

Katherine McCullough
Merchant Land Investments Limited
66 Leman Street
London
E1 8EU

Dear Katherine,

Re: Manor Lodge, Northwood – Ground Investigation

Background

Erda Associates Ltd. were requested by Merchant Land Investments Limited. (hereafter referred to as the client) to undertake a ground investigation at the subject site to assess the risk of potentially contaminated soils at the site known as *Manor Lodge, Northwood*.

Site location and boundary plans are included in **Appendix A**. Finalised proposed development plans are not available at the time of writing, however, it is understood that the site will be redeveloped with residential apartments.

A previous contaminated land desk study completed by Argyll Environmental identified a moderate risk of contamination at the subject site due to a historic garage and filling station located 10m and 15m to the west, respectively. A copy of the previous desk study is included in **Appendix B**, for reference.

In light of the above, the client required an initial ground investigation to be undertaken in order to determine if the identified historic offsite activities had impacted the site.

Site Works

Erda Associates Ltd. (Erda) were asked to attend the subject site on 15th July 2021 to undertake the necessary ground investigation works at the subject site.

Three window sample boreholes were advanced to a maximum depth of 5.00mbgl in the eastern part of the site to assess the potential presence of contamination. A total of nine shallow soil samples were retrieved and sent for analysis at a UKAS/MCERTS accredited laboratory.

An exploratory hole location plan and exploratory hole logs are included in **Appendix C**.

Laboratory Analysis

Nine shallow soil samples were screened for TPH, BTEX, MTBE, VOC and SVOC's. The laboratory test results are included in **Appendix D**.

Contamination Assessment

The Contaminated Land Exposure Assessment (CLEA) guidance and published Soil Guideline Values (SGV) have been incorporated with Generic Assessment Criteria (GAC), for determinands which do not have a published SGV, to provide a competent Tier 1 Assessment. The analysis results were assessed against Tier 1 Assessment Criteria for a

residential with produce end use (the most stringent scenario). The GAC and methodology references are contained in **Appendix E**.

An assessment of the analysis results for TPH, BTEX, MTBE, VOC and SVOC's contained in **Appendix D**, revealed that all samples do not exceed the respective GAC for residential end use with produce.

Based on the above, no contamination likely to be associated with the historic nearby garage and filling station has been identified. Therefore, the risk from these land uses is considered to be negligible and further remediation work with regard to these historic land uses is not required.

Conclusion and Recommendations

No significant contamination in relation to the nearby historic garage and filling station has been identified. Therefore, further remediation relating to these nearby land uses is not considered to be required.

Should you have any queries, or require any further information, please do not hesitate to contact us.

Yours Sincerely



Phil Devitt, BSc MSc MRICS
Director

Encl.

Appendix A – Site Plans

Appendix B – Argyll Environmental Desk Study

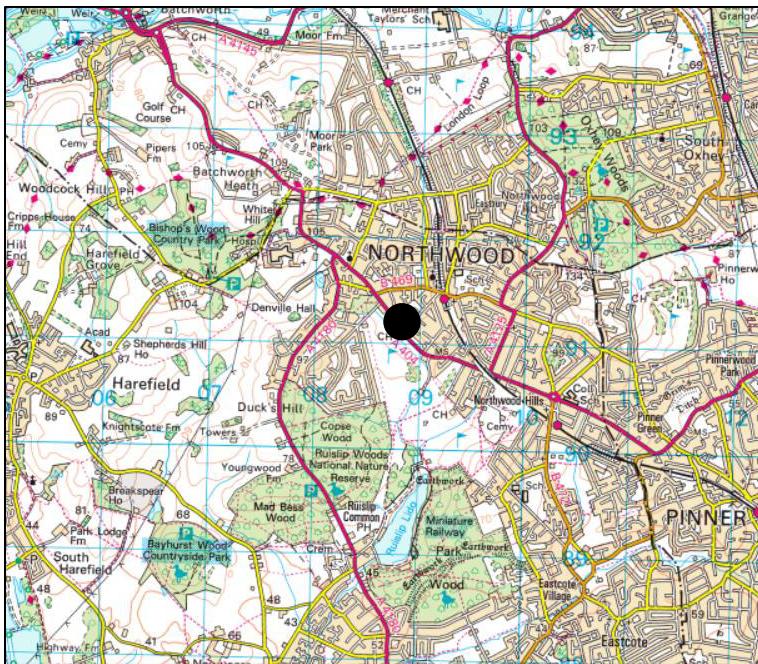
Appendix C - Exploratory Hole Location Plan & Logs

Appendix D – Chemical Analysis Results

Appendix E – Erda Associates Tier 1 GACs and Methodology

Appendix A





KEY:

● Approximate Site Location

DO NOT SCALE



Merda
Associates Ltd

TITLE:

Site Location Plan

PROJECT:

Manor Lodge, Northwood

PROJECT No:

EAL.67.21

DATE:
07/2021

SCALE :

NTS

DRAWN :

PD

DWG No:
Figure 1



KEY:



Site Boundary



DO NOT SCALE



TITLE:

Site Layout

PROJECT:

Manor Lodge, Northwood

PROJECT No:

EAL.67.21

07/2021

SCALE :

NTS

DRAWN :

PD

DWG No:

Figure 2

Appendix B





Manor Lodge Rickmansworth Road, Northwood, HA6 2QT

Report Prepared for: Search Acumen

Report Reference: 280979077

Client Reference: 11883.0006/MGW_SSC

Date: 24 June 2021



Contaminated Land

FURTHER ACTION

Recommendations | SEE PAGE 1

[CLICK HERE](#)

Consultant Commentary | SEE PAGE 4

[CLICK HERE](#)



Flood Risk

PASSED

Recommendations | SEE PAGE 2

[CLICK HERE](#)

Consultant Commentary | SEE PAGE 6

[CLICK HERE](#)



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Operational Compliance

NOT IDENTIFIED | SEE PAGE 1

Operations at the Site are unlikely to require a permit or present a risk.

[CLICK HERE](#)

Natural and Mining Related Hazards

IDENTIFIED | SEE PAGE 5

We have identified potential ground stability issues.

[CLICK HERE](#)



Authored by:

Samuel Hackett BSc (Hons), MSc, MEnvSci

t: 0330 036 6115 **e:** Sam.Hackett@landmark.co.uk



Executive Summary



Contaminated Land

FURTHER ACTION



Liability Assessment

We have identified potential soil and/or groundwater liabilities. To quantify these we recommend you undertake the action outlined below.

What is the overall risk of contaminants from on Site activities?

LOW

What is the risk of contaminants from off-site activities impacting the Site?

MODERATE

What is the environmental sensitivity (pathways and receptors) rating?

HIGH



Argyll's Recommendations

Phase 1 Environmental Audit (from £1250.00 + VAT including third-party costs)

Risk: The nearby former filling station may have caused contamination. As the Site is being redeveloped, Planning Conditions will be used as a mechanism to investigate the nature and extent of contamination, and if necessary, remediate the Site to an acceptable standard.

Action: A Phase 1 Environmental Assessment is the first step in the phased approach to contaminated land assessments. If potential contaminant linkages are identified, this will likely lead on to a Phase 2 Intrusive Investigation.

Operational Compliance



Argyll's Comment

The Site does not appear to be engaged in activities that require permitting.



Executive Summary



Flood Risk

PASSED



Consultant's Comment

The Site is not considered to be at significant risk of flooding. However, it would be prudent to consider our recommendations below.

Would a Flood Risk Assessment be required if development is proposed?

NO

What is the risk of flooding in an undefended scenario or assuming defences fail?

LOW TO MODERATE

Are there existing flood defences within 500m of the Site?

NO

Insurance

The flood risk identified is unlikely to affect obtaining buildings and contents insurance at standard terms.



Recommendations

No action required - standard enquiries only

Standard Enquiries

- Ask the seller whether flooding has occurred in the area before. If it has, please contact us for advice.
- Establish the availability of buildings and contents insurance before exchanging contracts.



Report Scope

Report Prepared on:

Manor Lodge Rickmansworth Road, Northwood, HA6 2QT

Current Use:

Light Industrial

Proposed Use:

Residential

Transaction Type:

Assumed purchase

Site Area (m²):

1852.14

National Grid Reference:

508810 191170



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Contaminated Land

Consultant Commentary



On-site Sources

LOW

A review of historical maps show the Site remained undeveloped until c.1913 when it was occupied for residential use. No further significant changes were identified in later mapping.

Off-site Sources

MODERATE

A review of historical maps dating from 1865 show the following potentially contaminative uses within 100m of the Site: a pond 50m east filled c.1913, a garage 10m west c.1959-c.1965, and a filling station 15m west c.1992-c.2006 with an associated environmental permit.

Pathways and Receptors

HIGH

The general area appears to be in residential use, with both residential properties currently on Site and proposed on Site.

No superficial deposits have been identified underlying the Site. The bedrock hydrogeology is classified as a Secondary Aquifer - A.

The Site lies within a Source Protection Zone II.

There are no abstraction licences located within 500m.

The nearest watercourse is 32m west.

Finally, no designated eco-receptors were identified within a 500m radius of the Site.

Additional Sources of Information

No additional sources of information have been used.

Natural and Mining Related Hazards



Natural and Mining Related Hazards: This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining. Hazards that may need further investigation are detailed here. This report is neither a guarantee of the physical condition of the subject Site nor a substitute for any physical investigation or inspection.

Ground Stability Considerations

| Risk | Argyll's Summary | Suggested Action |
|--------------------------------------|---|--|
| Former Mining | <p>Our search indicates that the Site is not within a Coalfield Consultation Area.</p> <p>The Site has been identified in an area that might have been used for mining other than coal in the past.</p> | <p>As such, no action is required.</p> <p>We recommend that you consult a local RICS accredited surveyor to arrange the most suitable survey for the Site, to assess whether or not it is affected by ground stability issues.</p> <p>If it has been built recently, contact Building Control at the Local Authority in order to check whether it was constructed to a standard that will minimise the risk of structural damage. Alternatively, the Site may benefit from building warranty through companies such as the NHBC.</p> |
| Natural Ground Instability | <p>Information from the BGS indicates that the ground in the area is prone to changing shape or volume, usually because of varying amounts of water in the ground throughout the year. This means that there is a moderate potential that problems could occur in the area.</p> | <p>Whether or not a Site is affected by ground movement can depend on a number of factors – including property age and type of construction.</p> <p>We recommend that you consult a local RICS accredited surveyor to arrange the most suitable survey for the Site, to assess whether or not it is affected by ground stability issues.</p> <p>If it has been built recently, contact Building Control at the Local Authority in order to check whether it was constructed to a standard that will minimise the risk of structural damage. Alternatively, the Site may benefit from building warranty through companies such as the NHBC.</p> |
| Coal Mining Subsidence Damage Claims | <p>Our search indicates that the Site is not within an area where Coal Mining Subsidence Damage Claims have been recorded.</p> | <p>As such, no action is required.</p> |

Radon

No Risk Identified.

Flood Risk

Consultant Commentary



Flood Analysis

Would a Flood Risk Assessment be required if development is proposed?

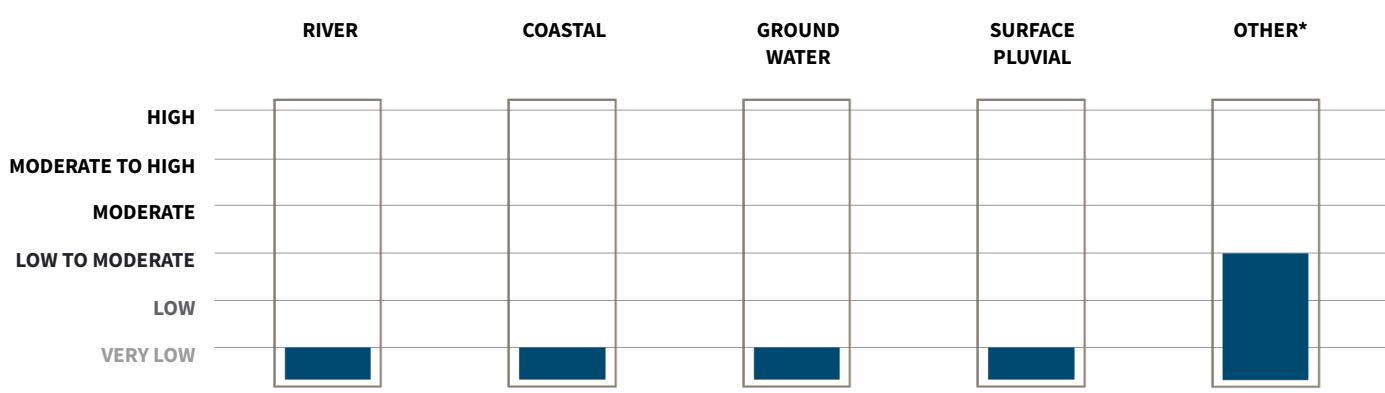
NO

What is the risk of flooding in an undefended scenario or assuming defences fail?

