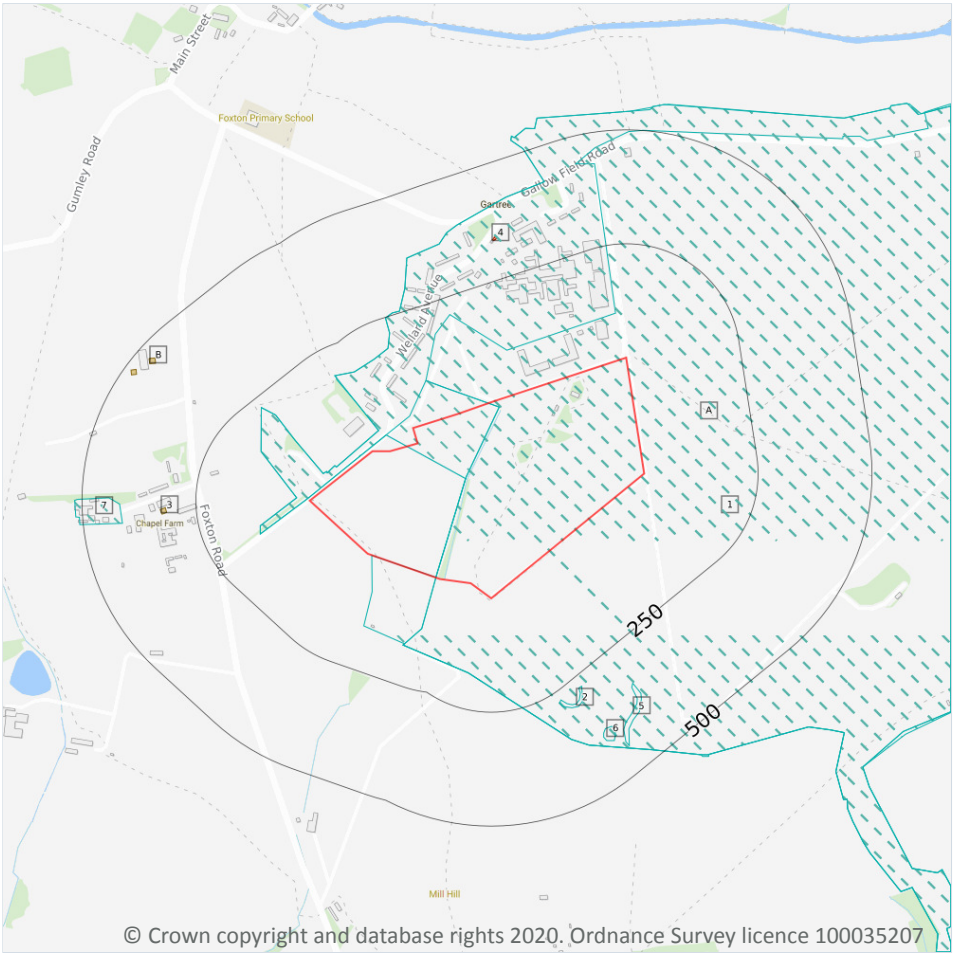
1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	7

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 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 un-grouped 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 12**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Airfield**	**1974**	**1796999**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Airfield**	**1950 - 1957**	**1848730**
A	**On site**	**Airfield**	**1968 - 1983**	**1849029**
2	271m SE	Unspecified Ground Workings	1968 - 1974	1817021
5	341m SE	Unspecified Ground Workings	1968 - 1974	1837994
6	380m SE	Unspecified Heap	1968 - 1974	1814867
7	414m W	Unspecified Works	1990	1771342

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m **3**

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 un-grouped 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 12**

ID	Location	Land use	Dates present	Group ID
3	315m W	Unspecified Tank	1960	283389
B	453m NW	Unspecified Tank	1960 - 1991	300768
B	471m NW	Unspecified Tank	1960	283384

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 un-grouped 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 12**

ID	Location	Land use	Dates present	Group ID
4	335m N	Electricity Substation	1976 - 1993	184260

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 un-grouped 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 un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

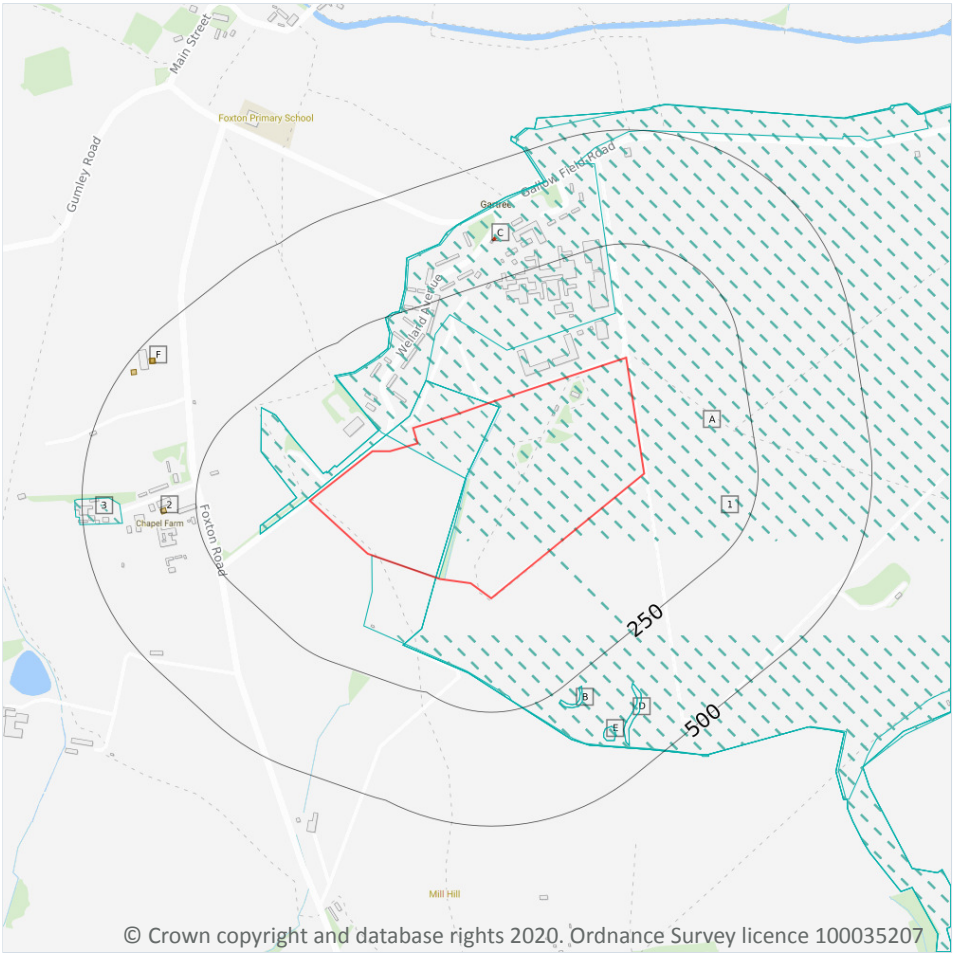
1.6 Historical military land

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

2.1 Historical industrial land uses

Records within 500m	12

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 15**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Airfield**	**1974**	**1796999**
A	**On site**	**Airfield**	**1950**	**1848730**
A	**On site**	**Airfield**	**1957**	**1848730**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Airfield**	**1983**	**1849029**
A	**On site**	**Airfield**	**1968**	**1849029**
B	271m SE	Unspecified Ground Workings	1968	1817021
B	271m SE	Unspecified Ground Workings	1974	1817021
D	341m SE	Unspecified Ground Workings	1968	1837994
D	341m SE	Unspecified Ground Workings	1974	1837994
E	380m SE	Unspecified Heap	1968	1814867
E	380m SE	Unspecified Heap	1974	1814867
3	414m W	Unspecified Works	1990	1771342

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**4**

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 15**

ID	Location	Land Use	Date	Group ID
2	315m W	Unspecified Tank	1960	283389
F	453m NW	Unspecified Tank	1960	300768
F	455m NW	Unspecified Tank	1991	300768
F	471m NW	Unspecified Tank	1960	283384

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**3**

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 15**

ID	Location	Land Use	Date	Group ID
C	335m N	Electricity Substation	1993	184260
C	336m N	Electricity Substation	1976	184260
C	336m N	Electricity Substation	1991	184260

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.

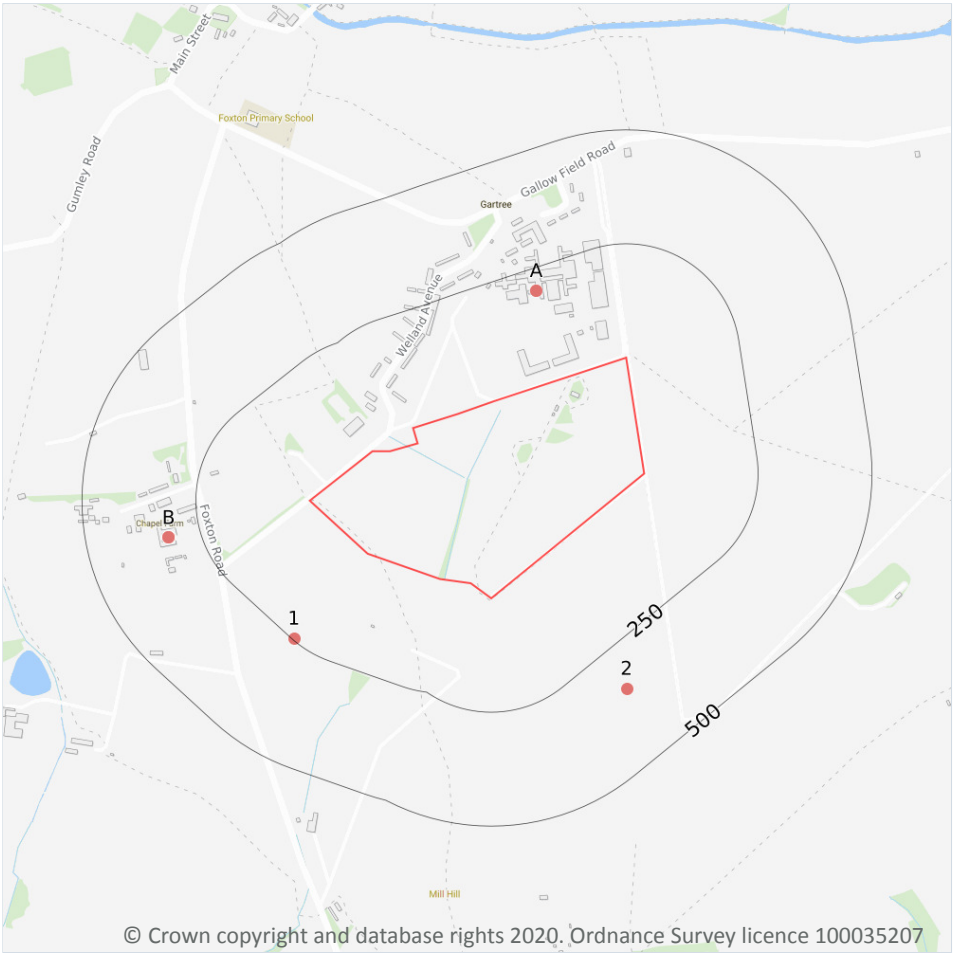
2.5 Historical garages

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	27

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 18**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	200m N	GARTREE, MARKET HARBOROUGH, LE16 7RP	WEX175923	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

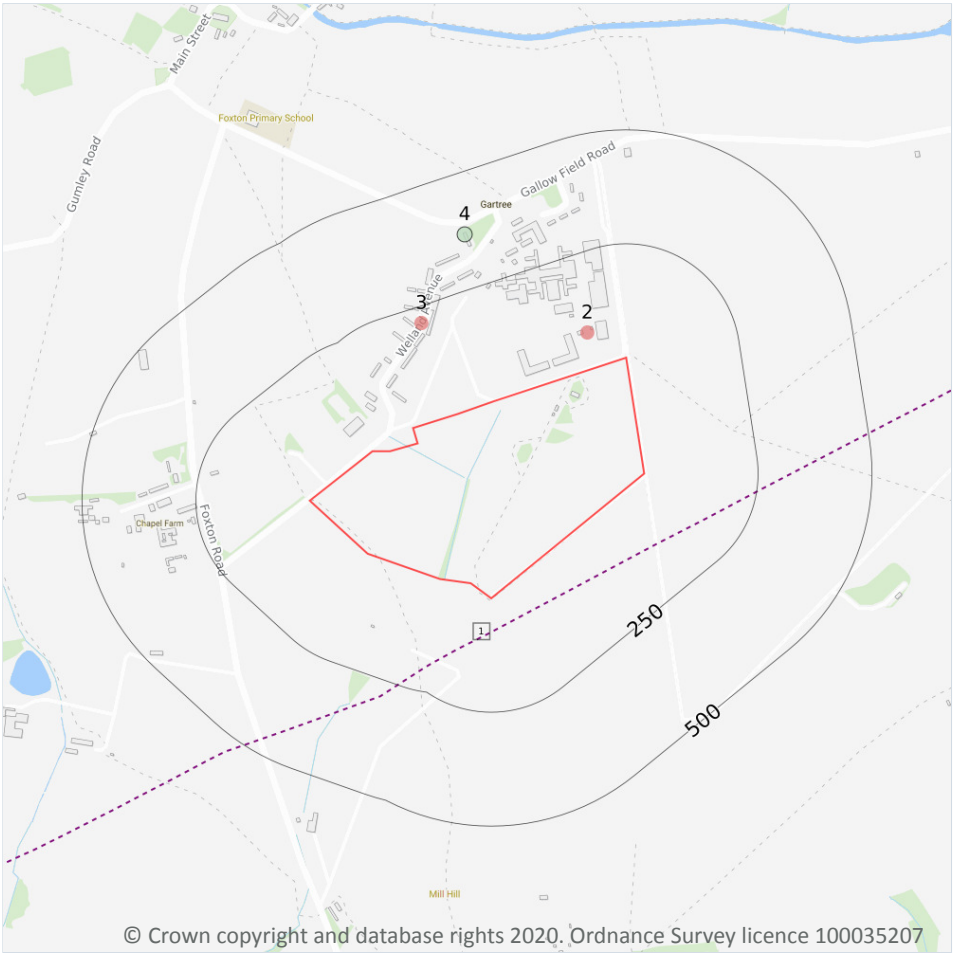
ID	Location	Site	Reference	Category	Sub-Category	Description
A	200m N	GARTREE, MARKET HARBOROUGH, LE16 7RP	WEX175923	Storing waste exemption	Not on a farm	Storage of waste in a secure place
1	247m SW	THE OAKS, GUMLEY ROAD, THEDDINGWORTH, LUTTERWORTH, LE17 6QJ	WEX118254	Storing waste exemption	On a farm	Storage of sludge
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Disposing of waste exemption	On a Farm	Burning waste in the open
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Treating waste exemption	On a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Treating waste exemption	On a Farm	Screening and blending of waste
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Using waste exemption	On a Farm	Spreading of plant matter to confer benefit
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Using waste exemption	On a Farm	Use of waste for a specified purpose
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX201864	Using waste exemption	On a Farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Disposing of waste exemption	On a farm	Burning waste in the open
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Treating waste exemption	On a farm	Screening and blending of waste
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Using waste exemption	On a farm	Use of waste in construction
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
B	321m W	CHAPEL FARM, FOXTON ROAD, LUBENHAM, MARKET HARBOROUGH, LE16 7RY	WEX038985	Using waste exemption	On a farm	Use of waste for a specified purpose
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Deposit of waste from dredging of inland waters
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Screening and blending of waste

ID	Location	Site	Reference	Category	Sub-Category	Description
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
B	322m W	Chapel Farm Foxton Road MARKET HARBOROUGH Rutland LE16 7RY	EPR/HE5986US/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste for a specified purpose
2	342m SE	-	WEX000548	Storing waste exemption	On a farm	Storage of sludge

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

Gas pipelines

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 23**

ID	Location	Company	Address	Activity	Category
2	79m N	Tank	Leicestershire, LE16	Tanks (Generic)	Industrial Features
3	214m N	Electricity Sub Station	Leicestershire, LE16	Electrical Features	Infrastructure and Facilities

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	1

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on **page 23**

ID	Location	Pipe Name	Details	
1	65m SE	DUDDINGTON TO CHURCHOVER	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

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	0

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.

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	0

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

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 23**

ID	Location	Details	
4	368m N	Incident Date: 15/07/2002 Incident Identification: 91811 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	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.

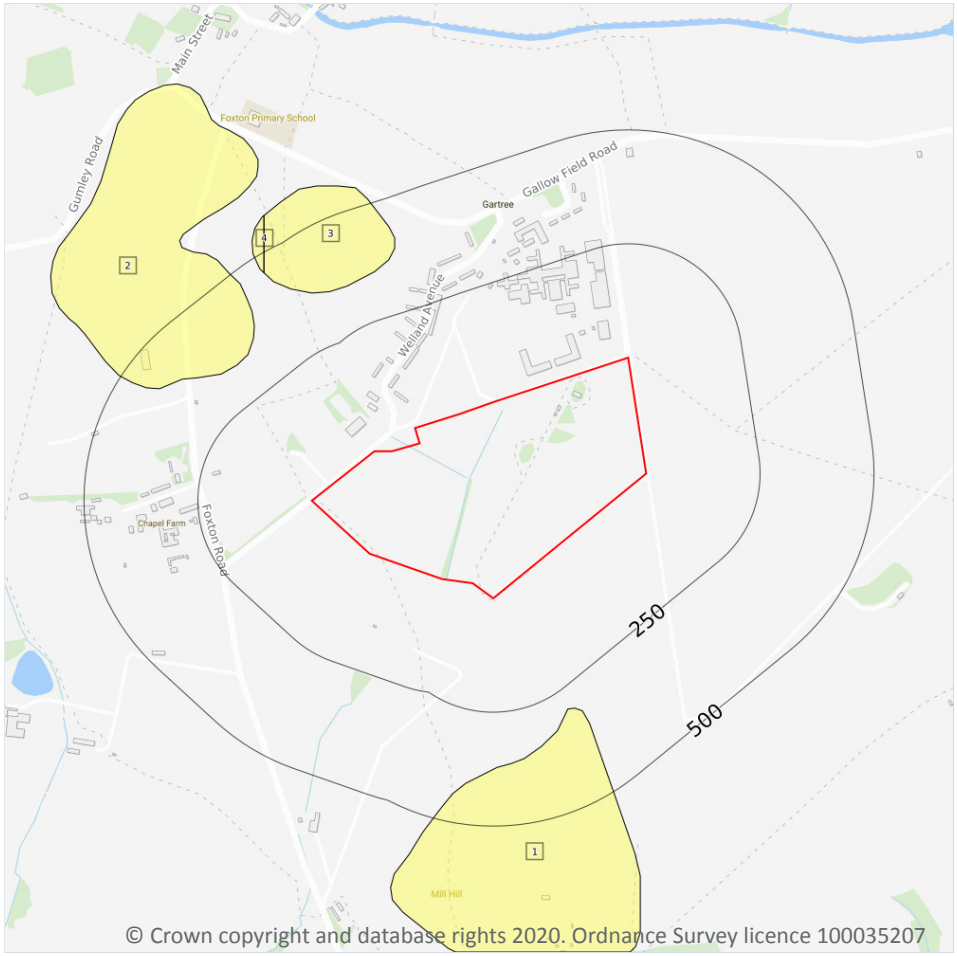
4.21 Pollution inventory radioactive waste

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	4

Aquifer status of groundwater held within superficial geology.

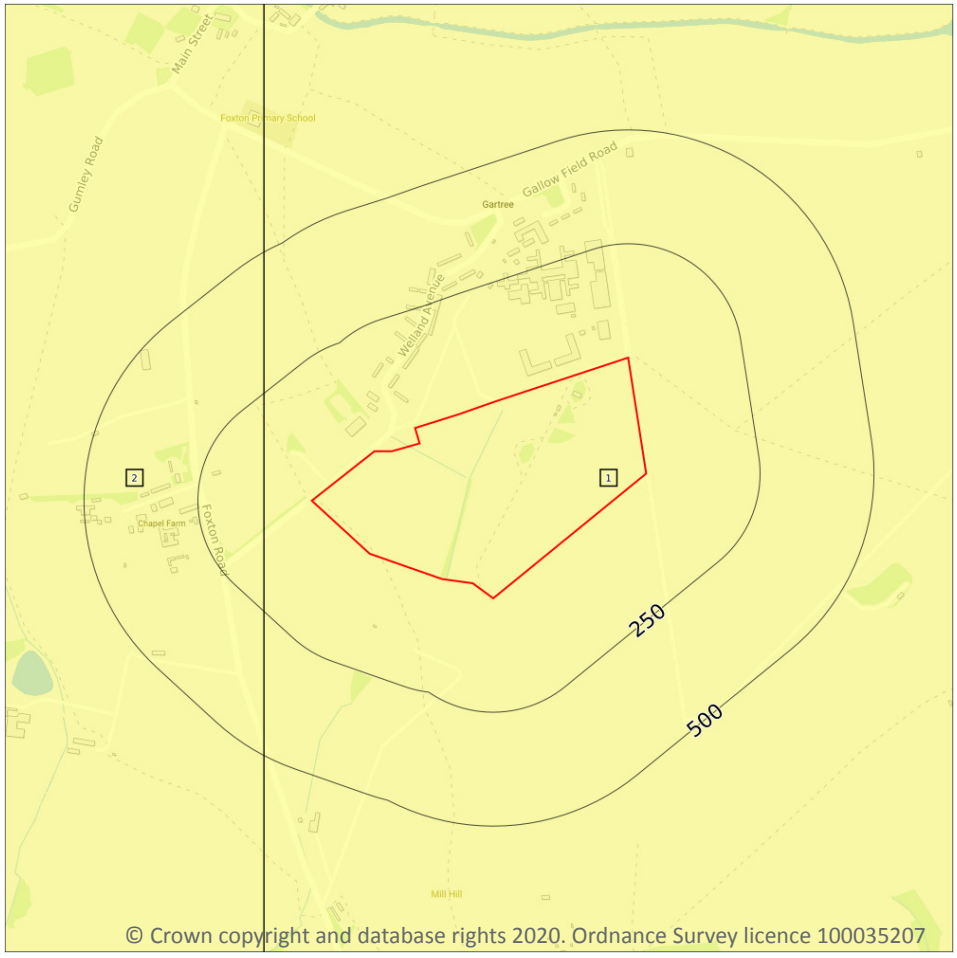
Features are displayed on the Hydrogeology map on **page 29**

ID	Location	Designation	Description
1	293m SE	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
2	335m 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	345m 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
4	461m 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

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	2

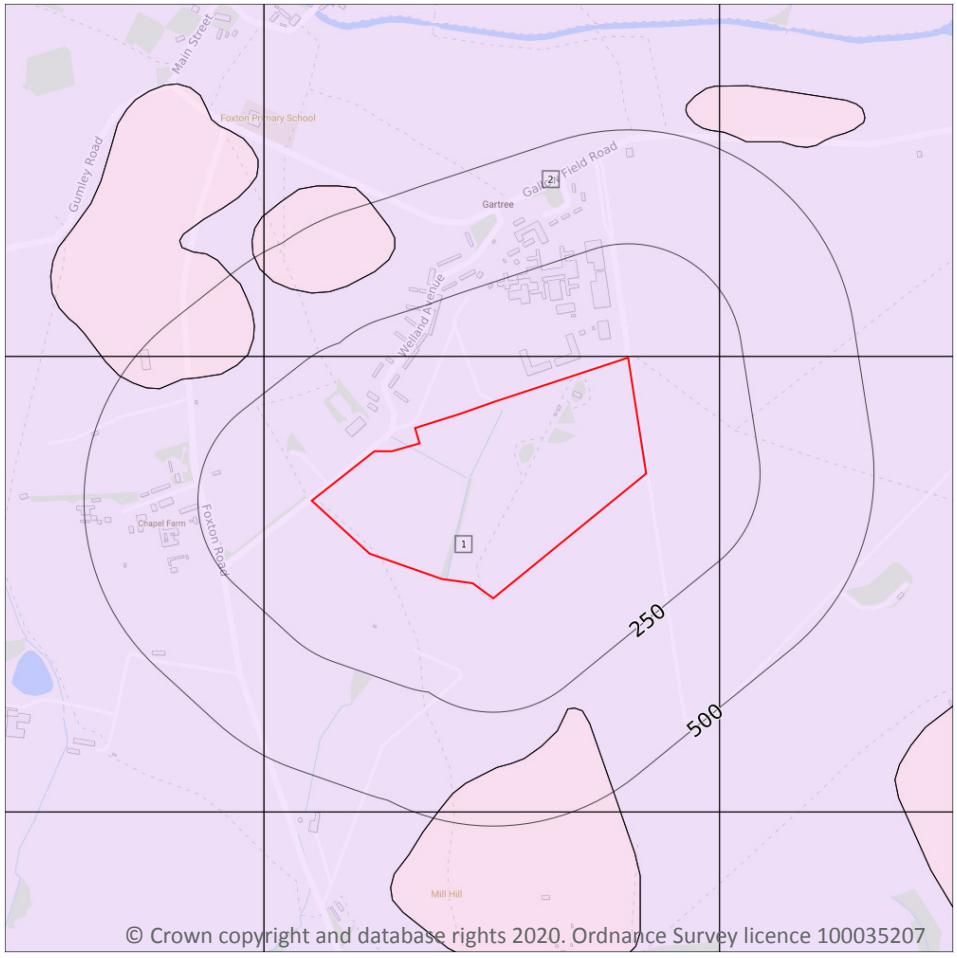
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 31**

ID	Location	Designation	Description
1	**On site**	**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**
2	105m W	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.

