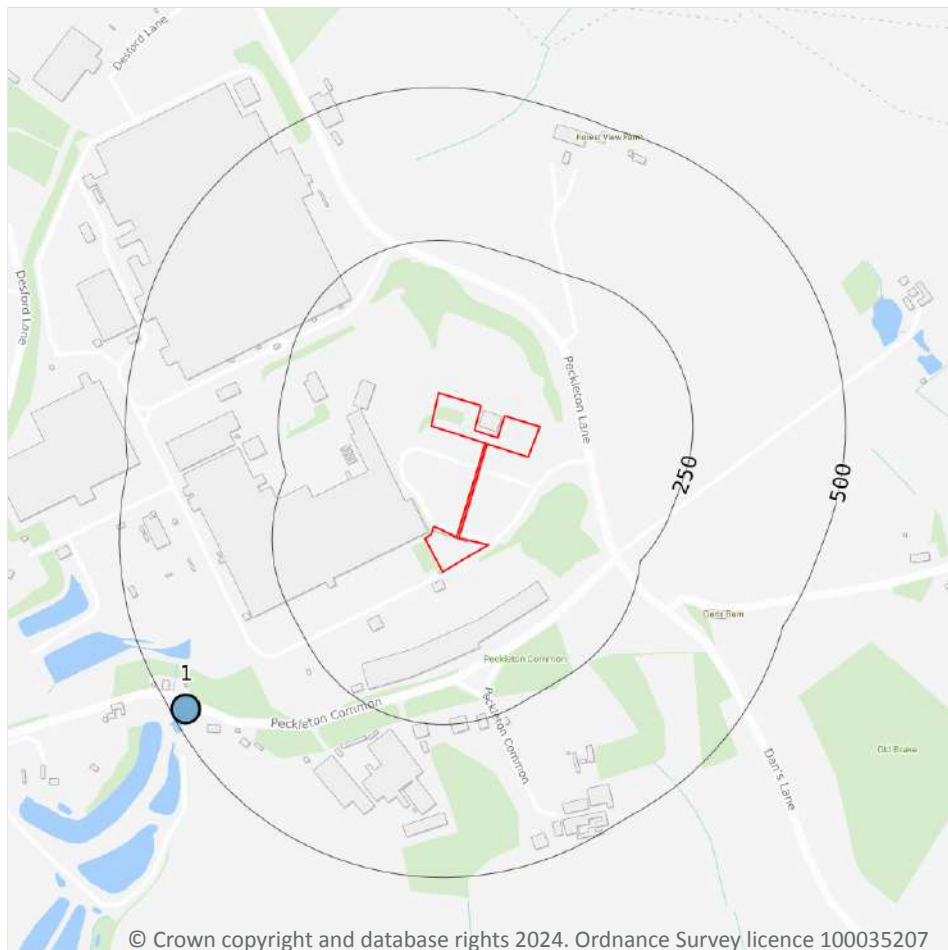
5.5 Groundwater vulnerability- local information

Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

5

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 38](#) >



ID	Location	Details	
-	1073m SE	Status: Historical Licence No: 03/28/50/0138 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: NEWHAVEN FARM, THURLASTON - BOREHOLE Data Type: Point Name: MOORE Easting: 449280 Northing: 300940	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/11/1998 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2000 Version End Date: -
-	1073m SE	Status: Historical Licence No: 03/28/50/0138 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Groundwater Midlands Region Point: NEWHAVEN FARM, THURLASTON - BOREHOLE Data Type: Point Name: MOORE Easting: 449280 Northing: 300940	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/11/1998 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2000 Version End Date: -
-	1236m NW	Status: Historical Licence No: 03/28/56/0004 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: HILLS BARN FARM - WELL Data Type: Point Name: RICHARDSON Easting: 447300 Northing: 302500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -
-	1315m NE	Status: Historical Licence No: 03/28/56/0012 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: STUD FARM - WELL Data Type: Point Name: STAPLEFORD Easting: 449200 Northing: 302900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -
-	1677m SW	Status: Historical Licence No: 03/28/50/0083 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: POTTS MARSTON HALL Data Type: Point Name: HOLT Easting: 446900 Northing: 300700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.



5.7 Surface water abstractions

Records within 2000m

1

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 38 >](#)

ID	Location	Details	
1	475m SW	Status: Active Licence No: 03/28/50/0135 Details: Make-Up Or Top Up Water Direct Source: Surface Water Midlands Region Point: PECKLETON COMMON - TRIB RIVER SOAR Data Type: Point Name: MARLOW Easting: 447930 Northing: 301320	Annual Volume (m ³): 12000 Max Daily Volume (m ³): 57 Original Application No: NPS/WR/024620 Original Start Date: 29/02/1996 Expiry Date: - Issue No: 101 Version Start Date: 26/09/2016 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m

0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.



This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.



This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
------------------------	----------

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 42](#) >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Thurlaston Brook Catchment (trib of Soar)	GB104028046940	Soar River	Soar

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1
---------------------------	----------

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 42](#) >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2753m S	River	Thurlaston Brook Catchment (trib of Soar)	GB104028046940 ↗	Poor	Fail	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 42](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Soar - Secondary Combined	GB40402G990600 ↗	Good	Good	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

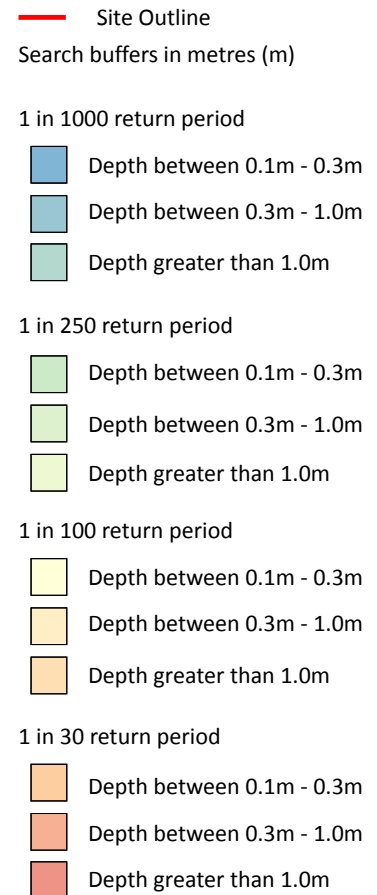
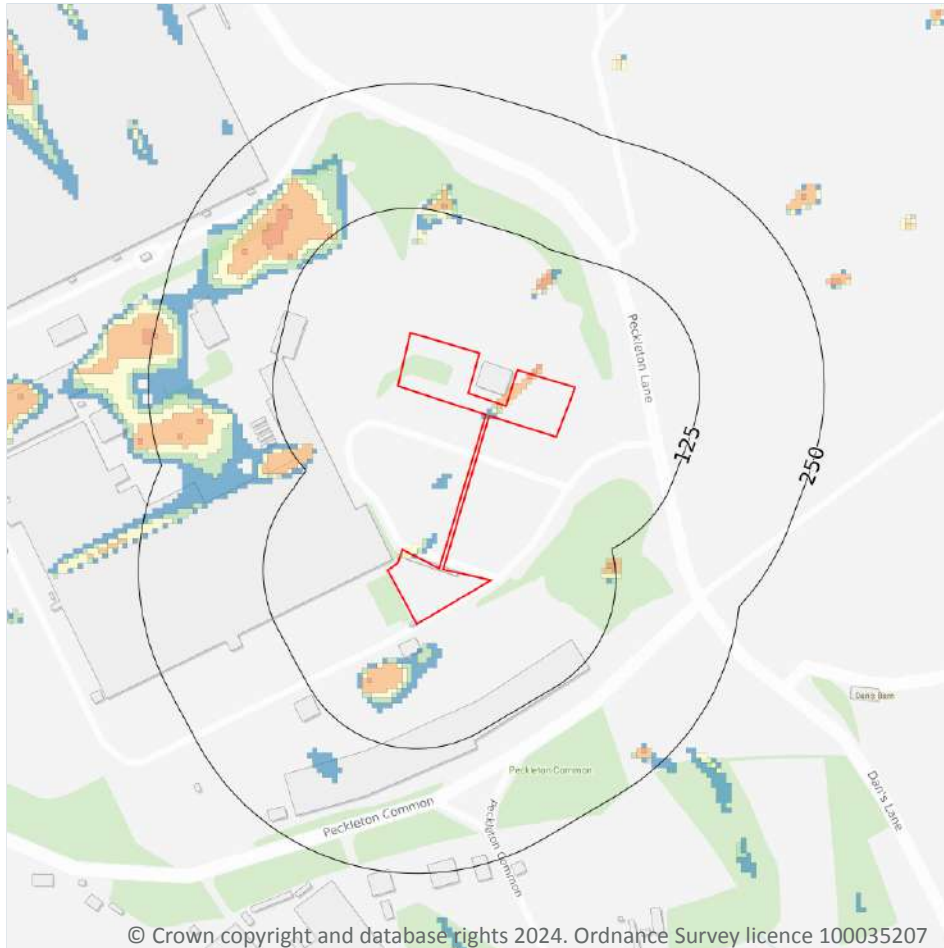
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 48 >](#)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

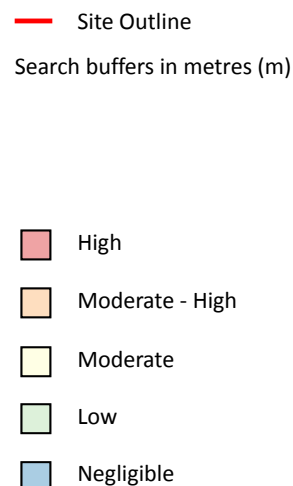
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 50 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m**1**

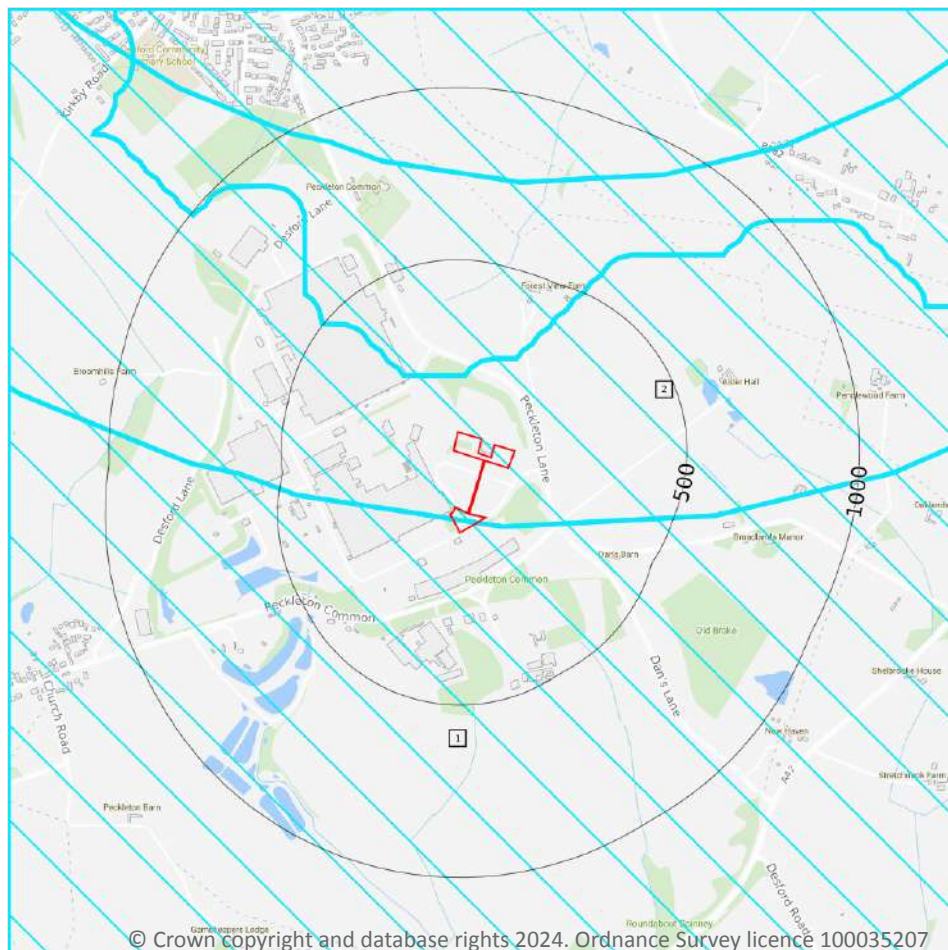
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	SOAR R NVZ	Surface Water	309	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

2

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 55](#) >

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.



ID	Location	Type of developments requiring consultation
2	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

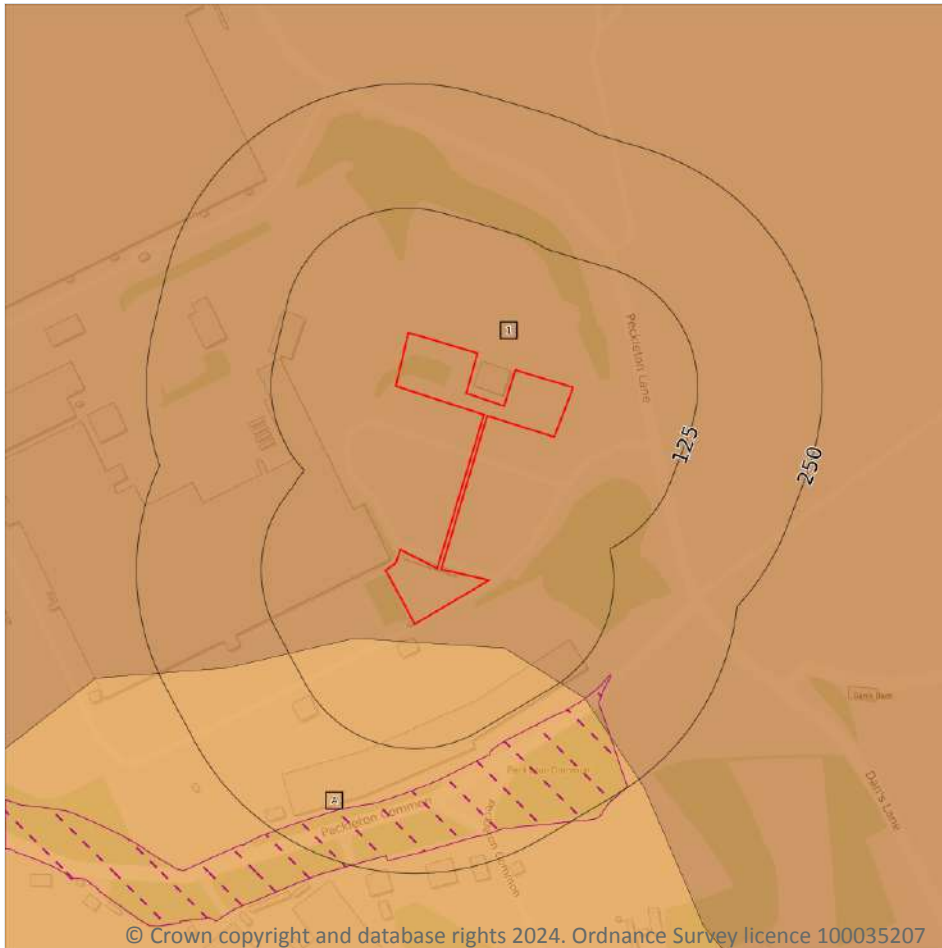
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Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 59](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
A	18m S	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	1
----------------------------	----------

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

Features are displayed on the Agricultural designations map on [page 59 >](#)

ID	Location	Name	Classification	Other relevant legislation
A	147m S	Peckleton Common	Section 4 Conclusive Registered Common Land	-

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0
----------------------------	----------