LOW TO MODERATE

Are there existing flood defences within 500m of the Site?

NO



* Other factors influencing flood risk include flood storage areas, historical floods, and proximity to water features.

Argyll's Comment

| | |
|---------------|--|
| River | No commentary required. |
| Coastal | No commentary required. |
| Groundwater | No commentary required. |
| Surface Water | No commentary required. |
| Other Factors | A watercourse is located 32m west. Given the size and nature of this watercourse it is unlikely to present a significant risk. |

Flood Risk

Other Considerations



Flood Risk Considerations: In this section we highlight issues that may be relevant to your transaction. These issues fall outside of the flood risk analysis above, but still warrant consideration.

Additional Considerations

| Risk | Summary | Suggested Action |
|--|---|--|
| Dam and Reservoir Failure NOT IDENTIFIED | This Site is not within an area that would be flooded in the event of a significant infrastructure failure. | Contact Canal and Rivers Trust |
| Sewer Flooding NOT SEARCHED | In times of extreme rainfall events sewers can overflow and cause local flooding. At Risk Registers are maintained by water and sewerage companies in England and Wales. These registers are not always complete so asking the seller is equally important. | Review Con29DW and send enquiries to the seller. |

Flood Risk Management Options

Flood protection measures can help manage risk, while planning for a flood event is key to minimise impact and disruption. Where a risk has been identified, the best next step is to better understand the flood depths and likely extent. Refining the risk will then inform the right solution. Where property level protection is still required, a surveyor will be best placed to advise on the configuration.

| Options | Summary |
|--------------------------|--|
| Resistance | Flood resistance measures are physical barriers designed to keep water out of the property and can either be mountable or passive. They include flood doors or guards, non return valves on plumbing and airbrick covers. If buying products, make sure they are kitemarked. |
| Resilience | Flood resilience measures are incorporated into building design to minimise damage. Once flood water subsides a resilient design avoids a major drying out spell or gutting. |
| Business Continuity Plan | A business continuity plan is a strategic plan of action to implement in an emergency (i.e. flood event). This plan ensures a business can continue to operate during emergency situations and reduces the risk of avoidable losses. |
| Flood Evacuation Plan | A flood evacuation plan sets out clear steps to ensure the safe evacuation of staff during a flood. It will form part of the Business Continuity Plan. |

Contaminated Land

Data Section



Contaminated Land Data: This section details the data used as part of our Contaminated Land Risk analysis. Each key dataset is mapped with the detail outlined beneath. We only show section headers beyond the tabular summary where we have found data to report. The relevant data has been reviewed by the report writer, supplemented by a review of historical mapping.

| | |
|------------------------------------|---|
| Tabular Summary | This section gives an overview of the data found at the Site and in the surrounding area. We present the data in three buffer zones, extending to a maximum of 500m. The search distances vary based on the scale of the activity and regulatory guidance. We display the number of records found in each database under the relevant heading. Where we have not searched a database, we will display the abbreviation N/A instead. |
| Authorised Industrial Processes | This section shows current and licensed activities relevant to contaminated land and environmental controls from a range of regulatory bodies. The search distances vary based on the scale of the activity. |
| Incidents and Enforcements | This section shows pollution incidents, licence enforcements and prosecutions. It also includes Contaminated Land Register Entries and Notices. |
| Landfill and Waste sites | This section presents detailed information on waste and landfill sites for the Site and surrounding area. |
| Current Land Use | This section shows contemporary trade directories and fuel stations. This information is indicative of operations at the Site and surrounding area, and may also relate to inactive or former land uses. |
| Historical Land Use | This section presents selected information on historical land use for the Site and surrounding area. The data shows historical land use information collected from 1:10,000 scale mapping, and for tanks and energy facilities 1:2,500 scale mapping. This includes polygon and point based land uses digitised by Landmark. |
| Groundwater Vulnerability | This section presents information relating to the aquifer designations beneath the Site. The aquifer designation of the Superficial and Bedrock geology are both mapped, followed by the detail. These aquifer designations are followed by information on the local geology. This information is considered in our Pathways and Receptors section. |
| Environmental Sensitivity | This section presents designated eco-receptors and sensitive area designations at the Site and in the surrounding area. This information is considered in our Pathways and Receptors section. |
| Natural and Mining Related Hazards | This section contains information on natural and mining related hazards, which may affect the Site. These include subsidence, radon and mining. |



Contaminated Land: Tabular Summary

Authorised Industrial Processes

| Authorisations | On-site | 1-100m | 101-250m |
|---|----------------|---------------|-----------------|
| Local Authority Pollution Prevention and Controls | 0 | 1 | N/A |
| Local Authority Integrated Pollution Prevention And Control | 0 | 0 | N/A |
| Integrated Pollution Controls | 0 | 0 | N/A |
| Environmental Permitting Regulations - Industry | 0 | 0 | N/A |
| Radioactive Substances Register* | 0 | 0 | N/A |

| Discharges | On-site | 1-100m | 101-250m |
|---|----------------|---------------|-----------------|
| Consented Discharges to Controlled Waters** | 0 | 0 | N/A |
| Referrals of Red List Discharges to Sewers (Corporate Entities)** | 0 | 0 | N/A |

| Hazardous Sites | On-site | 1-100m | 101-250m |
|---|----------------|---------------|-----------------|
| Control of Major Accident Hazards Sites (COMAH) | 0 | 0 | 0 |
| Explosive Sites | 0 | 0 | 0 |
| Notification of Installations Handling Hazardous Substances (NIHHS) | 0 | 0 | 0 |
| Planning Hazardous Substance Consents | 0 | 0 | 0 |

Incidents and Enforcements

| Contraventions | On-site | 1-100m | 101-250m |
|---|----------------|---------------|-----------------|
| Contaminated Land Register Entries and Notices | 0 | 0 | 0 |
| Local Authority Pollution Prevention and Control Enforcements | 0 | 0 | N/A |
| Enforcement and Prohibition Notices | 0 | 0 | N/A |
| Planning Hazardous Substance Enforcements | 0 | 0 | N/A |
| Environmental Pollution Incidents | 0 | 0 | N/A |
| Prosecutions (Post 2000) | 0 | 0 | N/A |

Landfill and Waste Sites

| Landfill and Waste | On-site | 1-100m | 101-250m |
|---|----------------|---------------|-----------------|
| BGS Recorded Landfill Sites | 0 | 0 | 0 |
| Integrated Pollution Control Registered Waste Sites | 0 | 0 | 0 |
| Permitted Waste Sites - Authorised Landfill Site Boundaries | 0 | 0 | 0 |
| Environmental Permitting Regulations - Waste Sites | 0 | 0 | 0 |
| Local Authority Recorded Landfill Sites | 0 | 0 | 0 |
| Registered Landfill Sites | 0 | 0 | 0 |
| Registered Waste Transfer Sites | 0 | 0 | N/A |
| Registered Waste Treatment or Disposal Sites | 0 | 0 | N/A |
| Historic Landfill | 0 | 0 | 0 |



Contaminated Land: Tabular Summary

Current Land Use

| Current Potentially Contaminative Uses | On-site | 1-100m | 101-250m |
|--|---------|--------|----------|
| Contemporary Trade Directory Entries** | 0 | 0 | N/A |
| Fuel Station Entries | 0 | 1 | N/A |

Historical Land Use

| Historical Potentially Contaminative Uses | On-site | 1-100m | 101-250m |
|---|---------|--------|----------|
| Historical Tanks And Energy Facilities | 0 | 1 | N/A |
| Potentially Contaminative Industrial Uses (Past Land Use) | 0 | 0 | N/A |

| Potentially Infilled Land | On-site | 1-100m | 101-250m |
|---------------------------------------|---------|--------|----------|
| Former Marshes | 0 | 0 | N/A |
| Potentially Infilled Land (Non-Water) | 0 | 0 | N/A |
| Potentially Infilled Land (Water) | 0 | 1 | N/A |

Groundwater Vulnerability

| Hydrogeology | On-site | 1-250m | 251-500m |
|----------------------------------|---------|--------|----------|
| Superficial Aquifer Designations | No | N/A | N/A |
| Bedrock Aquifer Designations | Yes | N/A | N/A |

Geology

| Geology | On-site | 1-250m | 251-500m |
|--|---------|--------|----------|
| BGS 1:50,000 Bedrock Geology | Yes | N/A | N/A |
| BGS 1:50,000 Superficial Deposits | No | N/A | N/A |
| BGS 1:50,000 Geological Mapping Coverage | Yes | N/A | N/A |



Contaminated Land: Tabular Summary

Environmental Sensitivity

| Environmental Sensitivity | On-site | 1-250m | 251-500m |
|--------------------------------------|---------|--------|----------|
| Areas of Outstanding Natural Beauty | 0 | 0 | 0 |
| Environmentally Sensitive Areas | 0 | 0 | 0 |
| Forest Parks | 0 | 0 | 0 |
| Local Nature Reserves | 0 | 0 | 0 |
| Marine Conservation Zones | 0 | 0 | 0 |
| National Nature Reserves | 0 | 0 | 0 |
| National Parks | 0 | 0 | 0 |
| Ramsar Sites | 0 | 0 | 0 |
| Sites of Special Scientific Interest | 0 | 0 | 0 |
| Special Areas of Conservation | 0 | 0 | 0 |
| Special Protection Areas | 0 | 0 | 0 |
| Water Abstractions | 0 | 0 | 0 |
| Source Protection Zones | 2 | 1 | 0 |

Natural and Mining Related Hazards

| Former Mining | On-site | 1-100m | 101-250m |
|--|---------|--------|----------|
| Coalfield Consultation Areas | 0 | N/A | N/A |
| Potentially Contaminative Land Uses (1950-1980) from large scale historical mapping | 0 | N/A | N/A |
| Potentially Contaminative Land Uses (1855-1909) from large scale historical mapping* | 0 | 0 | N/A |
| Potentially Contaminative Land Uses (1893-1915) from large scale historical mapping | 0 | N/A | N/A |
| Potentially Contaminative Land Uses (1906-1937) from large scale historical mapping | 0 | N/A | N/A |
| Potentially Contaminative Land Uses (1924-1949) from large scale historical mapping | 0 | N/A | N/A |
| Potentially Contaminative Industrial Uses (Past Land Use) | 0 | N/A | N/A |
| Man-Made Mining Cavities | 0 | 0 | 0 |
| BGS Recorded Mineral Sites | 0 | 0 | N/A |
| Mining Instability | 1 | N/A | N/A |
| Non Coal Mining Areas of Great Britain* | 0 | 0 | N/A |
| Potential Mining Areas | 0 | N/A | N/A |

| Salt and Brine | On-site | 1-100m | 101-250m |
|--------------------------------|---------|--------|----------|
| Brine Compensation Area | 0 | N/A | N/A |
| Brine Pumping Related Features | 0 | N/A | N/A |
| Brine Subsidence Solution Area | 0 | N/A | N/A |
| Salt Mining Related Features | 0 | N/A | N/A |