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability
- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability
- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information
- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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 33**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Mixed**
2	2m N	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Mixed

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.

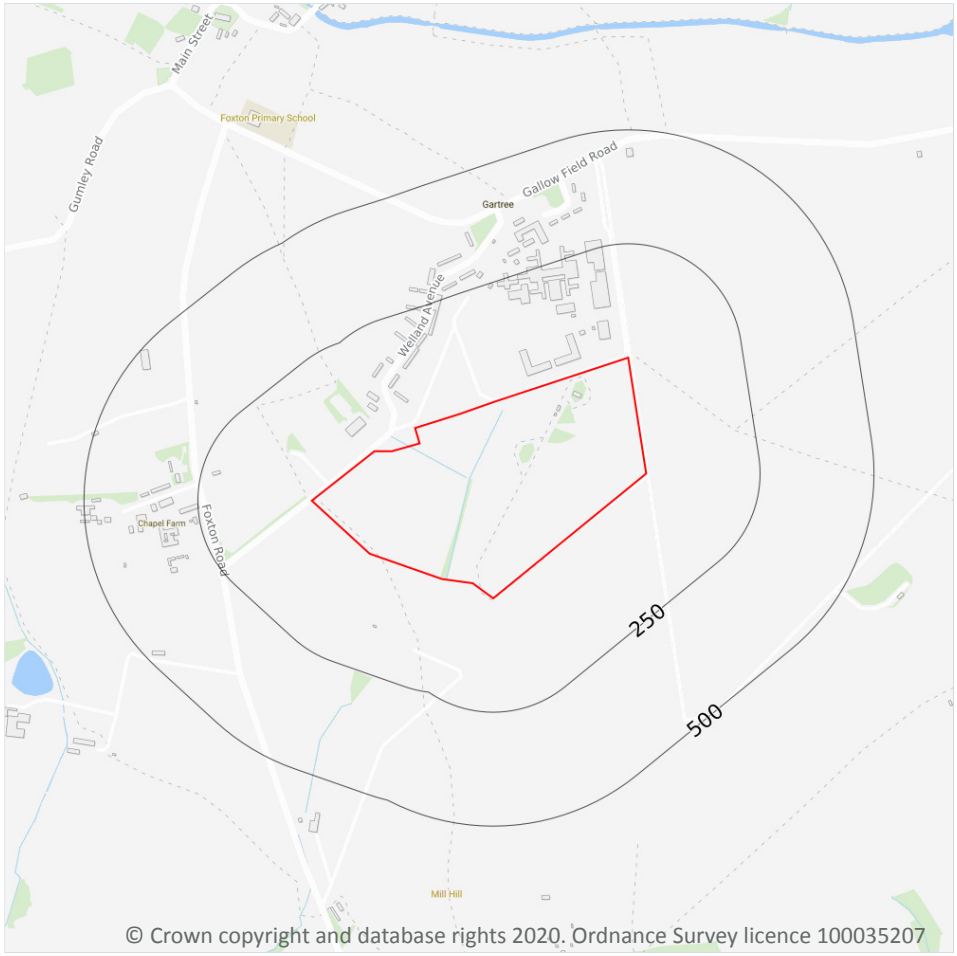
5.5 Groundwater vulnerability- local information

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
- 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	1

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 35**

ID	Location	Details	
-	1443m NW	Status: Historical Licence No: 5/31/03/*G/0029 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL - SPINNEY HILL FARM Data Type: Point Name: COCKROFT Easting: 468800 Northing: 289300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/1978 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1978 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m **3**

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 35**

ID	Location	Details	
-	1443m NW	Status: Historical Licence No: 5/31/03/*S/0029 Details: Make-Up or Top Up Water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: SPRINGS - SPINNEY HILL FARM Data Type: Point Name: COCKROFT Easting: 468800 Northing: 289300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/1978 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1978 Version End Date: -
-	1748m NE	Status: Historical Licence No: 5/31/03/*S/0022 Details: Process water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GRAND UNION CANAL, MKT HARBORO Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 472140 Northing: 290120	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1991 Version End Date: -

ID	Location	Details	
-	1776m NE	Status: Historical Licence No: AN/031/0003/001 Details: Make-Up Or Top Up Water Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GRAND UNION CANAL (MARKET HARBOROUGH ARM) Data Type: Point Name: Canal and River Trust Easting: 472149 Northing: 290152	Annual Volume (m^3): 31536 Max Daily Volume (m^3): 86.4 Original Application No: - Original Start Date: 30/10/2013 Expiry Date: 31/03/2026 Issue No: 1 Version Start Date: 01/04/2014 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.

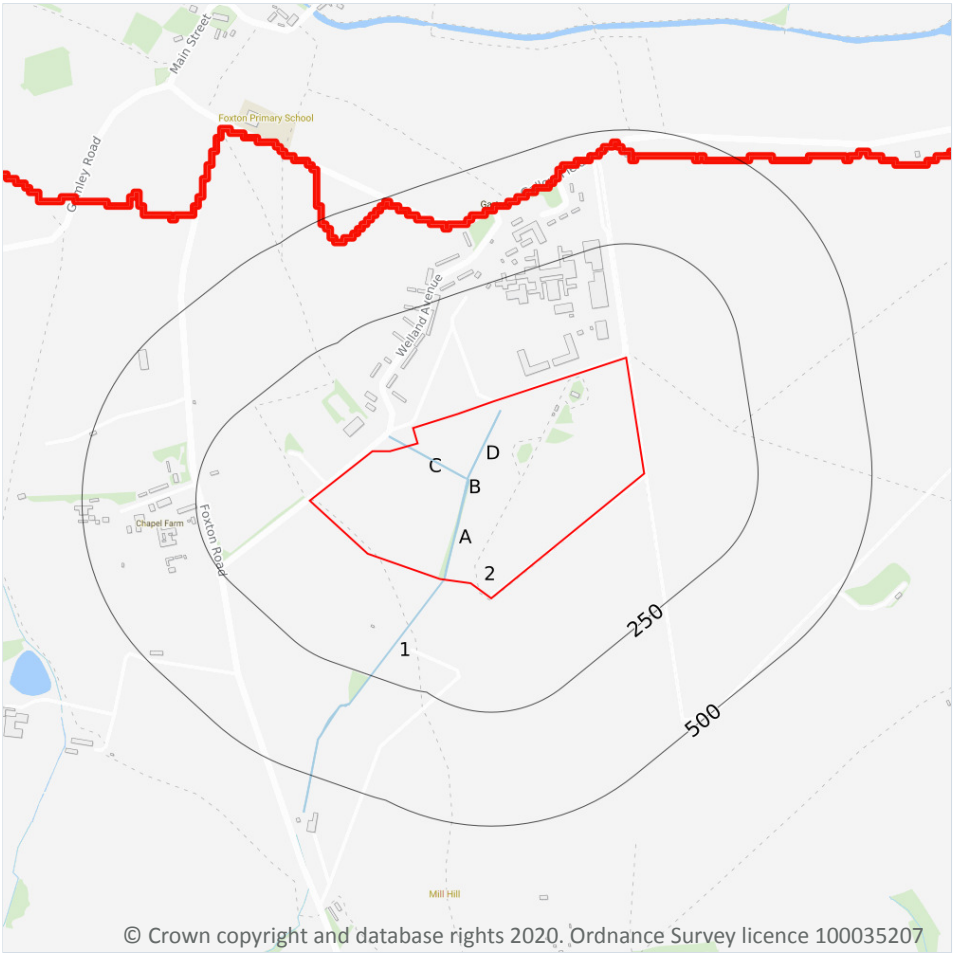
5.10 Source Protection Zones (confined aquifer)

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	**6**

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

Features are displayed on the Hydrology map on **page 38**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**Not provided**	**Watercourse contains water year round (in normal circumstances)**	**-**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	-
B	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	-
B	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	-
C	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	-
D	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**1**

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.

Features are displayed on the Hydrology map on **page 38**

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 38**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River WB catchment**	**Welland - headwaters to conf Jordan**	**GB105031045630**	**Upper Welland**	**Welland**

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 38**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1414m S	River	Welland - headwaters to conf Jordan	GB105031045630	Poor	Good	Poor	2016

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 38**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
B	**On site**	**Welland Lower Jurassic Unit**	**GB40502G304000**	**Good**	**Good**	**Good**	**2015**

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 Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; 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).

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.

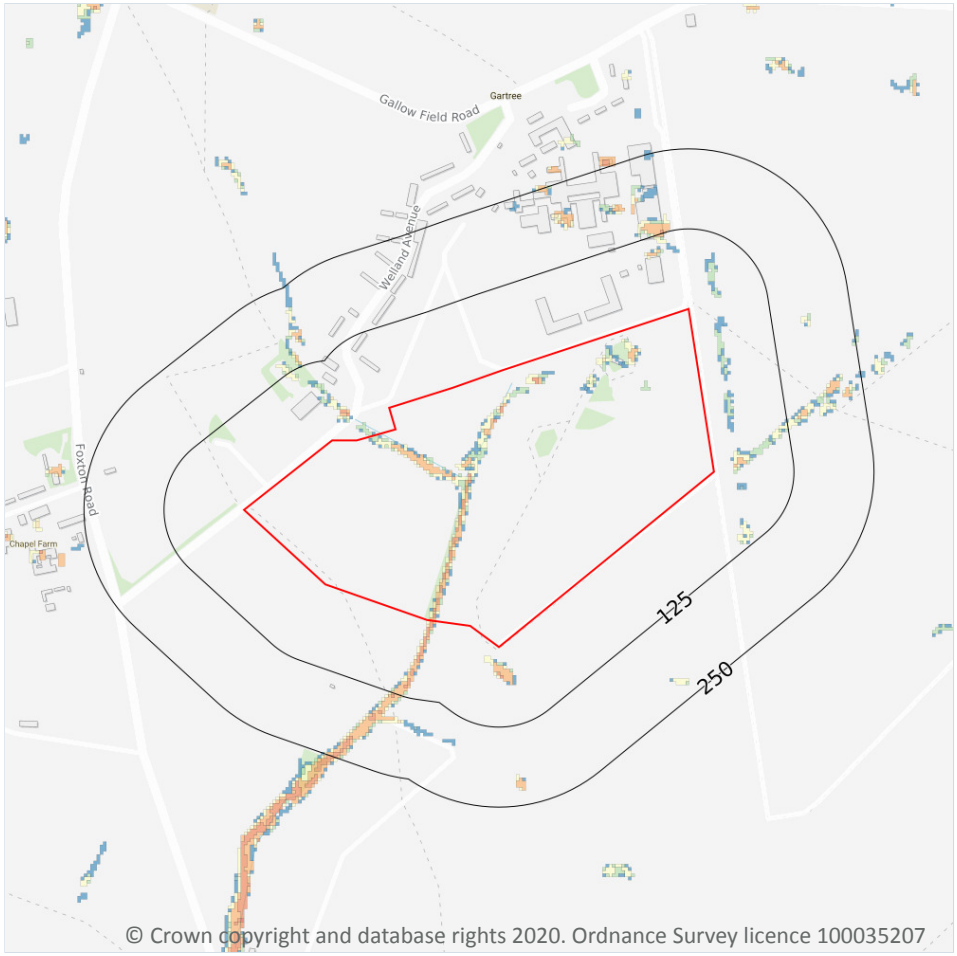
7.7 Flood Zone 3

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



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

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 44**

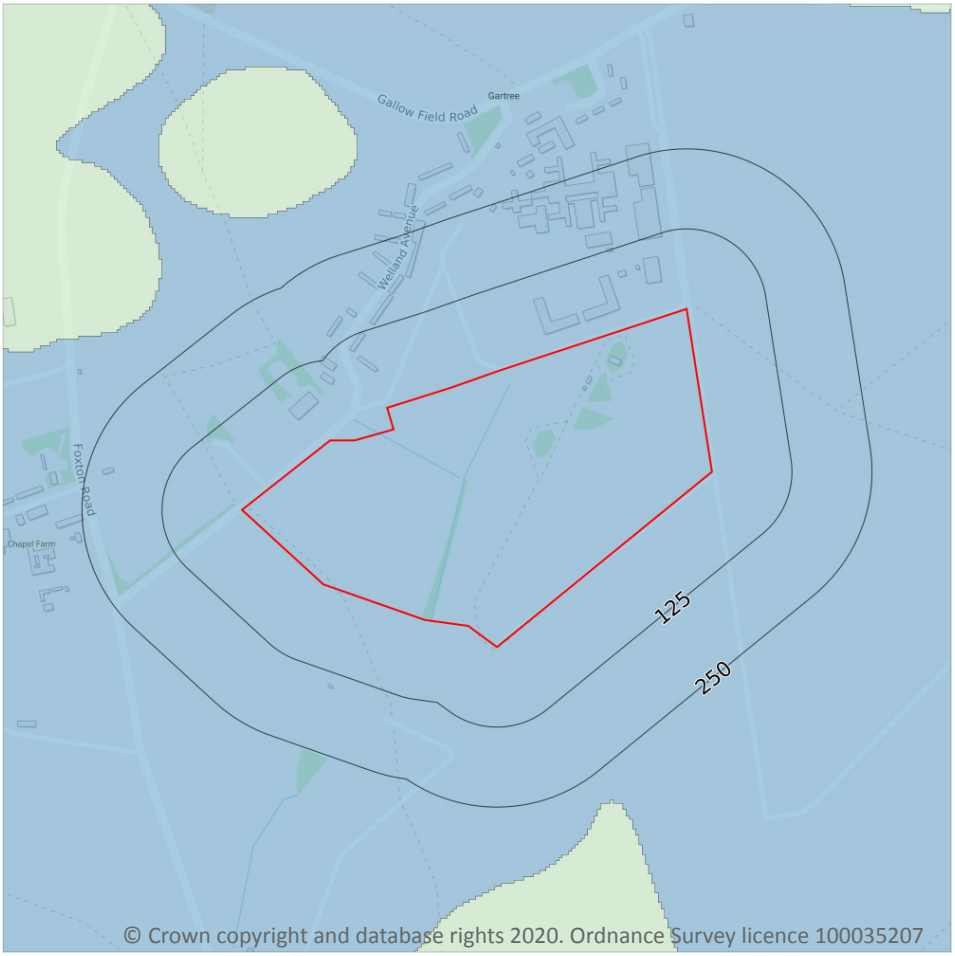
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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	Greater than 1.0m
1 in 250 year	Greater than 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 Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

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 46**

This data is sourced from Ambiental 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

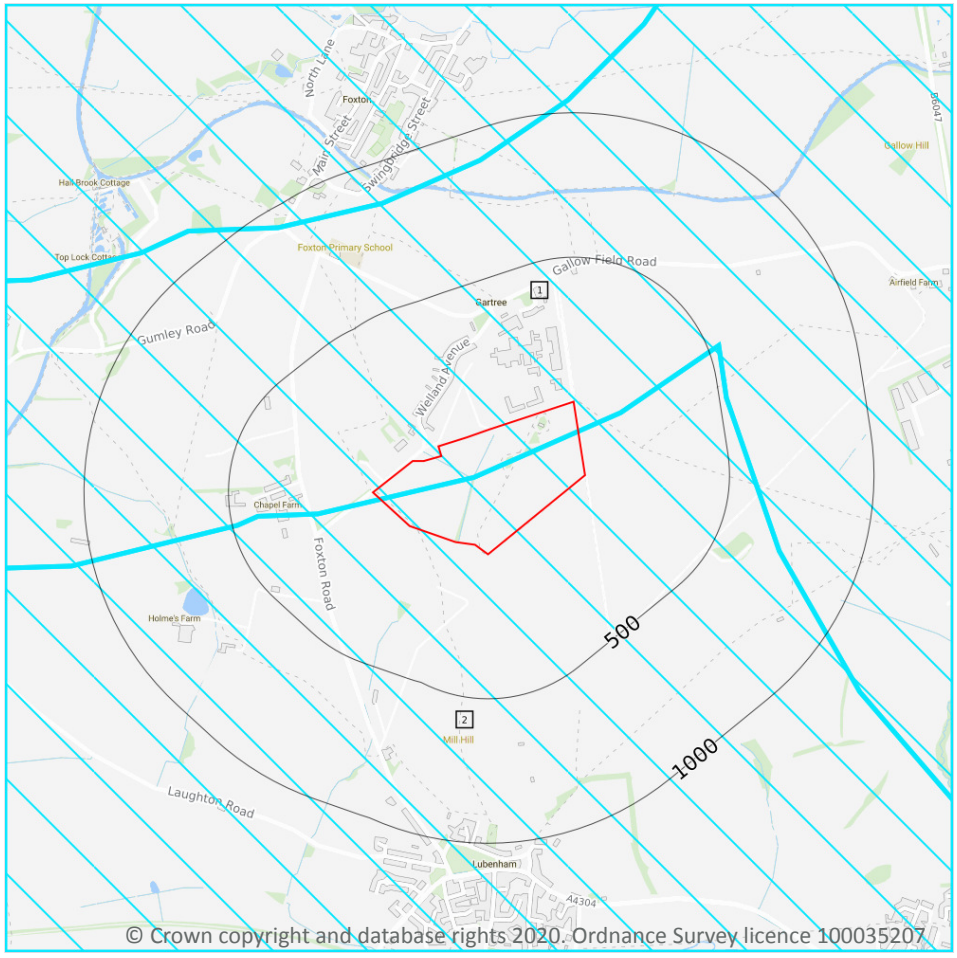
Records within 2000m	1

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	**River Welland NVZ**	**Surface Water**	**S832**	**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 51**

ID	Location	Type of developments requiring consultation
1	**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 > 750m² & manure stores > 3500t.**

ID	Location	Type of developments requiring consultation
2	**On site**	**Infrastructure - Airports, helipads and other aviation proposals.** **Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**0**

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 English Heritage, 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 English Heritage, 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 English Heritage, Cadw and Historic Environment Scotland.

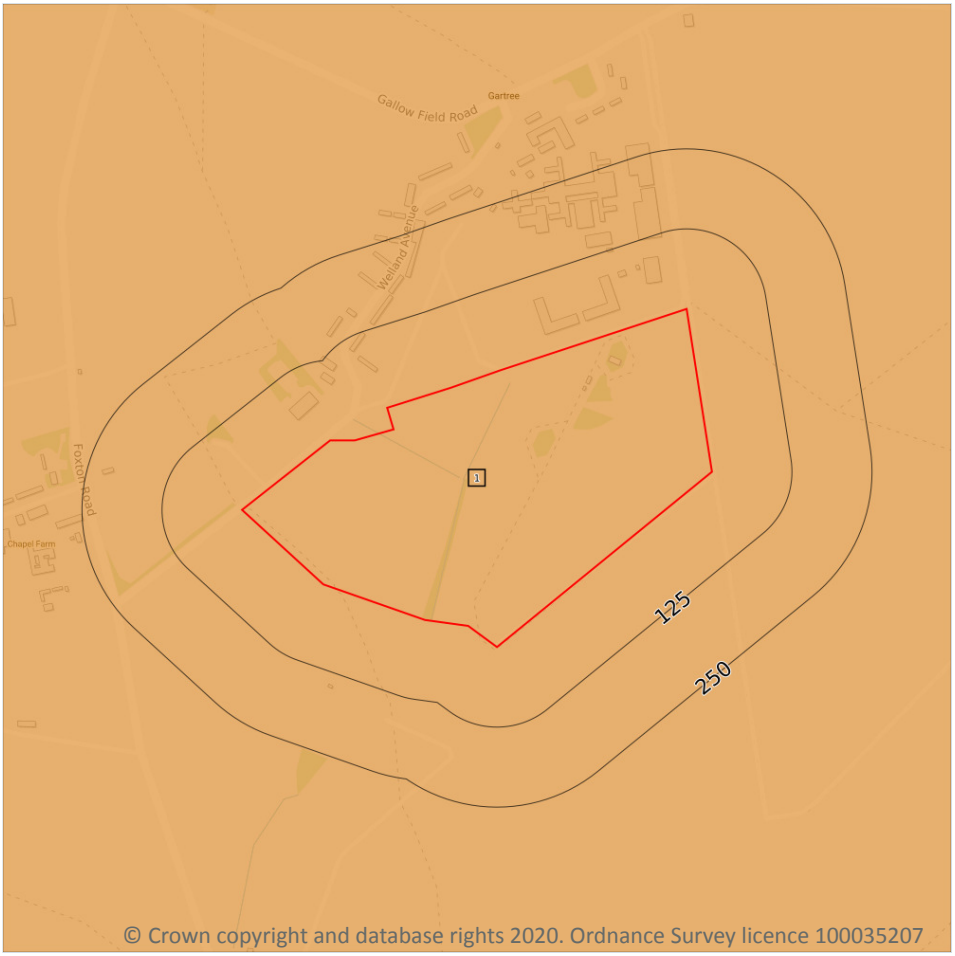
11.7 Registered Parks and Gardens

Records within 250m	0

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 English Heritage, 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	1

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 55**

ID	Location	Classification	Description
1	On site	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	0

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.

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	1

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

Location	Reference	Scheme	Start Date	End date
171m NW	AG00484069	Entry Level Stewardship	01/11/2013	31/10/2018

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

13.1 Priority Habitat Inventory

Records within 250m	0

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

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.