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

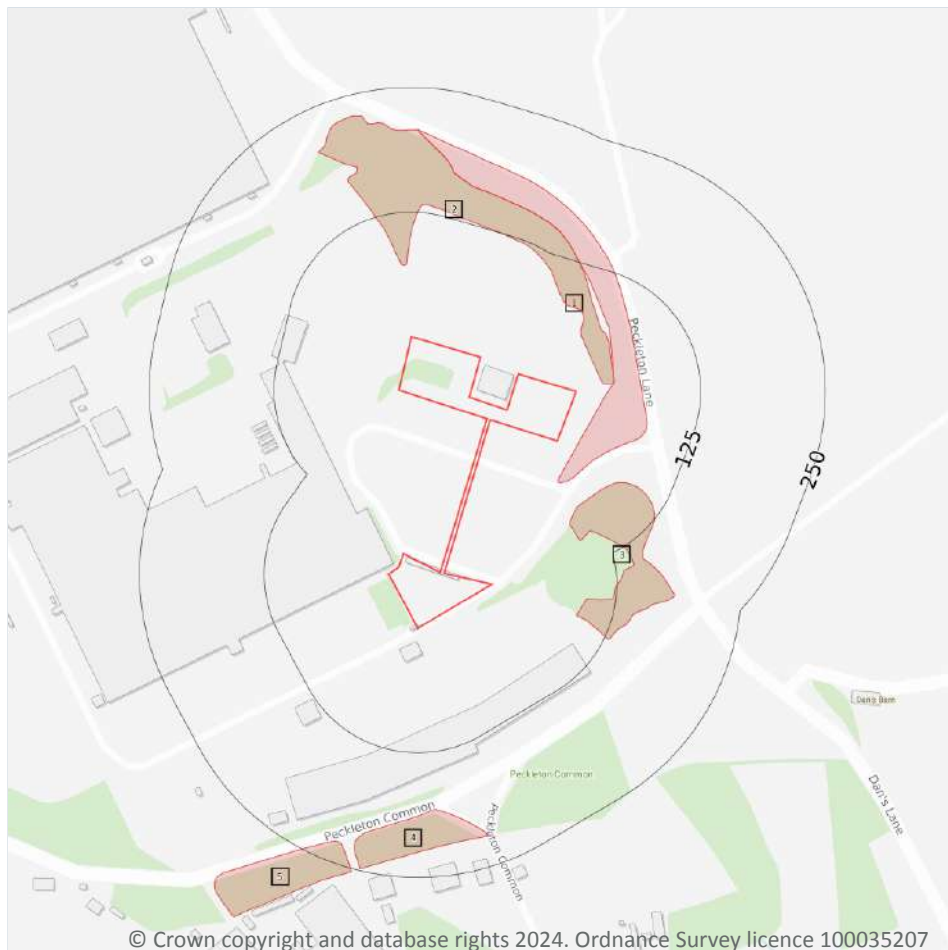
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Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

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13.1 Priority Habitat Inventory

Records within 250m

5

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on [page 62](#) >

ID	Location	Main Habitat	Other habitats
1	20m E	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
2	27m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	65m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	183m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	229m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0
----------------------------	----------

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0
----------------------------	----------

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

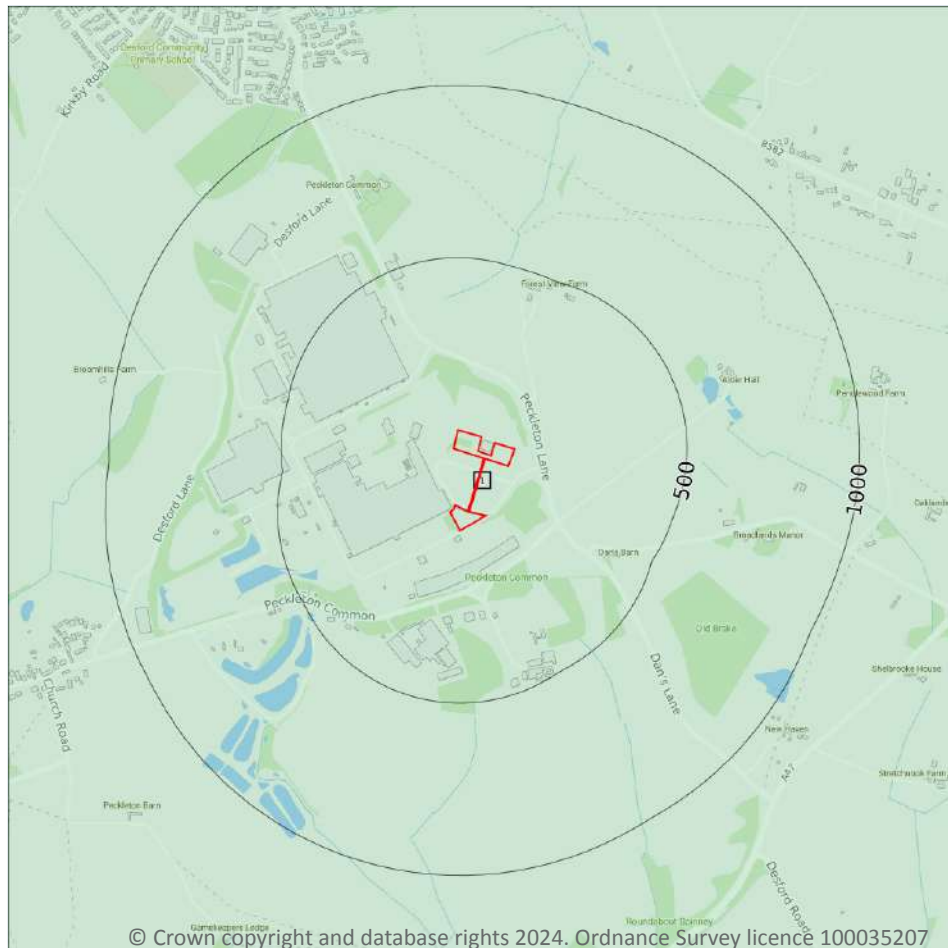
13.4 Limestone Pavement Orders

Records within 250m	0
----------------------------	----------

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

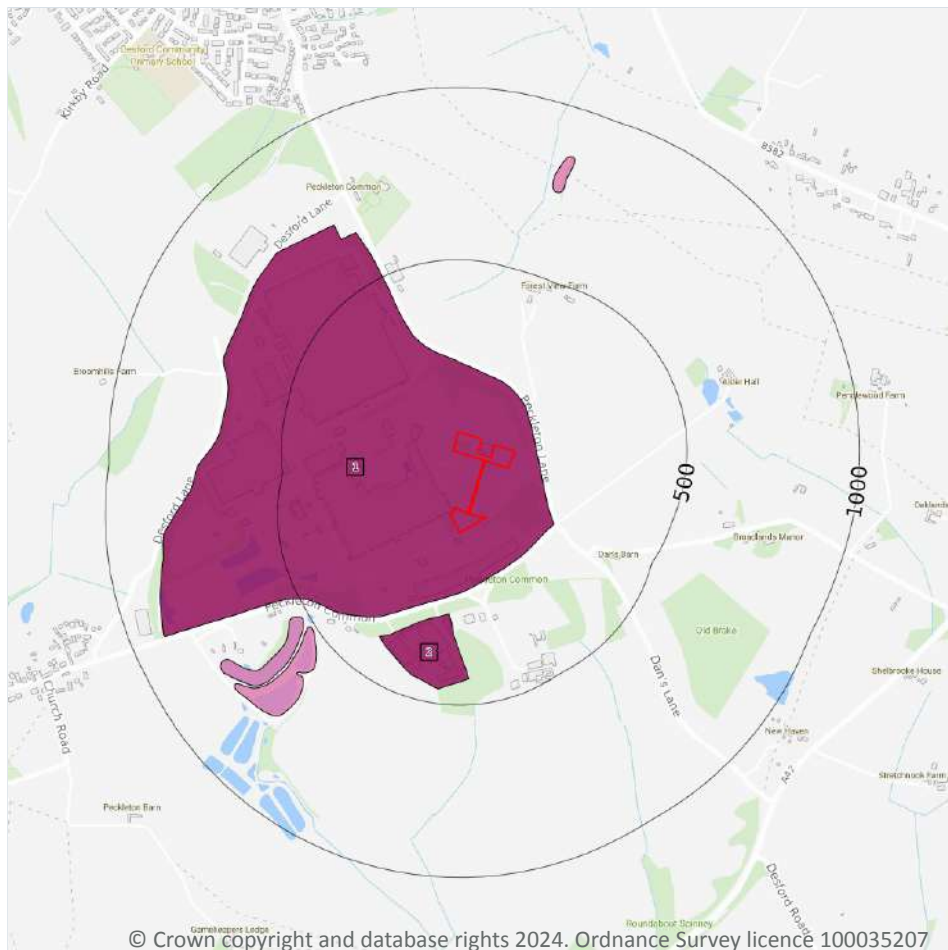
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 64](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SK40SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

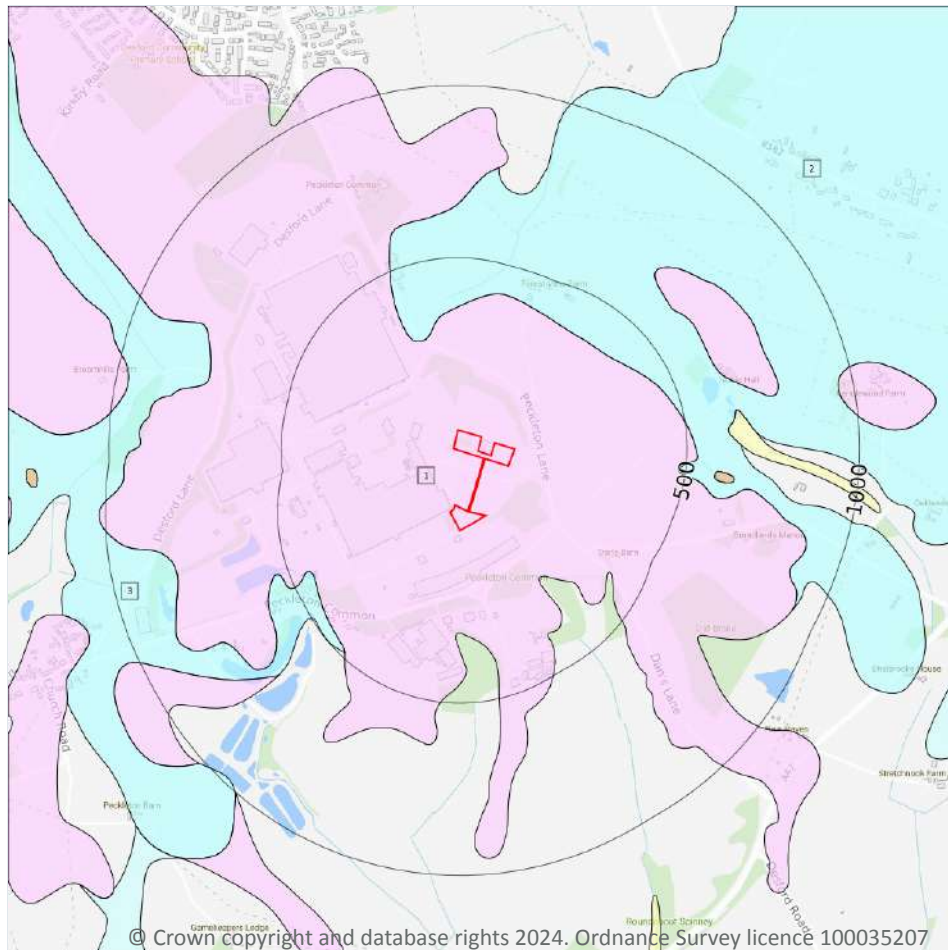
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 65](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	238m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

3

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 66](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
2	278m NW	ODT-DMTN	Oadby Member - Diamicton	Diamicton
3	437m SW	ODT-DMTN	Oadby Member - Diamicton	Diamicton

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

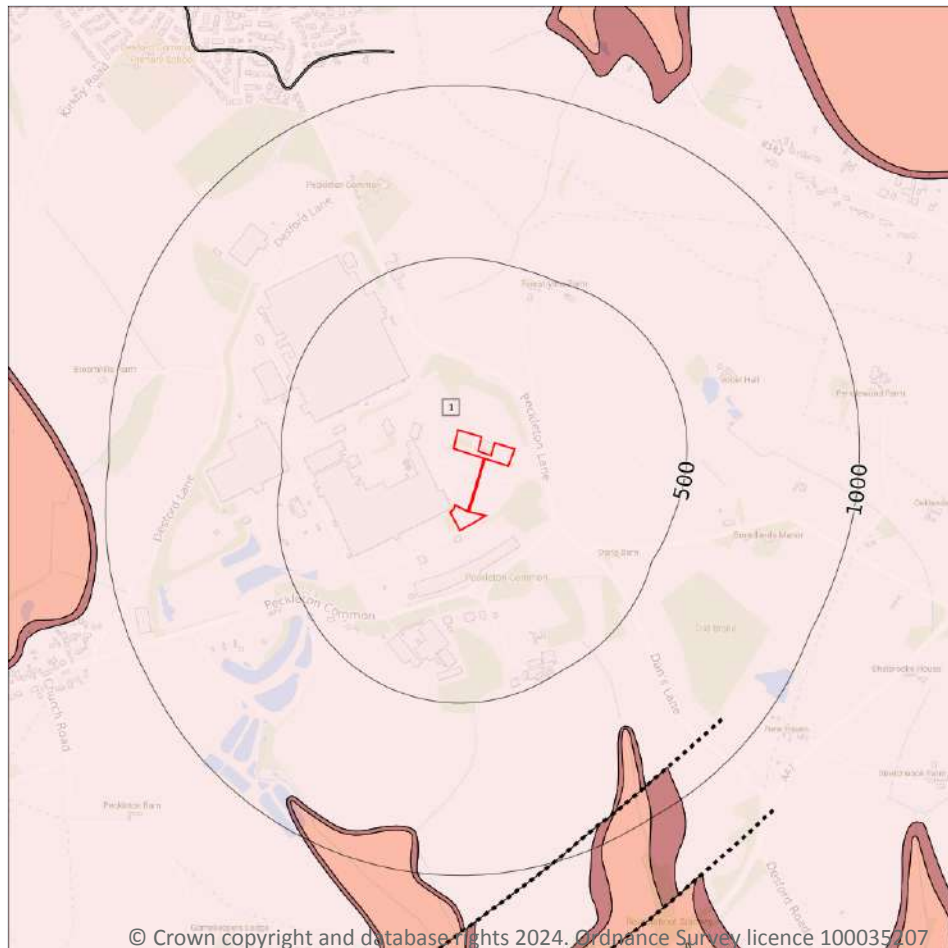
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

1

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 68](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	EDW-MDST	Edwalton Member - Mudstone	Carnian Age

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

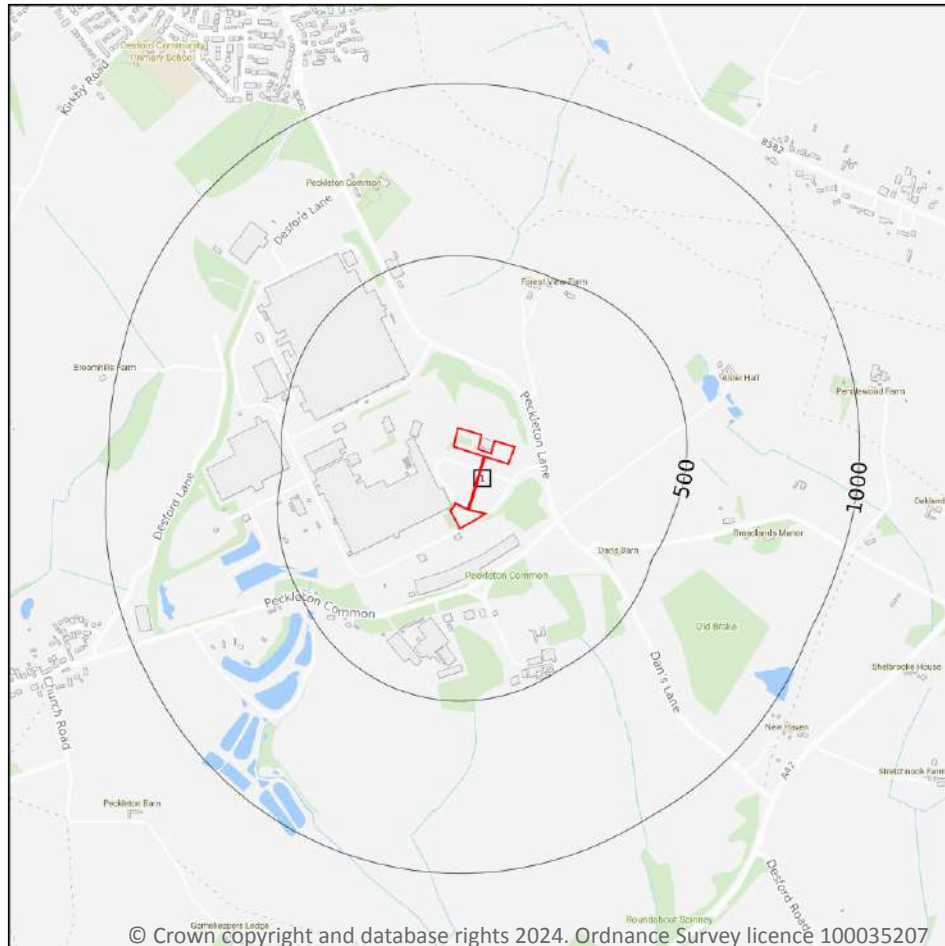
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