Contaminated Land: Tabular Summary

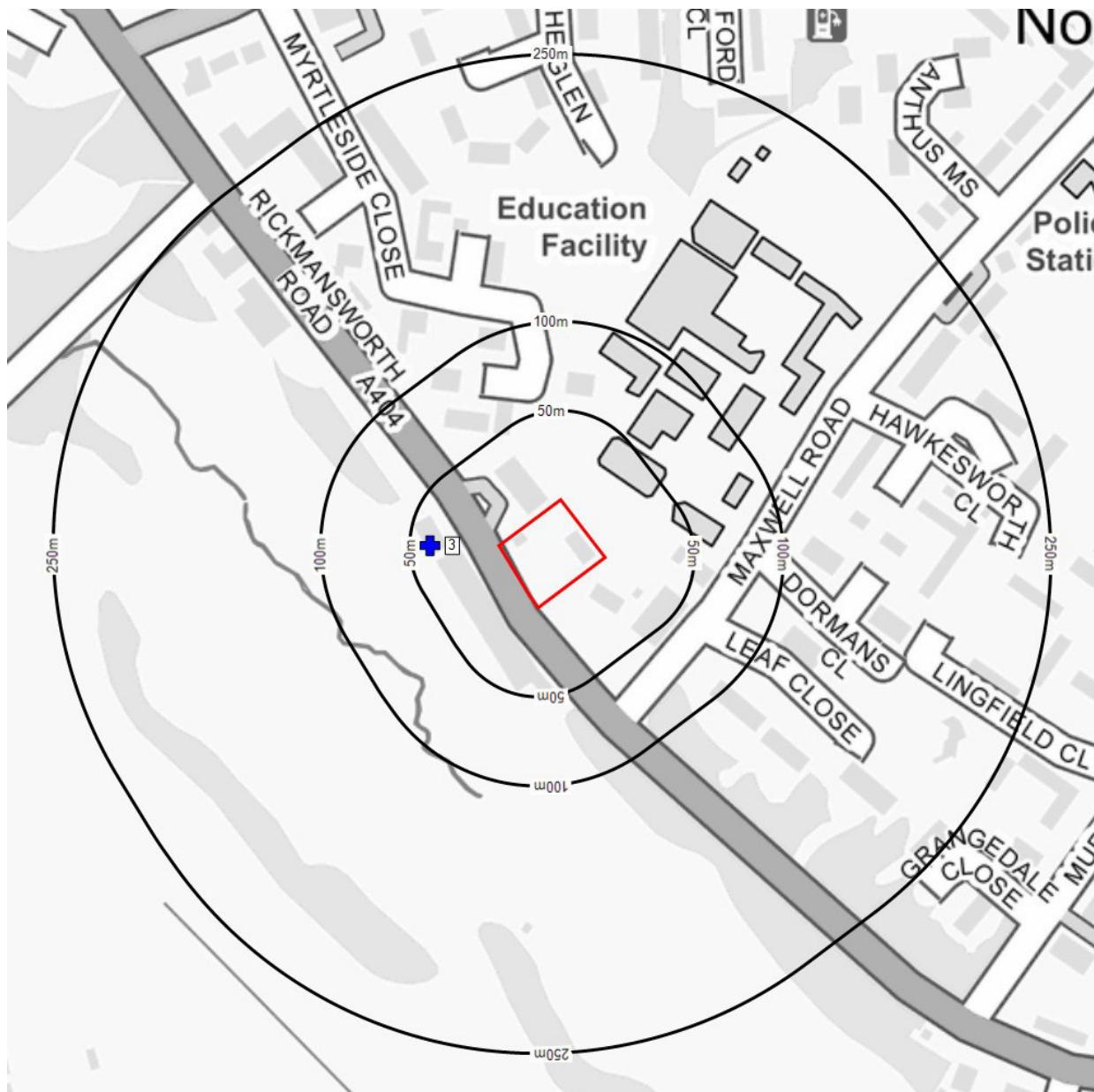
| Landfill Sites and Infilled Land | On-site | 1-100m | 101-250m |
|--|----------------|---------------|-----------------|
| Former Marshes | 0 | N/A | N/A |
| Potentially Infilled Land (Non-Water) | 0 | N/A | N/A |
| Potentially Infilled Land (Water) | 0 | N/A | N/A |
| Potentially Contaminative Industrial Uses (Past Land Use) | 0 | N/A | N/A |
| BGS Recorded Landfill Sites | 0 | N/A | N/A |
| Permitted Waste Sites - Authorised Landfill Site Boundaries | 0 | N/A | N/A |
| Registered Landfill Sites | 0 | N/A | N/A |
| Local Authority Recorded Landfill Sites | 0 | N/A | N/A |
| Historic Landfill | 0 | N/A | N/A |
| Natural Ground Instability | On-site | 1-100m | 101-250m |
| Natural Cavities | 0 | 0 | 0 |
| Potential for Landslide Ground Stability Hazards* | 0 | 0 | N/A |
| Potential for Ground Dissolution Stability Hazards* | 0 | 0 | N/A |
| Potential for Compressible Ground Stability Hazards* | 0 | 0 | N/A |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards* | 1 | 0 | N/A |
| Potential for Running Sand Ground Stability Hazards* | 0 | 0 | N/A |
| Potential for Collapsible Ground Stability Hazards* | 0 | 0 | N/A |
| Coal Mining Subsidence Damage Claims | On-site | 1-100m | 101-250m |
| Coal Mining Subsidence Damage Claims* | 0 | 0 | N/A |
| Insurance Claims from Subsidence | On-site | 1-100m | 101-250m |
| Postcode Unit Insurance Claims Rating - Subsidence | 0 | N/A | N/A |
| Radon | On-site | 1-100m | 101-250m |
| Radon Potential | 0 | N/A | N/A |

**dataset searched to 25m

*dataset searched to 50m



Contaminated Land: Authorised Industrial Processes



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| | | | |
|--|---|--|---|
| | Site | | Consented Discharges to Controlled Waters |
| | Multiple Features Present | | Referrals of Red List Discharges to Sewers (Corporate Entities) |
| | Local Authority Pollution Prevention and Controls | | Control of Major Accident Hazards Sites (COMAH) |
| | Local Authority Integrated Pollution Prevention And Control | | Explosive Sites |
| | Integrated Pollution Controls | | Notification of Installations Handling Hazardous Substances (NIHHS) |
| | Environmental Permitting Regulations - Industry | | Planning Hazardous Substance Consents |
| | Radioactive Substances Register | | |



Contaminated Land: Authorised Industrial Processes

Authorisations

Local Authority Pollution Prevention and Controls

| Map ID | Details | Distance | Direction | Contact |
|--------|---|----------|-----------|---------|
| 3 | <p>Name: Texaco Northwood Reference: NOT GIVEN Date of Issue: Location: 279 Rickmansworth Road, NORTHWOOD, Middlesex, HA6 2QW Description: PG1/14 Petrol filling station Status: Authorised</p> | 39m | W | 3 |

Local Authority Integrated Pollution Prevention And Control

No features identified.

Integrated Pollution Controls

No features identified.

Environmental Permitting Regulations - Industry

No features identified.

Radioactive Substances Register

No features identified.



Discharges

Consented Discharges to Controlled Waters

No features identified.

Referrals of Red List Discharges to Sewers (Corporate Entities)

No features identified.



Hazardous Sites

Control of Major Accident Hazards Sites (COMAH)

No features identified.

Explosive Sites

No features identified.

Notification of Installations Handling Hazardous Substances (NIHHS)

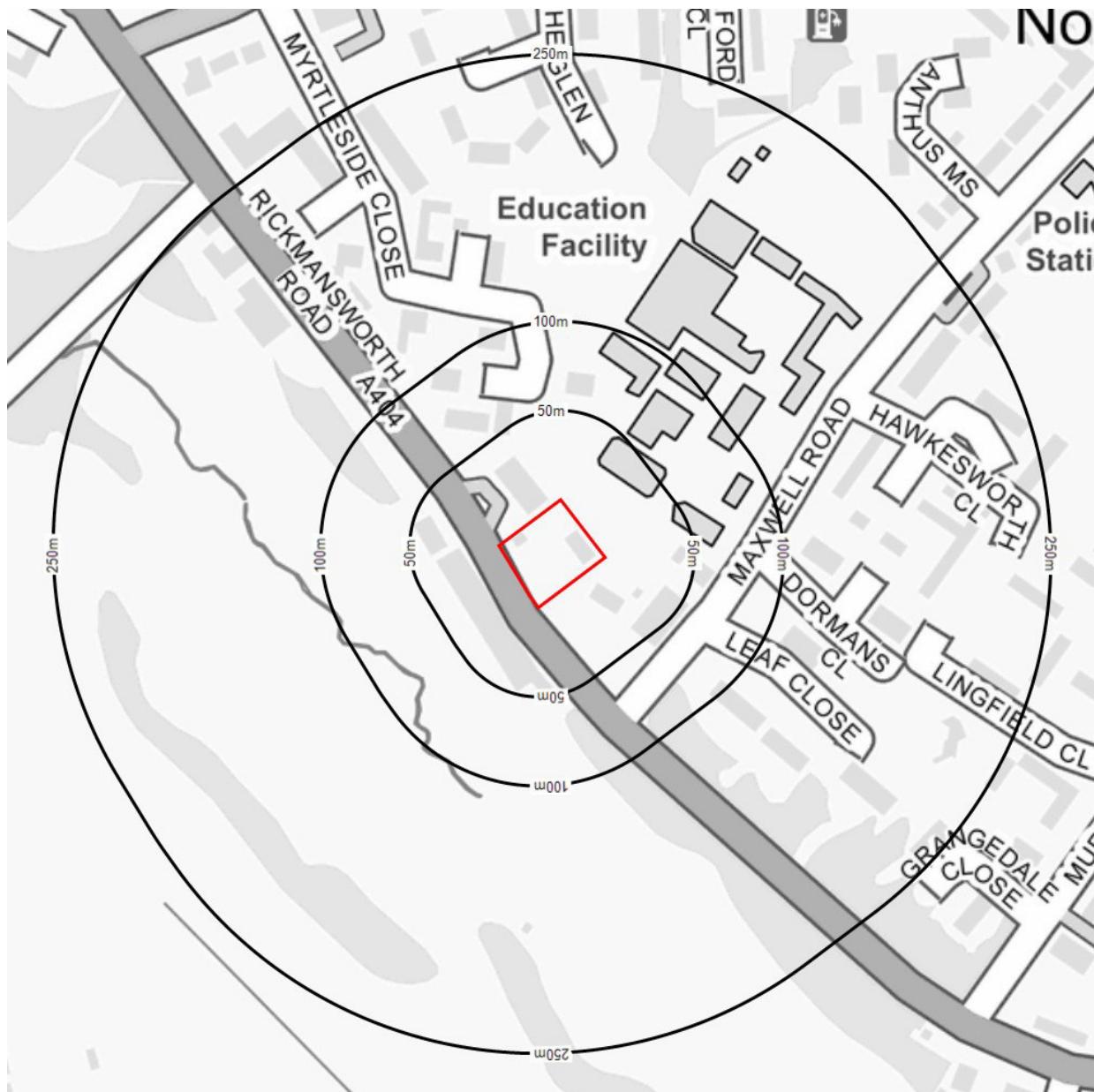
No features identified.

Planning Hazardous Substance Consents

No features identified.



Contaminated Land: Incidents and Enforcements



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Contaminated Land: Incidents and Enforcements

Contraventions

Contaminated Land Register Entries and Notices

No features identified.

Local Authority Pollution Prevention and Control Enforcements

No features identified.

Enforcement and Prohibition Notices

No features identified.

Planning Hazardous Substance Enforcements

No features identified.