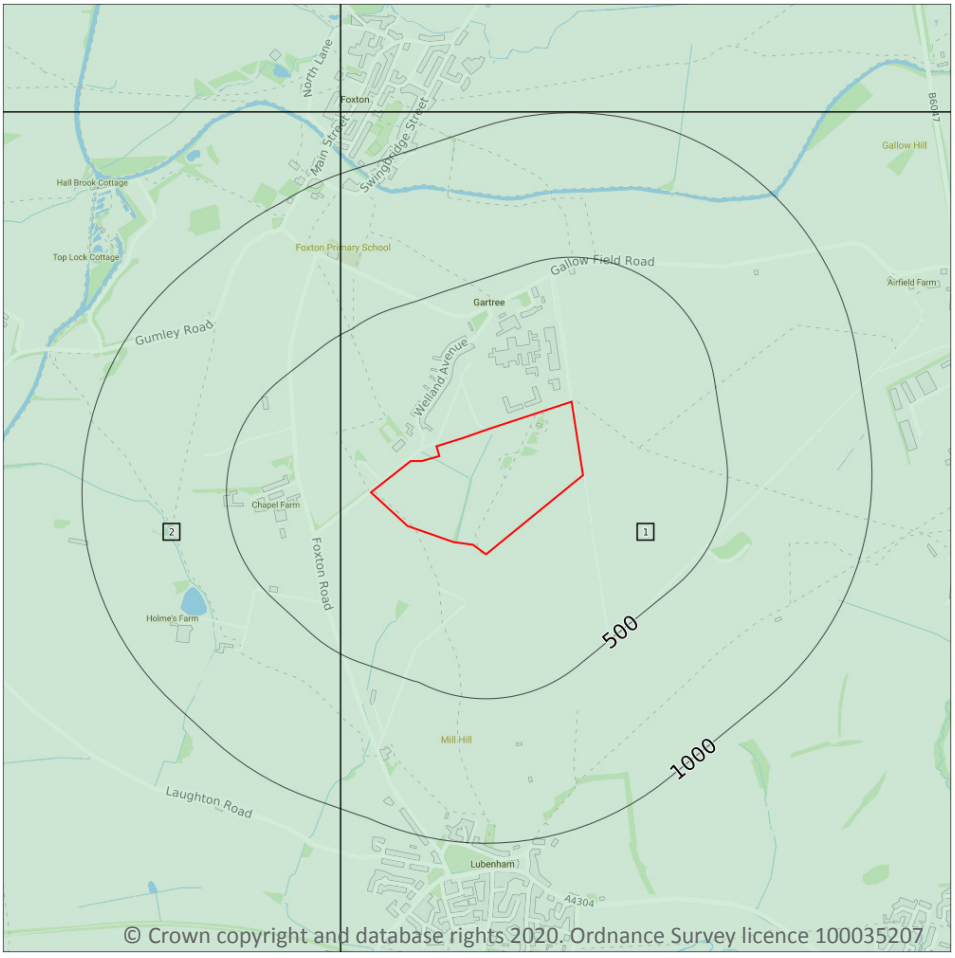
13.4 Limestone Pavement Orders

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	2

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 58**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**SP78NW**
2	105m W	No coverage	Full	Full	No coverage	SP68NE

This data is sourced from the British Geological Survey.

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

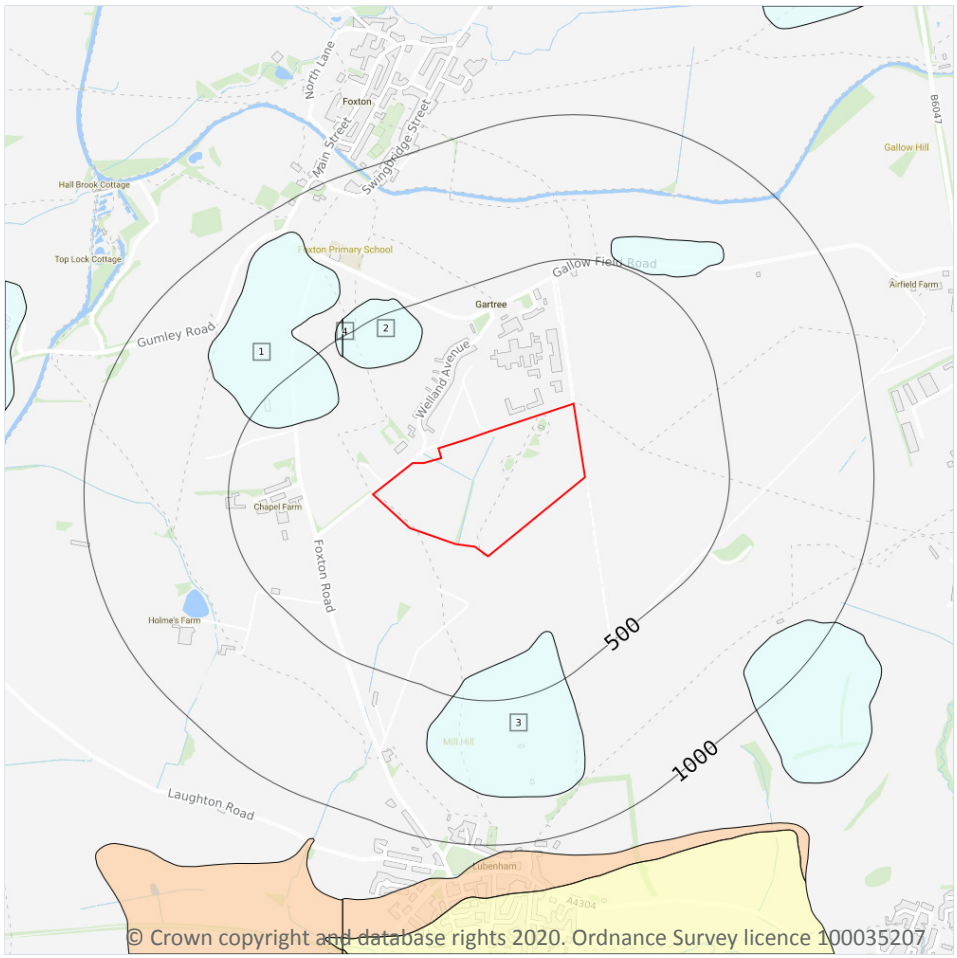
14.2 Artificial and made ground (10k)

Records within 500m	0

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.

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 **4**

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 60**

ID	Location	LEX Code	Description	Rock description
1	315m NW	TILMP-DMTN	Till, Mid Pleistocene - Diamicton	Diamicton
2	326m N	TILMP-DMTN	Till, Mid Pleistocene - Diamicton	Diamicton

ID	Location	LEX Code	Description	Rock description
3	326m SE	TILMP-DMTN	Till, Mid Pleistocene - Diamicton	Diamicton
4	441m NW	TILMP-DMTN	Till, Mid Pleistocene - Diamicton	Diamicton

This data is sourced from the British Geological Survey.

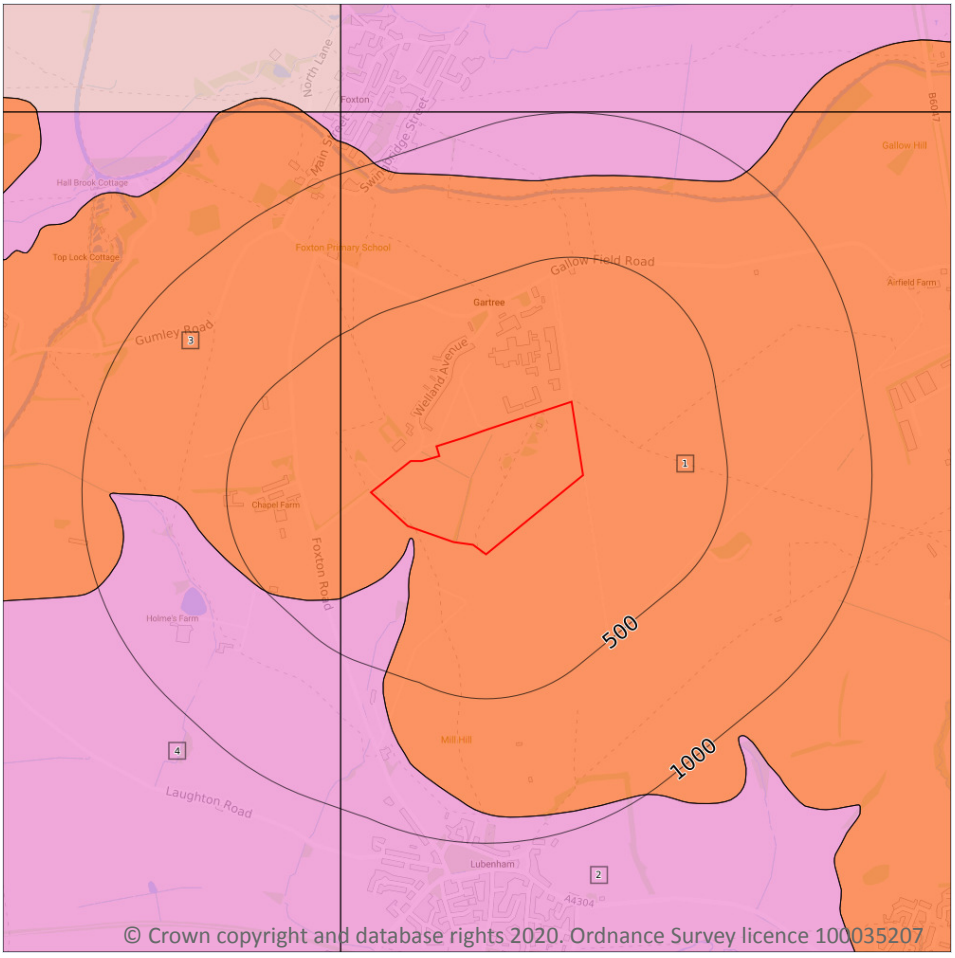
14.4 Landslip (10k)

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 **4**

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 62**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**DYS-SIMD**	**Dyrham Formation - Siltstone And Mudstone, Interbedded**	**Pliensbachian Age**
2	36m S	CHAM-MDST	Charmouth Mudstone Formation - Mudstone	Pliensbachian Age - Sinemurian Age
3	105m W	DYS-SIMD	Dyrham Formation - Siltstone And Mudstone, Interbedded	Pliensbachian Age

ID	Location	LEX Code	Description	Rock age
4	342m SW	CHAM-MDST	Charmouth Mudstone Formation - Mudstone	Pliensbachian Age - Sinemurian Age

This data is sourced from the British Geological Survey.

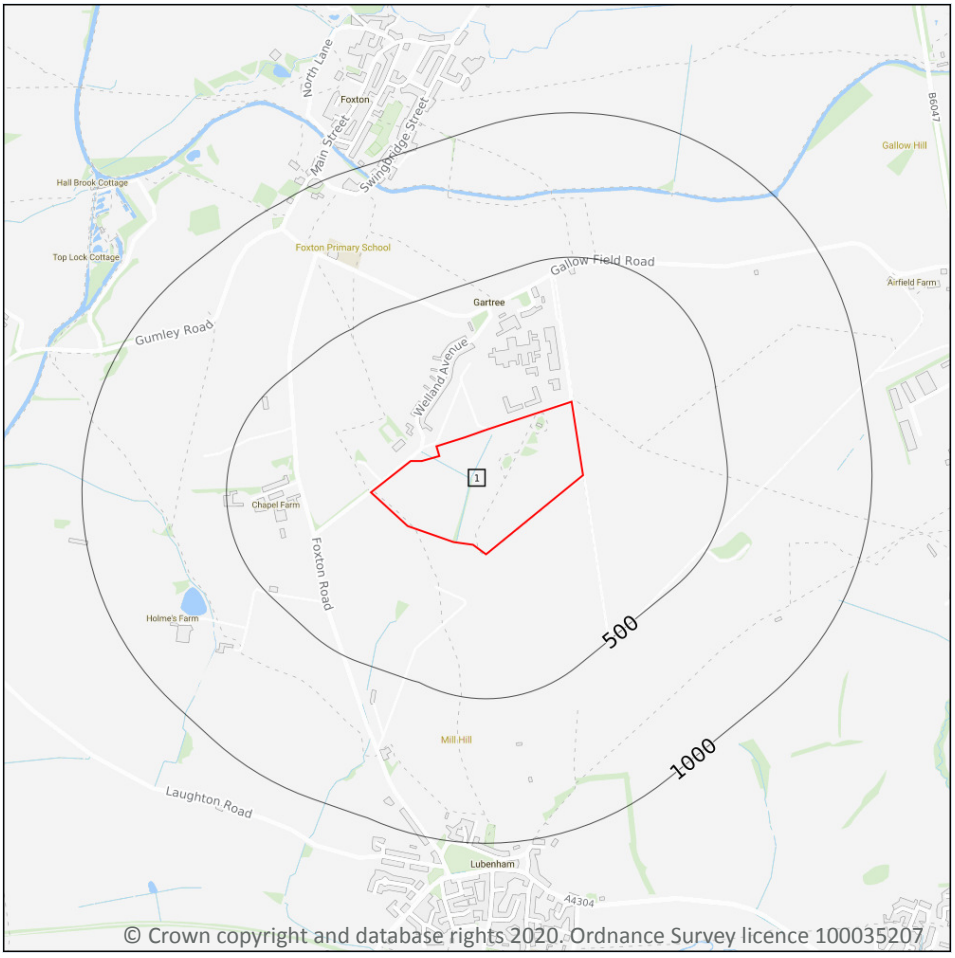
14.6 Bedrock faults and other linear features (10k)

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 64**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW170_market_harborough_v4**

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

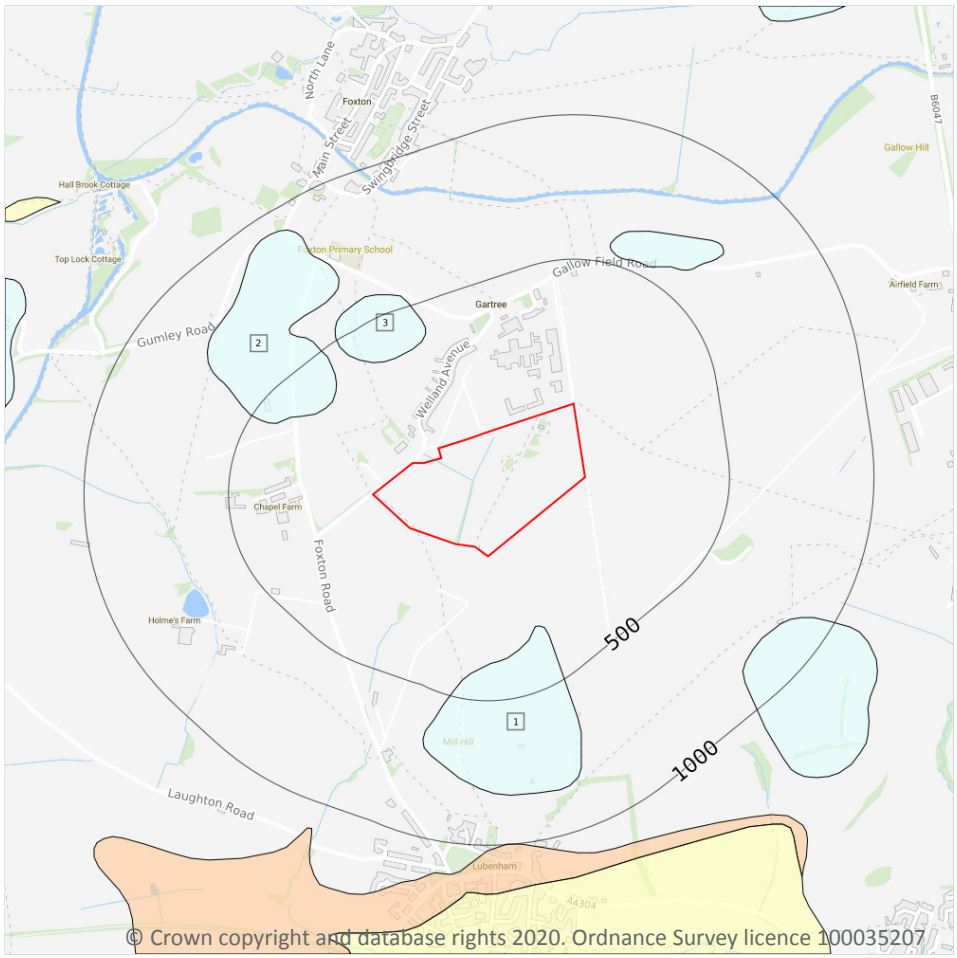
15.3 Artificial ground permeability (50k)

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 artificial 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 - 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 66**

ID	Location	LEX Code	Description	Rock description
1	293m SE	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON
2	335m NW	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON

ID	Location	LEX Code	Description	Rock description
3	345m NW	TILMP-DMTN	TILL, MID PLEISTOCENE	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

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.

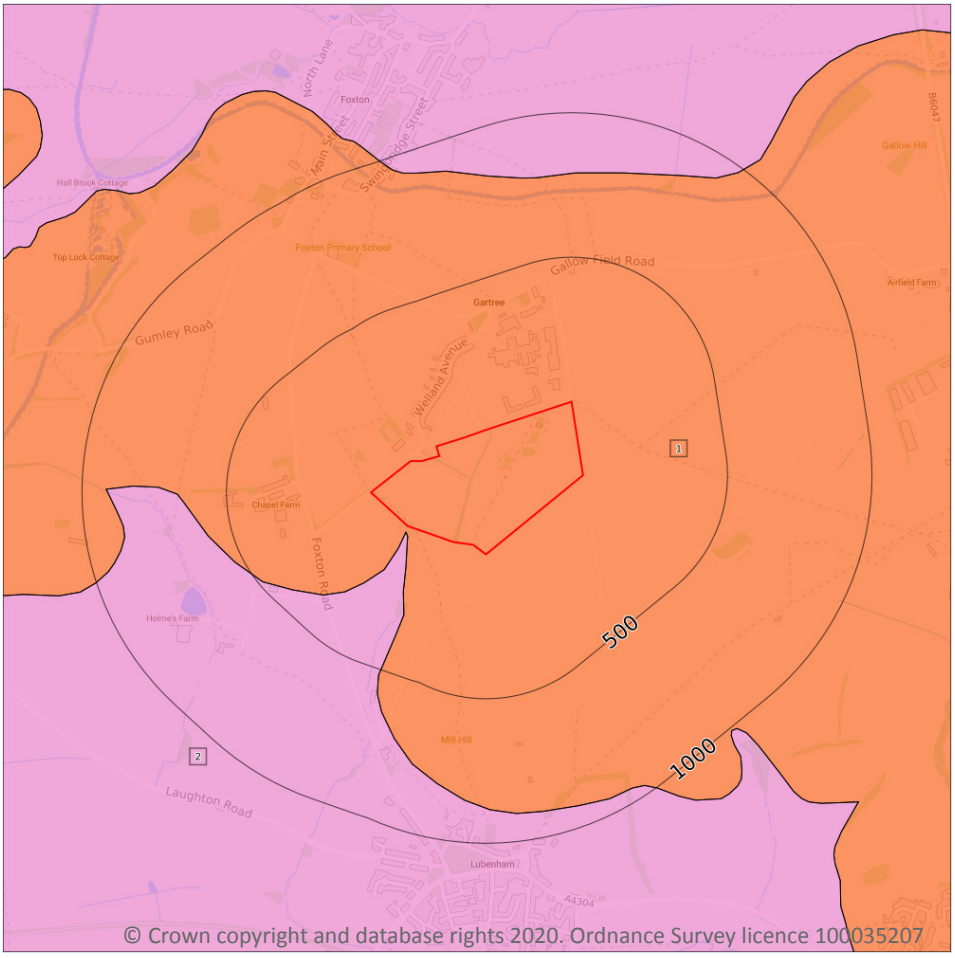
15.7 Landslip permeability (50k)

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	2

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 68**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**DYS-SIMD**	**DYRHAM FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED**	**PLIENSBACHIAN**
2	23m S	CHAM-MDST	CHARMOUTH MUDSTONE FORMATION - MUDSTONE	SINEMURIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2

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	**Mixed**	**Moderate**	**Low**
23m SE	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	27

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.

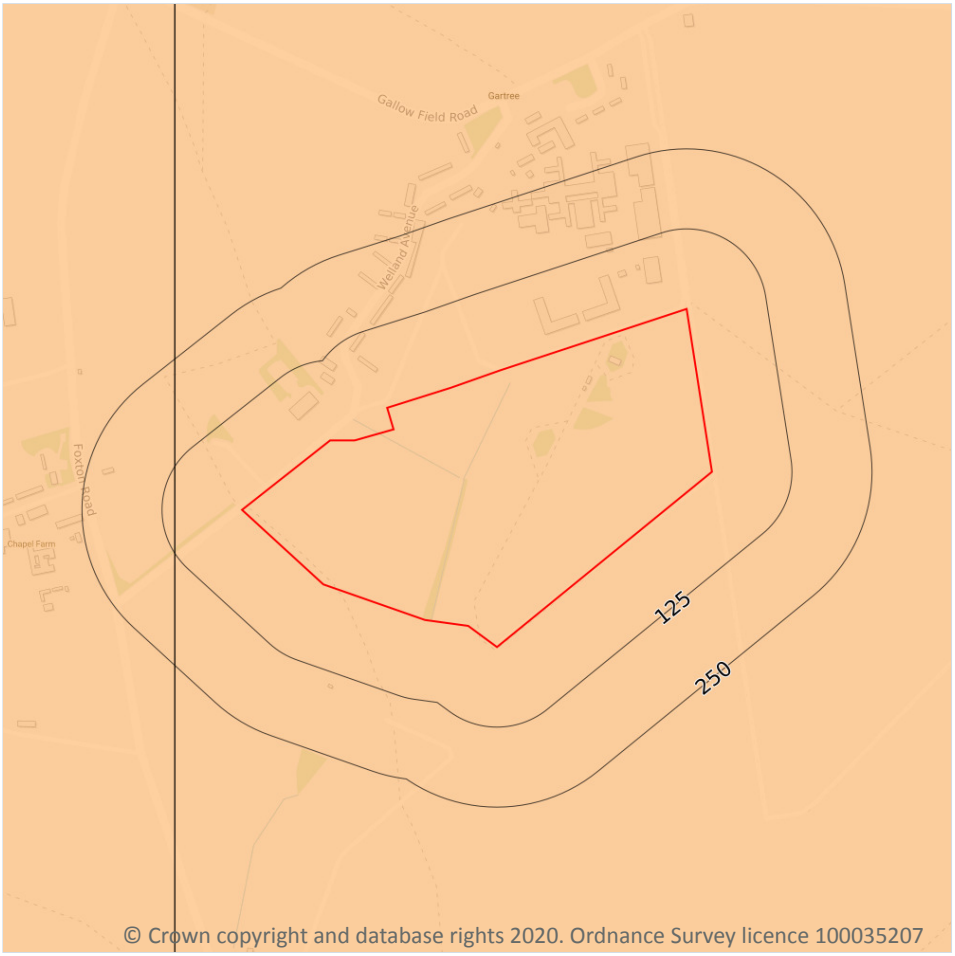
Features are displayed on the Boreholes map on **page 70**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	3m N	470300 288800	MARKET HARBOROUGH 3	6.0	N	346636
A	3m N	470300 288800	MARKET HARBOROUGH 4	6.0	N	346637
A	3m N	470300 288800	MARKET HARBOROUGH 1	6.0	N	346634

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	3m N	470300 288800	MARKET HARBOROUGH 2	6.0	N	346635
B	12m N	470529 288921	HMP GARTREE WS21	-	Y	N/A
C	15m N	470493 288912	HMP GARTREE WS22	-	Y	N/A
B	17m N	470543 288930	HMP GARTREE WS20	-	Y	N/A
C	28m N	470482 288922	HMP GARTREE WS23	-	Y	N/A
D	46m NW	470211 288825	HMP GARTREE BHA	-	Y	N/A
D	56m NW	470219 288842	HMP GARTREE TPB	-	Y	N/A
1	57m N	470473 288949	HMP GARTREE WS24	-	Y	N/A
D	70m N	470217 288857	HMP GARTREE BHB	-	Y	N/A
D	78m NW	470189 288849	HMP GARTREE BHC	-	Y	N/A
2	83m N	470465 288974	HMP GARTREE WS25	-	Y	N/A
D	84m NW	470205 288867	HMP GARTREE TPA	-	Y	N/A
3	113m N	470455 289002	HMP GARTREE WS26	-	Y	N/A
4	127m N	470778 289122	HMP GARTREE WS19	-	Y	N/A
5	139m N	470377 289003	HMP GARTREE WS8	-	Y	N/A
6	144m N	470443 289031	HMP GARTREE WS27	-	Y	N/A
7	159m N	470773 289154	HMP GARTREE WS18	-	Y	N/A
8	174m N	470436 289060	HMP GARTREE WS28	-	Y	N/A
9	189m N	470770 289184	HMP GARTREE WS17	-	Y	N/A
10	205m N	470426 289090	HMP GARTREE WS1	-	Y	N/A
11	218m N	470765 289212	HMP GARTREE WS16	-	Y	N/A
12	223m N	470443 289114	HMP GARTREE WS2	-	Y	N/A
13	240m N	470460 289138	HMP GARTREE WS3	-	Y	N/A
14	247m N	470760 289241	HMP GARTREE WS15	-	Y	N/A