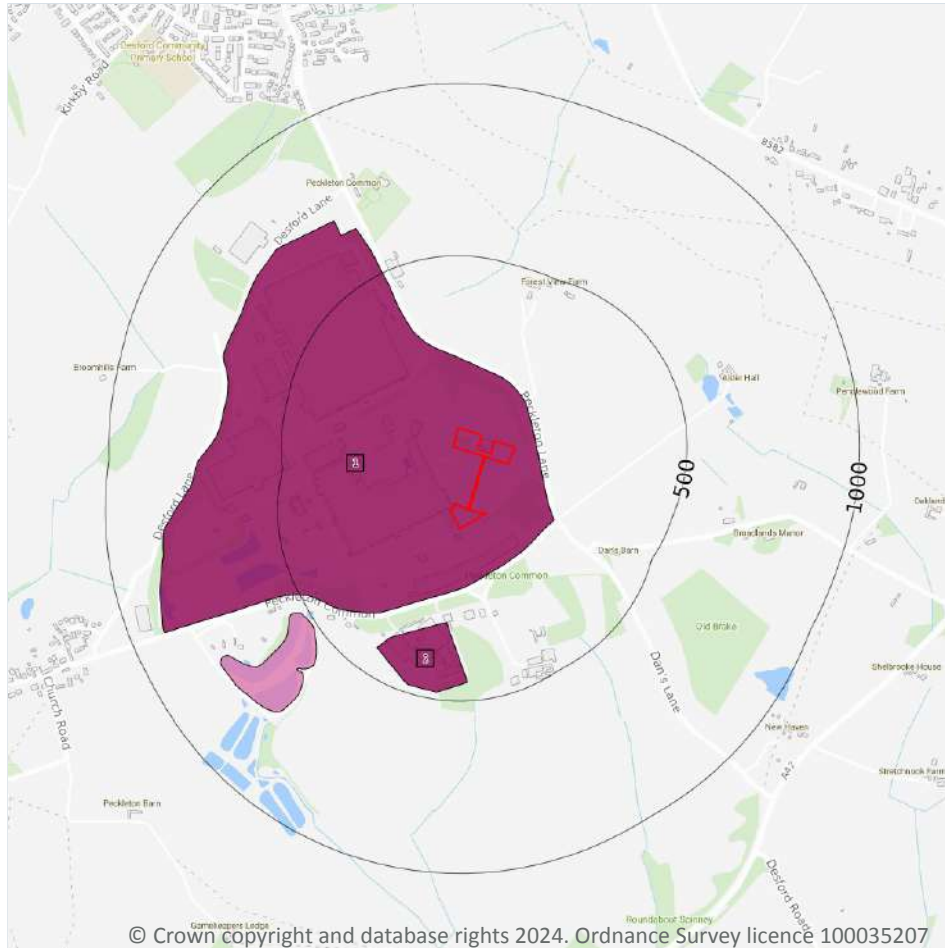
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 70](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW155_coalville_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 71](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	275m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

1

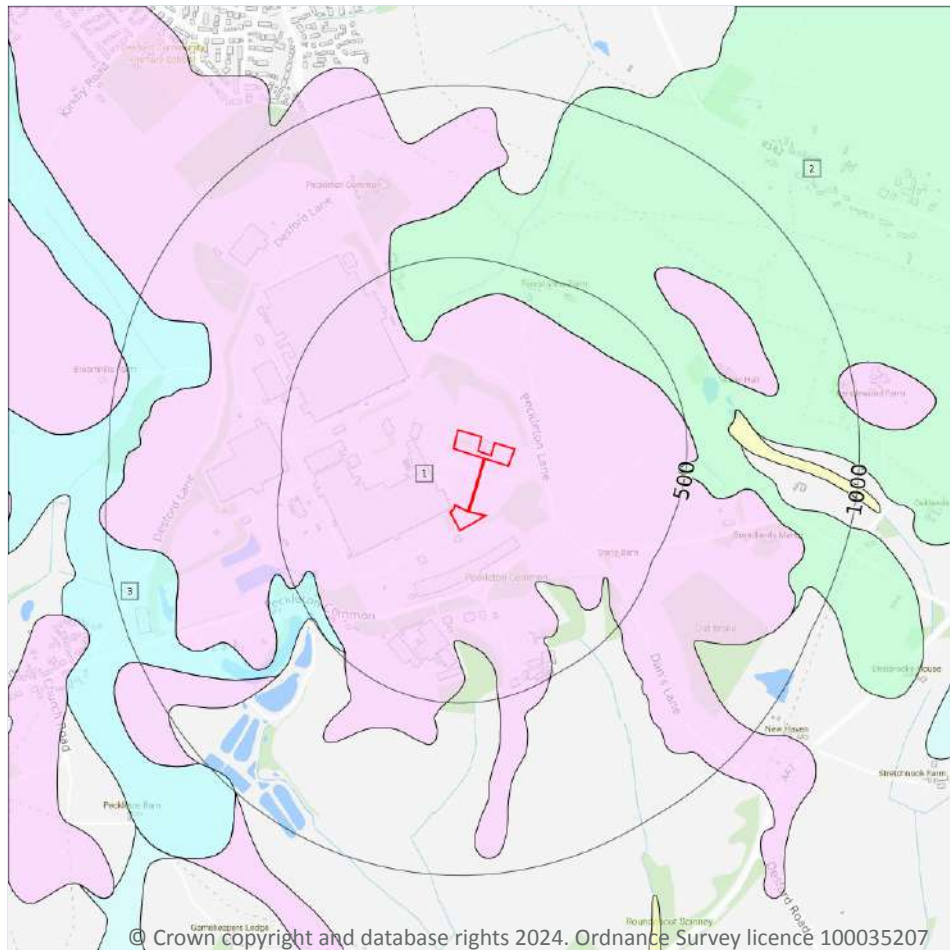
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Very High	Low

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

3

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 73](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
2	278m NW	ODTT-DMTN	OADBY MEMBER (TRIAS-RICH)	DIAMICTON
3	437m SW	ODT-DMTN	OADBY MEMBER	DIAMICTON

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

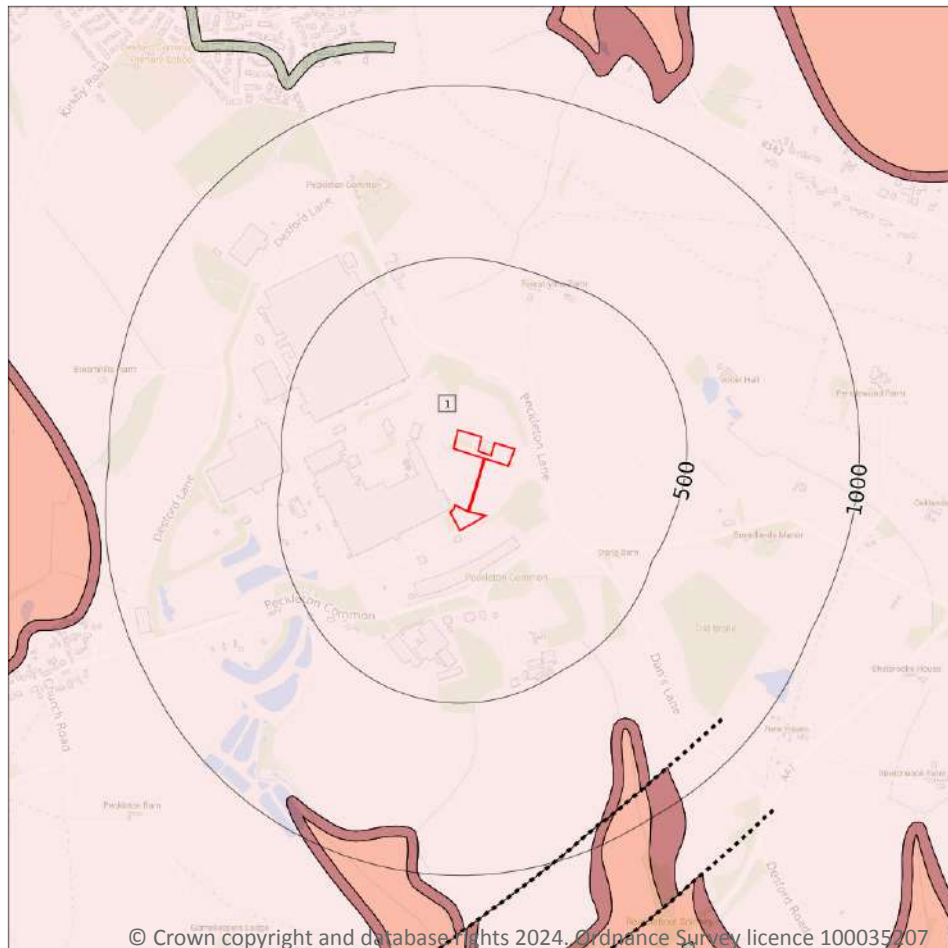
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline
Search buffers in metres (m)
..... Bedrock faults and other linear features (50k)
Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 75 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	EDW-MDST	EDWALTON MEMBER - MUDSTONE	CARNIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

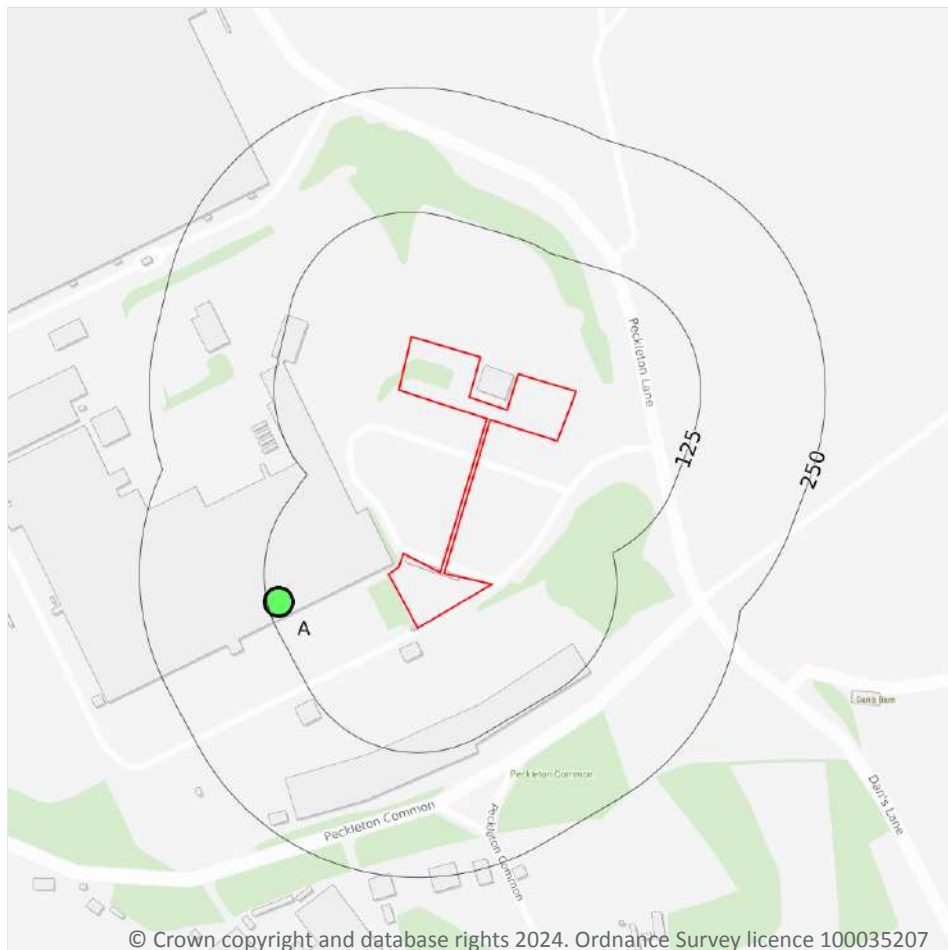
0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

6

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on [page 77](#) >

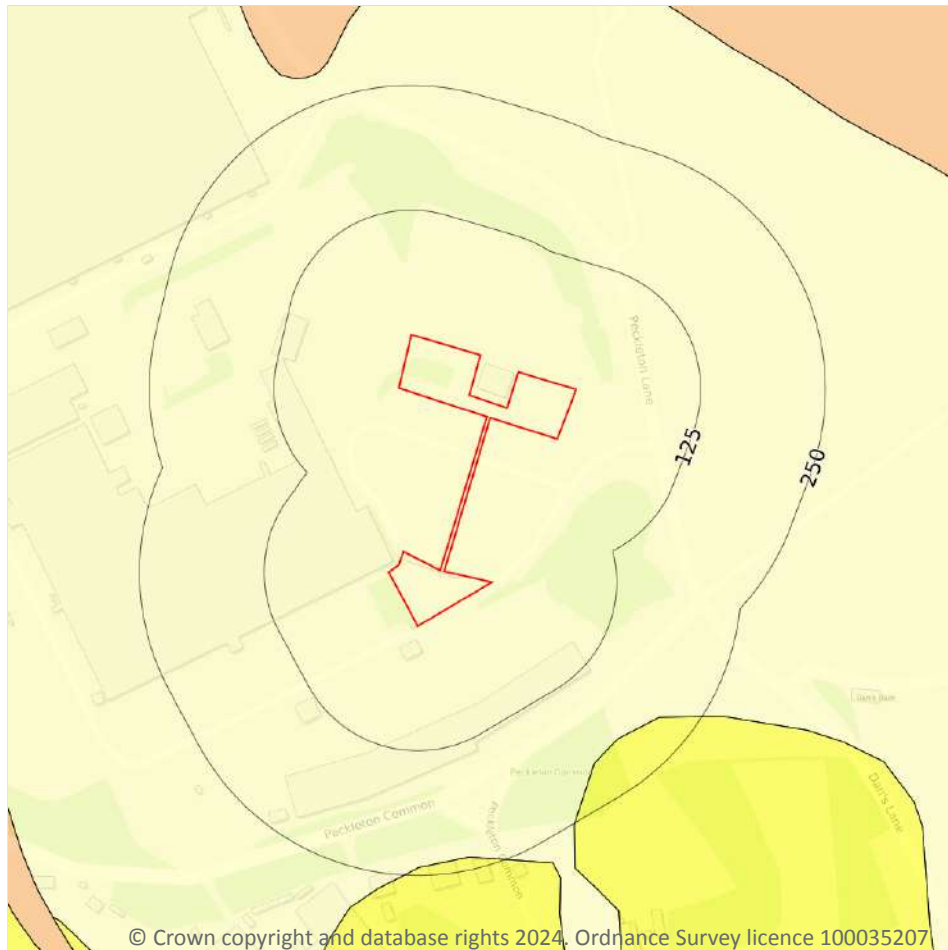
ID	Location	Grid reference	Name	Length	Confidential	Web link
A	114m SW	448210 301570	DES福德 TP2	3.0	N	216400 ↗
A	114m SW	448210 301570	DES福德 TP1	3.0	N	216399 ↗
A	114m SW	448210 301570	DES福德 BH2	22.85	N	216396 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	114m SW	448210 301570	DESFORD BH1	19.7	N	216395 ↗
A	114m SW	448210 301570	DESFORD BH3	22.3	N	216397 ↗
A	114m SW	448210 301570	DESFORD BH4	21.5	N	216398 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