Environmental Pollution Incidents

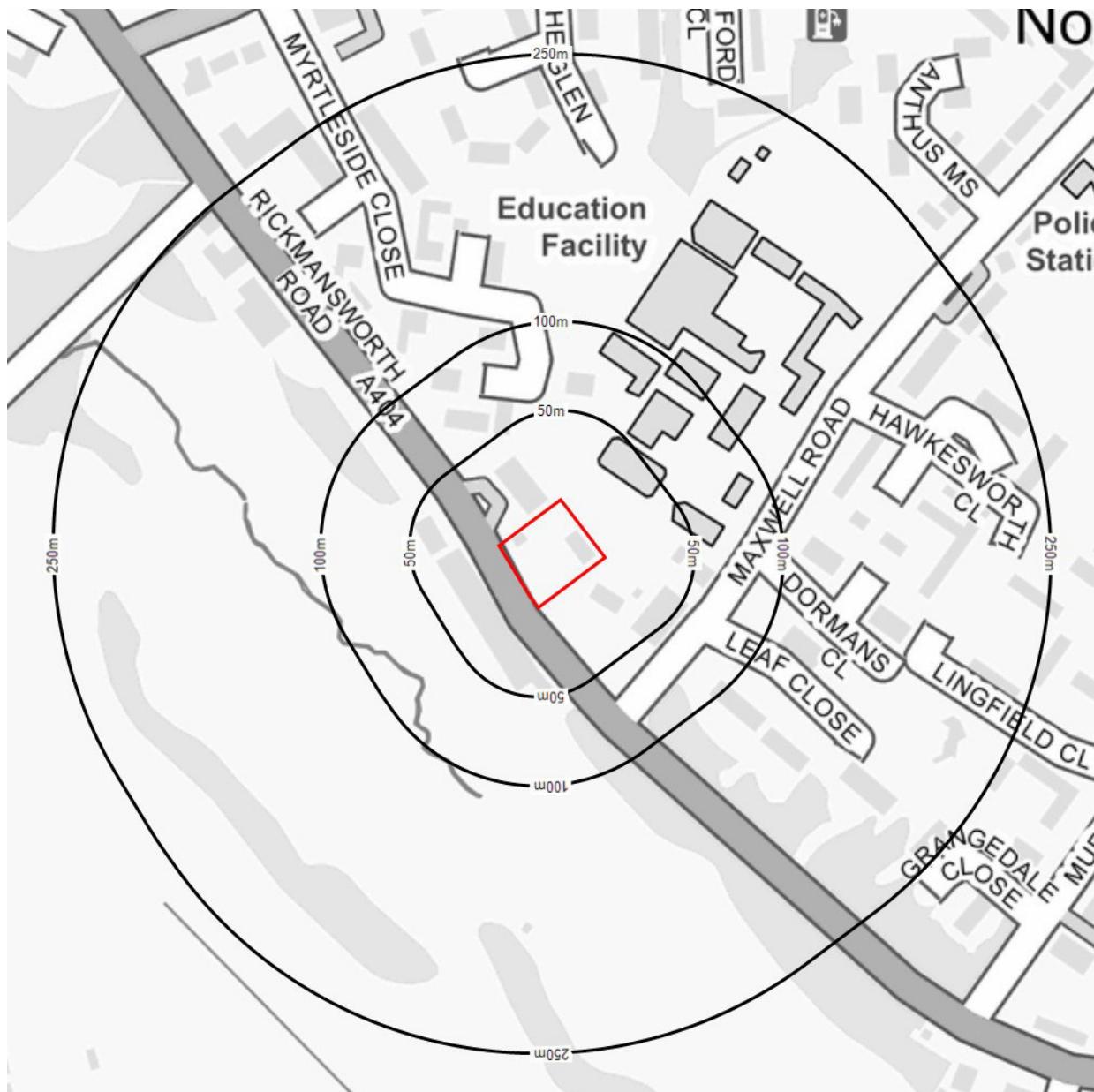
No features identified.

Prosecutions (Post 2000)

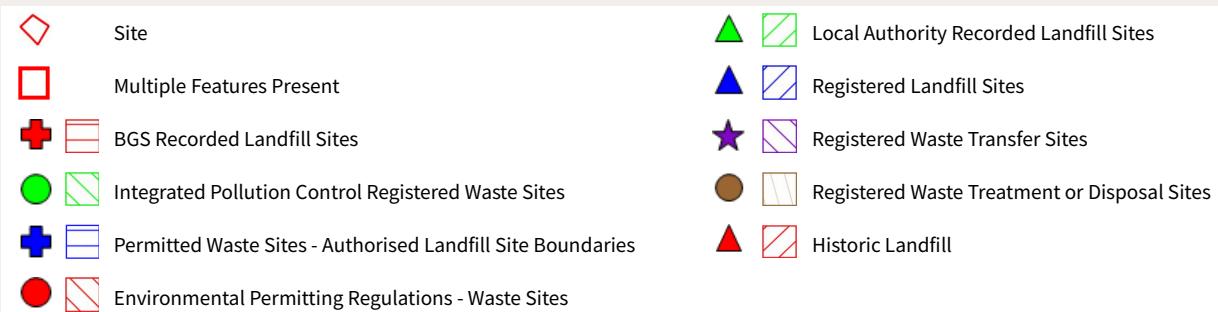
No features identified.



Contaminated Land: Landfill and Waste



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Contaminated Land: Landfill and Waste

Landfill and Waste

BGS Recorded Landfill Sites

No features identified.

Integrated Pollution Control Registered Waste Sites

No features identified.

Permitted Waste Sites - Authorised Landfill Site Boundaries

No features identified.

Environmental Permitting Regulations - Waste Sites

No features identified.

Local Authority Recorded Landfill Sites

No features identified.

Registered Landfill Sites

No features identified.

Registered Waste Transfer Sites

No features identified.

Registered Waste Treatment or Disposal Sites

No features identified.

Historic Landfill

No features identified.



Contaminated Land: Current Land Uses



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Site



Multiple Features Present



Contemporary Trade Directory Entries



Fuel Station Entries



Contaminated Land: Current Land Uses

Current Potentially Contaminative Uses

Contemporary Trade Directory Entries

No features identified.

Fuel Station Entries

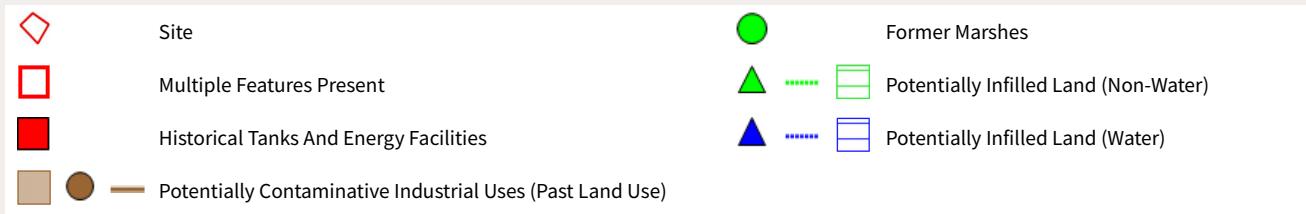
| Map ID | Details | Distance | Direction | Contact |
|--------|--|----------|-----------|---------|
| 4 | Name: Northwood Service Station Status: Obsolete Premises Type: Not Applicable Location: Rickmansworth Road, Northwood, Outer London, HA6 2QW | 39m | W | 4 |



Contaminated Land: Historical Land Uses



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Contaminated Land: Historical Land Uses

Historical Potentially Contaminative Uses

Historical Tanks And Energy Facilities

| Map ID | Details | Distance | Direction | Contact |
|--------|--|----------|-----------|---------|
| 1 | Type: Potential Tanks Date of Mapping: 1959 | 25m | W | 1 |

Potentially Contaminative Industrial Uses (Past Land Use)

No features identified.



Contaminated Land: Historical Land Uses

Potentially Infilled Land

Former Marshes

No features identified.

Potentially Infilled Land (Non-Water)

No features identified.

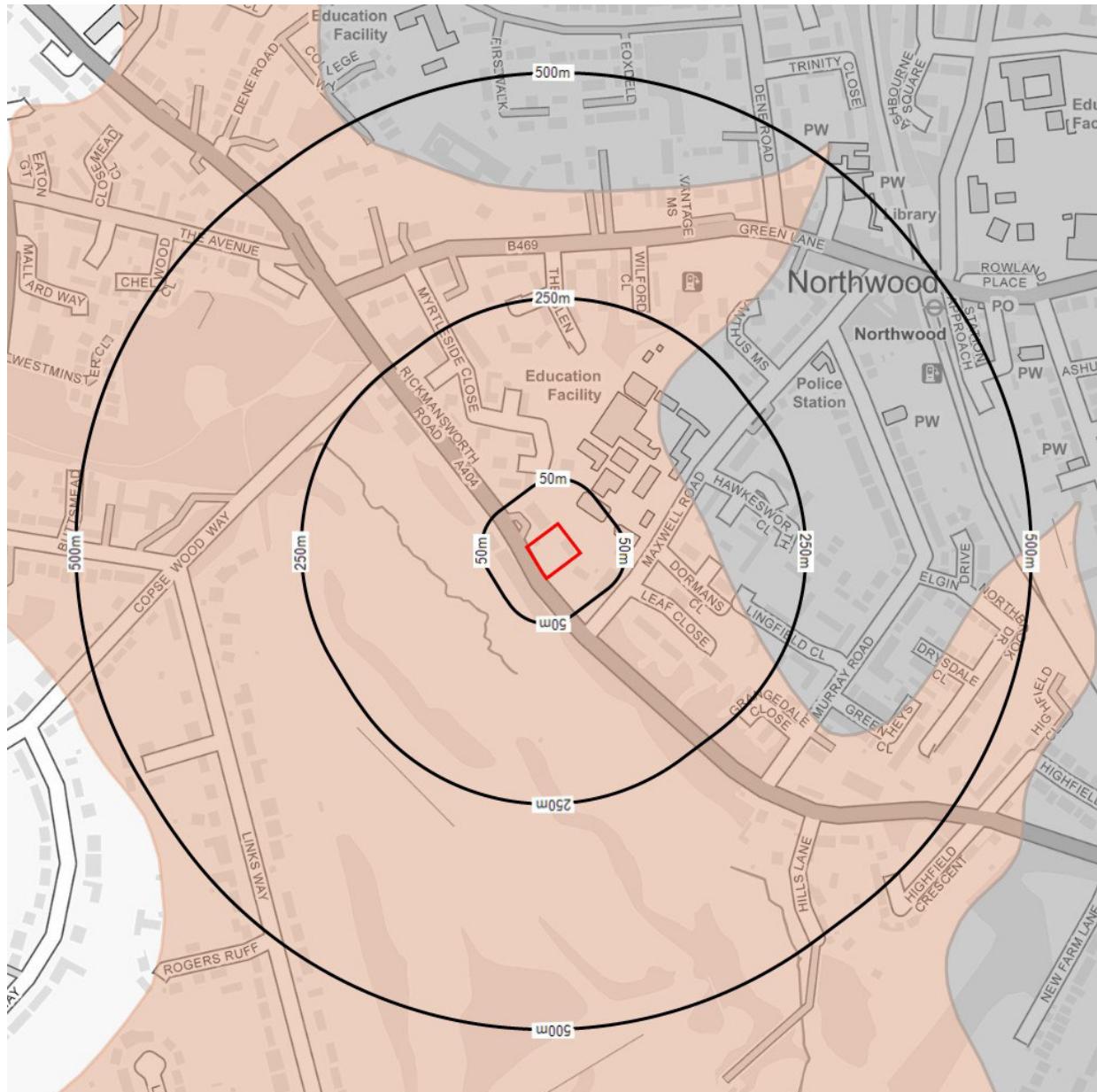
Potentially Infilled Land (Water)

| Map ID | Details | Distance | Direction | Contact |
|--------|---|----------|-----------|---------|
| 2 | Details: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Map Published Date: 1960 | 42m | NW | 1 |