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

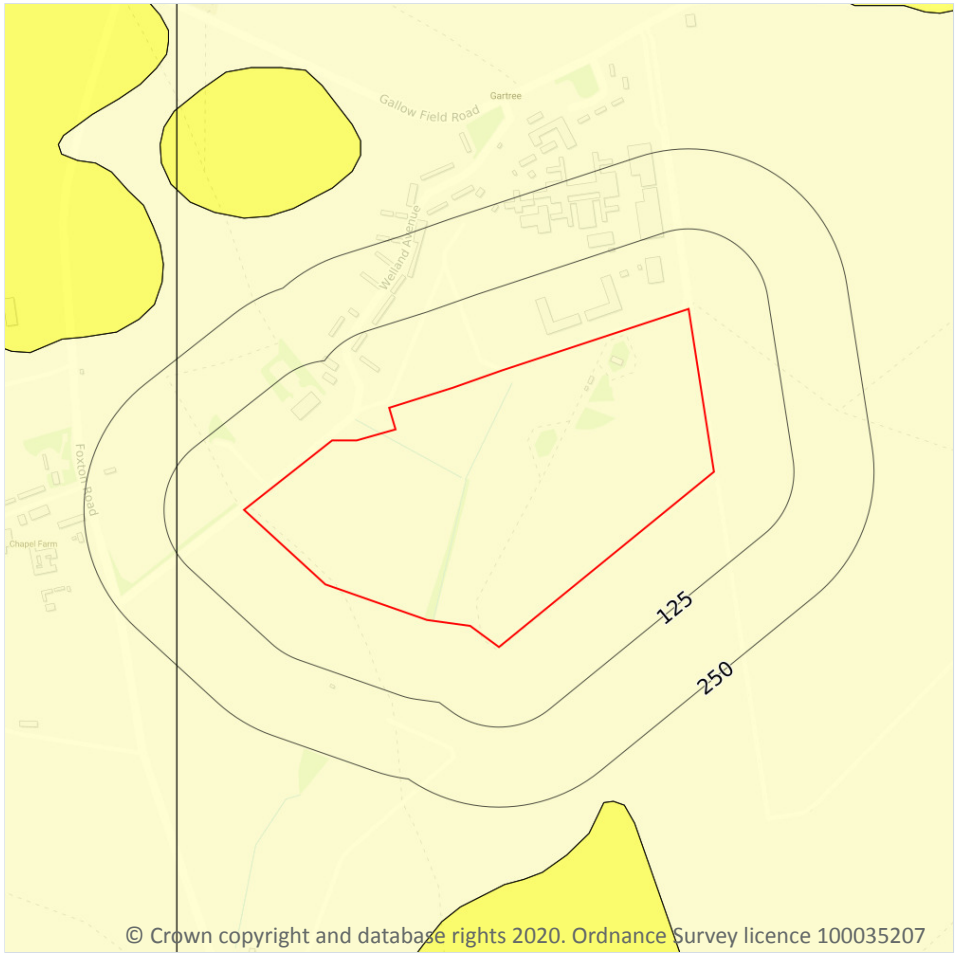
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 72**

Location	Hazard rating	Details
On site	**Low**	**Ground conditions predominantly medium plasticity.**

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

17.2 Running sands

Records within 50m	1

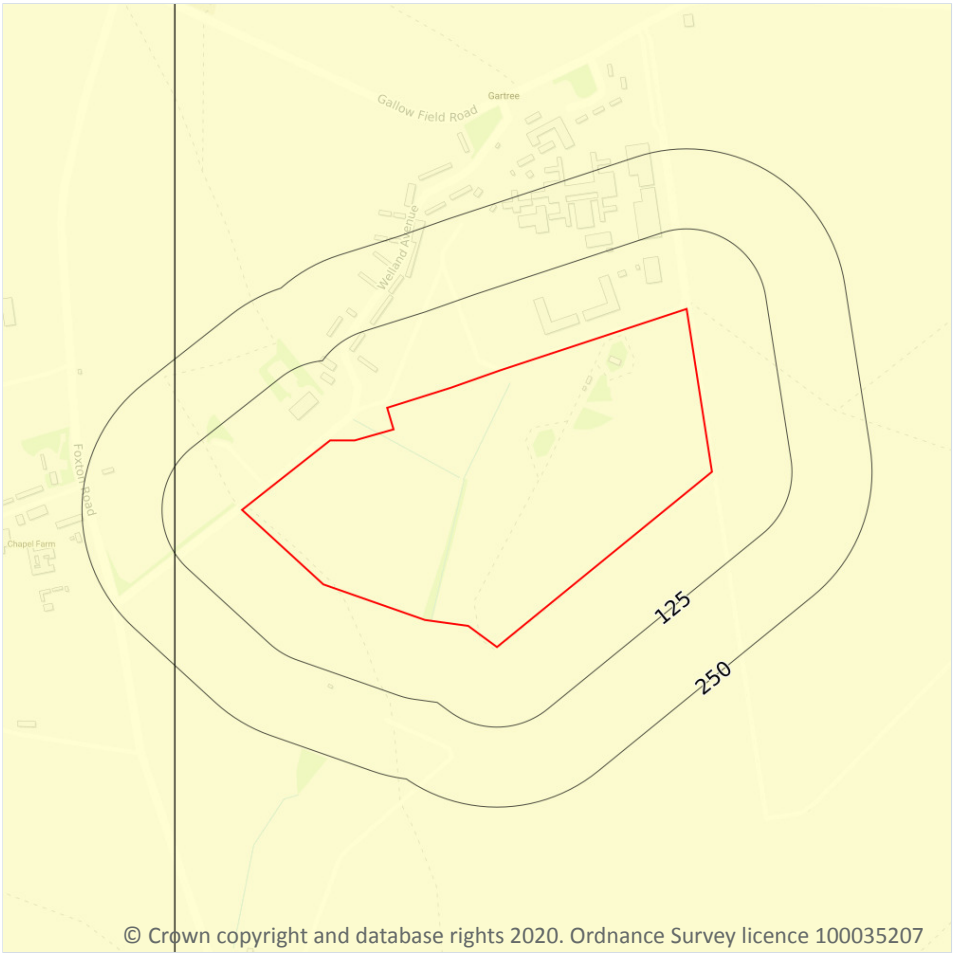
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 73**

Location	Hazard rating	Details
On site	**Negligible**	**Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

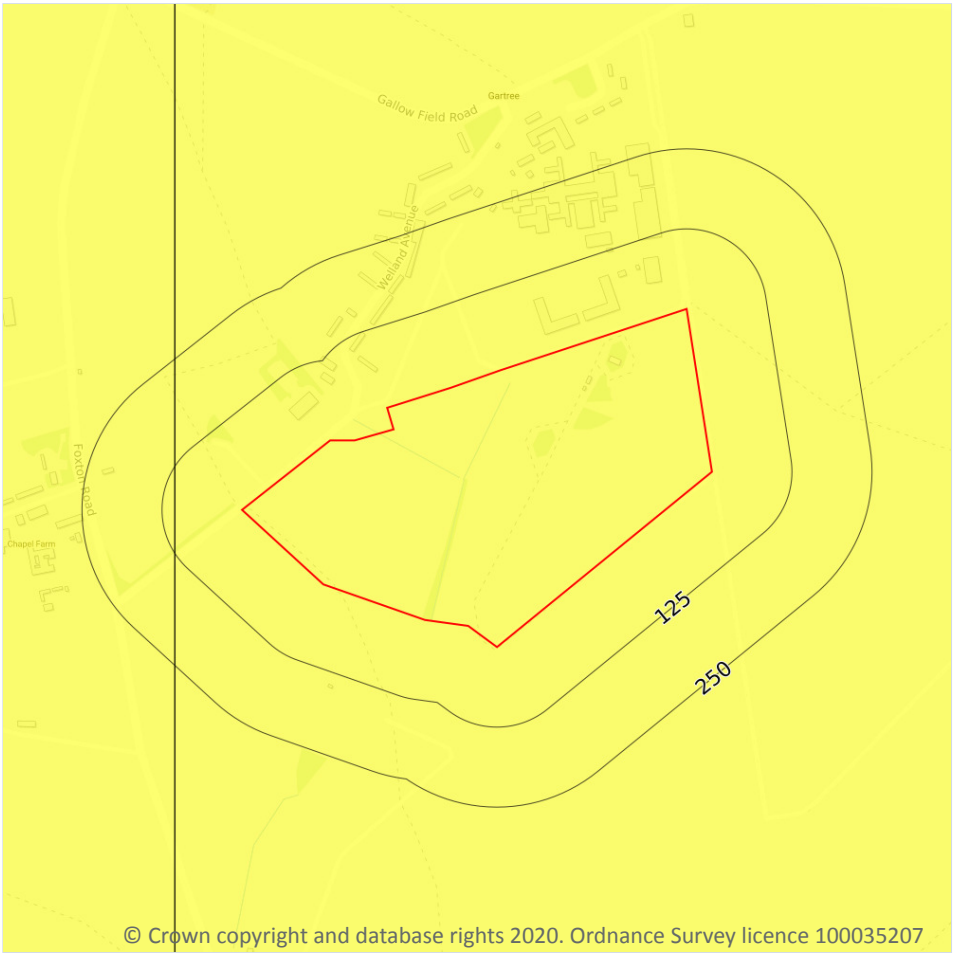
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 74**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

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

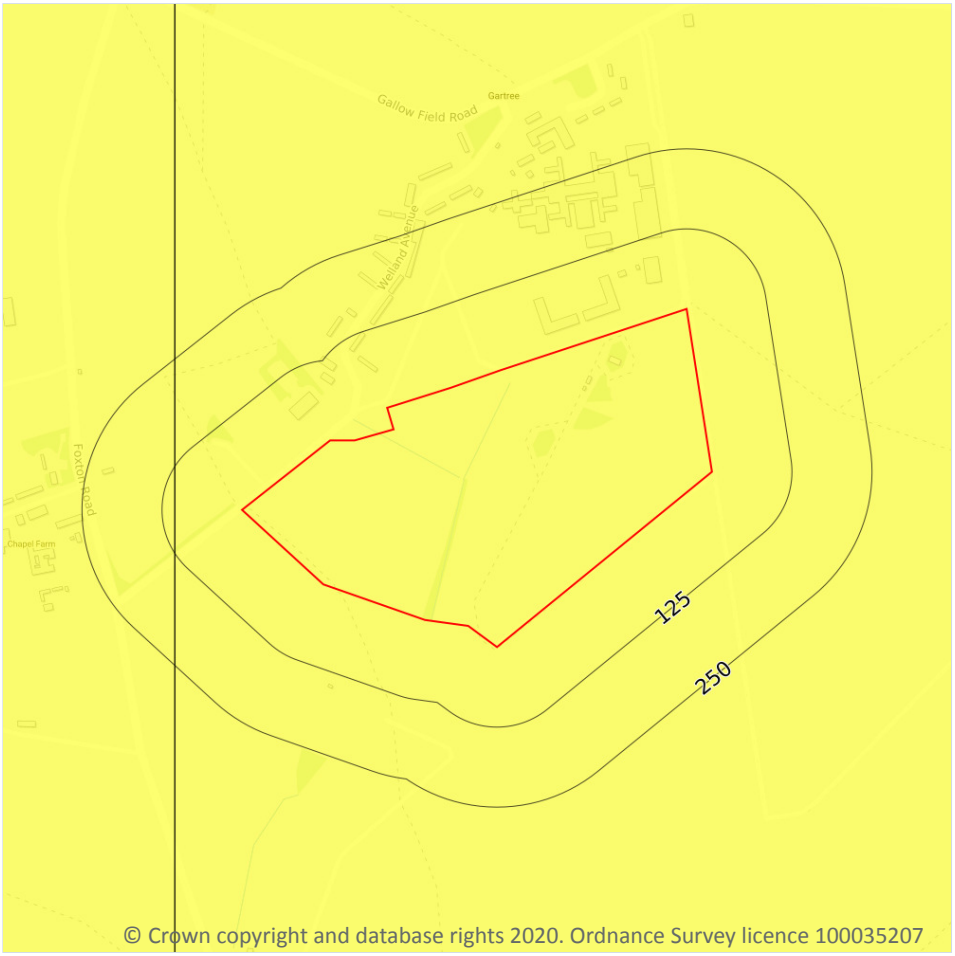
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 75**

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

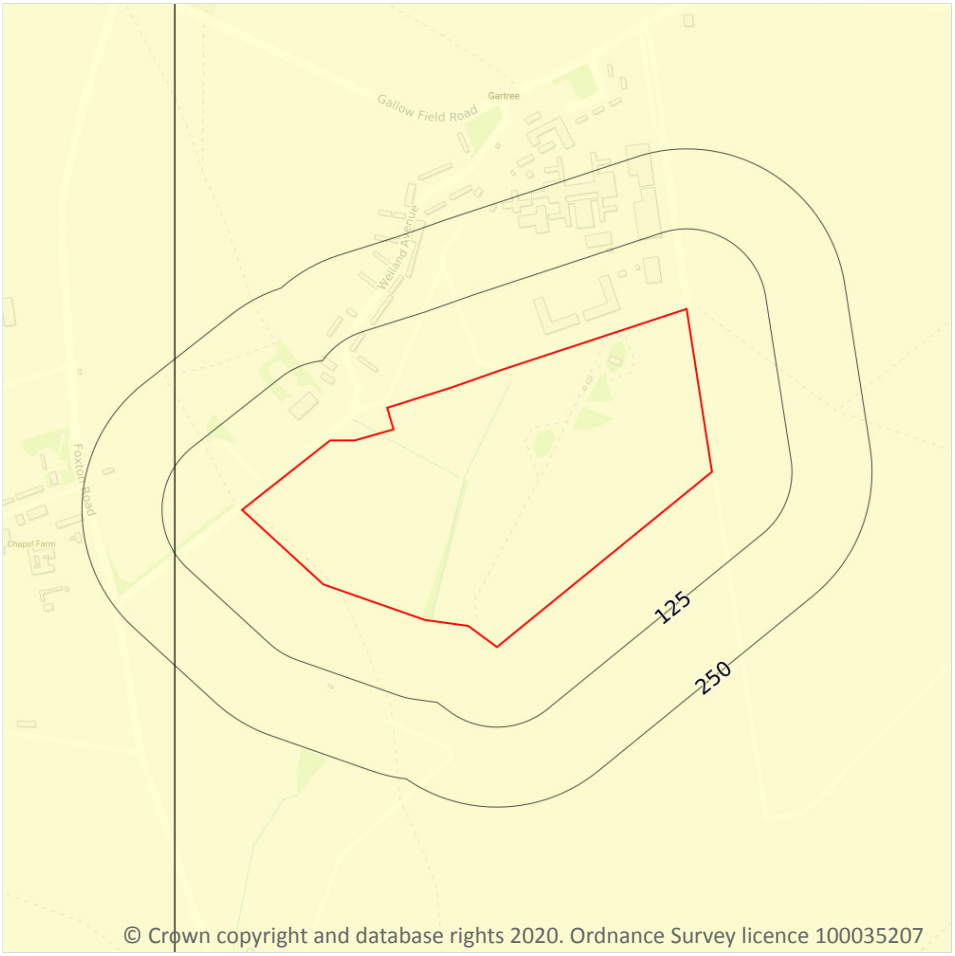
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 76**

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 77**

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, ground workings and natural cavities

Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

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 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 Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	11

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, ground workings and natural cavities map on **page 78**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Pond**	**1885**	**1:10560**
2	**On site**	**Pond**	**1885**	**1:10560**
3	**On site**	**Pond**	**1885**	**1:10560**
4	20m NW	Pond	1885	1:10560
5	82m SE	Pond	1885	1:10560
6	147m S	Pond	1885	1:10560
7	186m E	Pond	1885	1:10560
8	191m NW	Pond	1885	1:10560
9	213m S	Pond	1885	1:10560
10	217m NW	Pond	1885	1:10560
11	233m NW	Pond	1885	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 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.

18.5 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 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 Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 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.

18.10 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.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

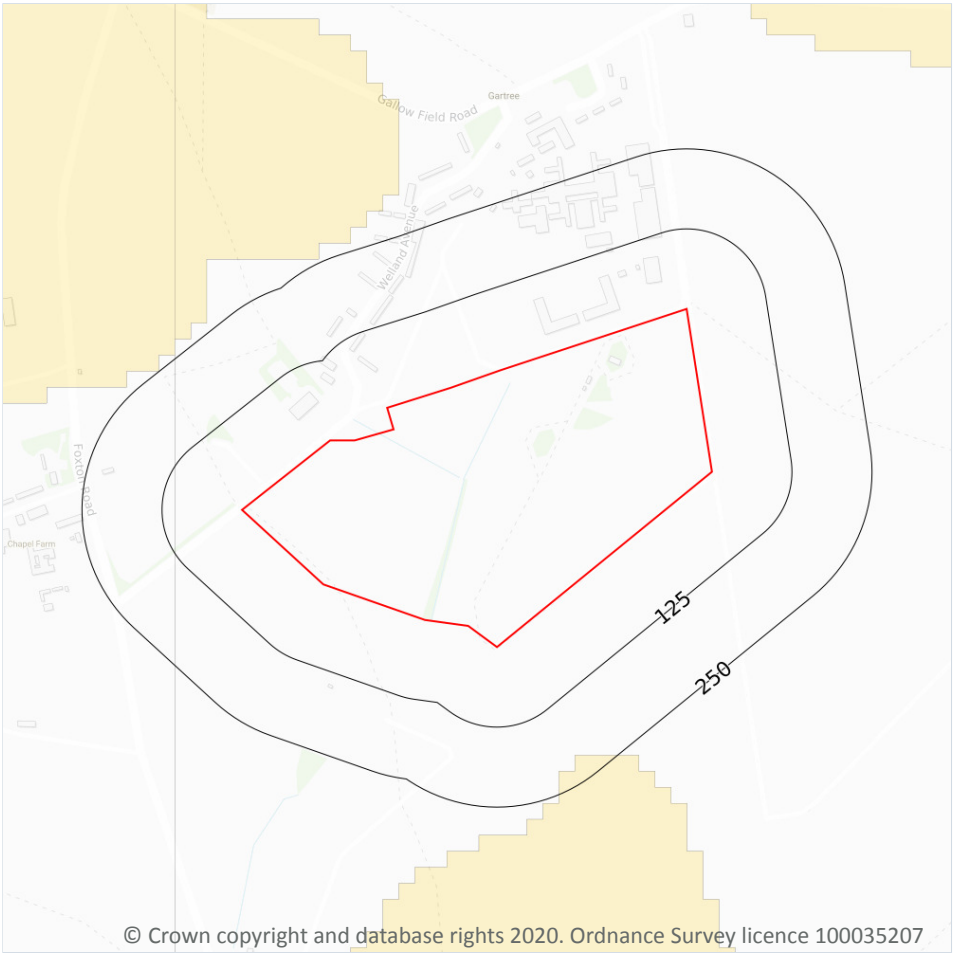
18.13 Clay mining

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 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 82**

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

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **7**

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 km^2. 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 km^2; 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	**25 - 35 mg/kg**	**1 - 2 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**1 - 2 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**1 - 2 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**1 - 2 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
3m NE	25 - 35 mg/kg	1 - 2 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
3m NE	25 - 35 mg/kg	1 - 2 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
23m SW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

20.2 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 km^2).

This data is sourced from the British Geological Survey.

20.3 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 km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 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.

21.2 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.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 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.

21.5 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.

21.6 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.

21.7 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.

21.8 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.

21.9 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.

21.10 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.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

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Express Preliminary UXO Risk Assessment

Client	Dunelm
Project	HMP Gartree. Market Harborough, Leicester
Site Address	HMP Gartree, Gallow Field Road, Market Harborough, Leicester. LE16 7QZ
Report Reference	EP7854b-00
Date	04/11/20
Originator	KH

Assessment Objective

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

Background

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

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

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

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

Risk Assessment Considerations	
Site location and description/current use	The site is located adjacent the grounds of HMP Gartree, resting due south of Gallow Field Road in Leicestershire. Welland Avenue lies west of the site, which is bordered to the immediate east, south, and west by open farmland. The site is situated approximately 1.4km due north of Lubenham. The site itself is comprised primarily of soft-ground in the form of open grassland and gravel pathways within the site boundary. The site also contains areas of denser vegetation centrally within the site, where trees and shrubs are present. A single structure is present on site, resting within the sites northern boundary in an area of dense vegetation. Some hardstanding paved ground is also present along the sites northern boundary, though this paved ground appears in poor condition. The site is approximately centred on the OS grid reference: **SP 70627 88795**. 
Are there any indicators of current/historical military activity on/close to the site?	During WWII, the site is understood to have been situated within the grounds of RAF Market Harborough. The facility, which began construction in 1942 and was completed in 1943, was utilised as a military airfield containing three concrete runway strips. The runways are recorded to have serviced several dozen large aircraft under the authority of the wartime RAF Bomber Command. It is considered possible that items of heavy ordnance, such as bombs or ammunition for defensive emplacements, were stored within the grounds of the airfield, though the nature of any ordnance storage or defensive positions on- site could not be determined at this preliminary stage.
What was the pre- and post-WWII history of the site?	Prior to WWII, OS mapping of the site area indicates it to have comprised an area of primarily open farmland with several small structures, likely storage shelters or barns, resting within the sites northern boundary line. A small orchard or forest is recorded within the sites southern boundary, extending east beyond the site reaching *Adams Farm*, located due east of the site. Two small structures, likely farmhouses, are also recorded south of the site adjacent its boundary line. Post- war OS mapping indicates the site to be situated partially atop the disused grounds of a former *Airfield*, whose runway strips are clearly visible immediately adjacent the site. Within the site, access roads to these runways are present, and a series of new structures immediately north of the site are now present. Two large structures, possibly aircraft hangars, suggests the operation of aircraft atop runway access roads within the site boundary.
Was the area subject to bombing during WWII?	During WWII, the site was situated within the Rural District of Market Harborough, which sustained an overall very low density of bombing according to Home Office bombing statistics. These statistics indicate the District to have suffered a total of 83 HE bomb incidents, culminating in a density of 1.8 HE bombs per 1,000 acres of the District.

	A single wartime bomb map, held in house, was immediately available which recorded bomb strikes and airplane crashes across Leicestershire. This source records several incidents of HE bombing south- west and north- west of the site- the exact positions of which could not be identified. This source also records over half a dozen instances of plane crashes having occurred in the immediate vicinity of the RAF Market Harborough. It is not clear from evidence available at this preliminary stage if any of these crashed planes fell within the site boundary, or if any such planes carried ordnance at the time of crashing which may have contaminated the crash site.
Is there any evidence of bomb damage on/close to the site?	While there is evidence of the removal of some structures within the site boundary in post- war OS mapping, they are considered likely to have been removed during the clearance of small farming structures prior to the construction of the adjacent airfield- not as a result of extensive bomb damage. Aerial photography of the site area was not available at this preliminary stage, which could allow for the identification of evidence of bomb damage such as damaged structures, or bomb craters in open areas.
To what degree would the site have been subject to access?	Given the nature of the sites eastern sector as largely occupied by the RAF Market Harborough, it is considered likely that access within and adjacent the airfield runways remained regular while the site was in use. However, open farmland occupying the sites western sector is likely to have seen significantly reduced access, perhaps limited to the temporary access by farmers tending the land therein. Access is considered to have been equally subjective across the site prior to the construction of the airfield, when the entire site is recorded to have encompassed open farmland.
To what degree has the site been developed post-WWII?	Post- war, the site appears to have undergone minimal development works. Much of the grounds of the airfield, including the runway strips and structures due north of the site are understood to have been removed. While some evidence remains of the runway access roads on site, any concrete or paving therein appears to have been removed, and some minor landscaping works are believed to have taken place to the remaining soft- ground within the site area. Any wartime farming structures within the site are also understood to have been removed.
What is the nature and extent of the intrusive works proposed?	The nature and extent of works proposed was not available at the time of writing.

Summary and Conclusions

During WWII, the site was situated within the Rural District of Market Harborough, which sustained an overall very low density of bombing according to Home Office bombing statistics. These statistics indicate the District to have suffered a total of 83 HE bomb incidents, culminating in a density of 1.8 HE bombs per 1,000 acres of the District.