17.1 Shrink swell clays

Records within 50m

1

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

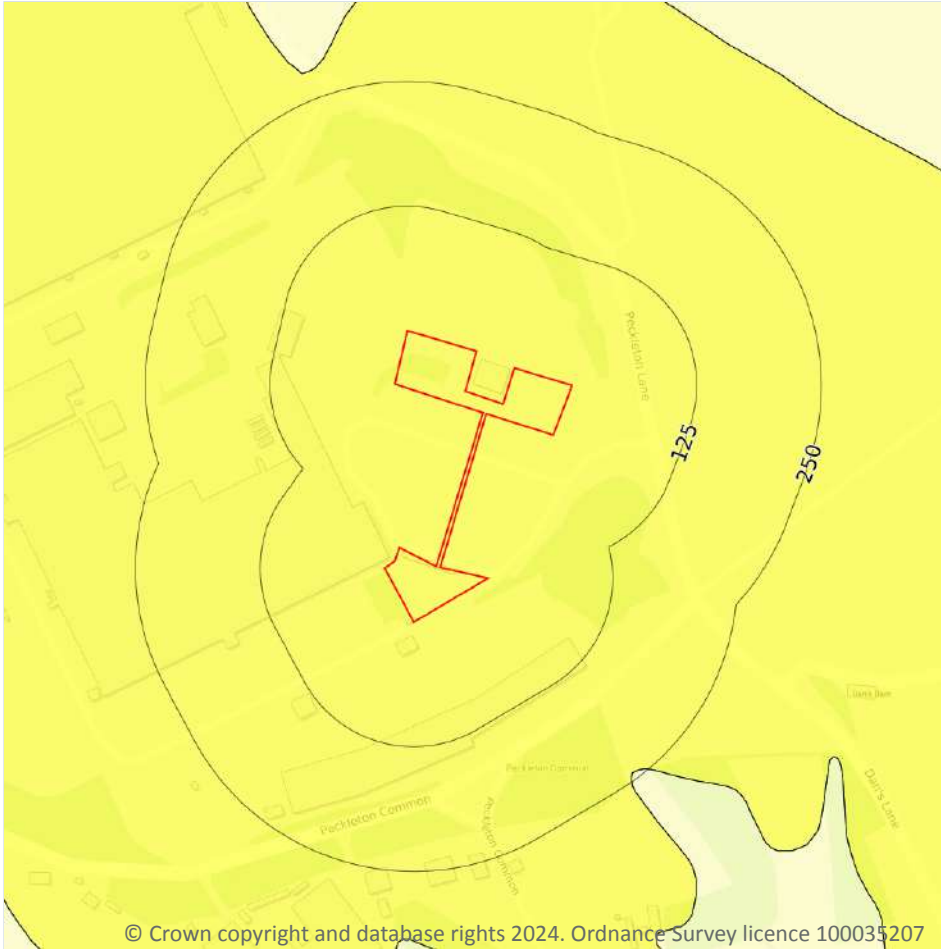
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 79 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

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17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

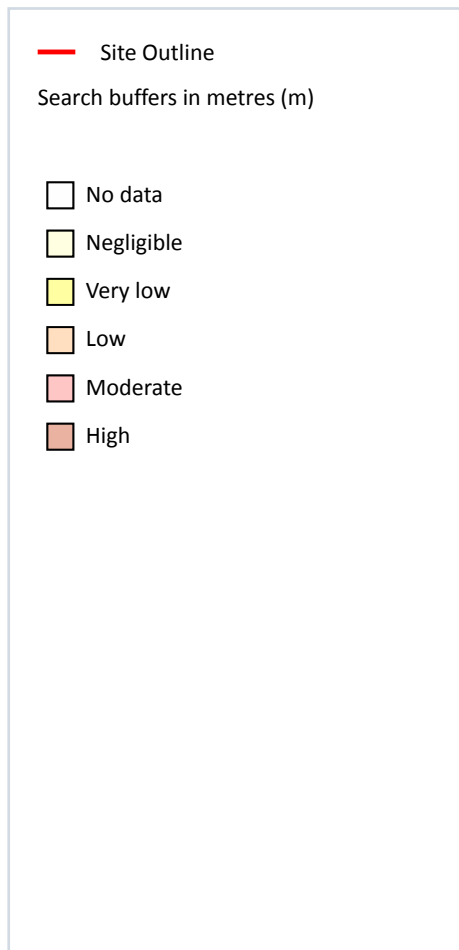
Features are displayed on the Natural ground subsidence - Running sands map on [page 80 >](#)

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

1

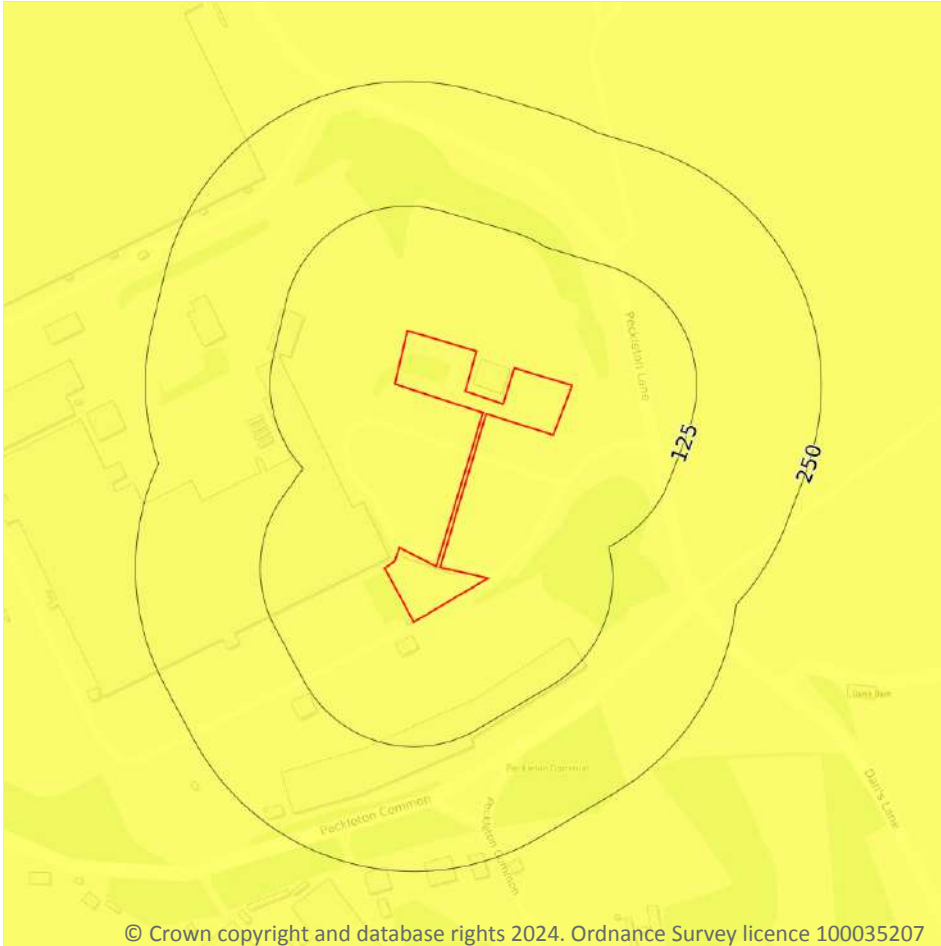
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 81](#) >

Location	Hazard rating	Details
On site	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

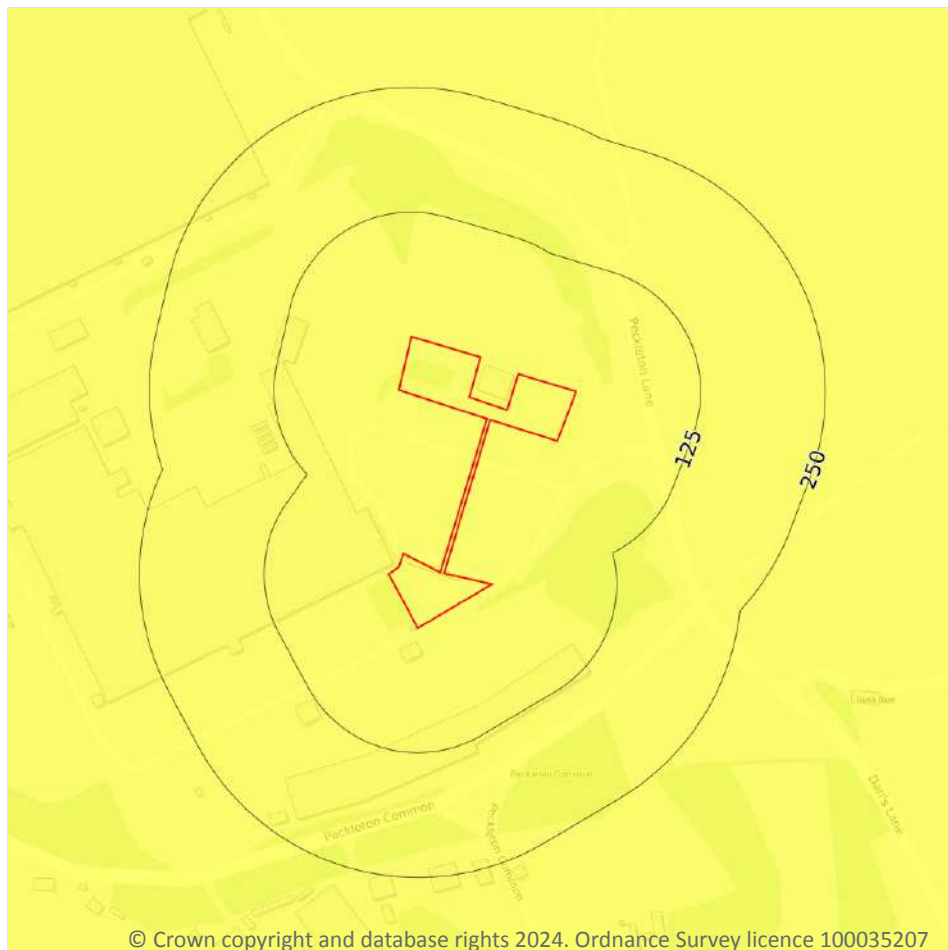
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 82 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

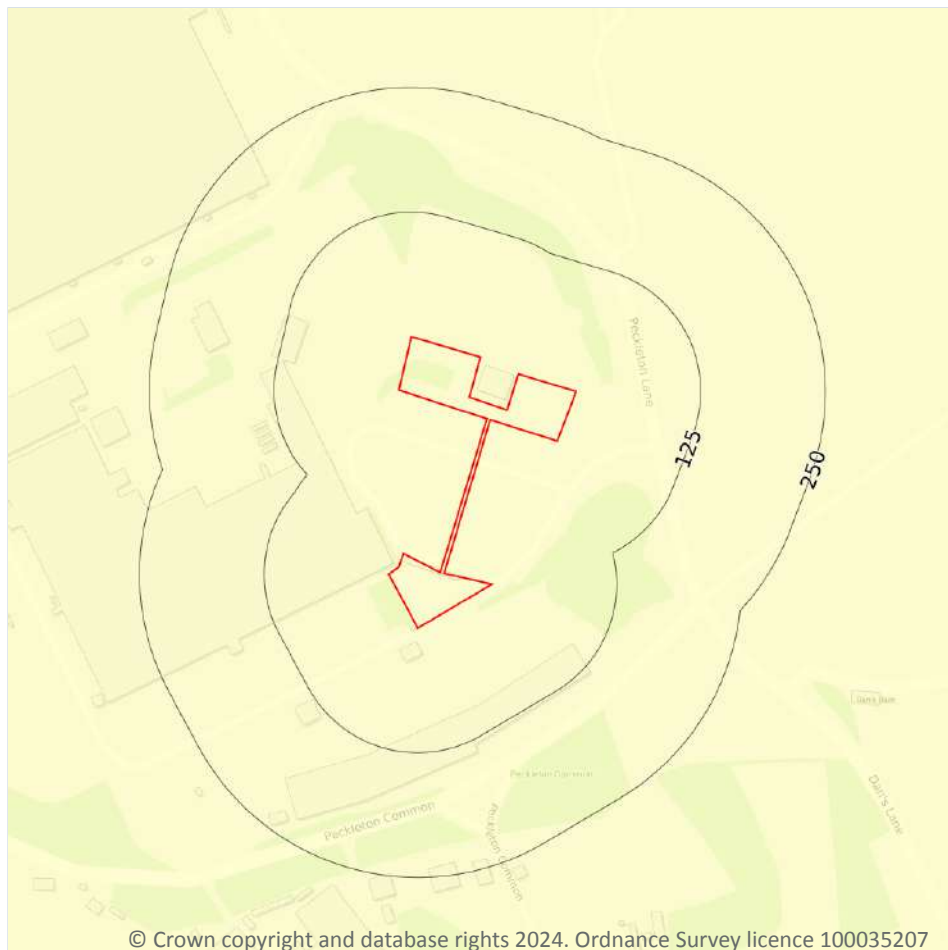
Features are displayed on the Natural ground subsidence - Landslides map on [page 83](#) >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 84](#)

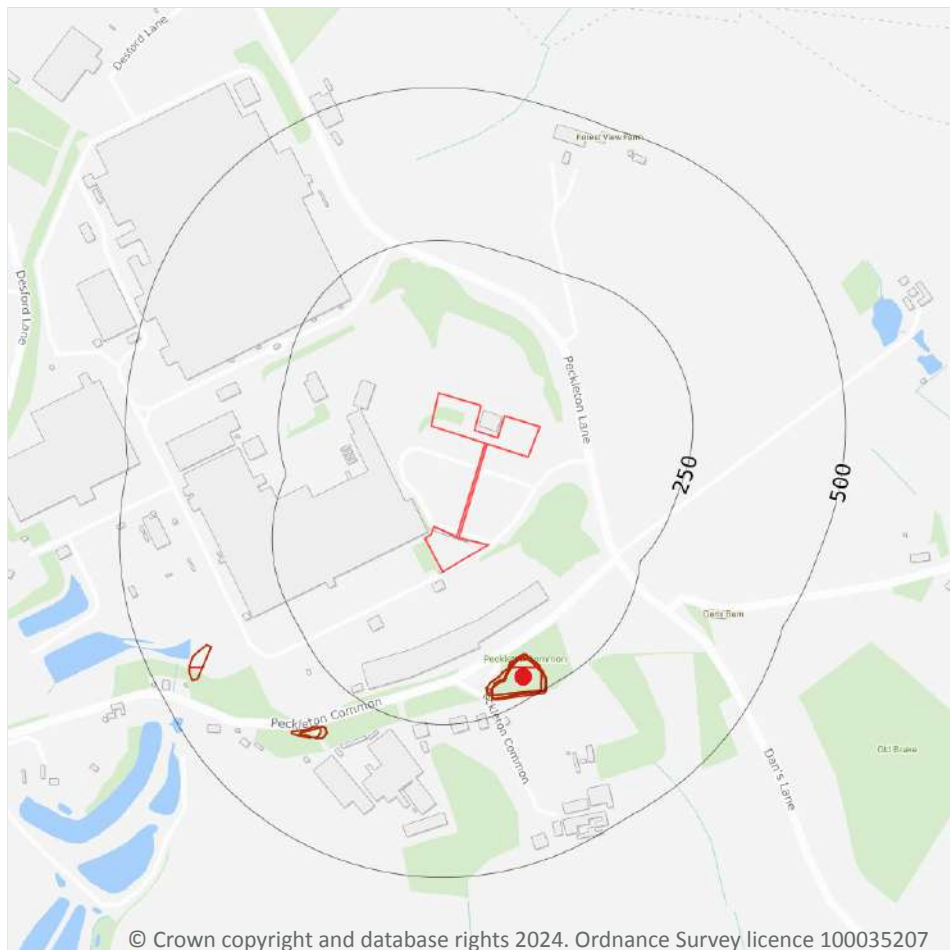
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 86](#) >

ID	Location	Details	Description
A	214m S	Name: Peckleton Common Gravel Pit Address: Peckleton, LEICESTER, Leicestershire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	5
----------------------------	----------

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 86 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	183m S	Old Gravel Pit	1938	1:10560
A	183m S	Old Gravel Pit	1914	1:10560
A	184m S	Old Gravel Pit	1903	1:10560
A	184m S	Old Gravel Pit	1885	1:10560
A	186m S	Old Gravel Pit	1950	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0
-----------------------------	----------

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m**0**

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**0**

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m**0**

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site**1**

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) may have information such as mining plans and maps held within their archive that have occurred within 1km of this property. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk ↗.

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m**0**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, 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 Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m**0**

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**0**

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.