Contaminated Land: Groundwater Vulnerability

Bedrock

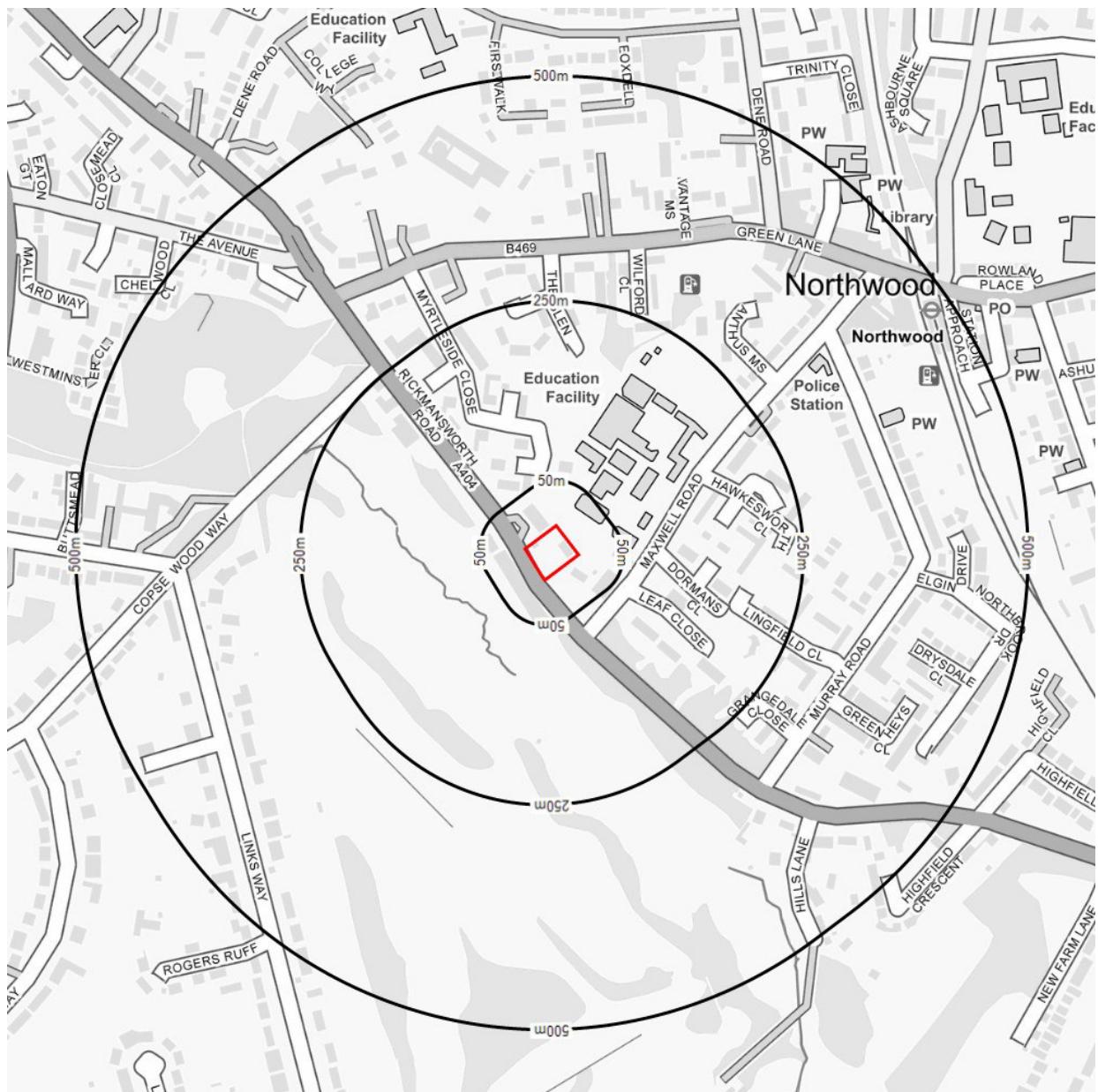


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- ◆ Site
- Principal Aquifer
- Secondary Aquifer A
- Secondary Aquifer B

- Secondary Aquifer Undifferentiated
- Unproductive Strata
- Unknown

Superficial



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Contaminated Land: Groundwater Vulnerability

Hydrogeology

Bedrock Aquifer Designations

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Aquifer Designation: Secondary Aquifer - A | 0m | N | 5 |

Superficial Aquifer Designations

No features identified.



Contaminated Land: Geology

Geology

BGS 1:50,000 Bedrock Geology

| Details | Distance | Direction | Contact |
|--------------------------------|----------|-----------|---------|
| Lex Code: LMBE | 0m | N | 6 |
| Rock Name: Lambeth Group | | | |
| Rock Type: Clay, Silt and Sand | | | |
| Min Age: Not Supplied | | | |
| Max Age: Thanetian | | | |

BGS 1:50,000 Superficial Deposits

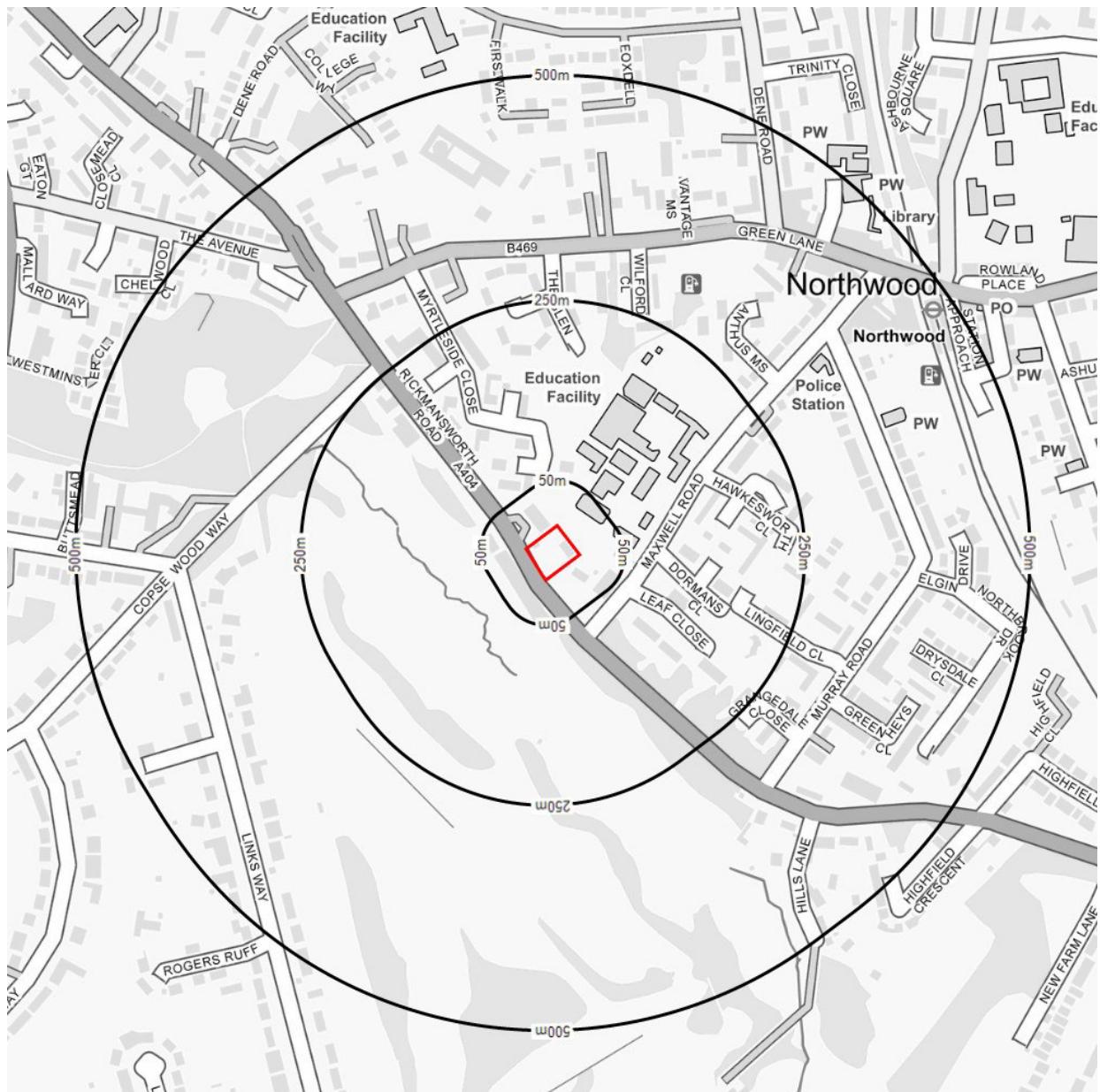
No features identified.

BGS 1:50,000 Geological Mapping Coverage

| Details | Distance | Direction | Contact |
|--------------------------------|----------|-----------|---------|
| Map Sheet No: 255 | 0m | N | 6 |
| Map Name: Beaconsfield | | | |
| Bedrock Geology: Available | | | |
| Superficial Geology: Available | | | |



Contaminated Land: Environmental Sensitivity



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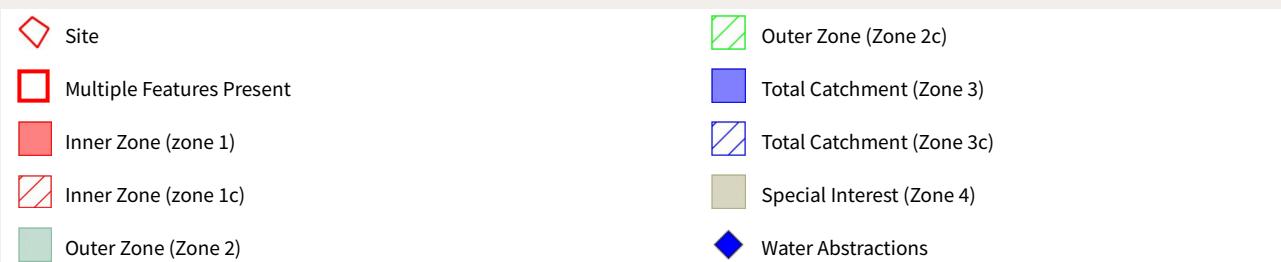




Contaminated Land: Source Protection Zones



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Contaminated Land: Environmental Sensitivity

Environmental Sensitivity

Areas of Outstanding Natural Beauty

No features identified.

Environmentally Sensitive Areas

No features identified.

Forest Parks

No features identified.

Local Nature Reserves

No features identified.

Marine Conservation Zones

No features identified.

National Nature Reserves

No features identified.

National Parks

No features identified.

Ramsar Sites

No features identified.

Sites of Special Scientific Interest

No features identified.

Special Areas of Conservation

No features identified.

Special Protection Areas

No features identified.

Water Abstractions

No features identified.

Source Protection Zones

| Map ID | Details | Distance | Direction | Contact |
|--------|--|----------|-----------|---------|
| 5 | <p>Name: Not Supplied</p> <p>Reference: Not Supplied</p> <p>Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.</p> | 0m | N | 7 |
| 6 | <p>Name: Not Supplied</p> <p>Reference: Not Supplied</p> <p>Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.</p> | 0m | N | 7 |



Contaminated Land: Environmental Sensitivity

| Map ID | Details | Distance | Direction | Contact |
|--------|--|----------|-----------|---------|
| 7 | <p>Name: Not Supplied</p> <p>Reference: Not Supplied</p> <p>Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.</p> | 176m | S | 7 |



Contaminated Land: Natural and Mining Related Hazards

Former Mining

Coalfield Consultation Areas

No features identified.

Potentially Contaminative Land Uses (1950-1980) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1855-1909) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1893-1915) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1906-1937) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1924-1949) from large scale historical mapping

No features identified.

Potentially Contaminative Industrial Uses (Past Land Use)

No features identified.

Man-Made Mining Cavities

No features identified.

BGS Recorded Mineral Sites

No features identified.

Mining Instability

| Details | Distance | Direction | Contact |
|---|----------|-----------|---------|
| Mining Evidence: Conclusive Rock Mining | 0m | N | 8 |
| Mining Type: Rock | | | |
| Source: Ove Arup & Partners | | | |
| Boundary Quality: As Supplied | | | |

Non Coal Mining Areas of Great Britain

No features identified.

Potential Mining Areas

No features identified.

Salt and Brine

Brine Compensation Area

No features identified.



Contaminated Land: Natural and Mining Related Hazards

Brine Pumping Related Features

No features identified.

Brine Subsidence Solution Area

No features identified.

Salt Mining Related Features

No features identified.

Landfill Sites and Infilled Land

Former Marshes

No features identified.

Potentially Infilled Land (Non-Water)

No features identified.

Potentially Infilled Land (Water)

No features identified.

Potentially Contaminative Industrial Uses (Past Land Use)

No features identified.

BGS Recorded Landfill Sites

No features identified.

Permitted Waste Sites - Authorised Landfill Site Boundaries

No features identified.

Registered Landfill Sites

No features identified.