A single bomb census map of Leicestershire was immediately available, which did not record bomb strikes directly atop the RAF Market Harborough, a military airfield which began construction in 1942. This mapping does record HE bombing south- west and north- west of the site, as well as over a half dozen instances of aircraft crashes immediately adjacent the airfield, possibly atop or immediately adjacent to the site boundary. The exact position of these bomb strikes or plane crashes could not be determined at this preliminary stage. It should be noted that due to the recorded presence of RAF Bomber Command at the adjacent airfield, it is possible that ordnance such as bombs or ammunition for defensive emplacements could have been stored on site, and warrant further research.

Recommendations
Given the findings of this preliminary report, it is recommended that further research is undertaken in the form of a Detailed UXO Risk Assessment. Further Research would allow for the acquisition of any additional records such as local bomb reports, incident reports of local plane crashes, histories of any defensive emplacements or ordnance storage sites within the airfield, the usage and possible presence of explosive bombs associated with the RAF Market Harborough, and high- resolution aerial photography which may help to indicate any evidence of bomb damage in the vicinity of the site. Prior to or in lieu of a Detailed Assessment, it is recommended that appropriate UXO Risk Mitigation Measures are provided for intrusive works proposed. If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1st Line Defence.

Appendix D

Exploratory Hole Records

INFORMATION GENERALLY RELATING TO ALL EXPLORATORY HOLE RECORDS

GENERAL

Borehole/Trial Pit No
The exploratory hole identity number used throughout the report.

Site
The ground investigation project name.

Client
Client's name responsible for funding the ground investigation project.

Ground Level and Location
The precise ground level in meters above Ordnance Datum at the exploratory hole location from which the reduced level for each stratigraphic boundary is calculated. The exploratory hole position is given as either national grid-coordinates or local grid as specified.

ABBREVIATIONS

Samples

B Bulk disturbed sample generally representative of the soil type for cohesive and fine granular soils.

BRE Sample taken for electrochemical testing

C Core soil samples

D Small disturbed tub sample normally taken at intermediate depth between other sampling or testing operations. The sample is stored in an airtight container.

ES Sample of potentially contaminated materials.

P Piston Sample

PF An attempted but failed piston sample

U 100mm diameter undisturbed thick-walled sample (OS-TK/W)

UT 100mm diameter undisturbed thin walled sample (OS-T/W)

UF/UTF An attempted but failed 100mm undisturbed sample.

W Water sample.

In-situ Testing

CBR California Bearing Ratio mould sample or test.

SPT Standard Penetration Test (SPT) using the split barrel sampler (shoe). The corresponding 'N' value is given in the test result column.

SWPen Self-Weight Penetration

PID On Site Volatile Headspace Testing by Photo Ionisation Detector

HVP Hand Shear Vane test

Rock Quality and Core Recovery

TCR Total core recovery - The length of the recovered core expressed as a percentage of the length of core run.

SCR Solid Core Recovery - The sum length of all core pieces (measured along the centre of the core), expressed as a percentage of the length core run.

RQD Rock Quality Designation- The sum length of all core pieces that are 100mm or longer (measured along the centre of the core), expressed as a percentage of the length of core run.

FI Fracture Index- The number of fractures per 1000mm length of solid core.

NI Non-intact- The material recovered in a non-intact state.

NR No recovery from the core run.

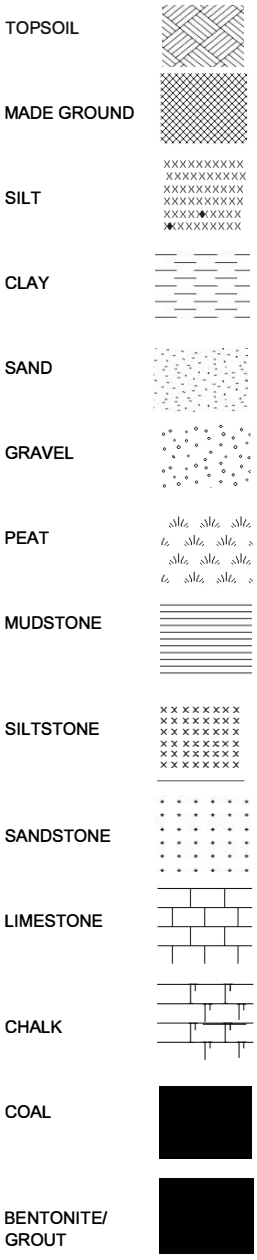
AZCL Assessed Zone of Core Loss.

Cobble Content

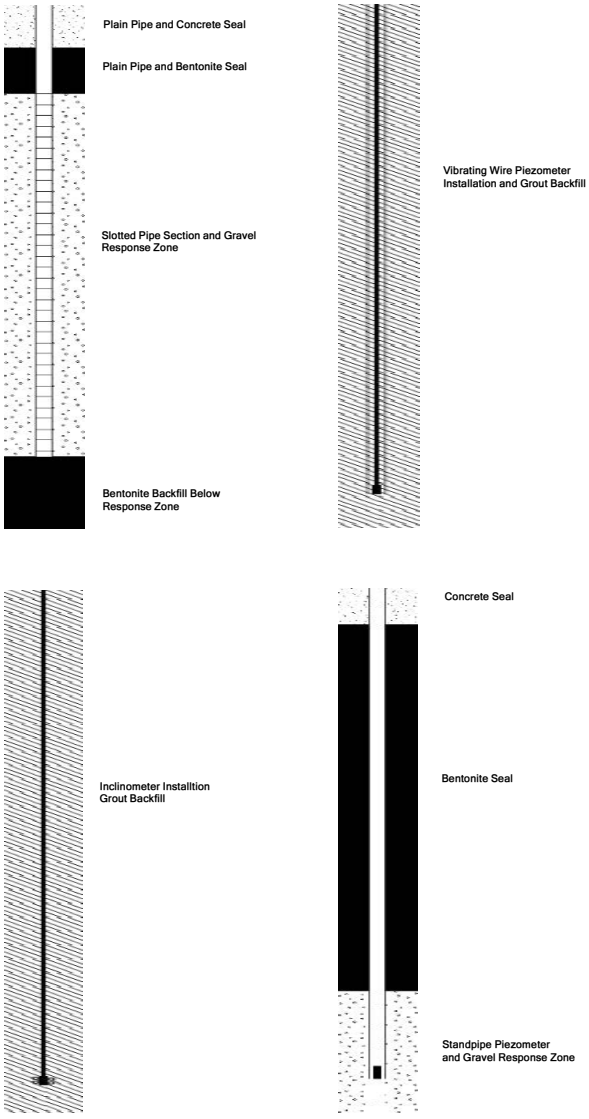
Low <10%, medium 10 – 20%, high >20%

Exploratory Hole Log Legend

BOREHOLE LEGEND:



Monitoring Installation Legend:



NB Where strata consists of material of more than one soil or rock type the legends are appropriately combined.

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DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS01

Contract No: D10208

Site: Gartree 2

GL (m AOD) 109.35 — Scale 1:50

Easting: 470511.70 — Northing: 288499.40

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 11/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D	0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to coarse of sandstone and siltstone. Rootlets noted.	(0.30)			
ES	0.10				0.30	109.05		
	0.40	HVP=120 kPa		Very stiff, orangish brown, mottled grey, slightly sandy CLAY of high plasticity.				
B	0.50				(0.65)			
			1		0.95	108.40		
SPT (S)	1.20 - 1.65	N=12 (2,3/3,2,3,4)	Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).				
D	1.50				(1.35)			
SPT (S)	2.00 - 2.45	N=26 (5,6/5,6,7,8)	2 Dry					
					2.30	107.05		
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.71)			
SPT (S)	2.90 - 3.02	N=50+ (25 for 20mm/26,24 for 20mm)	Dry					
			311/11/2020 1700 (0.00) Dry	End of Borehole at 3.01 m	3.01	106.34		
			4					
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 3.01m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS02

Contract No: D10208

Site: Gartree 2

GL (m AOD) 107.48 — Scale 1:50

Easting: 470432.90 — Northing: 288521.70

Client: Pick Everard — Driller: RE — Logged By:

Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL

Dates: 12/11/2020

Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to medium of sandstone and siltstone. Rootlets noted.	(0.65)	
	0.70	HVP=120 kPa		Very stiff, orangish brown, mottled grey, slightly sandy, CLAY of high plasticity.	0.65	106.83
B D	0.80 - 1.00 0.80		1			
SPT (S)	1.20 - 1.65	SWPen=375mm N=1 (/,1)	Dry		(1.30)	
D	1.50					
SPT (S)	2.00 - 2.45	SWPen=300mm N=5 (/,2,3)	2 Dry	Firm, thinly laminated, grey, silty CLAY.	1.95	105.53
D	2.50					
SPT (S)	3.00 - 3.45	SWPen=225mm N=7 (/,1,4,2)	3 Dry		(2.03)	
D	3.50					
SPT (S)	4.00 - 4.45	SWPen=150mm N=20 (/2,4,7,7)	4 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	3.98	103.50
D	4.50				(1.40)	
SPT (S)	5.00 - 5.38	N=50+ (10,11/13,15,18,4 for 10mm)	5 Dry			
			12/11/2020 1700 (0.00) Dry	End of Borehole at 5.38 m	5.38	102.10
			6			
			7			
			8			
			9			
			10			

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	4.00
67	5.38

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL

BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS03

Contract No: D10208

Site: Gartree 2

GL (m AOD) 110.14 Scale 1:50

Easting: 470558.50 Northing: 288527.80

Client: Pick Everard

Driller: RE Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 11/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to coarse of sandstone and siltstone. Rootlets noted.	(0.52)			
B D	0.70 - 0.80 0.70			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	0.52	109.62		
SPT (S)	1.20 - 1.65	N=12 (2,3/3,2,3,4)	Dry		(1.33)			
SPT (S)	1.50 - 1.85	N=50+ (10,15/16,18,16 for 54mm)	Dry					
			11/11/2020 1700 (0.00) Dry	End of Borehole at 1.85 m	1.85	108.29		

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 1.85m on encountering hard strata.

BOREHOLE RECORD

Borehole WS04

Contract No: D10208

Site: Gartree 2

GL (m AOD) 109.21 Scale 1:50

Easting: 470483.10 Northing: 255627.90

Client: Pick Everard

Driller: RE Logged By:

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 12/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
ES	0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to coarse of chalk. Rootlets noted.	(0.45)			
B	0.50 0.60 - 0.70	HVP=120 kPa		Very stiff, orange brown, mottled grey, slightly sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine to coarse of sandstone and siltstone.	0.45	108.76		
SPT (S)	1.20 - 1.65	N=12 (3,3/3,3,3,3)	1 Dry		(1.25)			
D	1.50				1.70	107.51		
SPT (S)	2.00 - 2.45	N=36 (4,6/8,9,9,10)	2 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).				
D	2.50				(1.40)			
SPT (S)	3.00 - 3.45	N=40 (5,6/7,9,11,13)	3 Dry		3.10	106.11		
SPT (S)	4.00 - 4.45	N=39 (6,6/9,8,9,13)	4 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(1.35)			
			12/11/2020 1700 (0.00) Dry	End of Borehole at 4.45 m	4.45	104.76		
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)
										87	2.00
										77	4.00

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 4.45m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS05

Contract No: D10208

Site: Gartree 2

GL (m AOD) 111.21 — Scale 1:50

Easting: 470622.30 — Northing: 288579.70

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 11/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D	0.10			Orangish brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to coarse of sandstone and siltstone. Rootlets noted.	(0.30)			
ES	0.10				0.30	110.91		
D	0.40			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.41)			
B	0.50 - 0.70		11/11/2020 1700 (0.00) Dry		0.71	110.50		
				End of Borehole at 0.71 m				

1 2 3 4 5 6 7 8 9 10

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 0.71m.
2. No groundwater encountered.
3. Borehole terminated at 0.71m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS06

Contract No: D10208

Site: Gartree 2

GL (m AOD) 110.36 — Scale 1:50

Easting: 470535.00 — Northing: 288635.50

Client: Pick Everard — Driller: RE — Logged By:

Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL

Dates: 12/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
ES	0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to medium of siltstone. Rootlets noted.	(0.45)			
B	0.50	HVP=120 kPa			0.45	109.92		
D	0.60 - 0.80			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).				
SPT (S)	0.60							
	1.00 - 1.45	N=46 (7,7/8,12,12,14)	1 Dry		(1.74)			
D	1.50							
SPT (S)	1.80 - 2.19	N=50+ (8,10/12,14,16,8 for 20mm)	Dry					
			2					
			12/11/2020 1700 (0.00) Dry	End of Borehole at 2.19 m	2.19	108.18		
			3					
			4					
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.19m on encountering hard strata.

Log last updated 03/09/2021

BOREHOLE RECORD

Borehole WS07

Contract No: D10208

Site: Gartree 2

GL (m AOD) 114.62 Scale 1:50

Easting: 470122.40 Northing: 288681.20

Client: Pick Everard

Driller: RE Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 10/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine of coal. Rootlets noted.	(0.40)			
B	0.50			Firm orange brown, mottled grey and brown, slightly sandy, slightly gravelly CLAY of high plasticity. Gravel is angular to subangular, fine to medium of coal.	0.40 (0.70)	114.22		
SPT (S)	1.20 - 1.65	N=6 (1,1/1,1,2,2)	Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.10	113.52		
D	1.50			*1.70m to 1.73m: Dark brown, slightly sandy GRAVEL. Gravel is angular, fine to medium of mudstone.*	(1.30)			
SPT (S)	2.00 - 2.45	N=18 (2,2/3,4,5,6)	Dry		2.40	112.22		
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.55)			
SPT (S)	3.00 - 3.45	N=22 (3,4/4,5,6,7)	Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	2.95	111.67		
D	3.50				(1.49)			
SPT (S)	4.00 - 4.44	N=50+ (5,8/9,10,12,19 for 70mm)	Dry					
			10/11/2020 1700 (0.00) Dry	End of Borehole at 4.44 m	4.44	110.18		

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	4.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 4.44m on encountering hard strata.

Log last updated 03/09/2021

BOREHOLE RECORD

Borehole WS08

Contract No: D10208

Site: Gartree 2

GL (m AOD) 114.46 | Scale 1:50

Easting: 470784.90 | Northing: 288722.20

Client: Pick Everard | Driller: RE | Logged By: RA | Sheet 1 of 1

Method: Windowless Sampling | Checked By: BL | Dates: 11/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D	0.10			Orangish brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to subangular, fine to coarse of sandstone and siltstone. Rootlets noted.	(0.30)			
ES	0.10				0.30	114.16		
D	0.40			Very stiff, orange brown, mottled grey and brown, slightly sandy, CLAY. Rootlets noted.	(0.40)			
	0.40	HVP=120 kPa			0.70	113.76		
B	0.50 - 0.70			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).				
SPT (S)	1.20 - 1.65	N=33 (6,5/4,3,16,10)	Dry					
D	1.50			*1.40m to 1.44m: Medium strong, grey SILTSTONE.*	(1.41)			
SPT (S)	1.80 - 2.10	N=49 (12,13 for 40mm/16,18,15)	Dry					
			11/11/2020 1700 (0.00) Dry	End of Borehole at 2.11 m	2.11	112.35		

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.11m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS09

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.98 — Scale 1:50

Easting: 470693.20 — Northing: 288735.30

Client: Pick Everard — Driller: RE — Logged By:

Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL

Dates: 12/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular, fine to coarse of siltstone. Rootlets noted.	(0.38)			
B D	0.50 - 0.70 0.50 0.60	HVP=120 kPa		Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	0.38 (0.42)	112.60		
			12/11/2020 1700 (0.00) Dry	End of Borehole at 0.80 m	0.80	112.18		

1 2 3 4 5 6 7 8 9 10

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 0.80m.
2. No groundwater encountered.
3. Borehole terminated at 0.80m on encountering hard strata.

BOREHOLE RECORD

Borehole WS10

Contract No: D10208

Site: Gartree 2

GL (m AOD) 106.50 Scale 1:50

Easting: 470434.60 Northing: 288730.80

Client: Pick Everard

Driller: RE | Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 10/11/2020

Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine of coal. Root and rootlets noted.	(0.40)	
B	0.50 - 0.70			Firm orange brown, mottled grey and brown, slightly sandy, slightly gravelly CLAY of intermediate plasticity. Gravel is angular to subangular, fine to medium of coal.	0.40 (0.90)	106.10
SPT (S)	1.20 - 1.65		1 Dry		1.30	105.20
D	1.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.65)	
SPT (S)	2.00 - 2.45	N=15 (2,2/2,3,5,5)	2 Dry		1.95	104.55
				Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.35) 2.30	104.20
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).		
SPT (S)	3.00 - 3.45	N=37 (4,5/6,8,10,13)	3 Dry			
D	3.50					
SPT (S)	4.00 - 4.45	N=32 (4,5/6,7,10,9)	4 Dry		(3.14)	
D	4.50					
SPT (S)	5.00 - 5.44	N=50+ (5,7/7,9,15,19 for 60mm)	5 Dry			
			10/11/2020 1700 (0.00) Dry	End of Borehole at 5.44 m	5.44	101.06
			6			
			7			
			8			
			9			
			10			

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)
0.90				

Log last updated 03/09/2021

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	4.00
67	5.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 5.44m on encountering hard strata.

BOREHOLE RECORD

Borehole WS11

Contract No: D10208

Site: Gartree 2

GL (m AOD) 108.05 Scale 1:50

Easting: 470353.00 Northing: 288770.50

Client: Pick Everard

Driller: RE Logged By: RA

Sheet 1 of 1

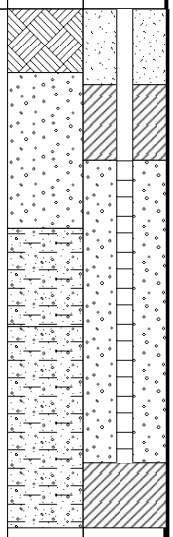
Method: Windowless Sampling

Checked By: BL

Dates: 11/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)
D ES	0.10 0.10			Orangish brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine of coal. Rootlets noted.	(0.42)	
B	0.50 - 0.70			Stiff orange brown, mottled grey and brown, slightly sandy, slightly gravelly, CLAY of high plasticity. Gravel is angular to subangular, fine to medium of coal.	0.42	107.63
	1.00	HVP=88 kPa	1		(1.03)	
SPT (S)	1.20 - 1.65	N=10 (1,1/2,2,3,3)	Dry			
D	1.60			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.45	106.60
SPT (S)	2.00 - 2.45	N=22 (3,4/4,5,6,7)	2 Dry		(0.65)	
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	2.10	105.95
SPT (S)	3.00 - 3.42	N=50+ (8,10/9,10,12,19 for 50mm)	3 Dry		(1.33)	
			11/11/2020 1700 (0.00) Dry	End of Borehole at 3.43 m	3.43	104.62
			4			
			5			
			6			
			7			
			8			
			9			
			10			

Legend / Well/Backfill



Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 3.43m on encountering hard strata.

Log last updated 03/09/2021

BOREHOLE RECORD

Borehole WS12

Contract No: D10208

Site: Gartree 2

GL (m AOD) 109.90 Scale 1:50

Easting: 470516.60 Northing: 288787.00

Client: Pick Everard

Driller: RE Logged By:

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 13/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			MADE GROUND: Light brown, sandy, slightly gravelly, clay topsoil. Gravel is subangular, fine to coarse of sandstone and concrete. Roots and rootlets noted.	(0.50)			
				0.40m: Angular cobble on concrete noted.				
B D	0.50 0.60 - 0.80 0.60	HVP=120 kPa		Very stiff, orangish brown, mottled grey and light brown, slightly sandy, CLAY of high plasticity. Rootlets noted.	0.50	109.40		
SPT (S)	1.20 - 1.65	SWPen=150mm N=4 (/1,1,1,1)	Dry	*1.20m to 1.65m: No recovery from SPT.*	(2.20)			
D	1.50							
SPT (S)	2.00 - 2.45	N=15 (2,2/3,4,4,4)	Dry					
D	2.50							
SPT (S)	3.00 - 3.42	N=50+ (6,5/12,13,12,13 for 50mm)	Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	2.70 (0.72)	107.20		
			13/11/2020 1700 (0.00) Dry	End of Borehole at 3.42 m	3.42	106.48		

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	3.42

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 3.42m on encountering hard strata.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS13

Contract No: D10208

Site: Gartree 2

GL (m AOD) 113.12 — Scale 1:50

Easting: 470768.20 — Northing: 288786.40

Client: Pick Everard — Driller: RE — Logged By:

Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL

Dates: 12/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular, fine to coarse of chalk and siltstone. Rootlets noted.	(0.40)			
B D	0.50 - 0.70 0.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	0.40	112.72		
SPT (S)	1.20 - 1.65	N=21 (3,4/5,4,5,7)	Dry		(1.98)			
D	1.50							
SPT (S)	2.00 - 2.38	N=50+ (9,10/13,17,17,3 for 10mm)	Dry					
			12/11/2020 1700 (0.00) Dry	End of Borehole at 2.38 m	2.38	110.74		

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)
										87	2.38

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.38m on encountering hard strata.

BOREHOLE RECORD

Borehole WS14

Contract No: D10208

Site: Gartree 2

GL (m AOD) 114.59 Scale 1:50

Easting: 470823.20 Northing: 288758.20

Client: Pick Everard | Driller: RE | Logged By: RA | Sheet 1 of 1

Method: Windowless Sampling | Checked By: BL | Dates: 11/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
D ES	0.10 0.10			Orangish brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to rounded, fine to coarse of sandstone and chalk. Rootlets noted.	(0.40)			
	0.40	HVP=120 kPa		Very stiff, orange brown, mottled grey and brown, slightly sandy, CLAY.	0.40	114.19		
D	0.50				(0.20)			
B	0.70 - 0.80			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	0.60	113.99		
SPT (S)	1.20 - 1.55	N=50+ (6,5/4,21,25 for 50mm)	Dry		(0.90)			
D	1.40		11/11/2020 1700 (0.00) Dry	End of Borehole at 1.50 m	1.50	113.09		

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 1.50m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS15

Contract No: D10208

Site: Gartree 2

GL (m AOD) 115.06 — Scale 1:50

Easting: 470818.30 — Northing: 288830.40

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 11/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Orangish brown, mottled grey, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular to rounded, fine to coarse of sandstone and quartzite. Rootlets noted.	(0.40)			
B D	0.45 0.50 0.50	HVP=120 kPa		*0.30m: Ceramic land drain noted.*	0.40	114.66		
				Very stiff, orange brown, mottled grey and brown, slightly sandy, slightly gravelly CLAY of high plasticity. Gravel is angular to subangular, fine to medium of coal and sandstone.	(0.70)			
SPT (S)	1.20 - 1.65	N=19 (1,3/4,4,5,6)	Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.10	113.96		
D	1.50				(1.01)			
SPT (S)	1.80 - 2.03	N=50+ (13,12 for 4mm/18,19,13 for 4mm)	Dry					
			11/11/2020 1700 (0.00) Dry	End of Borehole at 2.11 m	2.11	112.94		

1 2 3 4 5 6 7 8 9 10

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.11m on encountering hard strata.

BOREHOLE RECORD

Borehole WS16

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.92 Scale 1:50

Easting: 470635.70 Northing: 288801.80

Client: Pick Everard

Driller: RE Logged By:

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 12/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is subangular, fine to coarse of siltstone and occasional chalk. Rootlets noted.	(0.40)			
B D	0.50 - 0.70 0.50				0.40	112.52		
				Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).				
SPT (S)	1.20 - 1.64	N=50+ (3,3/4,14,16,16 for 60mm)	Dry		(1.24)			
			12/11/2020 1700 (0.00) Dry	End of Borehole at 1.64 m	1.64	111.28		

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)
										87	2.38

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 1.64m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS17

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.13 — Scale 1:50

Easting: 470588.30 — Northing: 288805.80

Client: Pick Everard — Driller: RE — Logged By:

Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL

Dates: 13/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			MADE GROUND: Brown, sandy, slightly gravelly, clayey topsoil. Gravel is subangular, fine to coarse of chalk and occasional brick. Roots and rootlets noted.	(0.45)			
					0.45	111.68		
B D	0.60 - 0.70 0.60		13/11/2020 1700 (0.00) Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.32)			
					0.77	111.36		
				End of Borehole at 0.77 m				

1 2 3 4 5 6 7 8 9 10

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 0.77m.
2. No groundwater encountered.
3. Borehole terminated at 0.77m on encountering hard strata.