18.12 Coal mining

Records on site	0
-----------------	---

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0
-----------------	---

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

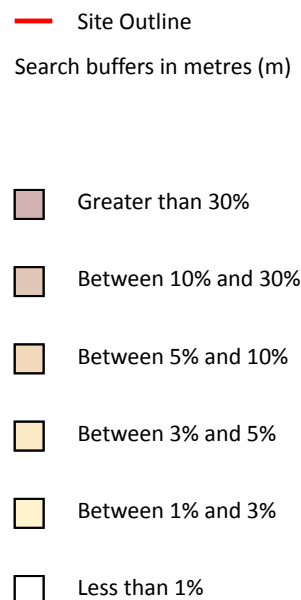
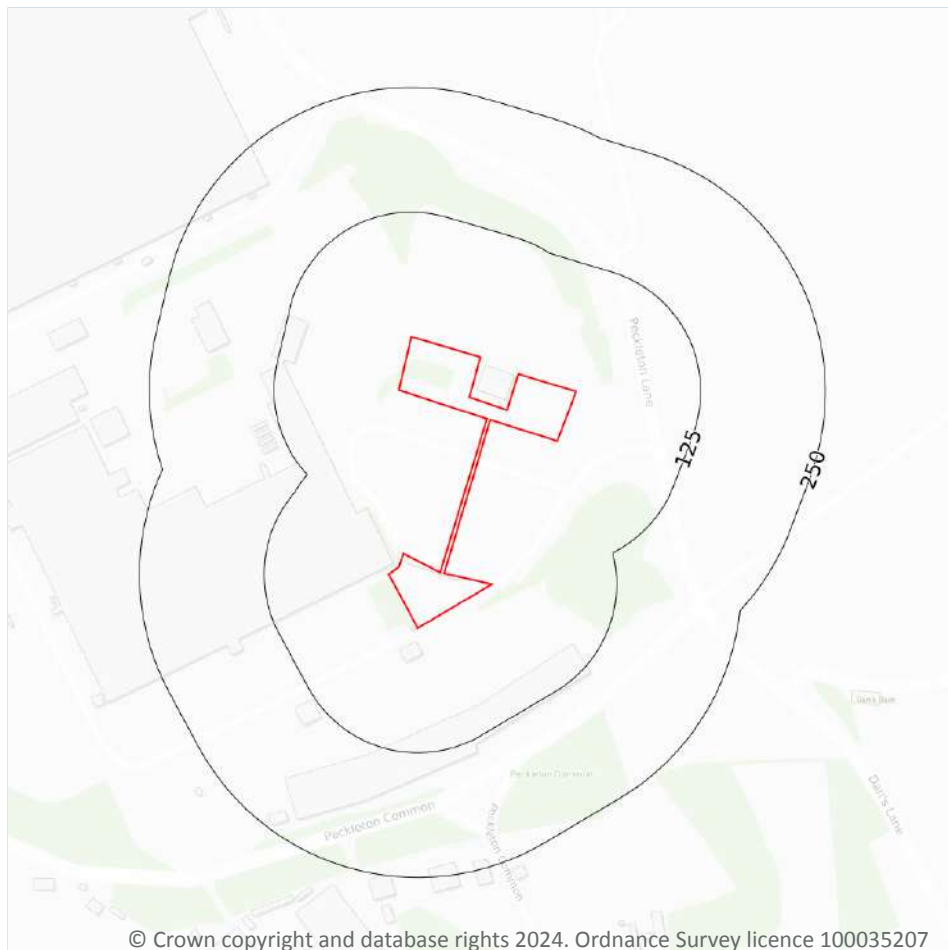
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 93](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None



This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

3

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg
44m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	20 - 40 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m**0**

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m**0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m**0**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m**0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

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Site Details:

448398.7922964666,301717.96
96641788

Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1886

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

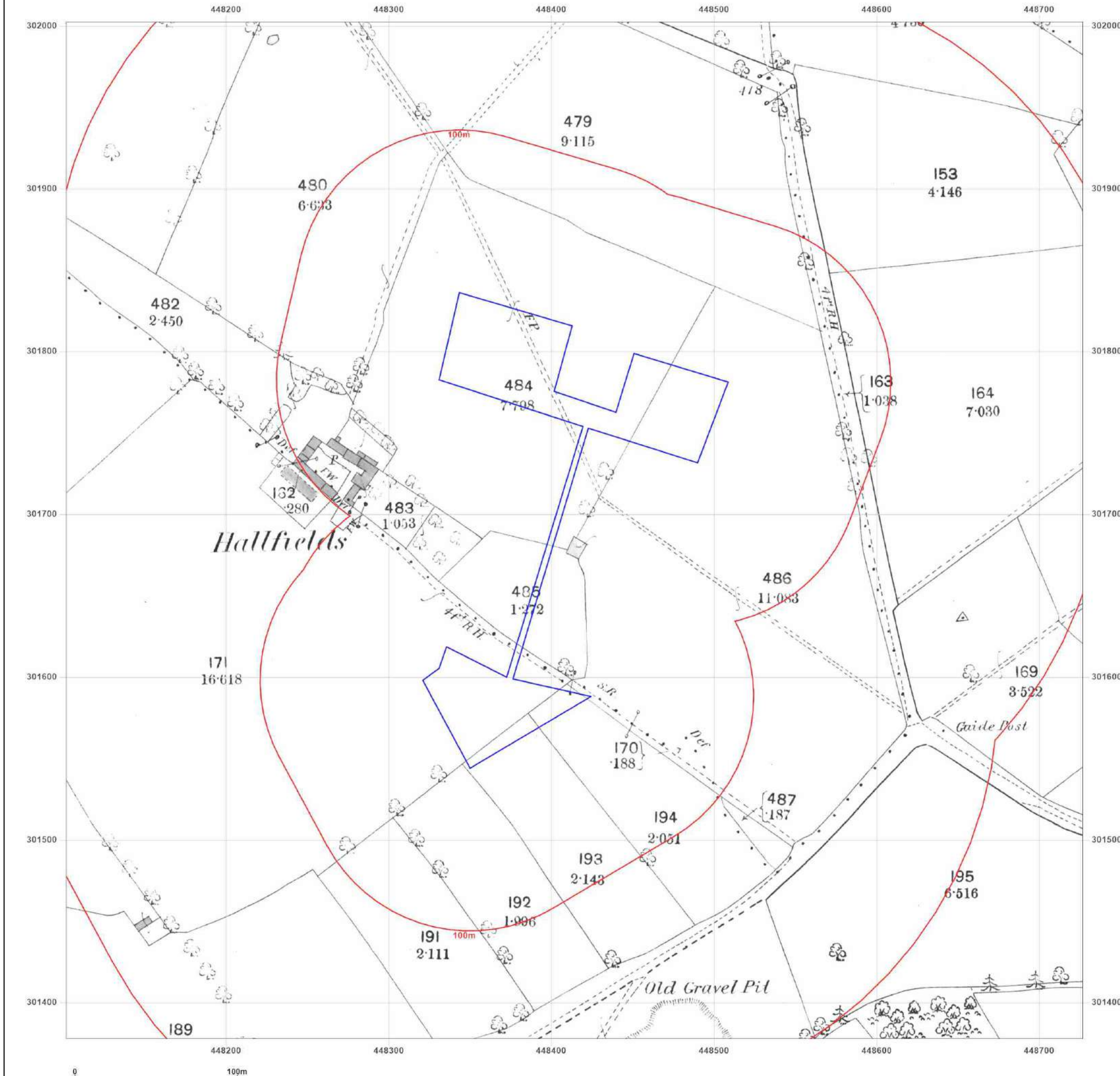


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448398.7922964666,301717.96
96641788

Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1903

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1903
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

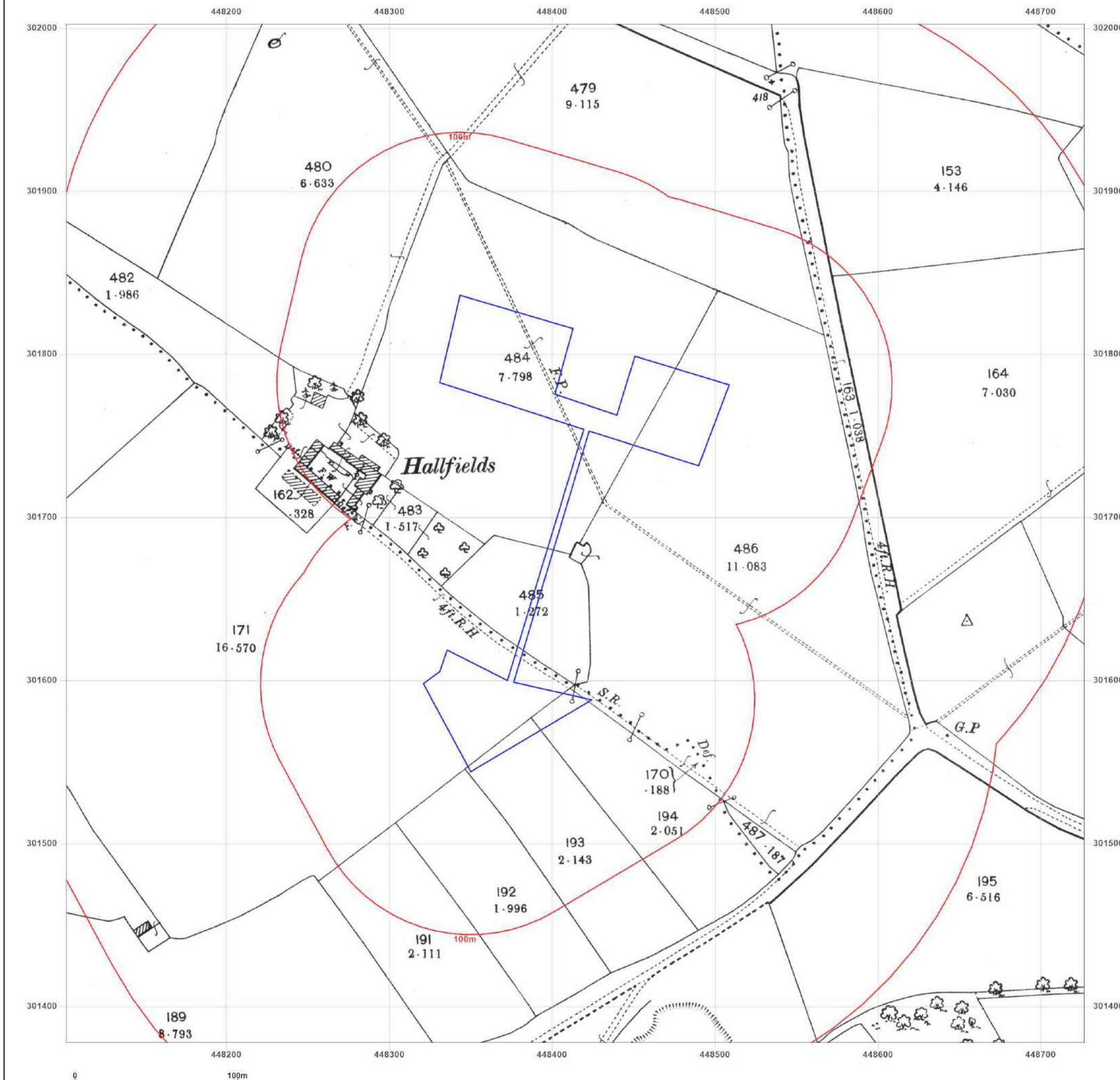


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1916

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1916
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A

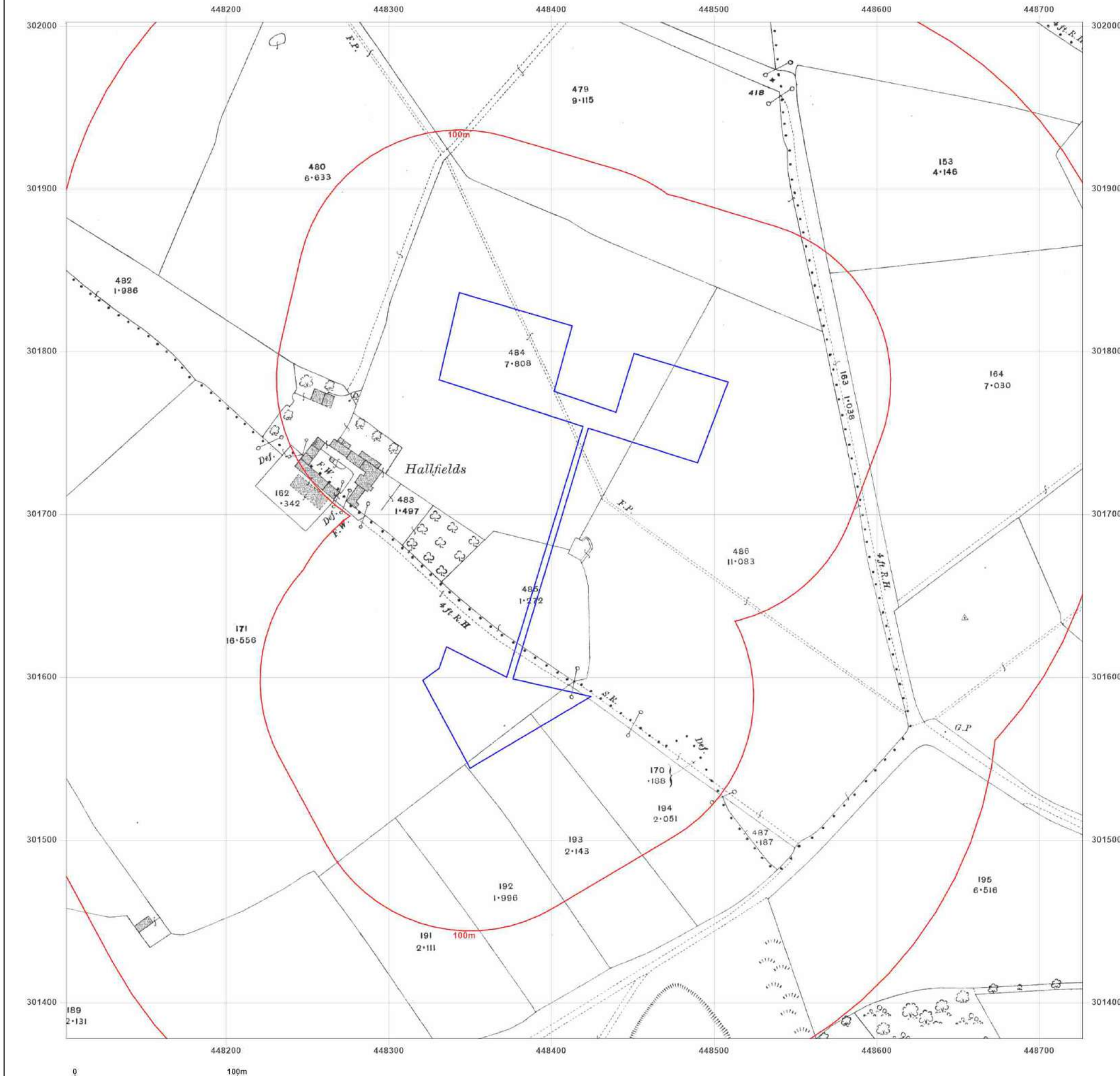


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1961

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1961
Revised 1961
Edition N/A
Copyright 1963
Levelled 1958

Surveyed 1961
Revised 1961
Edition N/A
Copyright 1962
Levelled 1958

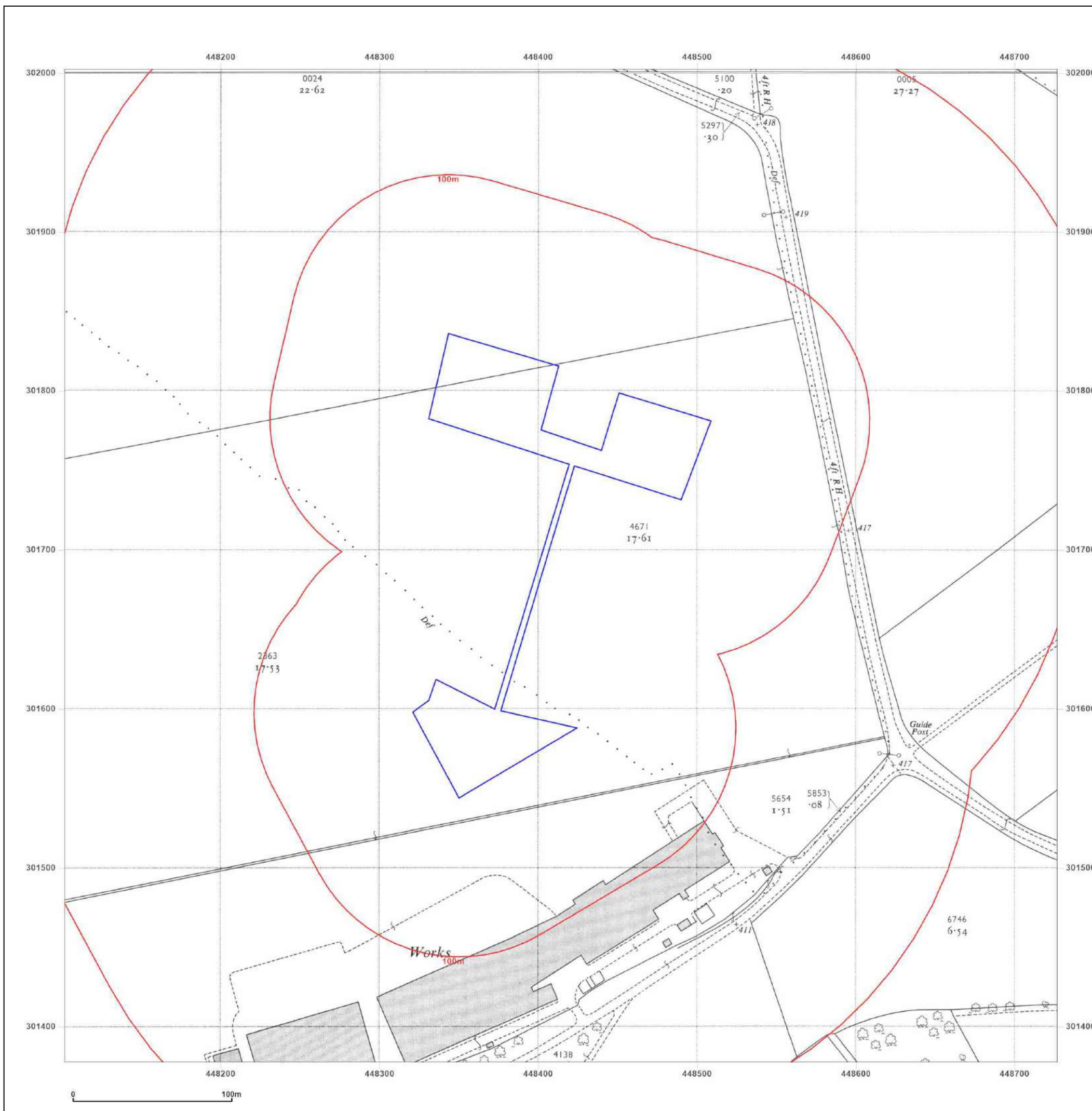


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Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1958-1963