Local Authority Recorded Landfill Sites

No features identified.

Historic Landfill

No features identified.

Natural Ground Instability

Natural Cavities

No features identified.

Potential for Landslide Ground Stability Hazards

No features identified.



Contaminated Land: Natural and Mining Related Hazards

Potential for Ground Dissolution Stability Hazards

No features identified.

Potential for Compressible Ground Stability Hazards

No features identified.

Potential for Shrinking or Swelling Clay Ground Stability Hazards

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Hazard Potential: Moderate | 0m | N | 6 |
| Hazard Description: Ground conditions predominantly high plasticity. | | | |
| Hazard Guidance: Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. | | | |

Potential for Running Sand Ground Stability Hazards

No features identified.

Potential for Collapsible Ground Stability Hazards

No features identified.

Coal Mining Subsidence Claims

Coal Mining Subsidence Damage Claims

No features identified.

Insurance Claims

Postcode Unit Insurance Claims Rating - Subsidence

No features identified.

Radon

Radon Potential

No features identified.

Flood Risk

Data Section



Flood Risk Data: This section details the data used as part of our Flood Risk analysis. Each key source of flooding has the data mapped with the detail outlined beneath. All relevant data in this section has been reviewed by the report writer and taken into account in the overall analysis. As a result, the individual risks in the data below may vary from our overall opinion.

| | |
|-----------------------------------|--|
| Tabular Summary | This section gives an overview of the data at the Site and in the surrounding area. We present the data in three buffer zones, extending to a maximum of 500m. Where we have not been able to search a database, we will display the abbreviation N/A instead. |
| River and Coastal Flooding | <p>The data used to form our river and coastal flood risk analysis includes:</p> <ul style="list-style-type: none"> • Flood Zones: Created for land-use planning, Flood Zones map the likelihood of flooding assuming no defences are present, fail or are over-topped. This data is presented as FZ1, FZ2 or FZ3. • Risk of Flooding from Rivers and Seas (RoFRS): Provides an indication of flood risk taking into account the presence of defences and the level of protection they offer. • Flood Defences: Recorded by the regulatory body, and includes defence type and standard of protection. • Areas Benefiting from Flood Defences: Areas defined as having protection of at least 1 in 100 for river and 1 in 200 for coastal. • Flood Storage Areas: Areas that store floodwater during flood events. |
| Surface Water Flooding | <p>We present the risk of surface water flooding in three separate return periods:</p> <ul style="list-style-type: none"> • 1:75 • 1:200 • 1:1000 <p>Each map will show the likely flood depth bandings within each of these return periods.</p> |
| Groundwater Flooding | The data takes into account the two key mechanisms of groundwater flooding; clearwater and permeable superficial deposits. |
| Other Factors | This section accounts for risk that is not tied to modelled data. It includes historical floods, proximity to water features and elevation above both of these features. |



Flood Risk: Tabular Summary

Flooding

| River and Coastal Flooding | On-site | 1-250m | 251-500m |
|---|----------------|---------------|-----------------|
| Flooding from Rivers or Sea without Defences (Flood Zone 3) | No | No | No |
| Extreme Flooding from Rivers or Sea without Defences (Flood Zone 2) | No | No | No |
| Areas Benefiting from Flood Defences | No | No | No |
| Spatial Flood Defences (with attributes) | No | No | No |
| Risk of Flooding from Rivers and Sea (RoFRS) | No | No | No |

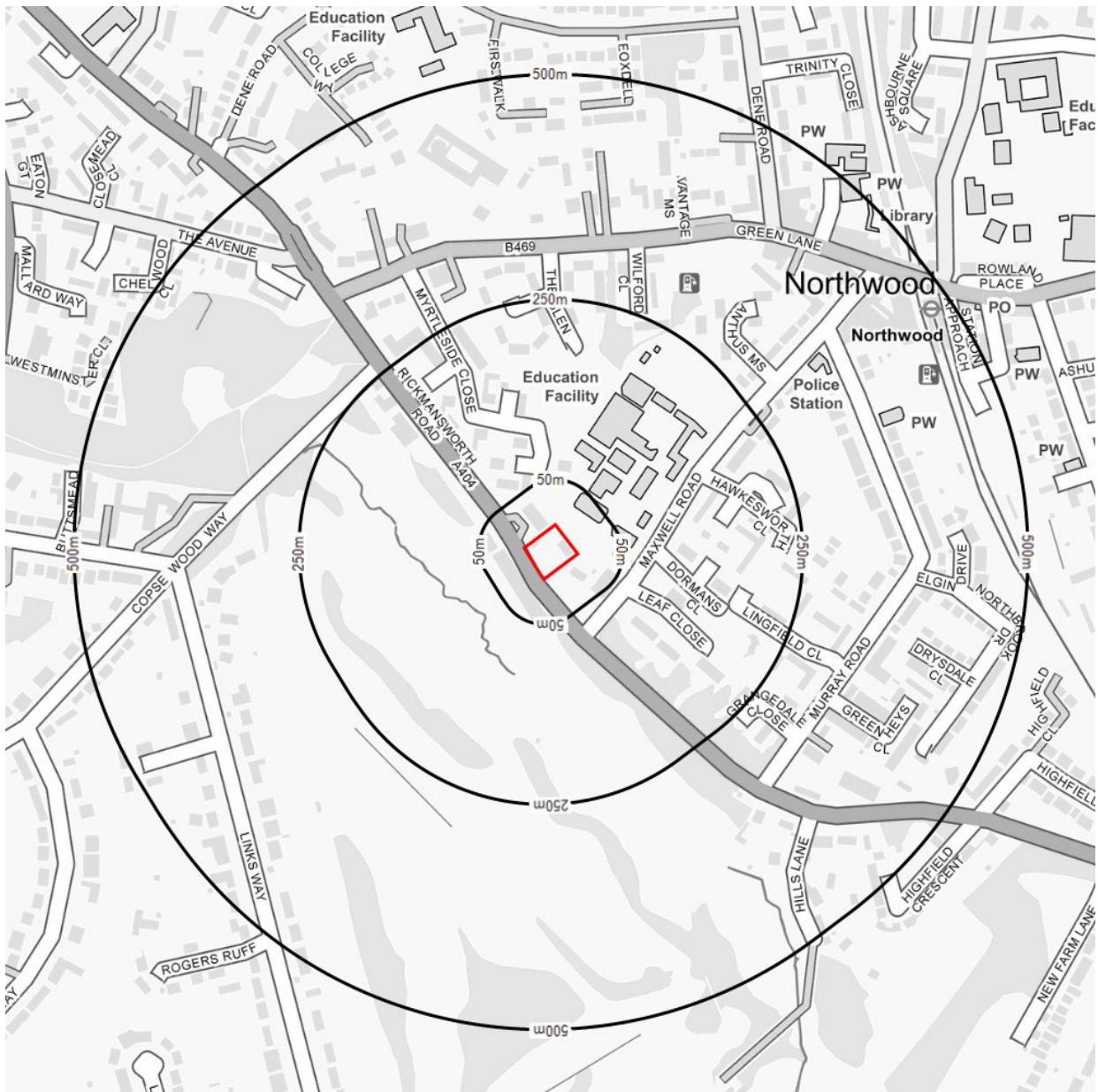
| Surface Water Flooding | On-site | 1-250m | 251-500m |
|-------------------------------|----------------|---------------|-----------------|
| JBA Pluvial 75 Depths | No | Yes | Yes |
| JBA Pluvial 200 Depths | No | Yes | Yes |
| JBA Pluvial 1000 Depths | No | Yes | Yes |

| Groundwater Flooding | On-site | 1-250m | 251-500m |
|-----------------------------|----------------|---------------|-----------------|
| Groundwater Flood Risk 5m | Yes | No | No |

| Other Factors | On-site | 1-250m | 251-500m |
|--|----------------|---------------|-----------------|
| Flood Storage Areas | No | No | No |
| Recorded Flood Outlines | No | No | No |
| OS VectorMap District - Water Features | No | No | No |
| OS MasterMap Water Network | No | Yes | Yes |



Flood Risk: River and Coastal (map 1)



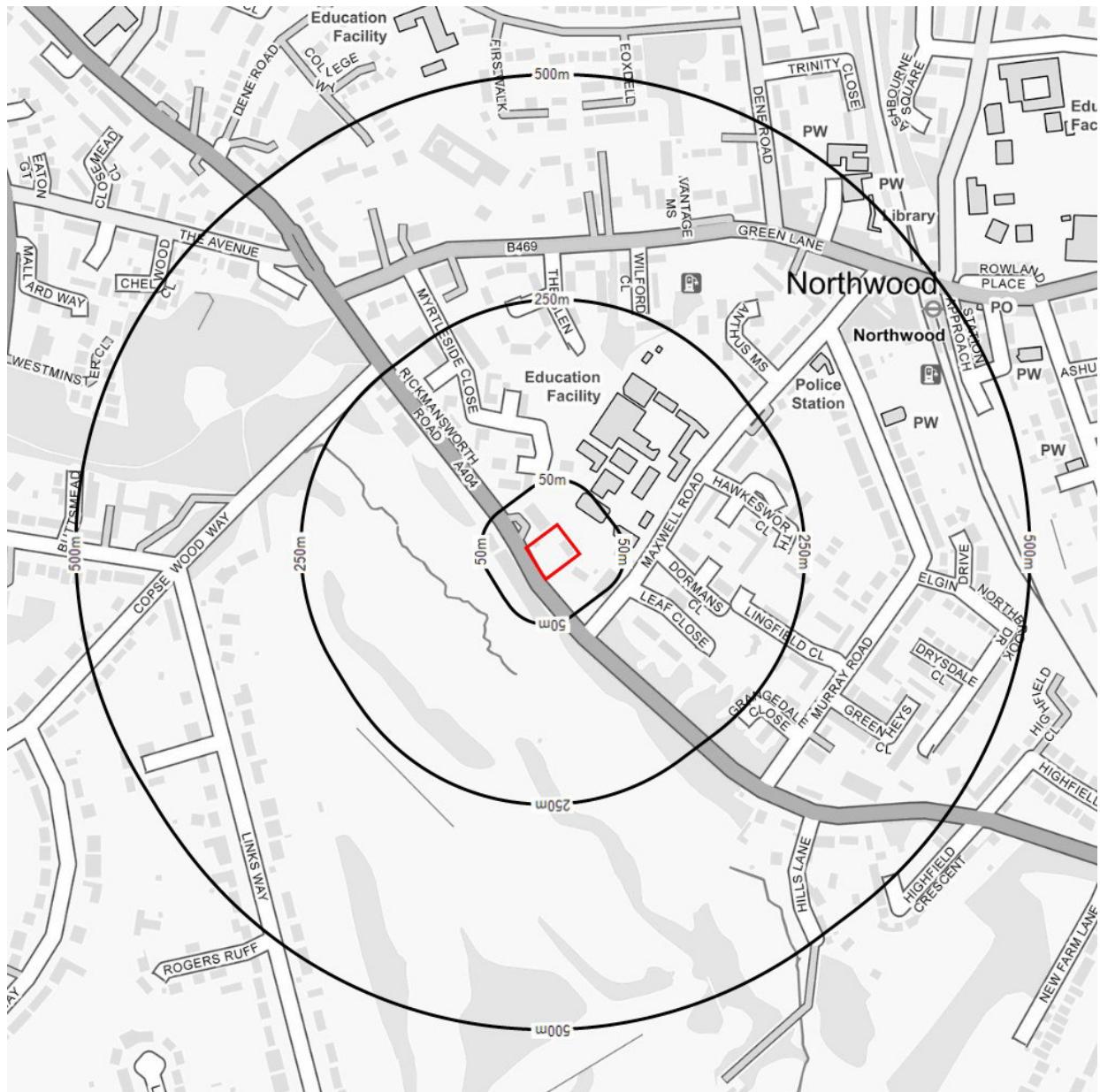
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- Site (Red Diamond)
- Flood Zone 3 (Blue Hatched)
- Flood Defences (Red Dashed Line)

- Flood Zone 2 (Green Hatched)
- Areas Benefiting from Flood Defences (Pink Hatched)



Flood Risk: River and Coastal (map 2)



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Site

RoFRS - Very Low



RoFRS - Low



RoFRS - Medium



RoFRS - High



Flood Risk: River and Coastal

Flooding from Rivers or Sea without Defences (Flood Zone 3)

No features identified.