BOREHOLE RECORD

Borehole WS18

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.39 Scale 1:50

Easting: 470395.80 Northing: 288921.80

Client: Pick Everard

Driller: RE Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 10/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine to medium of chalk, sandstone and coal. Rootlets noted.	(0.30) 0.30	112.09		
B	0.50 - 0.70			Firm orangish brown, mottled grey and brown, slightly sandy, slightly gravelly, silty CLAY of . Gravel is angular to subangular, fine of coal.	(1.10)			
SPT (S)	1.20 - 1.65	N=14 (3,2/3,4,3,3,4)	1 Dry		1.40	110.99		
D	1.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.80)			
SPT (S)	2.00 - 2.45	N=37 (5,6/6,8,10,13)	2 Dry		2.20	110.19		
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(1.08)			
SPT (S)	3.00 - 3.28	N=50+ (7,9/10,14,26 for 50mm)	3 Dry					
			10/11/2020 1700 (0.00) Dry	End of Borehole at 3.28 m	3.28	109.11		
			4					
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	3.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 3.28m on encountering hard strata.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS19

Contract No: D10208

Site: Gartree 2

GL (m AOD) 110.10 — Scale 1:50

Easting: 470508.50 — Northing: 288886.30

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 10/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			MADE GROUND: Brown, slightly sandy, slightly gravelly, clayey topsoil with cobbles noted. Gravel is angular to subangular, fine to medium of chalk, sandstone and coal. Cobbles are angular of brick and granite. Rootlets noted.	(0.30) 0.30	109.80		
B	0.50 - 0.70			Stiff orangish brown, mottled grey, slightly sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine of coal.	(1.10)			
SPT (S)	1.20 - 1.65	N=12 (2,2/2,3,3,4)	1 Dry		1.40	108.70		
D	1.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(0.80)			
SPT (S)	2.00 - 2.45	N=38 (6,6/7,8,12,11)	2 Dry		2.20	107.90		
D	2.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(1.99)			
SPT (S)	3.00 - 3.45	N=28 (5,6/7,6,6,9)	3 Dry					
D	3.50							
SPT (S)	3.70 - 4.12	N=50+ (6,10/12,17,17,4 for 50mm)	Dry					
			4 10/11/2020 1700 (0.00) Dry	End of Borehole at 4.12 m	4.19	105.91		
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	4.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 4.12m on encountering hard strata.

Log last updated 03/09/2021

BOREHOLE RECORD

Borehole WS20

Contract No: D10208

Site: Gartree 2

GL (m AOD) 110.75 Scale 1:50

Easting: 470556.40 Northing: 288856.50

Client: Pick Everard

Driller: RE Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 10/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Orangish brown, mottled grey brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subrounded, fine to medium of quartzite and coal. Rootlets noted.	(0.40) 0.40	110.35		
B	0.50 - 0.70			Firm orangish brown, mottled grey, slightly sandy, slightly gravelly CLAY of intermediate plasticity. Gravel is angular to subangular, fine to medium of coal.	(1.00)			
D SPT (S)	1.10 1.20 - 1.65		1 Dry		1.40	109.35		
D	1.70			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(1.20)			
SPT (S)	2.00 - 2.45	N=25 (3,4/5,6,5,9)	2 Dry		2.60	108.15		
D	2.70			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	(1.58)			
SPT (S)	3.00 - 3.45	N=28 (5,5/6,6,7,9)	3 Dry					
D	3.50							
SPT (S)	3.80 - 4.18	N=50+ (5,9/12,14,19,6)	Dry					
			4					
			10/11/2020 1700 (0.00) Dry	End of Borehole at 4.18 m	4.18	106.57		
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)					Chiselling / Hard Strata			Casing Depths		Hole Diameter	
Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)	From (m)	To (m)	Time (hr)	Diameter (mm)	Depth (m)	Diameter (mm)	Depth (m)
										87 77	2.00 4.00

Log last updated 03/09/2021

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 4.18m on encountering hard strata.

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS21

Contract No: D10208

Site: Gartree 2

GL (m AOD) 113.25 — Scale 1:50

Easting: 470681.30 — Northing: 288811.10

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 09/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Stiff orangish brown, slightly sandy, slightly gravelly, silty CLAY of high plasticity. Gravel is angular to subrounded, fine to coarse of quartzite and coal.	(1.10)			
B	0.50 - 0.70							
SPT (S)	1.20 - 1.65	N=9 (1,2/2,2,2,3)	1 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.10	112.15		
D	1.50				(0.80)			
SPT (S)	2.00 - 2.45	N=23 (3,4/5,5,6,7)	2 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.90	111.35		
D	2.50				(1.02)			
SPT (S)	2.80 - 2.92	N=50+ (16,9 for 50mm/50 for 0mm)	Dry 09/11/2020 1700 3 (0.00) Dry	End of Borehole at 2.92 m	2.92	110.33		
			4					
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	2.80

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.92m on encountering hard strata.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS22

Contract No: D10208

Site: Gartree 2

GL (m AOD) 115.48 — Scale 1:50

Easting: 470806.40 — Northing: 288876.60

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 09/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
D ES	0.10 0.10			MADE GROUND: Brown and dark grey slightly sandy, gravelly topsoil. Gravel is angular, fine to coarse of clinker.	(0.20) 0.20	115.28		
B D ES	0.50 - 0.70 0.50 0.50			Stiff light orangish brown, mottled grey, slightly sandy, slightly gravelly, CLAY. Gravel is angular to subrounded, fine to coarse of quartzite and coal. *0.60m: Land drain noted.*	(1.20)			
SPT (S)	1.20 - 1.65	N=13 (2,2/3,3,3,4)	1 Dry					
D	1.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY of high plasticity. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	1.40	114.08		
SPT (S)	2.00 - 2.44	N=50+ (6,9/11,10,12,17 for 65mm)	2 Dry		(1.04)			
			09/11/2020 1700 (0.00) Dry	End of Borehole at 2.44 m	2.44	113.04		
			3					
			4					
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 2.44m on encountering hard strata.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS23

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.79 — Scale 1:50

Easting: 470678.50 — Northing: 288946.80

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 09/11/2020

SAMPLE DETAILS			(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
Type	Depth From-To (m)	Insitu Testing						
D ES	0.10 0.10			Brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine to medium of chalk.	(0.60)			
B	0.50 - 0.70			Stiff orangish brown, mottled grey, slightly sandy, slightly gravelly CLAY. Gravel is angular, fine to medium of coal.	0.60	112.19		
SPT (S)	1.20 - 1.65	N=6 (1,1/1,2,1,2)	1 Dry		(1.40)			
D	1.50							
SPT (S)	2.00 - 2.45	N=21 (4,4/4,5,5,7)	2 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	2.00	110.79		
D	2.50				(0.90)			
SPT (S)	3.00 - 3.19	N=50+ (10,15 for 30mm/24,26 for 10mm)	3 Dry 09/11/2020 1700 (0.00) Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	2.90 (0.29) 3.19	109.89 109.60		
			4	End of Borehole at 3.19 m				
			5					
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	3.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 3.19m on encountering hard strata.

Log last updated 03/09/2021

DUNELM GEOTECHNICAL & ENVIRONMENTAL — BRITISH DRILLING ASSOCIATION

BOREHOLE RECORD

Borehole WS24

Contract No: D10208

Site: Gartree 2

GL (m AOD) 112.96 — Scale 1:50

Easting: 470679.40 — Northing: 288960.60

Client: Pick Everard — Driller: RE — Logged By: RA — Sheet 1 of 1

Method: Windowless Sampling — Checked By: BL — Dates: 10/11/2020

SAMPLE DETAILS Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)	Legend	Well/ Backfill
D ES	0.10 0.10			Orangish brown, slightly sandy, slightly gravelly, clayey TOPSOIL. Gravel is angular to subangular, fine to medium of chalk. Rootlets noted.	(0.40)			
B	0.50 - 0.70			Stiff orangish brown, mottled grey, slightly sandy, slightly gravelly CLAY. Gravel is angular, fine to medium of coal.	0.40	112.56		
SPT (S)	1.20 - 1.65		1 Dry					
D	1.50				(2.60)			
SPT (S)	2.00 - 2.45	N=7 (1,1/2,1,2,2)	2 Dry					
D	2.50							
SPT (S)	3.00 - 3.45	N=17 (2,3/3,4,5,5)	3 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	3.00	109.96		
SPT (S)	4.00 - 4.45	N=40 (5,6/7,10,11,12)	4 Dry		(1.20)			
D	4.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).	4.20	108.76		
SPT (S)	5.00 - 5.22	N=50+ (15,10 for 40mm/18,32 for 30mm)	5 Dry		(1.02)			
			10/11/2020 1700 (0.00) Dry	End of Borehole at 5.22 m	5.22	107.74		
			6					
			7					
			8					
			9					
			10					

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	4.00
67	5.00

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 5.22m on encountering hard strata.

Log last updated 03/09/2021

BOREHOLE RECORD

Borehole WS25

Contract No: D10208

Site: Gartree 2

GL (m AOD) 115.91 Scale 1:50

Easting: 470796.30 Northing: 288974.10

Client: Pick Everard

Driller: RE | Logged By: RA

Sheet 1 of 1

Method: Windowless Sampling

Checked By: BL

Dates: 09/11/2020

Type	Depth From-To (m)	Insitu Testing	(Casing) Groundwater	STRATA RECORD Description	Depth (m)	Level (m AOD)
D ES	0.10 0.10			Firm light orangish brown, mottled grey, slightly sandy, slightly gravelly CLAY. Gravel is angular to subangular, fine to coarse of chalk and coal. Cobbles and/or boulders of granite noted.		
B	0.50					
			1		(1.80)	
SPT (S)	1.20 - 1.65	N=8 (1,2/2,2,2,2)	Dry			
D	1.50					
					1.80	114.11
SPT (S)	2.00 - 2.45	N=18 (5,7/5,4,4,5)	2 Dry	Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).		
D	2.50				(1.50)	
SPT (S)	3.00 - 3.45	N=32 (6,6/6,8,8,10)	3 Dry			
				3.20m to 3.30m: Orange brown, silty, fine to medium SAND.	3.30	112.61
D	3.50			Very stiff grey mottled orange brown slightly sandy gravelly CLAY. Gravel is angular fine to coarse of siltstone. (Dyrham Formation).		
SPT (S)	3.90 - 4.25	N=50+ (12,12/14,18,18 for 50mm)	4 Dry		(0.95)	
			09/11/2020 1700 (0.00) Dry			
				End of Borehole at 4.25 m	4.25	111.66
			5			
			6			
			7			
			8			
			9			
			10			

Ground Water (m)

Depth Struck (m)	Casing Depth (m)	Water Level	Minutes	Water sealed (m)
2.20				

Chiselling / Hard Strata

From (m)	To (m)	Time (hr)

Casing Depths

Diameter (mm)	Depth (m)

Hole Diameter

Diameter (mm)	Depth (m)
87	2.00
77	3.90

General Remarks

1. Hand dug inspection pit to 1.20m.
2. No groundwater encountered.
3. Borehole terminated at 4.25m on encountering hard strata.

Log last updated 03/09/2021

Appendix E

Chemical Testing Records

Certificate of Analysis

Certificate Number	20-23377	20-Nov-20
Client	Dunelm Geotechnical & Environmental Ltd Foundation House St. John's Road Meadowfield Durham DH7 8TZ	
Our Reference	20-23377	
Client Reference	D10208	
Order No	22058 D10208 BL	
Contract Title	Gartree 2 Ground Investigation	
Description	6 Soil samples.	
Date Received	17-Nov-20	
Date Started	17-Nov-20	
Date Completed	20-Nov-20	
Test Procedures	Identified by prefix DETSn (details on request).	
Notes	Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.	

Approved By

Adam Fenwick
Contracts Manager

mCERTS
THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

UKAS TESTING
2139

Summary of Chemical Analysis
Matrix Descriptions

Our Ref 20-23377
Client Ref D10208
Contract Title Gartree 2 Ground Investigation

Sample ID	Depth	Lab No	Completed	Matrix Description
WS1	0.1	1762509	20/11/2020	Dark brown slightly sandy CLAY including odd rootlets
WS4	0.1	1762510	20/11/2020	Dark brown slightly sandy CLAY including odd rootlets
WS9	0.1	1762511	20/11/2020	Dark brown dark grey slightly sandy CLAY including odd rootlets
WS17	0.1	1762512	20/11/2020	Dark brown slightly gravelly, sandy CLAY including odd rootlets
WS19	0.1	1762513	20/11/2020	Dark brown slightly gravelly, sandy CLAY including odd rootlets
WS22	0.1	1762514	20/11/2020	Dark brown slightly gravelly, sandy CLAY including odd rootlets

Summary of Chemical Analysis
Soil Samples

Our Ref 20-23377
Client Ref D10208
Contract Title Gartree 2 Ground Investigation

				Lab No	1762509	1762510	1762511	1762512	1762513	1762514
				Sample ID	WS1	WS4	WS9	WS17	WS19	WS22
				Depth	0.10	0.10	0.10	0.10	0.10	0.10
				Other ID						
				Sample Type	ES	ES	ES	ES	ES	ES
				Sampling Date	n/s	n/s	n/s	n/s	11/11/2020	11/11/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Metals										
Arsenic	DETSC 2301#	0.2	mg/kg	18	51	13	20	18	18
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.3	< 0.1	0.3	0.2	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	51	49	50	41	31	35
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32	31	34	29	26	23
Lead	DETSC 2301#	0.3	mg/kg	36	45	22	64	26	20
Mercury	DETSC 2325#	0.05	mg/kg	0.08	0.08	< 0.05	0.05	0.11	< 0.05
Nickel	DETSC 2301#	1	mg/kg	41	38	35	24	21	22
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	130	160	100	120	160	68
Inorganics										
pH	DETSC 2008#		pH	7.2	7.0	6.4	7.5	7.4	7.1
Organic matter	DETSC 2002#	0.1	%	3.4		2.0	4.8	3.3	9.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	28	19	28	22	16	22
Petroleum Hydrocarbons										
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5		< 1.5	< 1.5	< 1.5	
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2		< 1.2	< 1.2	< 1.2	
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5		< 1.5	< 1.5	< 1.5	
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4		< 3.4	< 3.4	< 3.4	
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10		< 10	< 10	< 10	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01		< 0.01	< 0.01	< 0.01	
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9		< 0.9	< 0.9	< 0.9	
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5		< 0.5	< 0.5	< 0.5	
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6		< 0.6	< 0.6	< 0.6	
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4		< 1.4	< 1.4	< 1.4	
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10		< 10	< 10	< 10	
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10		< 10	< 10	< 10	
PAHs										
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	0.3	< 0.1	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	0.2		< 0.1	0.8	0.2	0.3
Pyrene	DETSC 3301	0.1	mg/kg	0.2		< 0.1	0.7	0.2	0.3
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.2		< 0.1	0.4	0.2	0.2

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 20-23377
Client Ref D10208
Contract Title Gartree 2 Ground Investigation

				Lab No	1762509	1762510	1762511	1762512	1762513	1762514
				Sample ID	WS1	WS4	WS9	WS17	WS19	WS22
				Depth	0.10	0.10	0.10	0.10	0.10	0.10
				Other ID						
				Sample Type	ES	ES	ES	ES	ES	ES
				Sampling Date	n/s	n/s	n/s	n/s	11/11/2020	11/11/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Chrysene	DETSC 3301	0.1	mg/kg	0.2		< 0.1	0.4	0.1	0.2
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.1		< 0.1	0.3	0.2	0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	0.2	0.1	0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.1		< 0.1	0.4	0.2	0.2
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.2		< 0.1	0.5	0.2	0.3
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1		< 0.1	0.3	0.2	0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.1		< 0.1	0.2	< 0.1	0.1
PAH Total	DETSC 3301	1.6	mg/kg	< 1.6		< 1.6	4.5	1.7	2.0

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 20-23377
Client Ref D10208
Contract Title Gartree 2 Ground Investigation

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1762509	WS1 0.10	SOIL	NAD	none	Darryl Fletcher
1762511	WS9 0.10	SOIL	NAD	none	Darryl Fletcher
1762512	WS17 0.10	SOIL	NAD	none	Darryl Fletcher
1762513	WS19 0.10	SOIL	NAD	none	Darryl Fletcher
1762514	WS22 0.10	SOIL	NAD	none	Darryl Fletcher

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 20-23377
Client Ref D10208
Contract Gartree 2 Ground Investigation

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1762509	WS1 0.10 SOIL		GJ 250ml, GJ 60ml, PT 1L	Sample date not supplied, Anions 2:1 (30 days), Aliphatics/Aromatics (14 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Manual) (28 days), PAH FID (14	
1762510	WS4 0.10 SOIL		GJ 250ml, GJ 60ml, PT 1L	Sample date not supplied, Anions 2:1 (30 days), Chromium, Hexavalent (365 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Kone Cr6 (30 days), pH + Conductivity (7 days)	
1762511	WS9 0.10 SOIL		GJ 250ml, GJ 60ml, PT 1L	Sample date not supplied, Anions 2:1 (30 days), Aliphatics/Aromatics (14 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Manual) (28 days), PAH FID (14	
1762512	WS17 0.10 SOIL		GJ 250ml, GJ 60ml, PT 1L	Sample date not supplied, Anions 2:1 (30 days), Aliphatics/Aromatics (14 days), BTEX (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Kone Cr6 (30 days), Naphthalene (14 days), Organic Matter (Manual) (28 days), PAH FID (14	
1762513	WS19 0.10 SOIL	11/11/20	GJ 250ml, GJ 60ml, PT 1L		
1762514	WS22 0.10 SOIL	11/11/20	GJ 250ml, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	Air Dried	No	Yes	Yes
DETSC2123	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 062	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

End of Report

Waste Classification Report

7X2WT-VMVZD-F6VFY

Job name

Gartree 2

Description/Comments

DETS Laboratory Test Certificate 20-23377

Project

D10208

Site

Gartree 2

Related Documents

#	Name	Description
None		

Waste Stream Template

Example waste stream template for contaminated soils

Classified by

Name:
Sarah Grieves
Date:
11 Dec 2020 16:07 GMT
Telephone:
0191 3783151

Company:
Dunelm Geotechnical & Environmental
Foundation House, St John's Rd
Meadowfield
Durham
DH7 8TZ

HazWasteOnline™ Training Record:

Course	Date
Hazardous Waste Classification	-
Advanced Hazardous Waste Classification	-

Report

Created by: Sarah Grieves
Created date: 11 Dec 2020 16:07 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS1	0.10	Non Hazardous		2
2	WS4	0.10	Non Hazardous		4
3	WS9	0.10	Non Hazardous		6
4	WS17	0.10	Non Hazardous		8
5	WS19	0.10	Non Hazardous		10
6	WS22	0.10	Non Hazardous		12

Classification of sample: WS1

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS1
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	23.766	mg/kg	0.00238 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2	mg/kg	1.142	0.228	mg/kg	0.0000228 %		
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		51	mg/kg	1.462	74.539	mg/kg	0.00745 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		32	mg/kg	1.126	36.028	mg/kg	0.0036 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	36	mg/kg	1.56	56.153	mg/kg	0.0036 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.08	mg/kg	1.353	0.108	mg/kg	0.0000108 %		
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		41	mg/kg	2.976	122.027	mg/kg	0.0122 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		130	mg/kg	2.774	360.639	mg/kg	0.0361 %		
11	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
12	pH			PH		7.2	pH		7.2	pH	7.2 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-695-5	86-73-7									
17		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-581-5	85-01-8									
18		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-371-1	120-12-7									
19		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			205-912-4	206-44-0									
20		pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			204-927-3	129-00-0									
21		benzo[a]anthracene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-883-8	191-24-2									
										Total:	0.0669 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS4

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS4
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		51	mg/kg	1.32	67.337	mg/kg	0.00673 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3	mg/kg	1.142	0.343	mg/kg	0.0000343 %		
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		49	mg/kg	1.462	71.616	mg/kg	0.00716 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		31	mg/kg	1.126	34.903	mg/kg	0.00349 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	45	mg/kg	1.56	70.192	mg/kg	0.0045 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.08	mg/kg	1.353	0.108	mg/kg	0.0000108 %		
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		38	mg/kg	2.976	113.098	mg/kg	0.0113 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<**LOD**
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		160	mg/kg	2.774	443.863	mg/kg	0.0444 %		
11	pH			PH		7	pH		7	pH	7pH		
										Total:	0.078 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS9

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS9
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13	mg/kg	1.32	17.164	mg/kg	0.00172 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<**LOD**
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		50	mg/kg	1.462	73.078	mg/kg	0.00731 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34	mg/kg	1.126	38.28	mg/kg	0.00383 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	22	mg/kg	1.56	34.316	mg/kg	0.0022 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.05	mg/kg	1.353	<0.0677	mg/kg	<0.00000677 %		<**LOD**
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		35	mg/kg	2.976	104.169	mg/kg	0.0104 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<**LOD**
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		100	mg/kg	2.774	277.415	mg/kg	0.0277 %		
11	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
12	pH			PH		6.4	pH		6.4	pH	6.4 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-695-5	86-73-7									
17		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-581-5	85-01-8									
18		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-371-1	120-12-7									
19		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-912-4	206-44-0									
20		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-927-3	129-00-0									
21		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0547 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS17

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS17
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		20	mg/kg	1.32	26.407	mg/kg	0.00264 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.3	mg/kg	1.142	0.343	mg/kg	0.0000343 %		
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		41	mg/kg	1.462	59.924	mg/kg	0.00599 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		29	mg/kg	1.126	32.651	mg/kg	0.00327 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	64	mg/kg	1.56	99.828	mg/kg	0.0064 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.05	mg/kg	1.353	0.0677	mg/kg	0.00000677 %		
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		24	mg/kg	2.976	71.43	mg/kg	0.00714 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		120	mg/kg	2.774	332.898	mg/kg	0.0333 %		
11	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
12	pH			PH		7.5	pH		7.5	pH	7.5 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			201-695-5	86-73-7									
17		phenanthrene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
			201-581-5	85-01-8									
18		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-371-1	120-12-7									
19		fluoranthene				0.8	mg/kg		0.8	mg/kg	0.00008 %		
			205-912-4	206-44-0									
20		pyrene				0.7	mg/kg		0.7	mg/kg	0.00007 %		
			204-927-3	129-00-0									
21		benzo[a]anthracene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				0.5	mg/kg		0.5	mg/kg	0.00005 %		
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			205-883-8	191-24-2									
										Total:	0.0606 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS19
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	23.766	mg/kg	0.00238 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.2	mg/kg	1.142	0.228	mg/kg	0.0000228 %		
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		31	mg/kg	1.462	45.308	mg/kg	0.00453 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		26	mg/kg	1.126	29.273	mg/kg	0.00293 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	26	mg/kg	1.56	40.555	mg/kg	0.0026 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.11	mg/kg	1.353	0.149	mg/kg	0.0000149 %		
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		21	mg/kg	2.976	62.502	mg/kg	0.00625 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<LOD
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		160	mg/kg	2.774	443.863	mg/kg	0.0444 %		
11	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
12	pH			PH		7.4	pH		7.4	pH	7.4 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		fluorene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-695-5	86-73-7									
17		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8									
18		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-371-1	120-12-7									
19		fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			205-912-4	206-44-0									
20		pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			204-927-3	129-00-0									
21		benzo[a]anthracene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			205-883-8	191-24-2									
										Total:	0.0647 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS22

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample Name:
WS22
Sample Depth:
0.10 m