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
Edition N/A
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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1980

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

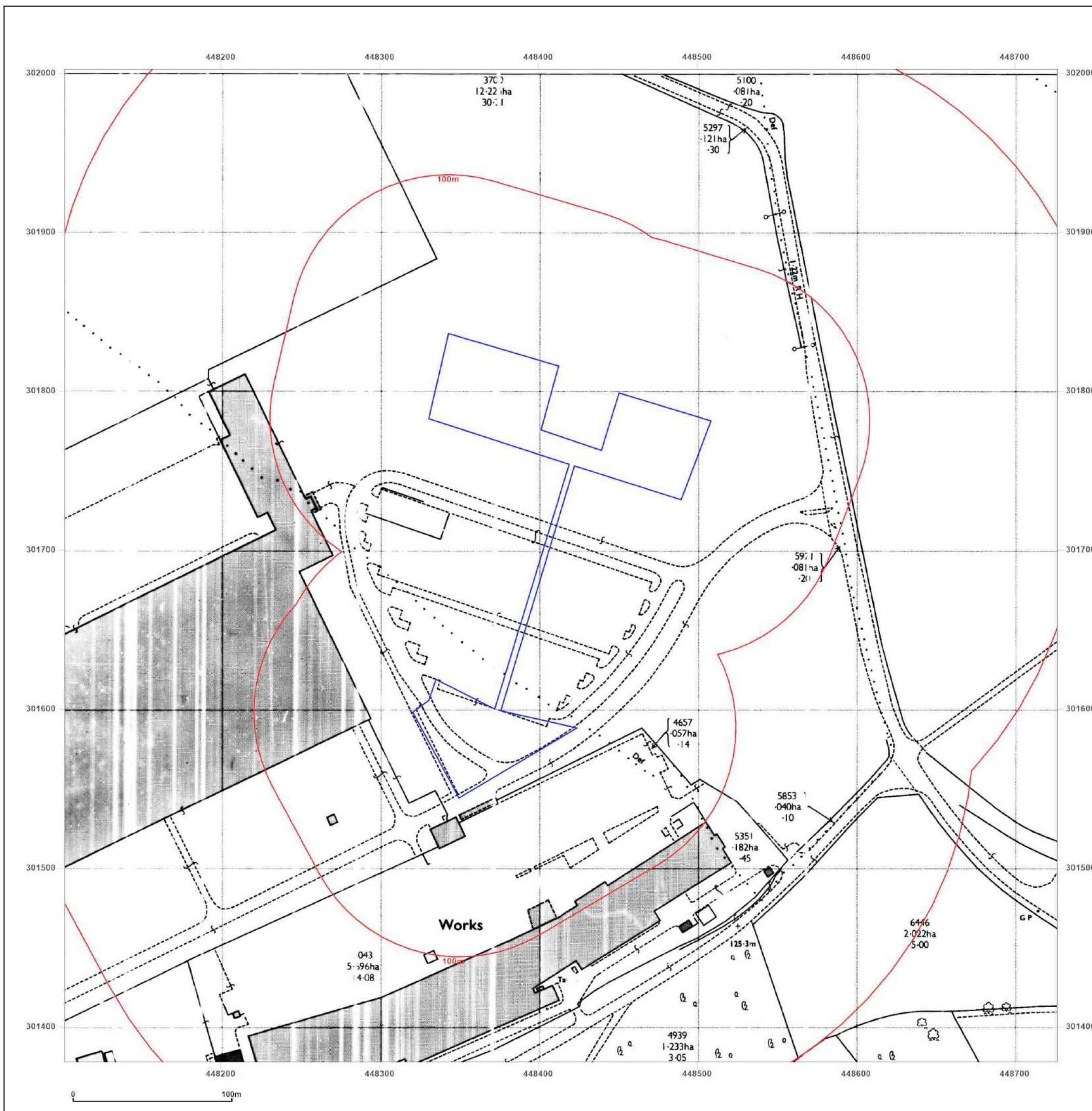


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1979-1984

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1979
Revised 1979
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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

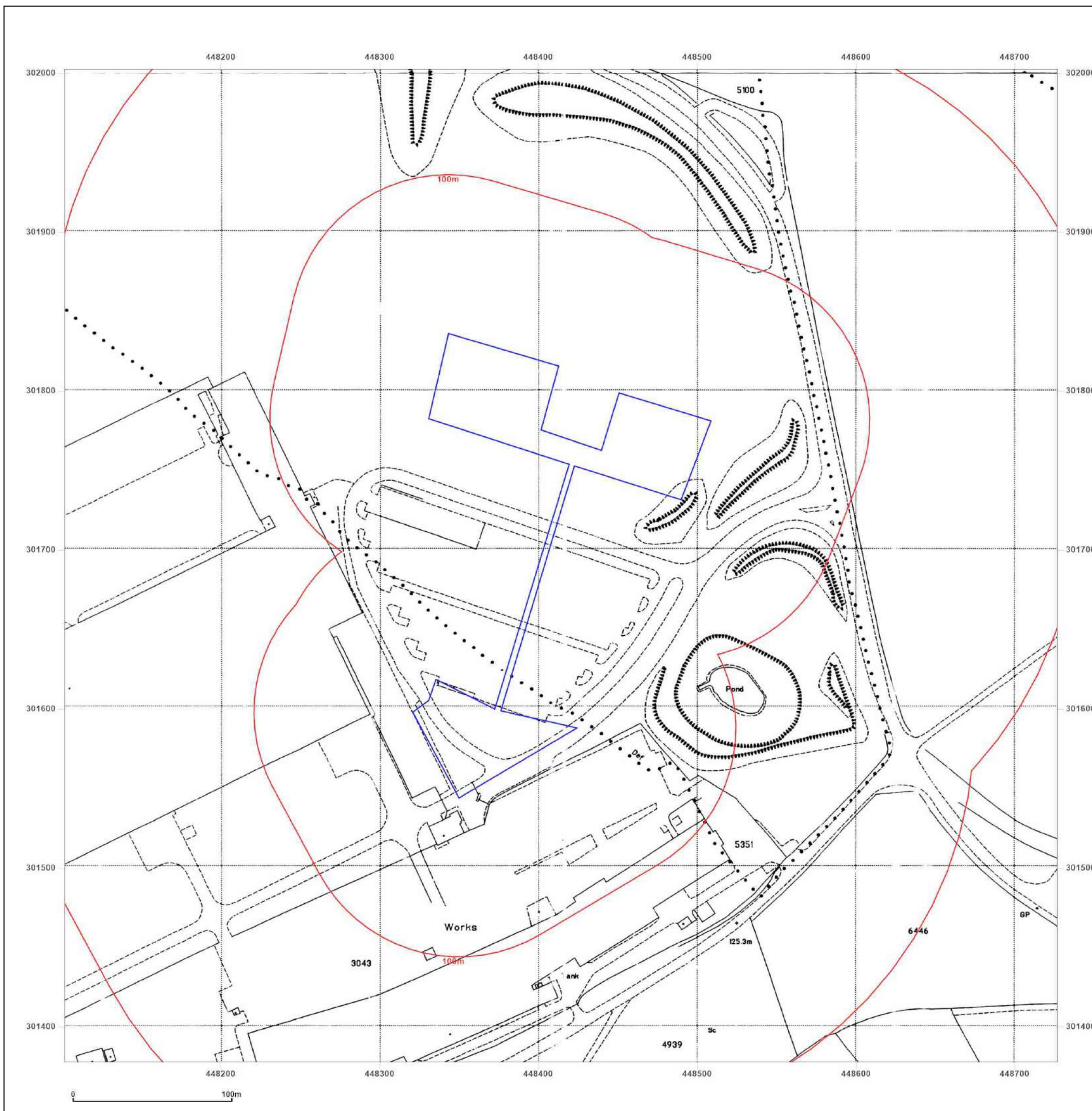


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003

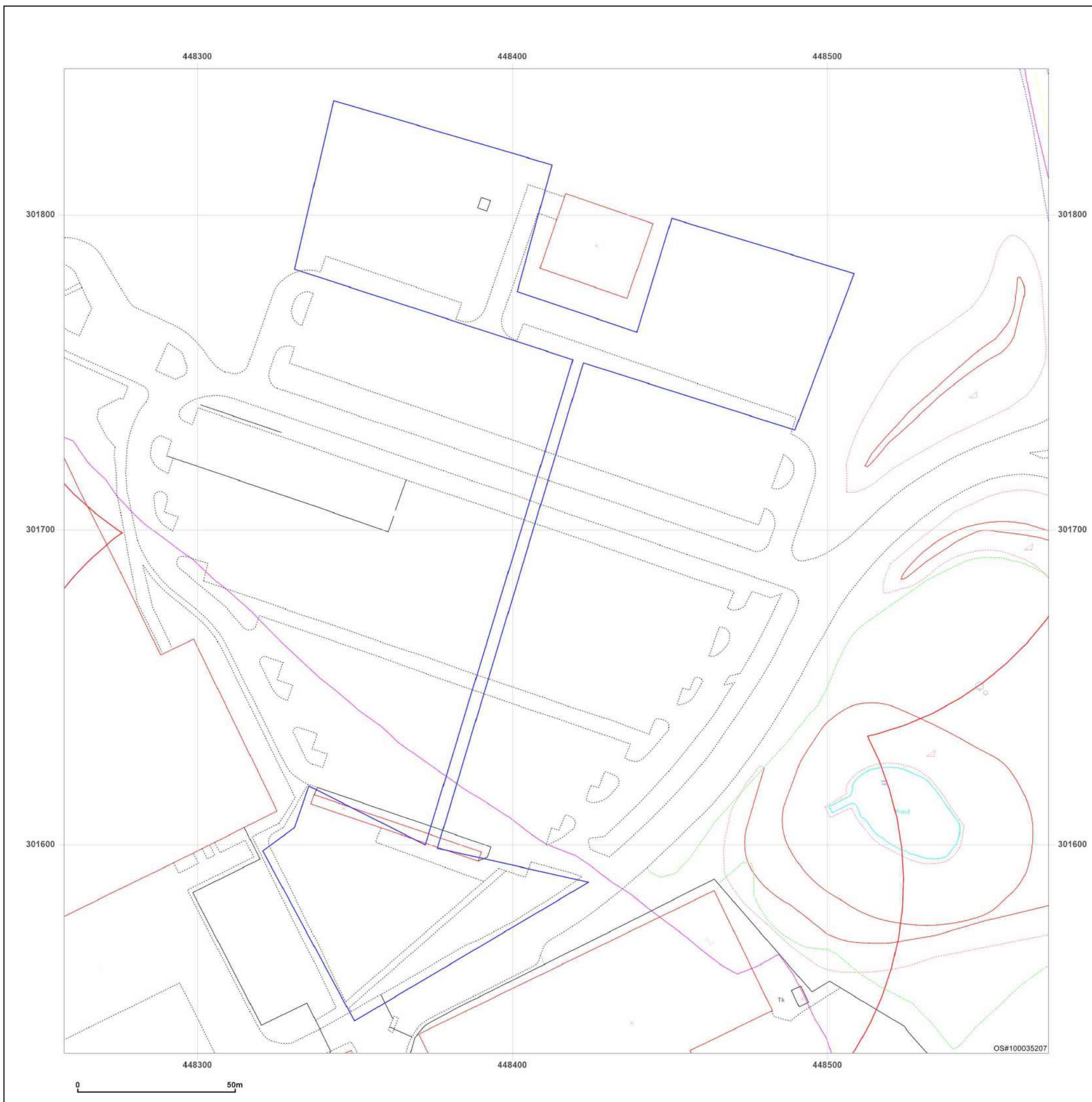


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96641788

Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1885

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1885
Revised 1885
Edition N/A
Copyright N/A
Levelled N/A

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Revised 1885
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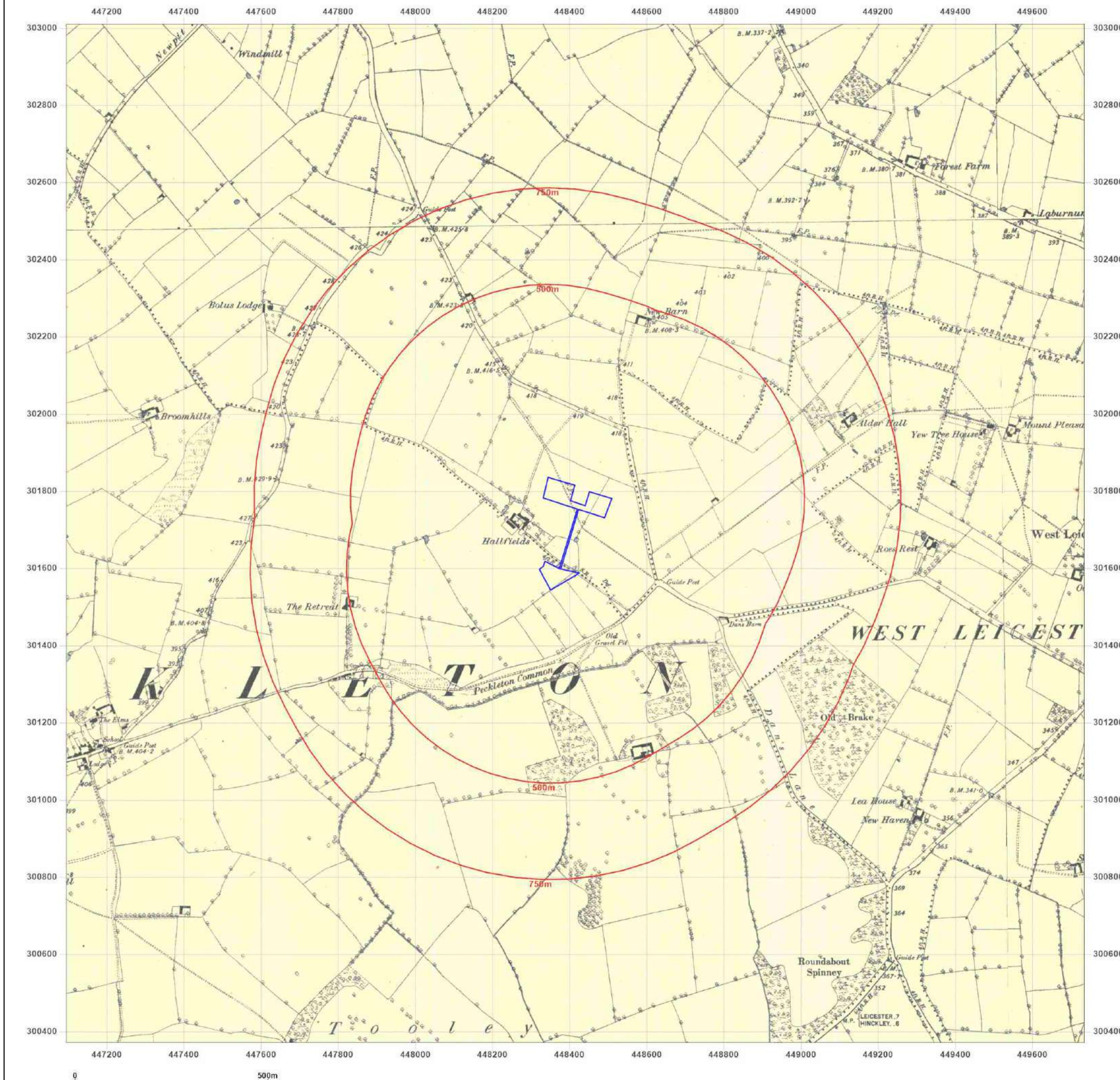