Extreme Flooding from Rivers or Sea without Defences (Flood Zone 2)

No features identified.

Areas Benefitting from Flood Defences

No features identified.

Spatial Flood Defences (with attributes)

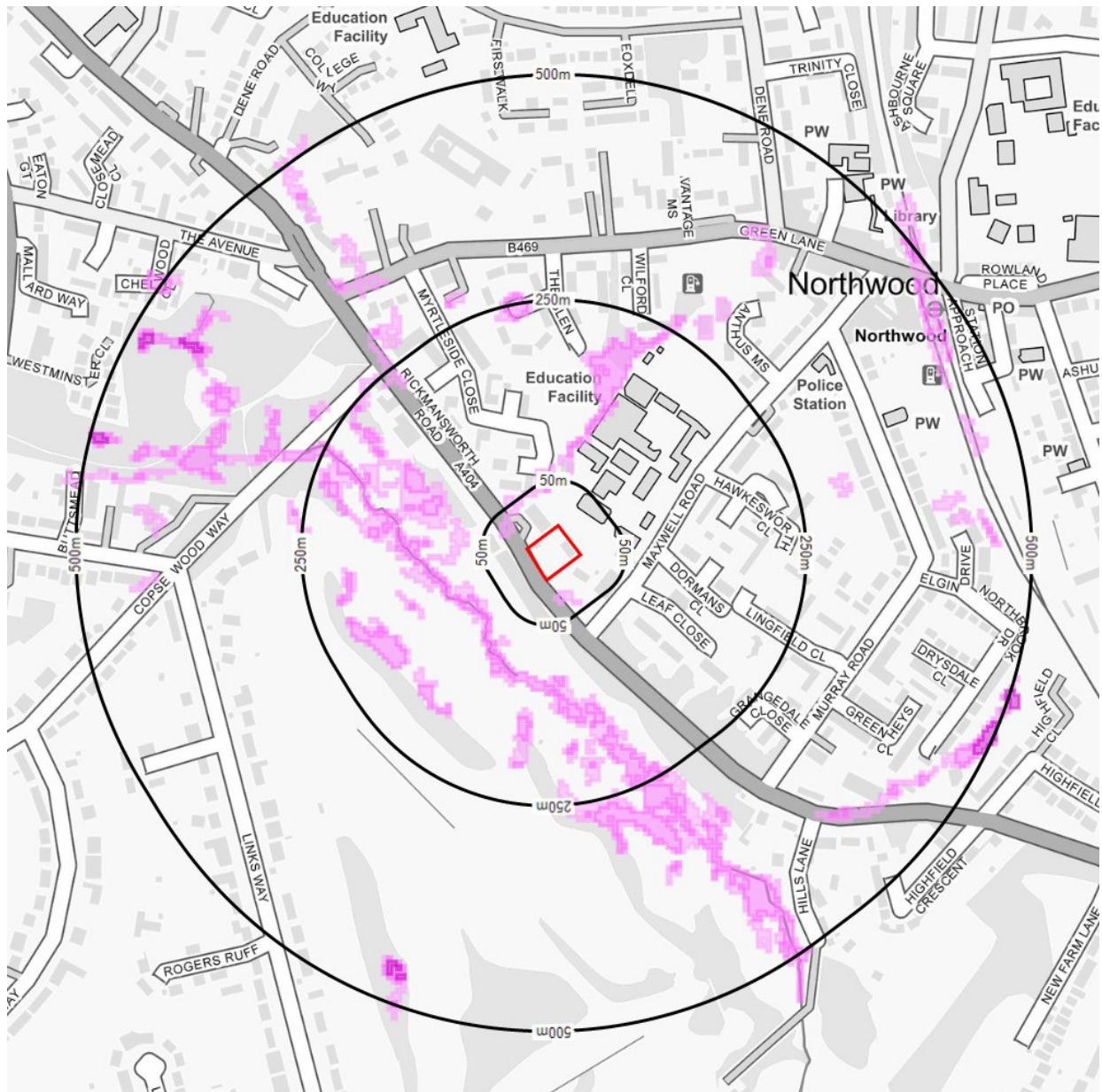
No features identified.

Risk of Flooding from Rivers and Sea (RoFRS)

No features identified.



Flood Risk: Surface Water (1:75 year event)



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- 10cm - 30cm depth
- 30cm - 1m depth
- 1m + depth



Flood Risk: Surface Water (1:200 year event)



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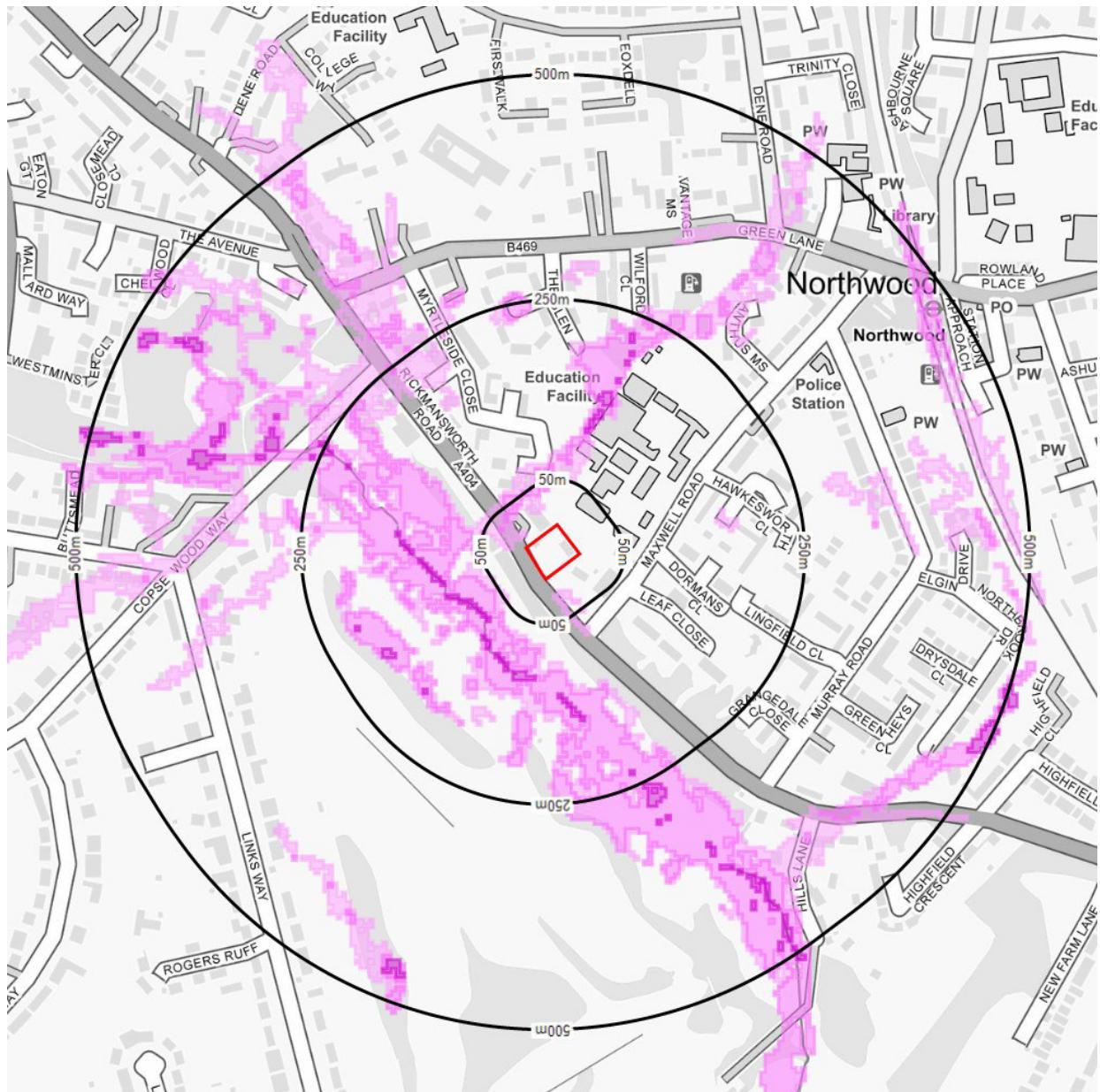
10cm - 30cm depth

30cm - 1m depth

1m + depth



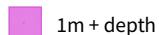
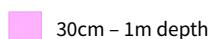
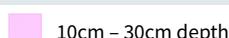
Flood Risk: Surface Water (1:1000 year event)



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Site





Flood Risk: Surface Water

JBA Pluvial 75 Depths

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Type: Greater than 0.1m and Less than or equal to 0.3m | 18m | S | 1 |
| Type: Greater than 0.3m and Less than or equal to 1.0m | 39m | N | 1 |
| Type: Equal to 0.1m | 53m | N | 1 |
| Type: Greater than 1.0m | 421m | NW | 1 |

JBA Pluvial 200 Depths

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Type: Greater than 0.1m and Less than or equal to 0.3m | 17m | NW | 1 |
| Type: Greater than 0.3m and Less than or equal to 1.0m | 39m | NW | 1 |
| Type: Greater than 1.0m | 98m | SW | 1 |
| Type: Equal to 0.1m | 104m | S | 1 |

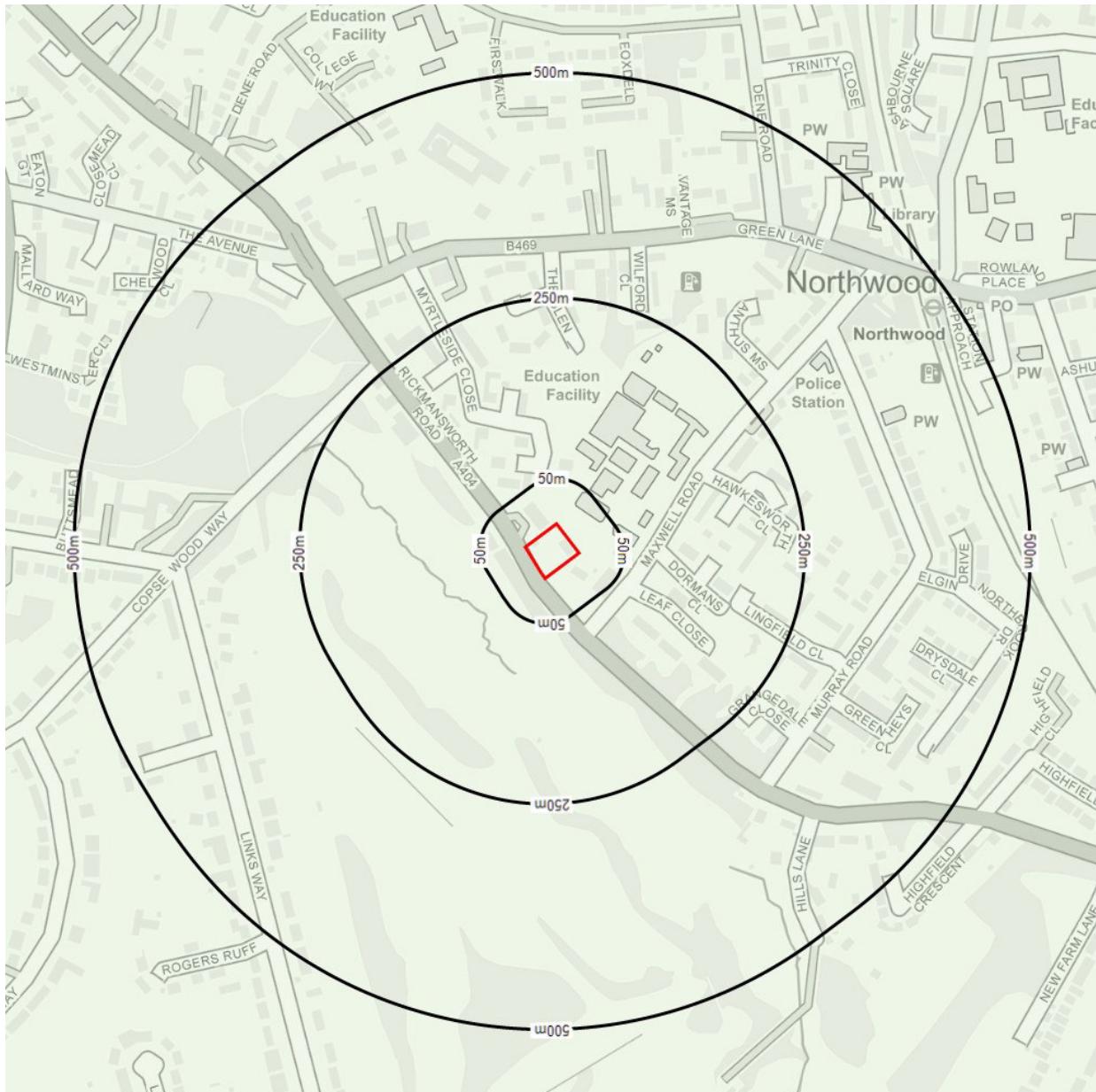
JBA Pluvial 1000 Depths

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Type: Greater than 0.1m and Less than or equal to 0.3m | 10m | W | 1 |
| Type: Greater than 0.3m and Less than or equal to 1.0m | 31m | W | 1 |
| Type: Equal to 0.1m | 36m | N | 1 |
| Type: Greater than 1.0m | 75m | SW | 1 |