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#	Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		18	mg/kg	1.32	23.766	mg/kg	0.00238 %		
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<**LOD**
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		35	mg/kg	1.462	51.154	mg/kg	0.00512 %		
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	25.895	mg/kg	0.00259 %		
6	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	20	mg/kg	1.56	31.196	mg/kg	0.002 %		
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.05	mg/kg	1.353	<0.0677	mg/kg	<0.00000677 %		<**LOD**
8	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		22	mg/kg	2.976	65.478	mg/kg	0.00655 %		
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<**LOD**
10	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		68	mg/kg	2.774	188.642	mg/kg	0.0189 %		
11	pH			PH		7.1	pH		7.1	pH	7.1 pH		
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
13	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
16		phenanthrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			201-581-5	85-01-8									
17		anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		**<LOD**
			204-371-1	120-12-7									
18		fluoranthene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
			205-912-4	206-44-0									
19		pyrene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
			204-927-3	129-00-0									
20		benzo[a]anthracene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-033-00-9	200-280-6	56-55-3									
21		chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-048-00-0	205-923-4	218-01-9									
22		benzo[b]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-034-00-4	205-911-9	205-99-2									
23		benzo[k]fluoranthene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-036-00-5	205-916-6	207-08-9									
24		benzo[a]pyrene; benzo[def]chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %		
		601-032-00-3	200-028-5	50-32-8									
25		indeno[123-cd]pyrene				0.3	mg/kg		0.3	mg/kg	0.00003 %		
			205-893-2	193-39-5									
26		dibenz[a,h]anthracene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
		601-041-00-2	200-181-8	53-70-3									
27		benzo[ghi]perylene				0.1	mg/kg		0.1	mg/kg	0.00001 %		
			205-883-8	191-24-2									
										Total:	0.0381 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non CLP determinands

- **chromium(III) oxide (worst case)** (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1 H334 , Skin Sens. 1 H317 , Repr. 1B H360FD , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , STOT RE 2 H373 , Muta. 1B H340 , Carc. 1B H350 , Repr. 2 H361d , Aquatic Chronic 2 H411

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

- **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H330 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

- **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Aquatic Chronic 2 H411

- **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Skin Irrit. 2 H315

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4 H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

indeno[123-cd]pyrene (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

benzo[ghi]perylene (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass (edit as required)

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2020.346.4563.8832 (11 Dec 2020)
HazWasteOnline Database: 2020.346.4563.8832 (11 Dec 2020)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Appendix F

Geotechnical Testing Results

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

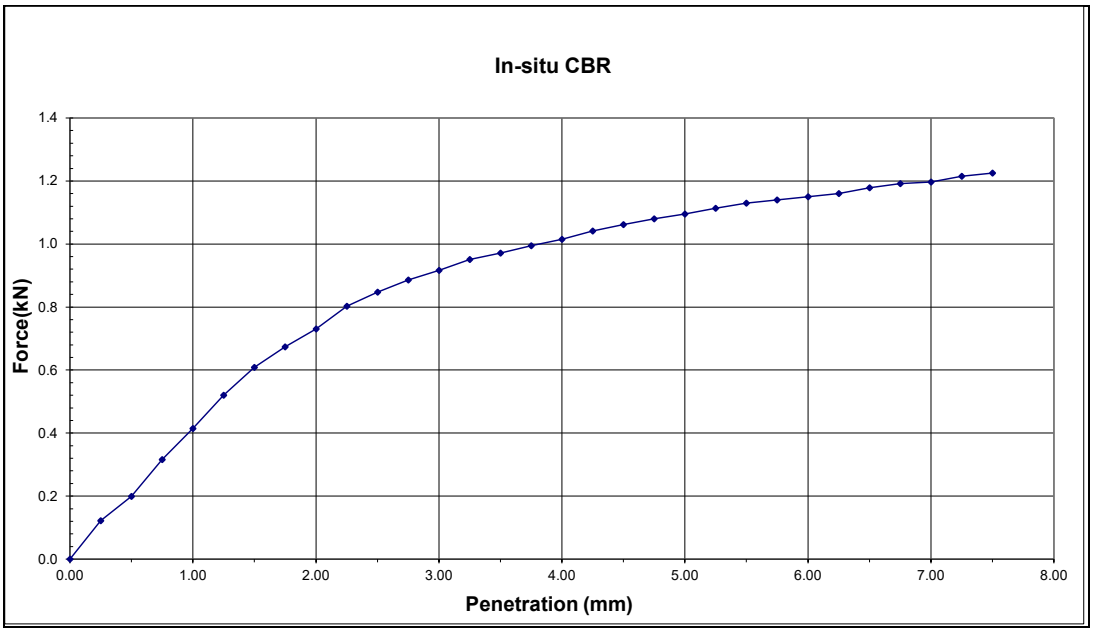
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14877
		Client ref:	WS01
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS01 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	0.5m
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) TOP	6.4
Moisture Content (%) TOP	22



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2

Signed:

For & on behalf of
Dunelm Testing Ltd

Authorised Signatories:
[✓] M. Aiston (Directo
[ ] G Dresser (Director)

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

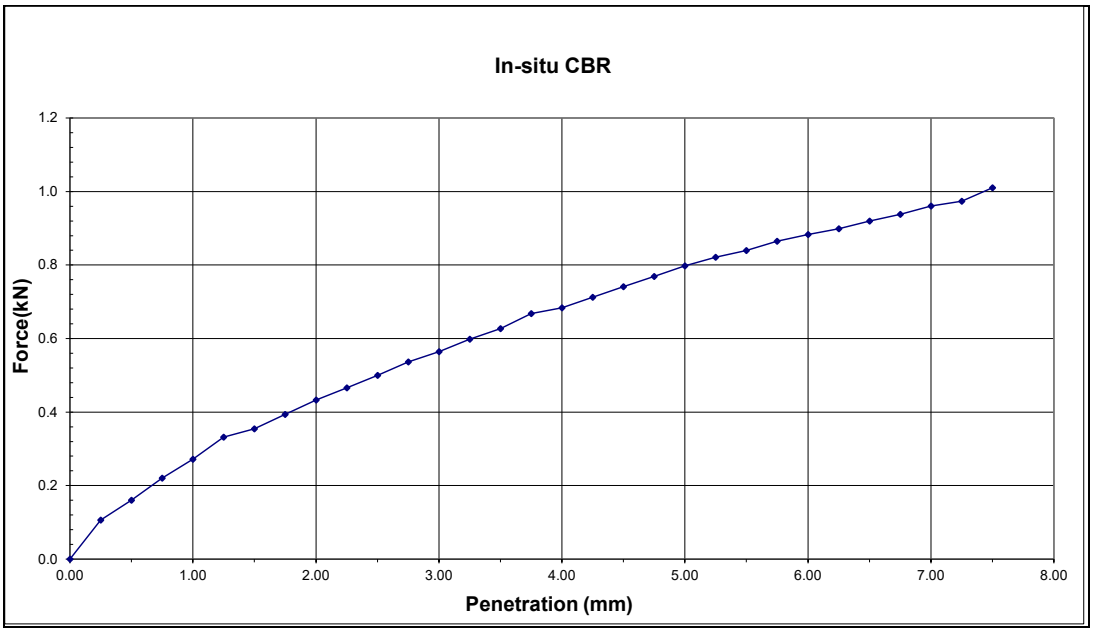
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14877
		Client ref:	WS01
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS01 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	-
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) BOTTOM	4.0
Moisture Content (%) BOTTOM	22



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2
Average CBR N/A

Signed:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Dunelm Testing Limited registered in England & Wales. Company Registration No. 04330408
Tel (0191) 349 9210 www. dunelmtesting.co.uk

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

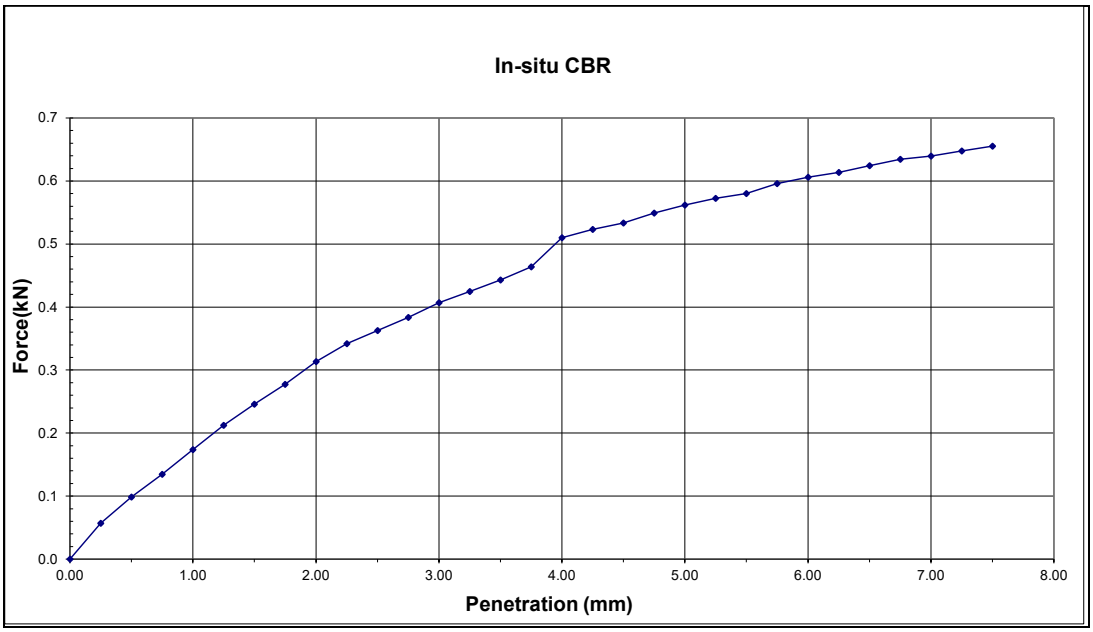
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14881
		Client ref:	WS07
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS07 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	0.5m
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) TOP	2.8
Moisture Content (%) TOP	23



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2

Signed:

Authorised Signatories:
[✓] M. Aiston (Directo
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

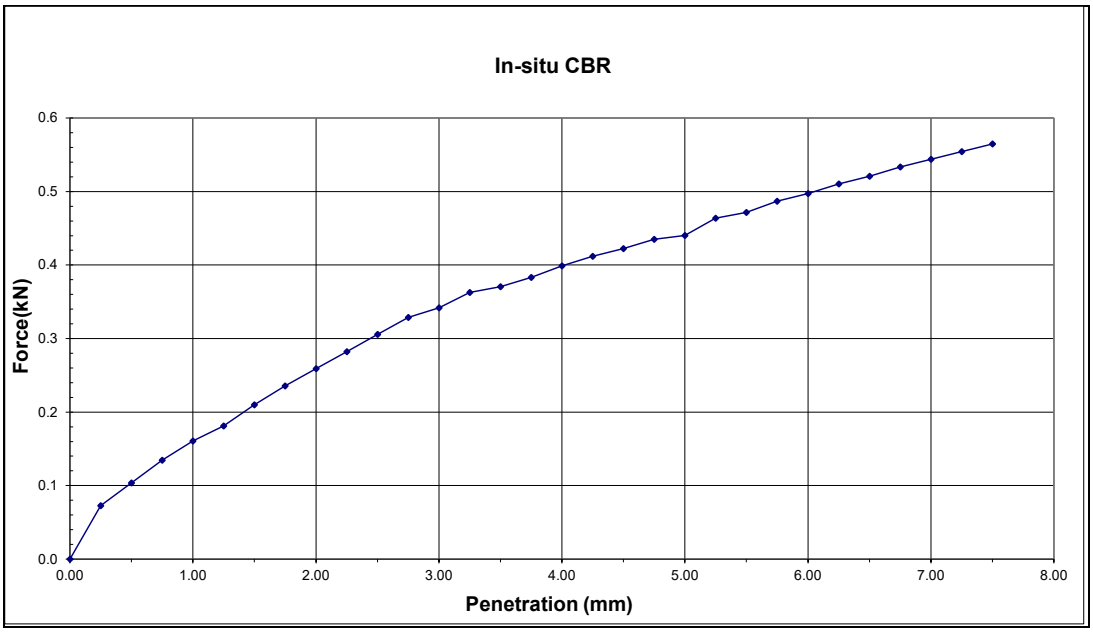
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14881
		Client ref:	WS07
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS07 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	-
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) BOTTOM	2.3
Moisture Content (%) BOTTOM	22



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2
Average CBR N/A

Signed:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

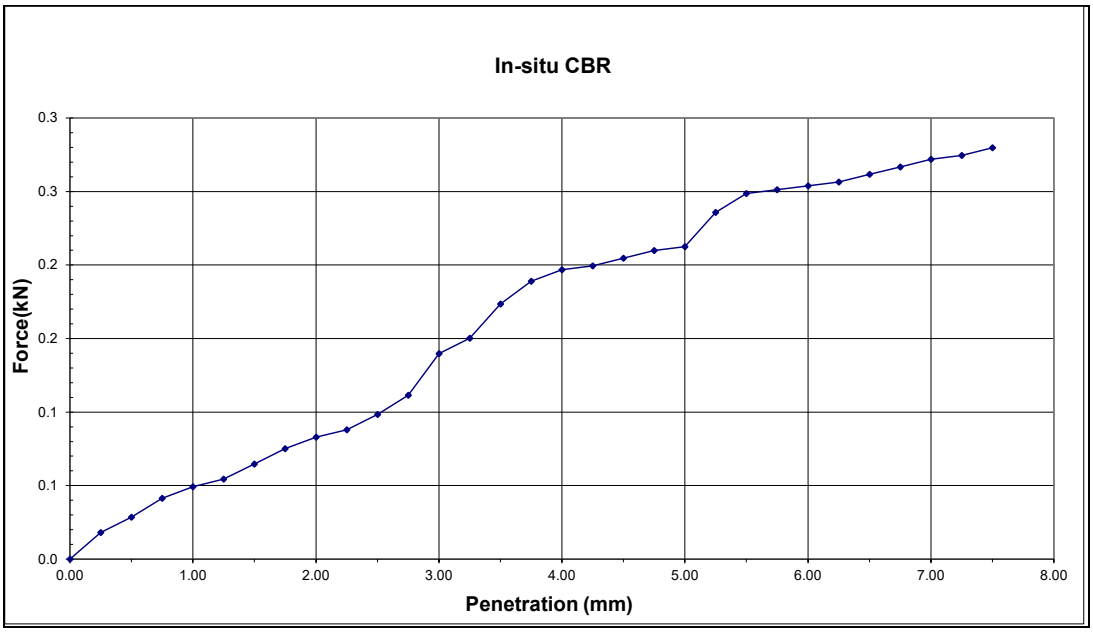
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14883
		Client ref:	WS10
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS10 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	0.5m
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) TOP	1.1
Moisture Content (%) TOP	28



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2

Signed:

Authorised Signatories:
[✓] M. Aiston (Directo
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

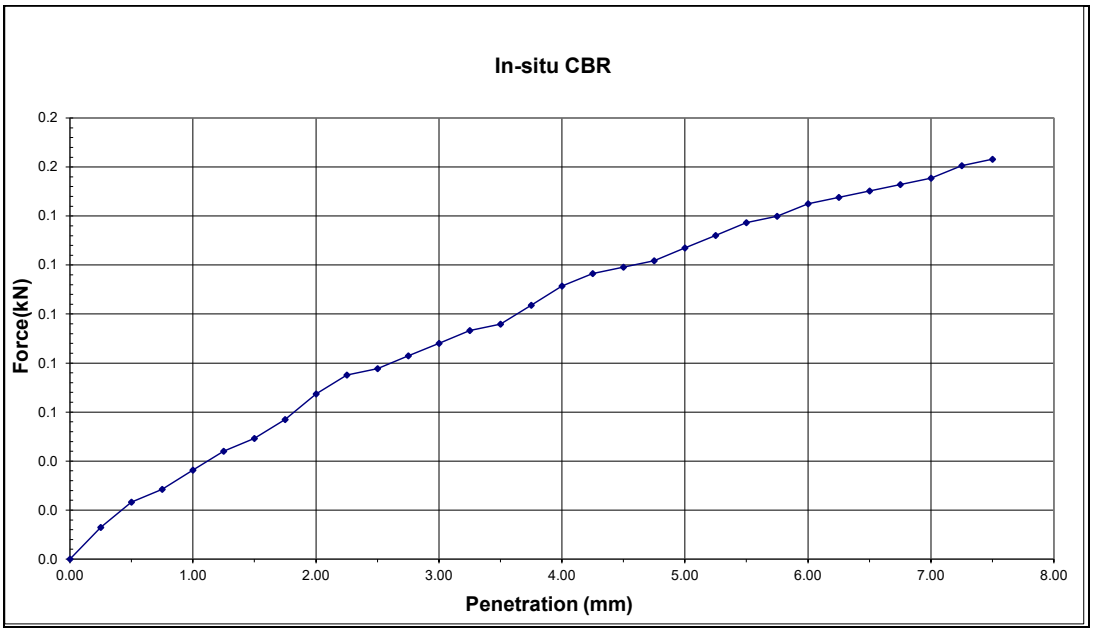
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14883
		Client ref:	WS10
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS10 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	-
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) BOTTOM	0.6
Moisture Content (%) BOTTOM	27



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2
Average CBR N/A

Signed:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Dunelm Testing Limited registered in England & Wales. Company Registration No. 04330408
Tel (0191) 349 9210 www. dunelmtesting.co.uk

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

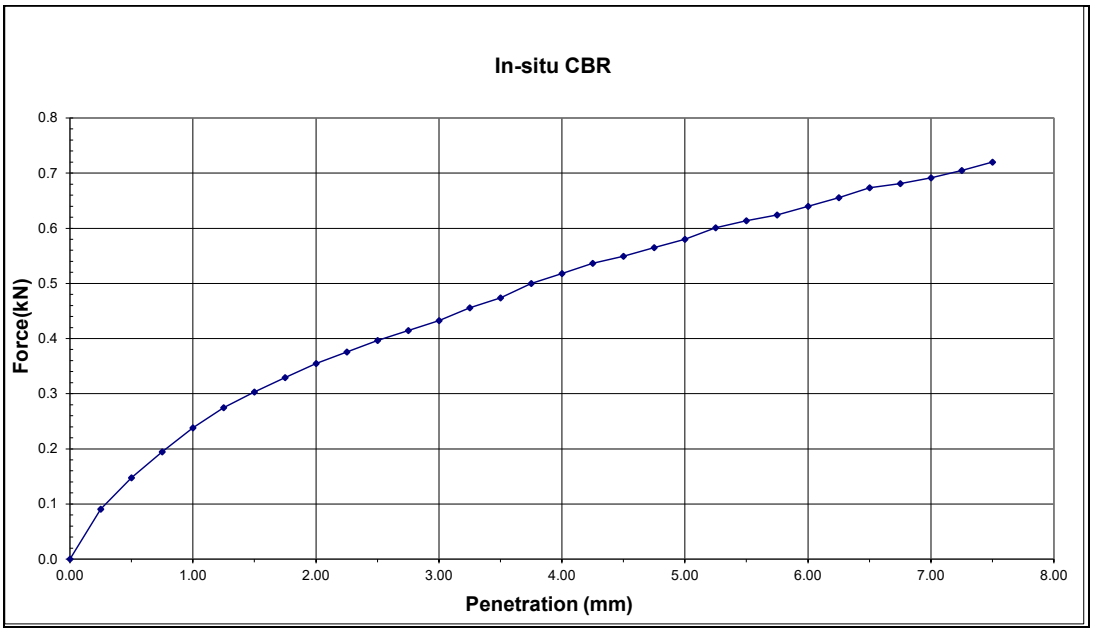
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14890
		Client ref:	WS21
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS21 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	0.5m
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) TOP	3.0
Moisture Content (%) TOP	27



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2

Signed:

Authorised Signatories:
[✓] M. Aiston (Directo
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

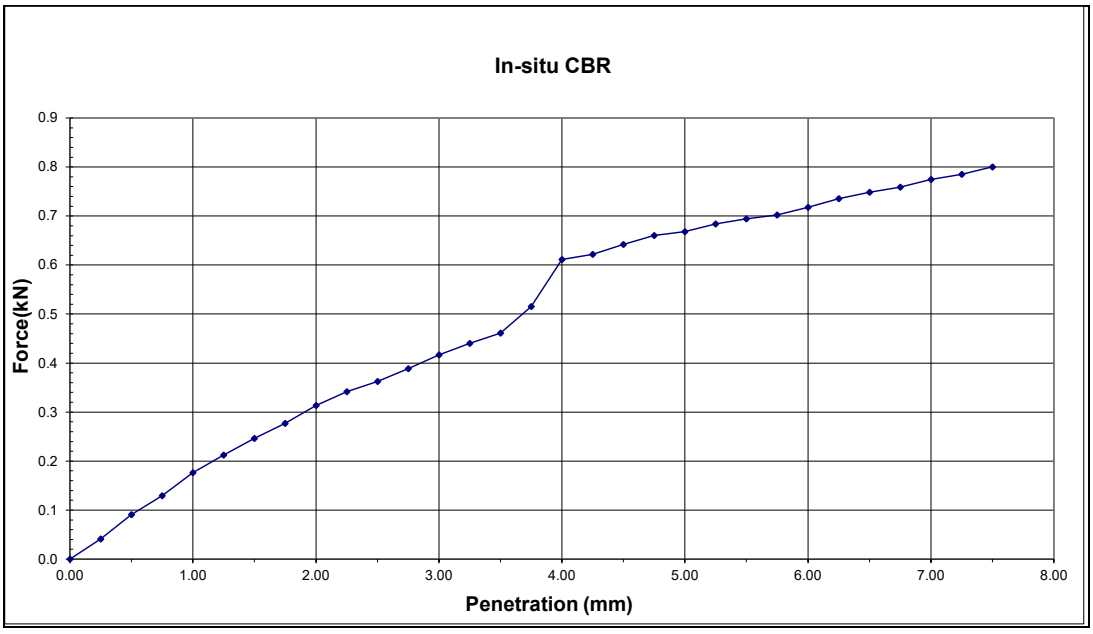
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14890
		Client ref:	WS21
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS21 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	-
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) BOTTOM	3.3
Moisture Content (%) BOTTOM	26



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2
Average CBR 3.2%

Signed:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Dunelm Testing Limited registered in England & Wales. Company Registration No. 04330408
Tel (0191) 349 9210 www. dunelmtesting.co.uk

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

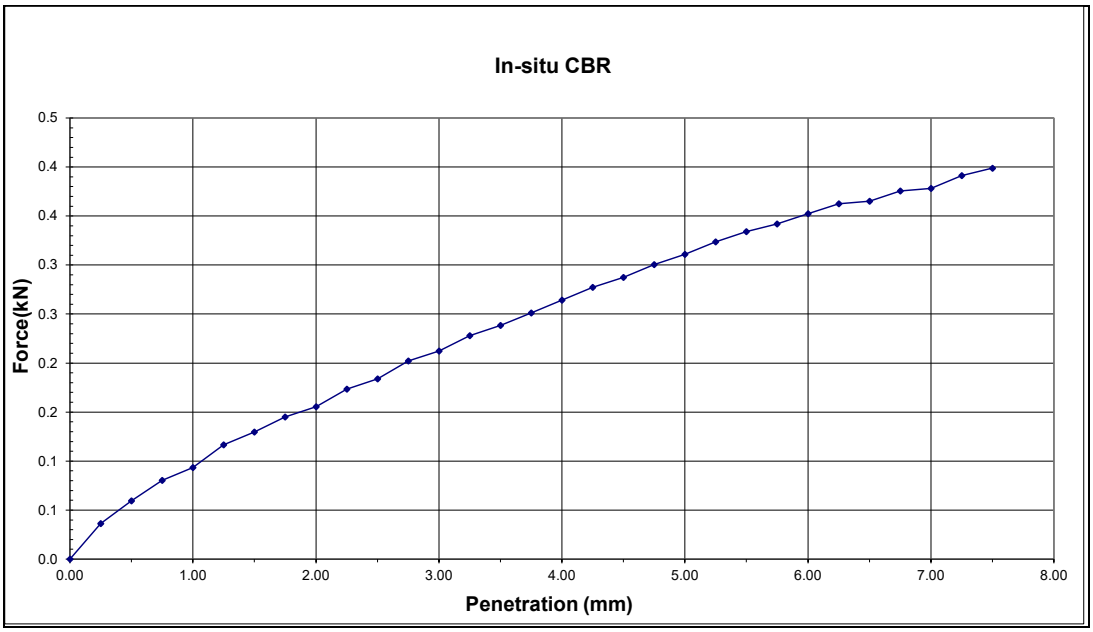
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14892
		Client ref:	WS25
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS25 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	-
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) BOTTOM	1.6
Moisture Content (%) BOTTOM	30