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96641788

Client Ref: M0913
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Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1901-1904

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1885
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1885
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

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Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

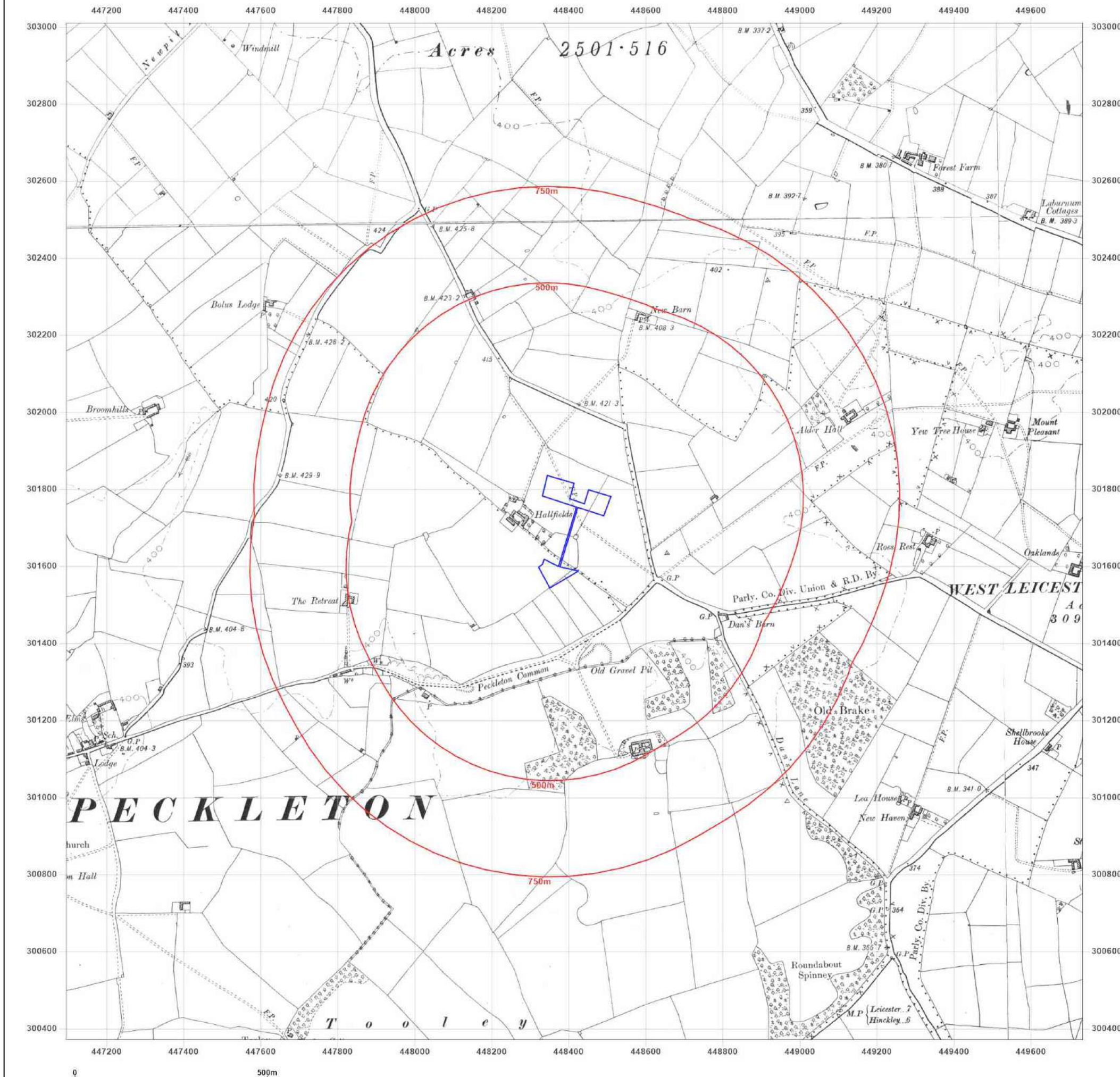


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1914-1919

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1884
Revised 1919
Edition N/A
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Levelled N/A

Surveyed 1886
Revised 1914
Edition N/A
Copyright N/A
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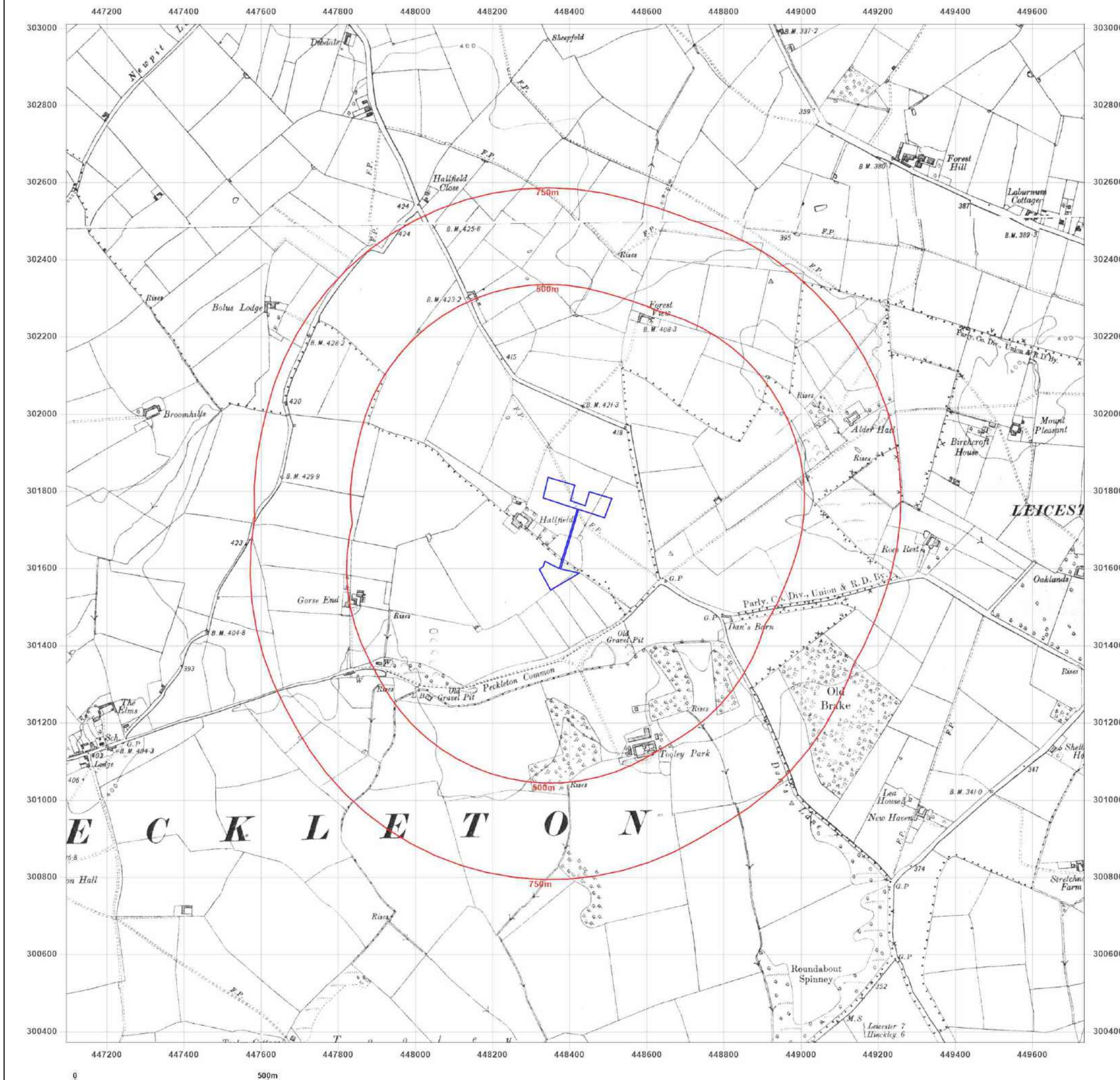


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Grid Ref: 448414, 301690

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1884
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

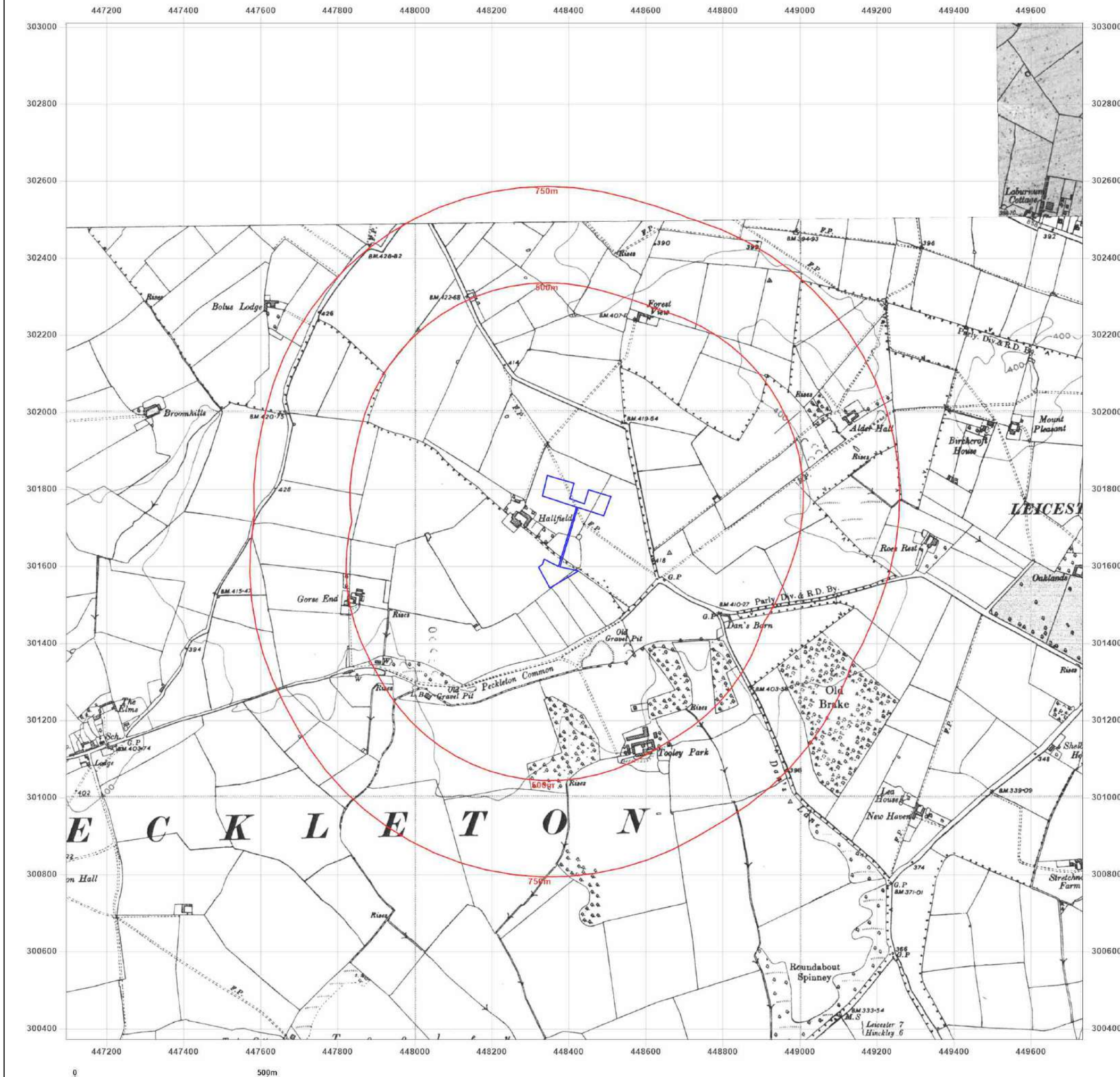


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Client Ref: M0913
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Grid Ref: 448414, 301690

Map Name: Provisional

Map date: 1966

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
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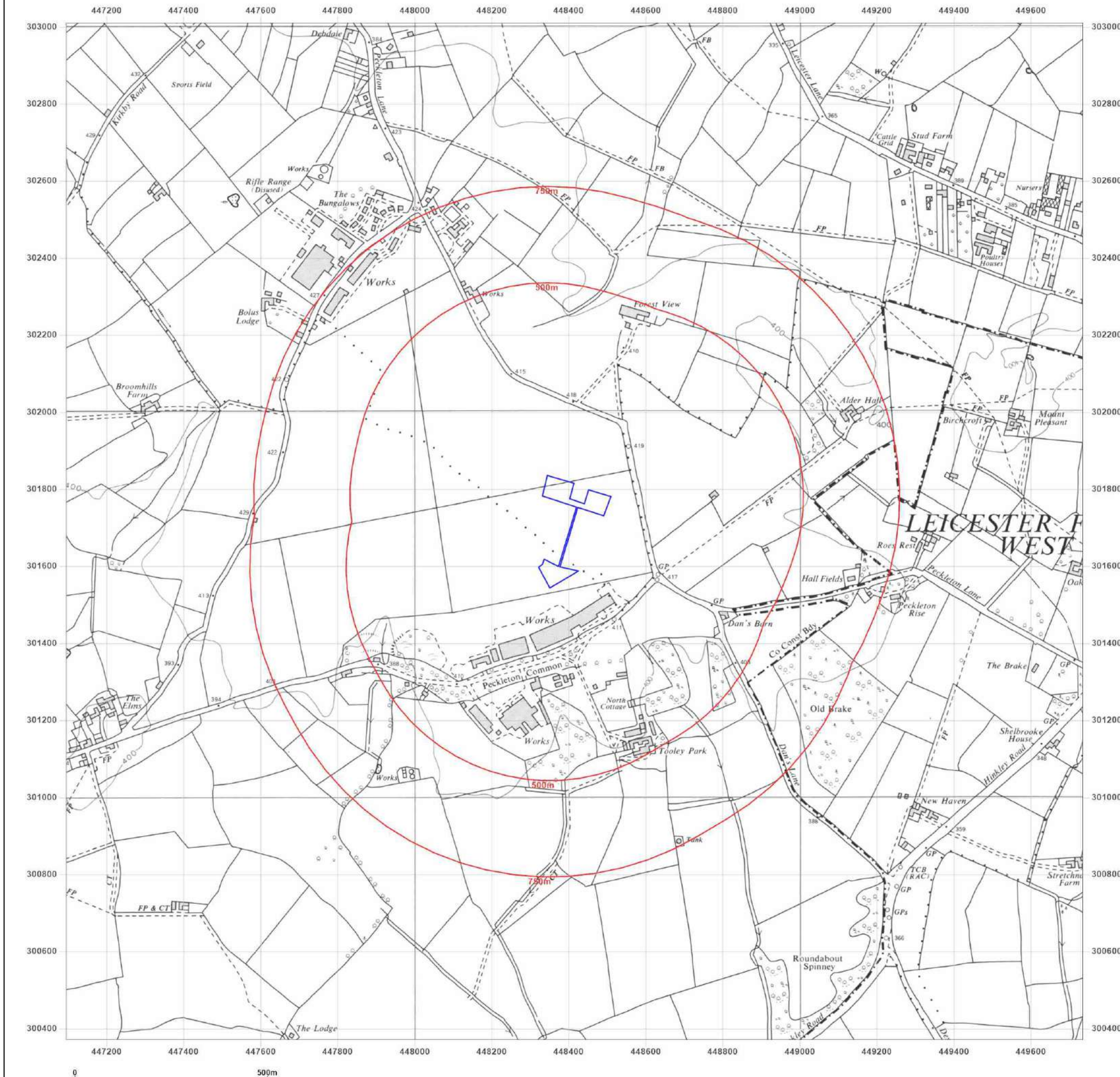


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Client Ref: M0913
Report Ref: GS-6U7-2UG-8NN-8BI
Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 1980

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1979
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

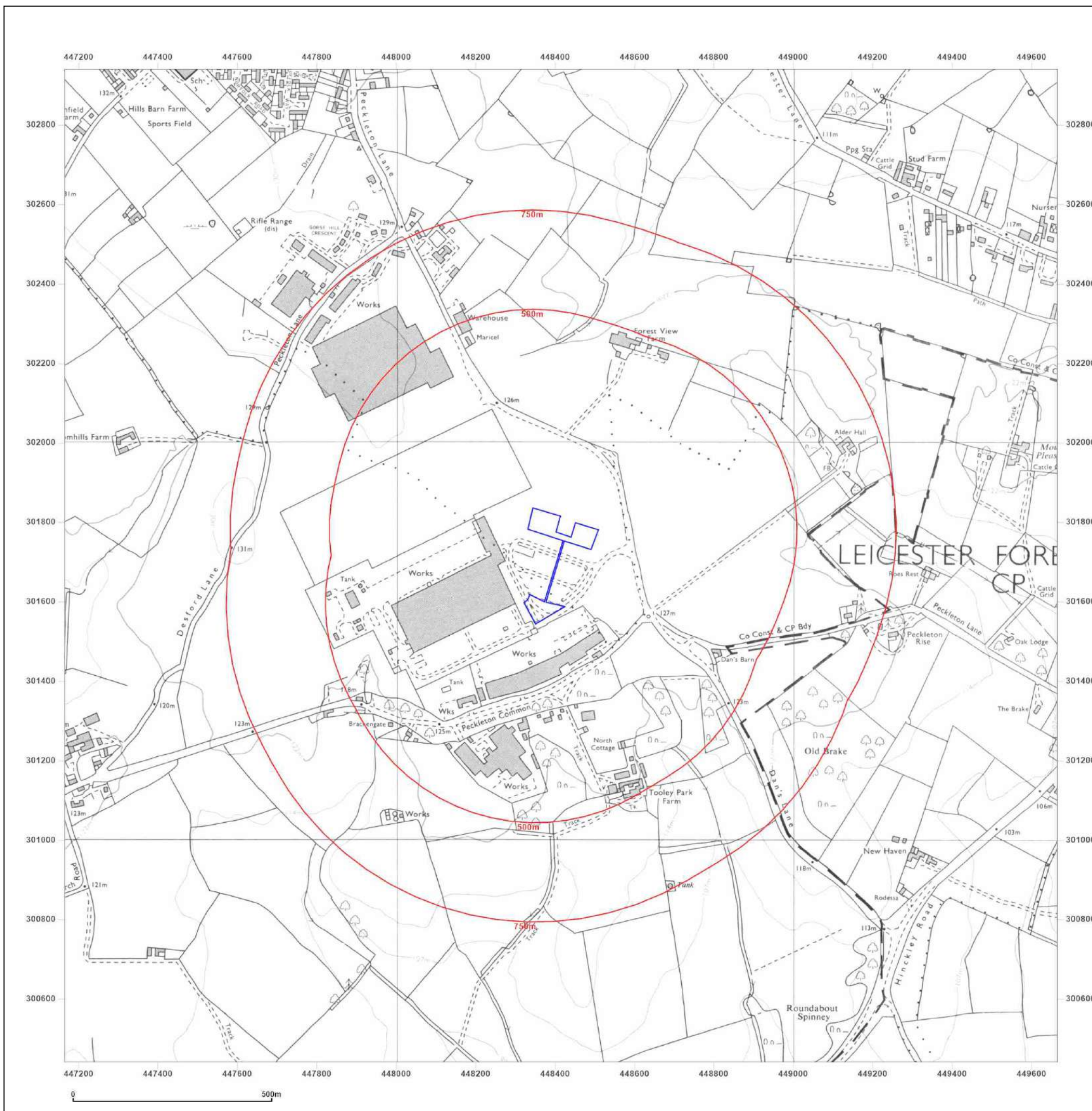


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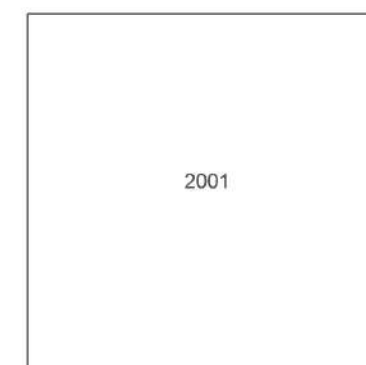
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Grid Ref: 448414, 301690

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

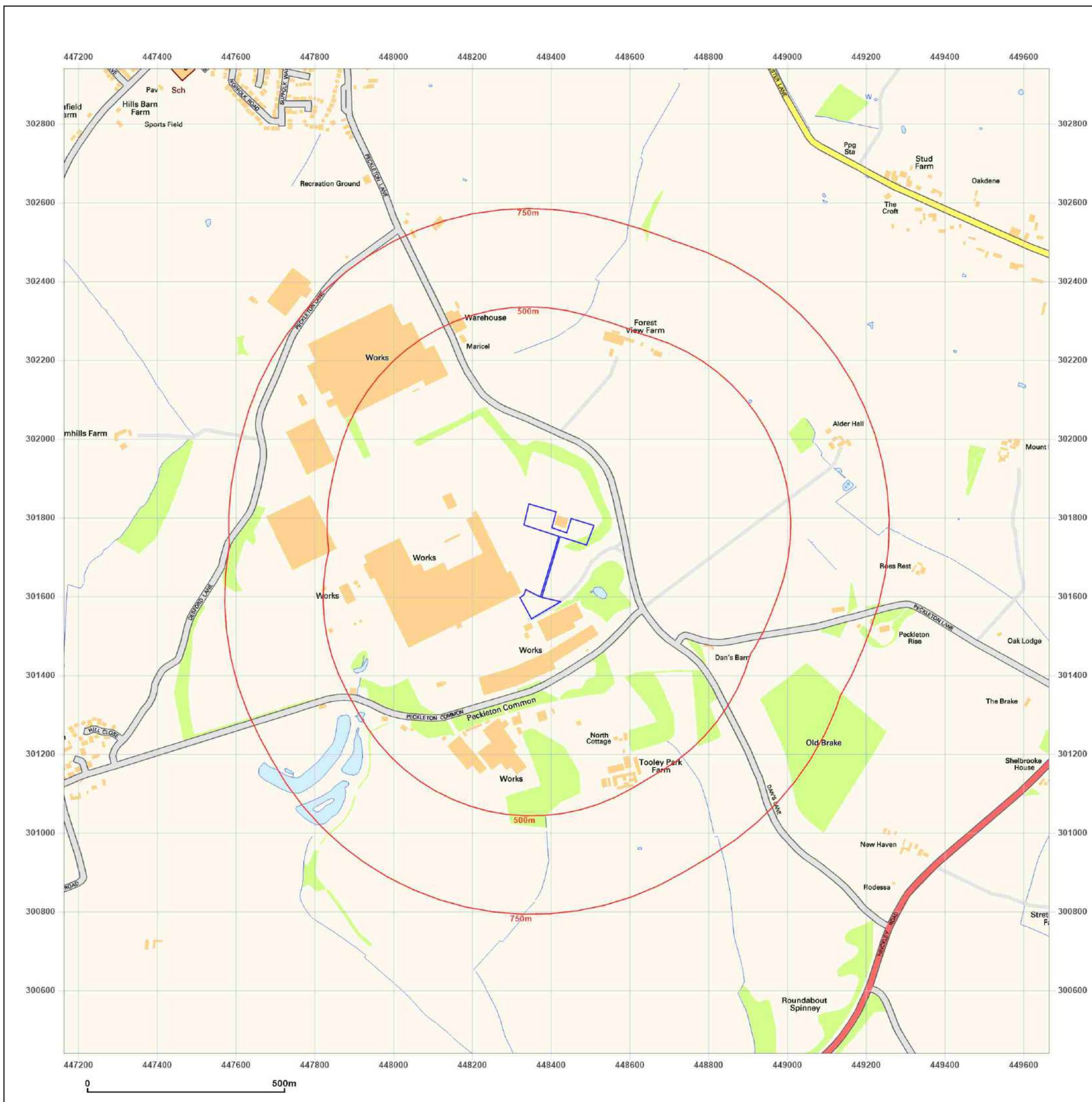


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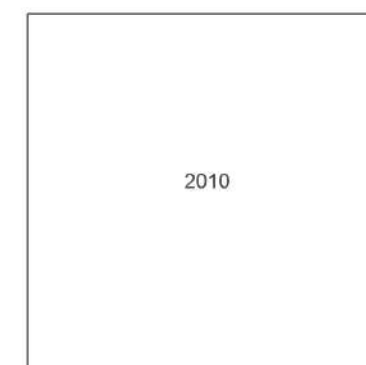
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Map Name: National Grid

Map date: 2010

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Printed at: 1:10,000

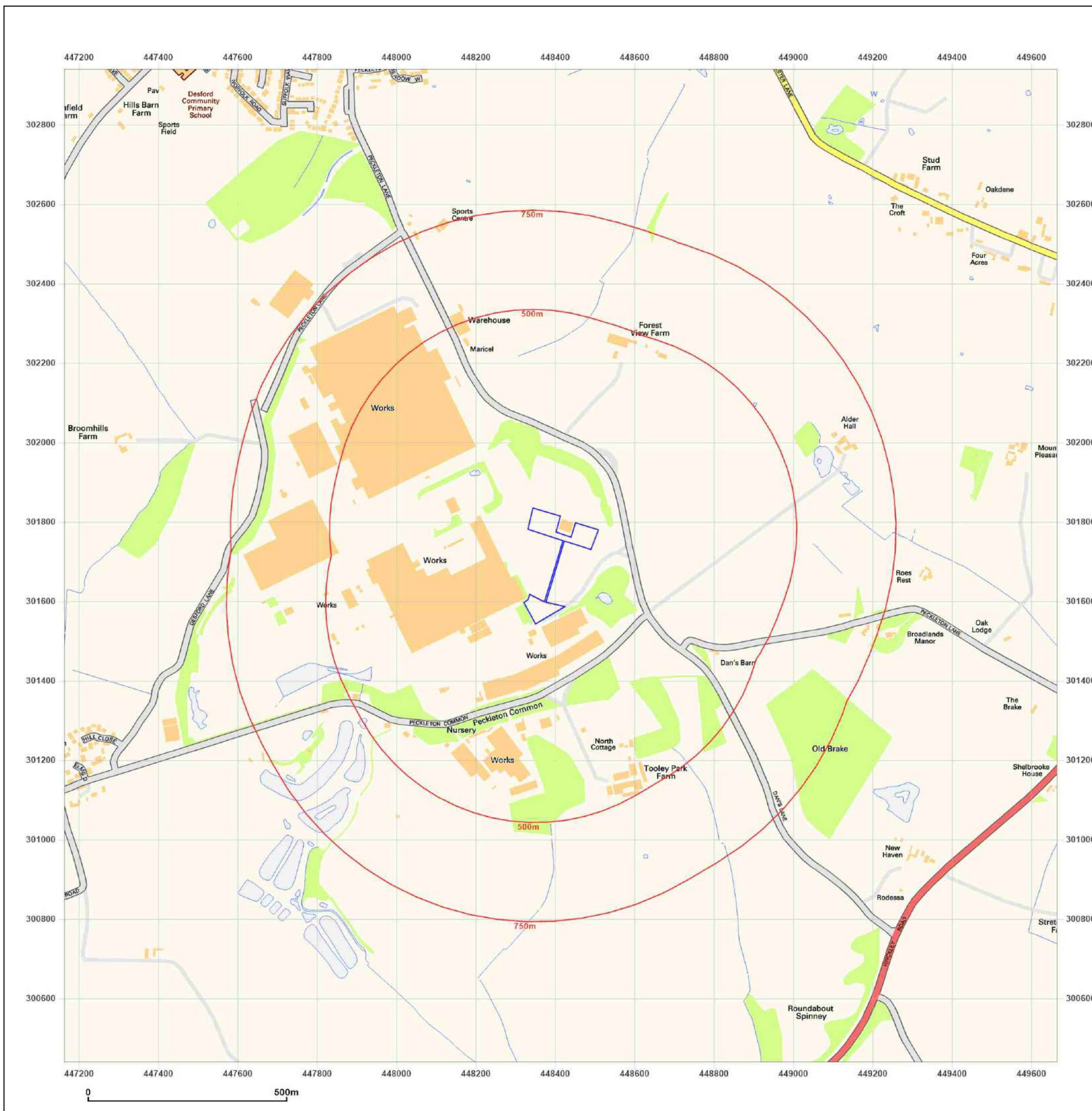


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APPENDIX 2

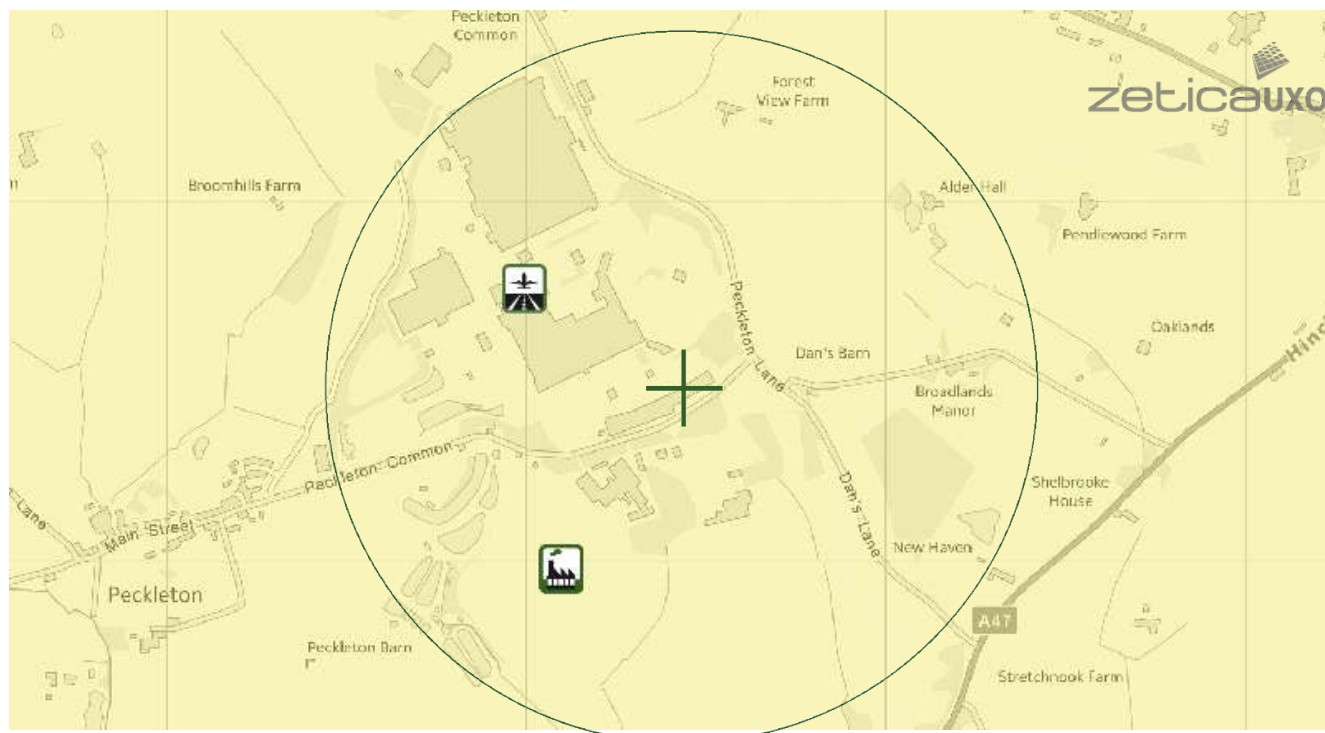
ZETICA UXO RISK MAP

UNEXPLODED BOMB RISK MAP



SITE LOCATION

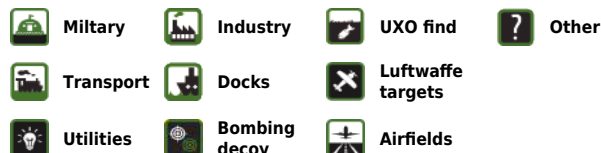
Map Centre: 448401,301531



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to uxo@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

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APPENDIX 3

SITE WALKOVER PHOTOS

Earth Environmental & Geotechnical Ltd

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Report Number: M0913

Plate 1 – View looking towards the south of section C.



Date: 29th February 2024

Plate 3 – View of the southwest of section C.



Date: 29th February 2024

SITE WALKOVER PHOTOGRAPHS



Report Title: Caterpillar UK

Plate 2 – View from east of section A.



Date: 29th February 2024

Plate 4 – View east towards section B.



Date: 29th February 2024

Earth Environmental & Geotechnical Ltd

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Report Number: M0913

Plate 5 – View west of section A.



Date: 29th February 2024

SITE WALKOVER PHOTOGRAPHS



Report Title: Caterpillar UK

Plate 6 – View north of section A.



Date: 29th February 2024

APPENDIX 4

REPORT LIMITATIONS

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2024 and should be read in light of any subsequent changes in legislation, statutory requirements, and industry best practices. Ground conditions can also change over time and further investigations, or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

REPORT LIMITATIONS

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.