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2
Average CBR N/A

Signed:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

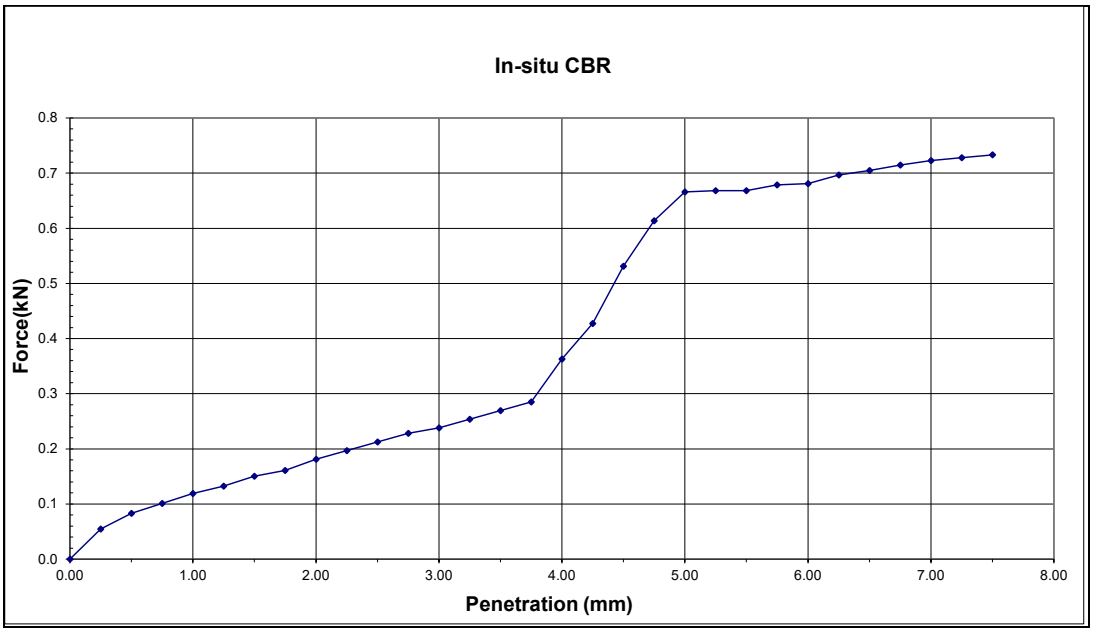
Test Report: **Determination of California Bearing Ratio (CBR)**
BS 1377: Part 4: 1990 clause 7

Report Date: 10.12.2020

Client:	Dunelm Geotechnical & Environmental	**Lab ref:**	D10208-14892
		Client ref:	WS25
Site:	Gartree 2 Gartree	**Date tested:**	09.12.2020
		Test conducted by:	AG
Sample description:	Clay		
Test location:	BH WS25 0.5m	**Surcharge (kg):**	12kg
Variation from standard method:	None	**Test depth (m):**	0.5m
Method of sample preparation:	BS 1377-1:1990	**Soaking details:**	Not soaked
>20mm present:	No		

Test Results

California Bearing Ratio (%) TOP	3.3
Moisture Content (%) TOP	30



Comments: Moisture content carried out in accordance with BS 1377: Part 2: 1990 clause 3.2

Signed:

Authorised Signatories:
[✓] M. Aiston (Directo
[ ] G Dresser (Director)

For & on behalf of
Dunelm Testing Ltd

Unit 5E, Edwardson Road, Meadowfield, Durham, DH7 8RL

Test Report: **Determination of Liquid Limit, Plastic Limit & Plasticity Index**
BS 1377: Part 2: 1990

Report Date: 10.12.2020

Client: Dunelm Geotechnical & Environmental Ltd

Lab ref: D10208-14877-14892
Client ref: D10208
Date sampled: 12.11.2020
Sampled by: DGE
Date received: 01.12.2020

Site: Gartree 2 Gartree

Sample location: See below
Material: CLAY
Source of material: Site Arisings
Test Method: Clause 4.4
Variation from standard method: None
Method of sample preparation: BS 1377-1:1990
Tested after Material >425µm washed

Date test completed: 09.12.2020
Test conducted by: AG/WB

Test Results

Test Ref/ Location	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Moisture Content (%)	Plasticity Class	Material Passing 425µm (%)
BH WS01 0.5m 14877	62	25	37	29	CH	100
BH WS02 0.8m 14878	57	27	28	34	CH	99
BH WS07 0.5m 14881	54	23	32	24	CH	100
BH WS10 0.5m 14883	44	20	24	28	CI	100
BH WS11 0.5m 14884	56	24	32	33	CH	100
BH WS12 1.5m 14885	62	25	38	25	CH	100
BH WS15 0.5m 14886	56	27	28	27	CH	99
BH WS18 0.5m 14888	55	23	32	23	CH	100
BH WS20 1.1m 14889	44	20	24	20	CI	100
BH WS21 0.5m 14890	56	24	32	24	CH	100
BH WS23 1.5m 14891	62	25	38	24	CH	100
BH WS25 0.5m 14892	54	24	30	24	CU	100

Comments:

Authorised Signatories:
[✓] M. Aiston (Director)
[ ] G. Dresser (Director)

Signed:

For & on behalf of
Dunelm Testing Ltd

Certificate of Analysis

Certificate Number 20-24613

07-Dec-20

Client Dunelm Testing Ltd
Unit 5e
Edwardson Road
Meadowfield
Durham
TS5 6HA

Our Reference 20-24613

Client Reference D20208/01

Order No DT0320

Contract Title Gartree 2 GARTREE

Description 10 Soil samples.

Date Received 02-Dec-20

Date Started 02-Dec-20

Date Completed 07-Dec-20

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Adam Fenwick
Contracts Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 20-24613
Client Ref D20208/01 *Contract*
Title Gartree 2 GARTREE

			Lab No	1770445	1770446	1770447	1770448	1770449	1770450	1770451	1770452	1770453	1770454
			.Sample ID	WS01	WS03	WS06	WS07	WS09	WS15	WS16	WS20	WS23	WS25
			Depth	0.50	0.70	0.60	0.50	0.60	0.50	0.50	1.10	1.50	0.50
			Other ID	14877	14879	14880	14881	14882	14886	14887	14889	14891	14892
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020	30/11/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**										
Inorganics													
pH	DETSC 2008#		pH	6.0	7.3	6.7	6.4	6.9	5.0	6.8	7.1	7.3	6.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110	37	52	22	87	46	39	19	31	32
Sulphur as S, Total	DETSC 2320	0.01	%	0.03	0.02	0.03	0.02	0.06	0.04	0.01	0.02	0.01	0.04
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.06	0.04	0.06	0.06	0.18	0.11	0.03	0.05	0.02	0.10

Key: # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 20-24613
Client Ref D20208/01
Contract Gartree 2 GARTREE

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1770445	WS01 0.50 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770446	WS03 0.70 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770447	WS06 0.60 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770448	WS07 0.50 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770449	WS09 0.60 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770450	WS15 0.50 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770451	WS16 0.50 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770452	WS20 1.10 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770453	WS23 1.50 SOIL	30/11/20	GJ 250ml, PT 500ml		
1770454	WS25 0.50 SOIL	30/11/20	GJ 250ml, PT 500ml		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 1

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	15	15	poor bond	6mm surface course	6		Sound no cracks or voids
2	15	55	40	no bond	20mm binder course	30		disintegrated, small part that is intact has large voids
3	55	230	175	no bond	Concrete	20		Sound, less than 1% small voids, underlain by dolomite gravel

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 2

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	20	20	poor bond	6mm surface course	6		Sound no cracks or voids
2	20	60	40	no bond	20mm binder course	25		disintegrated
3	60	215	155	no bond	Concrete	20		Sound, less than 1% small voids, underlain by dolomite gravel

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 3

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	10	20	poor bond	6mm surface course	6		Sound no cracks or voids
2	10	50	40	no bond	20mm binder course	20		disintegrated
3	50	285	235	no bond	Concrete	20		Horizontal crack at 250mm less than 1% small voids, underlain by dolomite gravel

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 4

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	5	5	poor bond	6mm surface course	6		thin layer too thin to describe
2	5	185	180	no bond	Concrete	20		>1% small voids, steel rebar at 20mm, underlain by unkown fill

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 5

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	20	20	poor bond	10mm surface course	10		Sound no cracks or voids
2	20	60	40	no bond	20mm binder course	20		disintegrated
3	60	215	155	no bond	Concrete	20		Generally sound, less than 1% small voids, horizontal crack 10mm from top of concrete around the core
								Underlying material unknown

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 6

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	10	10	poor bond	6mm surface course	6		Sound no cracks or voids
2	10	50	40	no bond	20mm binder course	20		disintegrated
3	50	230	180	no bond	Concrete	20		Sound, less than 1% small voids
								Underlying material unknown

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 7

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	20	20	poor bond	6mm surface course	6		Sound no cracks or voids
2	20	60	40	no bond	20mm binder course	20		Top 35mm intact, poor compaction (voids) lower section disintegrated
3	40	285	225	no bond	Concrete	20		Large voids suggesting poor compaction, cracked at 250mm bgl, possibly by corer, further cracks at 270mm (3 pieces)
								Underlying material unknown

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

	Project: D10208
	Job Number: Gartree 2 Gartree
	Section : -
Core Log	Core Reference : Core 8

Asphalt Core Log

Layer						Aggregate		
Number	Top (mm)	Bottom (mm)	Thickness (mm)	Interface	Material	Max Size (mm)	Type	Comments
1	0	10	10	poor bond	6mm surface course	6		Sound no cracks or voids
2	10	50	40	no bond	20mm binder course	20		disintegrated
3	50	230	180	no bond	Concrete	20		Split vertically throughout the core, less than 1% small voids
								Underlying material unknown

Pavement Condition : Trafficked

Date Cored:	12.11.20
Date Logged	16.11.20
Logged by:	NY
Reported By	GD

Appendix G

Gas and Groundwater Monitoring Results

GAS MONITORING DATA SHEET

PROJECT NUMBER	D10208
CONTRACT NAME	Gartree 2, Gartree

DATE & TIME					**REGIONAL TREND**			**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	falling			**NAME**	GA5000			
11	12	2020	10:15	11:30:00				**SERIAL NUMBER**	G505312			
AMBIENT READINGS								**LAST CALIBRITATION**	11/12/2020	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0.1	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**		1	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	973	**FINISH**	974	**SERIAL NUMBER**		**WEATHER CONDITIONS**	**GROUND CONDITIONS**	
AIR TEMPERATURE °C				**START**	8	**FINISH**	8	**LAST CALIBRITATION**		Foggy	Saturated	

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	5CM	0.10	0.10	0.34	ND	ND	1.50	1.50	19.00	19.00	NA	NA	ND	ND	0.59	3.98	
WS11	5CM	4.30	1.30	6.64	ND	ND	1.60	0.90	18.20	17.20	NA	NA	1.00	2.00	0.36	3.13	
WS12	5CM	6.70	4.20	20.34	ND	ND	2.00	2.00	15.40	15.40	NA	NA	1.00	1.00	1.12	3.10	
WS14	5CM	0.20	0.20	0.41	ND	ND	1.90	1.90	4.90	4.90	NA	NA	1.00	1.00	DRY	1.73	
WS26	5CM	6.80	5.10	15.27	ND	ND	2.40	2.30	3.30	2.90	NA	NA	ND	1.00	1.15	4.25	

GAS MONITORING DATA SHEET

PROJECT NUMBER	D10208
CONTRACT NAME	Gartree 2, Gartree

DATE & TIME					**REGIONAL TREND**			**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	rising			**NAME**	GA5000			
23	12	2020	11:30	13:00:00				**SERIAL NUMBER**	GA500672			
AMBIENT READINGS								**LAST CALIBRITATION**	23/06/2020	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**		2	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	993	**FINISH**	993	**SERIAL NUMBER**		**WEATHER CONDITIONS**	**GROUND CONDITIONS**	
AIR TEMPERATURE °C				**START**	8	**FINISH**	8	**LAST CALIBRITATION**		HEAVY RAIN	SATURATED MUDDY	

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	5CM	0.10	0.10	0.21	ND	ND	0.90	0.90	19.70	19.70	NA	NA	ND	ND	0.29	3.98	
WS11	5CM	3.00	1.00	-3.85	ND	ND	1.00	1.00	18.90	18.90	NA	NA	ND	1.00	0.28	3.12	
WS12	5CM	4.50	4.00	7.53	ND	ND	0.10	0.10	19.50	19.50	NA	NA	ND	ND	1.07	3.11	
WS14	5CM	6.00	4.60	0.39	ND	ND	1.70	1.70	16.10	16.10	NA	NA	ND	1.00	1.48	1.73	
WS26	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	Unable to locate.

GAS MONITORING DATA SHEET

PROJECT NUMBER	D10208
CONTRACT NAME	Gartree 2, Gartree

DATE & TIME					**REGIONAL TREND**			**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	falling			**NAME**	GA5000			
8	1	2021	11:00	12:00:00				**SERIAL NUMBER**	G501536			
AMBIENT READINGS								**LAST CALIBRITATION**	08/01/21	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**		3	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	1008	**FINISH**	1007	**SERIAL NUMBER**		**WEATHER CONDITIONS**	**GROUND CONDITIONS**	
AIR TEMPERATURE °C				**START**	0	**FINISH**	0	**LAST CALIBRITATION**		Mist	Saturated	

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	50mm	0.10	0.10	-0.14	ND	ND	1.90	1.80	19.90	19.90	NA	NA	ND	ND	0.24	3.98	
WS11	50mm	0.10	0.10	0.79	ND	ND	1.00	0.70	20.20	20.20	NA	NA	ND	ND	0.60	3.11	
WS12	50mm	-0.30	-0.30	0.41	ND	ND	3.40	3.40	15.10	15.10	NA	NA	ND	ND	0.91	3.11	
WS14	50mm	0.10	0.10	-0.15	ND	ND	3.20	2.10	18.30	18.70	NA	NA	ND	ND	1.42	1.74	
WS26	50mm	0.10	0.10	-0.07	ND	ND	0.40	0.30	21.00	21.00	NA	NA	ND	ND	0.34	4.26	

GAS MONITORING DATA SHEET

PROJECT NUMBER	D10208
CONTRACT NAME	Gartree 2, Gartree

DATE & TIME					**REGIONAL TREND**		**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	falling		**NAME**	GA5000			
02	02	2021	08:35	09:05:00			**SERIAL NUMBER**	G505312			
AMBIENT READINGS							**LAST CALIBRITATION**	17/11/2020	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0.1	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**	4	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	981	**FINISH**	981	**SERIAL NUMBER**	**WEATHER CONDITIONS**		**GROUND CONDITIONS**
AIR TEMPERATURE °C				**START**	5	**FINISH**	5	**LAST CALIBRITATION**			

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	5CM	ND	ND	-0.72	ND	ND	0.70	0.60	18.20	16.80	NA	NA	1.00	ND	0.27	3.98	gas reading taken without bung - water level too high
WS11	5CM	ND	ND	-0.64	ND	ND	0.10	0.10	18.70	18.60	NA	NA	1.00	ND	0.28	3.13	gas reading taken without bung - water level too high
WS12	5CM	2.20	1.70	4.24	ND	ND	0.20	0.10	16.50	16.50	NA	NA	1.00	1.00	0.86	3.10	
WS14	5CM	ND	ND	-0.64	ND	ND	2.00	1.90	19.60	19.30	NA	NA	1.00	ND	0.95	1.73	gas reading taken without bung - water level too high
WS26	5CM	ND	ND	-0.67	ND	ND	0.20	0.10	19.90	19.90	NA	NA	1.00	ND	0.79	4.25	

GAS MONITORING DATA SHEET

PROJECT NUMBER	D10208
CONTRACT NAME	Gartree 2, Gartree

DATE & TIME					**REGIONAL TREND**			**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	rising			**NAME**	GA5000			
5	2	2021	10:30	12:00:00				**SERIAL NUMBER**	G501536			
AMBIENT READINGS								**LAST CALIBRITATION**	05/02/21	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**		5	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	1008	**FINISH**	1008	**SERIAL NUMBER**		**WEATHER CONDITIONS**	**GROUND CONDITIONS**	
AIR TEMPERATURE °C				**START**	6	**FINISH**	6	**LAST CALIBRITATION**		Cloudy	Saturated	

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	50mm	-0.10	-0.10	0.36	ND	ND	1.80	1.80	19.80	19.80	NA	NA	ND	ND	0.56	3.98	
WS11	50mm	0.00	0.00	0.07	ND	ND	0.20	0.20	20.40	20.40	NA	NA	ND	ND	0.31	3.11	
WS12	50mm	0.00	0.00	0.45	ND	ND	2.20	2.20	19.70	19.70	NA	NA	ND	ND	0.91	3.11	
WS14	50mm	-0.10	-0.10	0.24	ND	ND	0.20	0.10	20.40	20.50	NA	NA	ND	ND	0.34	1.74	
WS26	50mm	-0.10	-0.10	0.10	ND	ND	1.10	1.10	20.30	20.30	NA	NA	ND	ND	0.86	4.26	

GAS MONITORING DATA SHEET

PROJECT NUMBER	
CONTRACT NAME	

DATE & TIME					**REGIONAL TREND**		**INSTRUMENT DETAILS**		**NOTES**		
DAY	MONTH	YEAR	TIME (Start)	TIME (Finish)	falling		**NAME**	GA5000			
19	02	2021	07:40	12:00:00			**SERIAL NUMBER**	G505312			
AMBIENT READINGS							**LAST CALIBRITATION**	17/11/2020	**VISIT NO**		
O2 (% v/v)	20.9	**CO2 (% v/v)**	0.1	**CH4 (% v/v)**	0	**PID reading (ppm)**		**NAME**	6	**OF**	6
ATMOSPHERIC PRESSURE (mbar)				**START**	996	**FINISH**	996	**SERIAL NUMBER**	**WEATHER CONDITIONS**		**GROUND CONDITIONS**
AIR TEMPERATURE °C				**START**	8	**FINISH**	8	**LAST CALIBRITATION**			

BH No.	**Pipe Diameter**	**Flow Rate (l/hr)**		**Relative pressure mbar**	**CH_4 (%v/v)**		**CO_2 (%v/v)**		**O_2 (%v/v)**		**PID (ppm)**		**H_2S (ppm)**	**CO (ppm)**	**SWL (m bgl)**	**Base of pipe (m bgl)**	**Remarks**
		Peak	**Steady**		**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Steady**	**Peak**	**Low**	**Range**	**Range**			
WS2	50mm	ND	ND	-0.10	ND	ND	0.60	0.60	21.80	21.80	NA	NA	ND	ND	0.53	3.98	
WS11	50mm	ND	ND	-0.03	ND	ND	0.10	0.10	20.90	20.90	NA	NA	ND	ND	0.40	3.13	gas reading taken without bung - water level too high
WS12	50mm	-0.30	-0.30	-3.55	ND	ND	2.80	2.80	20.10	20.10	NA	NA	ND	1.00	0.89	3.10	
WS14	50mm	ND	ND	0.09	ND	ND	3.30	3.30	19.90	19.90	NA	NA	ND	ND	0.91	1.73	
WS26	50mm	ND	ND	0.03	ND	ND	0.20	0.20	21.50	21.50	NA	NA	ND	ND	1.18	4.25	gas tap open on arrival

Appendix H

Dunelm Conditions of Offer, Notes on Limitations & Basis for Contract

Dunelm Conditions of Offer, Notes on Limitations & Basis for Contract

These conditions accompany our tender and supercede any previous conditions issued. The firm will prepare a report solely for the use of the Client (the party invoiced) and its agent(s). No reliance should be placed on the contents of this report, in whole or in part by 3rd parties. The report, its content and format and associated data are copyright, and the property of the firm. Photocopying of part or all of the contents, transfer or reproduction of any kind is forbidden without written permission from the firm. A charge may be levied against such approval, the same to be made at the discretion of the firm.

Site investigation is a process of sampling. The scope and size of an investigation may be considered proportional to levels of confidence regarding the ground and groundwater conditions. The exploratory holes undertaken investigate only a small volume of the ground in relation to the overall size of the site, and can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions as encountered within each of the exploratory holes. There may be different ground conditions elsewhere on the site which have not been identified by this investigation and which therefore have not been taken into account in this report. Reports are generally subject to the comments of the local authority and Environment Agency. The comments made on groundwater conditions are based on observations made at the time that site work was carried out. It should be noted that mobile contamination, soil gas levels and groundwater levels may vary owing to seasonal, tidal and/or weather related effects. Unrecorded ancient mining may occur anywhere where seams that have been worked and influence the rock and soil above. Dissolution cavities can occur where gypsum or chalk is present. Rotary drilling is the recommended technique to prove the integrity of the rock.

Where the scope of the investigation is limited via access to information, time constraints, equipment limitations, testing, interpretation or by the client or his agents budgetary constraints, elements not set out in the proposal and excluded from the report are deemed to be omitted from the scope of the investigation.

The firm cannot be held liable and do not warrant, or otherwise guarantee the validity of information provided by third parties and subsequently used in our reports. The firm are not responsible for the action negligent or otherwise of subcontractors or third parties.

Desk studies are generally prepared in accordance with RICS guidelines. Environmental site investigations are generally undertaken as ‘exploratory investigations’ in accordance with the definitions provided in paragraph 5.2.7 of BS 10175:2011 +A2:2017 in order to confirm the conceptual assumptions, and in accordance with BS5930:2015. You are advised to familiarize yourself with the typical scope of such an investigation. No pumping of water will be undertaken unless a licence or facilities/equipment have been arranged by others.

Where the type, number or/and depth of exploratory hole is specified by others, the firm cannot and will not be responsible for any subsequent shortfall or inadequacy in data, and any consequent shortfall in interpretation of environmental and geotechnical aspects which may be required at a later date in order to facilitate the design of permanent or temporary works.

All information acquired by the firm in the course of investigation is the property of the firm, and, only also becomes the joint property of the Client only on the complete settlement of all invoices relating to the project. The firm reserves the right to use the information in commercial tendering and marketing, unless the Client expressly wishes otherwise in writing. The quoted rates do not include VAT, and payment terms are 30 days from dispatch of invoice from our offices. Quotes are subject to a site visit.

We have allowed for 1 mobilisation and normal working hours unless otherwise stated. The scope of the investigation may be reviewed following the desk study and/or fieldwork. We have not allowed for acquiring services information, and cannot be responsible for damage to underground services or pipes not shown to us or not clearly shown on plans. Costs incurred will be passed on to you, and in commissioning the firm, you understand and accept that you/your agent have a contractual relationship with the firm & you accept this. Our rates assume unobstructed, reasonably level and firm access to the exploratory positions and adequate clear working areas and headroom. We have priced on the basis that you or your client have the necessary permissions, wayleaves and approvals to access land. All boreholes and pits are backfilled with arisings except where gas monitoring pipes are installed with stopcock covers. Dunelm are not responsible for any uneven surfaces as a result of siteworks and rutting and backfilled excavations may require re-levelling and/or making good by others after fieldwork is complete. Dunelm have not allowed for subsequent reinstatement as a result of settlement. No price has been provided or requested for a return visit to remove pipework and covers. No price has been provided or requested for a return visit to remove pipework and covers. Hourly rates apply to consultancy only and do not include expenses unless otherwise shown. If warranties are required, legal costs incurred will be passed on to you assuming the firm agree to complete such warranties, modified or otherwise and you understand and agree to pay all costs.

We reserve the right to pursue full payment of the invoice prior to release of any information including reports. We advise you/your client that we may elect to pursue our statutory rights under late payment legislation, and will apply 8% to the base rate for unreasonably late payments. We will also apply the right to claim any associated legal costs incurred with recovery of late payments. The firm is exempt from the CIS Scheme. The firm offer to undertake work only in strict accordance with conditions covered by our current insurances, which are available for inspection. The company are not responsible for acts, negligent or otherwise of subcontractors and as a matter of policy cannot indemnify any other parties. Professional indemnity Insurance is limited to ten times the invoice net total except where stated otherwise by the firm, and we give notice that consequential loss as a direct or indirect result of the firm’s activities or omission of the same are excluded.