Flood data provided by JBA Risk Management Limited. © Copyright JBA Risk Management Limited 2008-2021



Flood Risk: Groundwater



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- Site (Red Diamond)
- High Risk (Dark Green)
- Moderate Risk (Light Green)

- Low Risk (Dark Green)
- Negligible Risk (Light Green)



Flood Risk: Groundwater

Groundwater Flood Risk 5m

| Details | Distance | Direction | Contact |
|------------------|----------|-----------|---------|
| Type: Negligible | 0m | N | 1 |



Flood Risk: Other



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Site



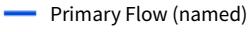
Water Feature



Flood Storage Areas



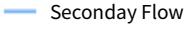
Recorded Flood Outlines



Primary Flow (named)



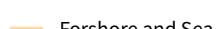
Primary Flow (un-named)



Secondary Flow



Tidal River



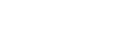
Lake or Reservoir



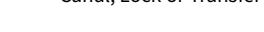
Forshore and Sea



Underground River



Marsh



Canal, Lock or Transfer



Flood Risk: Other

Flood Storage Areas

No features identified.

Recorded Flood Outlines

No features identified.

OS VectorMap District - Water Features

No features identified.

OS MasterMap Water Network

| Details | Distance | Direction | Contact |
|--|----------|-----------|---------|
| Name: Type: Primary Flow (un-named) | 32m | W | 2 |
| Name: Type: Underground River | 112m | S | 2 |
| Name: Type: Lake or Reservoir | 435m | NW | 2 |

Site Solutions Combined

About this report

A white 'i' inside a white circle with a thin black border.

Site Solutions Combined Limitations

Site Solutions Combined reports help you and your clients make informed property decisions. Our reports are 'desktop' assessments, written and quality checked by our team of expert consultants. We carry out the work in our Brighton office using data, maps and our expertise. We do not carry out a physical inspection of the property nor do we contact any regulator. This means that we cannot guarantee that we will have identified all issues of concern.

In the Data Section of the report we list the data sources that we have used. Most of these data sets come from third party sources such as the Environment Agency. We cannot guarantee the accuracy of this data and are not responsible for any inaccuracies in third party data.

All **Site Solutions** reports are covered by our terms and conditions, a copy of which is available on our website, www.argyllenvironmental.com. If you need any further information please contact us on 0330 036 6115.

Contaminated Land Risk Analysis Methodology

For this section of the report we assess the condition of the land. We see whether the land could be 'Contaminated Land' under the relevant legislation. This section of the report meets the requirements for an independent site report. This is the recommendation of the Law Society Practice Note on Contaminated Land.

The main legislation is Part 2A of the Environmental Protection Act 1990. We also assess whether similar requirements could arise under the Water Resources Act 1991. The Contaminated Land legislation asks whether a 'plausible contaminant-pathway-receptor relationship' exists. If we identify a relationship, then our consultants will assess the potential significance. We define Liabilities as the potential for remedial works under Part 2A of the Environmental Protection Act 1990 and/or the Water Resources Act 1991.

If the Site is to have a change of use, then we also consider relevant requirements under the Planning Regime. It may be that the level of contamination will only become an issue if the Site is to be redeveloped. An example of this is when former industrial land is redeveloped for housing. If the Site is to be redeveloped then it could also include remedial works required under the planning regime. These remedial works may be the responsibility of the Site owner or occupier.

We will issue one of the following Liability statements, in line with Defra's recommended four stage test.

| Assessment | Liability Statement | Defra Category |
|--|--|--------------------|
| PASSED  | Within the scope of this assessment no Liabilities have been identified. No further action is required. | 3 or 4 |
| PASSED – PRUDENT ACTION  | Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent action suggested below. | 3 or 4 |
| FURTHER ACTION  | We have identified potential soil and/or groundwater liabilities. To quantify these we recommend you undertake the action outlined below. | Potentially 1 or 2 |



Flood Risk Analysis Methodology

For this section of the report, we assess the risk of flooding at the Site. A Consultant will analyse the data within the report, and take into account factors such as source of flooding, extent, and which part of the Site is at risk (is it operationally sensitive).

Three key areas are addressed:

- the overall risk of flooding (taking into account defences)
- how flood risk affects the availability of insurance
- how flood risk affects the potential to redevelop

We report the overall risk in a summary statement, with the three outcomes listed below:

| Assessment | Risk Statement |
|-----------------------------|---|
| PASSED | Negligible, Low & Low-Moderate Risk: The Site is not considered to be at significant risk of flooding. No further action is deemed necessary. Recommendations: Some simple advice may be provided. Insurability: Insurance should be readily available. |
| PASSED – PRUDENT ACTION | Moderate Risk: Data indicates some risk exists to the Site and its occupants. However, this is expected to be associated with an 'extreme' event. Recommendations: Practical advice will be provided. This may be to obtain further information or to write a flood preparation plan. Insurance: In most cases insurance should be readily available. |
| FURTHER ACTION | Moderate to High and High: This report reveals a significant risk of flooding which should be addressed. Recommendations: Further assessment is recommended to clarify the risk of flooding at the Site. This will inform whether flood protection measures should be installed. Insurance: Insurance may not be available without a higher premium or excess. |

The flood risk gauges provide an analysis of each of the four main types of flooding: river, coastal, groundwater and surface water. A fifth gauge provides analysis of 'other factors'. This includes historical floods, proximity to water features and elevation above both of these features. The purpose of this gauge is to account for risk that is not tied to modelled data.

Environment Agency defences protect large areas of England and Wales from river and coastal flooding. Our analysis of flood risk from these sources takes defences into account. Where defences are present we will report both defended and undefended risk to present the full risk profile. However, our overall assessment and recommendations will be based on the defended risk.

In Scotland, we do not have access to data from the Scottish Environmental Protection Agency (SEPA). As a result, we are unable to take into account defences. Consequently, in Scotland our assessment is always based on the undefended risk.

An Argyll Consultant will write Site-specific commentary to summarise the risk. The purpose of this is to explain the drivers of the risk, and where possible, the extent and impact. This will be a non-technical account, explaining our assessment in simple terms. Our Consultants generate the risk assessment using several sources. This means the gauges in the front of the report will supersede any risk reported in the data section. We also consider the implications of flood risk under the National Planning Policy Framework (NPPF). We always provide a view on whether a Flood Risk Assessment would be required if development is proposed. Where the client lets us know that the Site is to be redeveloped, we provide recommendations on the most appropriate next step.



Useful Contacts

Please see below the contact details of the suppliers referred to within this report. For all queries please contact:

Argyll Environmental Ltd
1st Floor
98-99 Queens Road
Brighton
BN1 3XF

If you require assistance please contact our customer services team on:

0330 036 6115

Or by email at:
orders@argyllenviro.com

| Contact | Name | Address | Contact Details |
|---------|--|--|--|
| | Public Health England | Centre for Radiation Chemical and Environmental Hazards Chilton Didcot Oxon OX11 0RQ | T: 01235 822622 F: 01235 833891 E: radon@phe.gov.uk W: www.ukradon.org |
| 1 | Landmark Information Group Limited | Imperium Imperial Way Reading Berkshire RG2 0TD | T: 0844 844 9966 E: helpdesk@landmark.co.uk W: www.landmark.co.uk |
| 2 | Ordnance Survey | Adanac Drive Southampton Hampshire SO16 0AS | T: 03456 05 05 05 E: customerservices@ordnancesurvey.co.uk W: www.ordnancesurvey.gov.uk |
| 3 | London Borough of Hillingdon, Environmental Health Department | Civic Centre High Street Uxbridge Middlesex UB8 1UW | T: 01895 250111 W: www.hillingdon.gov.uk |
| 4 | Catalist Ltd, Experian | Richmond House 22 Richmond Hill Clifton Bristol Avon BS8 1BA | T: 0117 923 7113 E: Mark@catalist-uk.com |



Useful Contacts

| Contact | Name | Address | Contact Details |
|---------|--|---|---|
| 5 | Environment Agency, Head Office | Rio House Waterside Drive Aztec West, Almondsbury Bristol Avon BS32 4UD | T: 01454 624400 |
| 6 | British Geological Survey, Enquiry Service | British Geological Survey Environmental Science Centre Keyworth Nottingham Nottinghamshire NG12 5GG | T: 0115 936 3143 E: enquiries@bgs.ac.uk W: www.bgs.ac.uk |
| 7 | Environment Agency, National Customer Contact Centre (NCCC) | PO Box 544 Templeborough Rotherham S60 1BY | T: 03708 506 506 E: enquiries@environment-agency.gov.uk |
| 8 | Ove Arup & Partners | Central Square Forth Street Newcastle upon Tyne Tyne and Wear NE1 3PL | T: 0191 261 6080 |

Please note that if you choose to contact any of the above organisations, they may have a charging policy in place for enquiries.



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Tel: 03300 366 115

Email: orders@argyllenviro.com

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Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPO.

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP

Tel: 01722 333306
Fax: 01722 332296
Website: www.tpos.co.uk
Email: admin@tpos.co.uk



Argyll Environmental Complaints Procedure

If you want to make a complaint to Argyll Environmental, we will:

- Acknowledge it within 5 working days of receipt
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time
- Provide a final response, in writing, at the latest within 40 working days of receipt
- Liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Legal Director
Argyll Environmental Ltd
1st Floor
98 - 99 Queens Road
Brighton
BN1 3XF

Tel: 03300 366 115
Email: orders@argyllenviro.com

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs):

Tel: 01722 333306,
Email: admin@tpos.co.uk

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

Appendix C





KEY:



Proposed WS Borehole



DO NOT SCALE

Merda
Associates Ltd

TITLE: Exploratory Hole Location Plan

PROJECT: Manor Lodge, Northwood

PROJECT No: EAL.67.21 DATE: 07/2021

SCALE : NTS DRAWN : PD DWG No: Figure 3



Web: www.lda-ltd.co.uk
Email: p.devitt@lda-ltd.co.uk
Mob: 07531 051197

CLIENT

Merchant Land Investments Limited

SITE LOCATION

Manor Lodge, Northwood

Date: 16th July 2021

BOREHOLE NO.

WSO1

Sheet No. 1 of 1

Job No.

EAL.67.21

| Description of Strata | Reduced level (m) | Legend | Depth (Thickness) m | SAMPLES/TESTS | | | SPT Results | | | | | | N Value | Installation | Test Sample Details | | | |
|---|--|--------|---------------------|---------------|----|------|-------------|------|------|------------|------|------|---------|--------------|---------------------|--|--|--|
| | | | | Depth | No | Type | Seating | | | Test Drive | | | | | | | | |
| | | | | | | | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | | | | | |
| Dark brown slightly gravelly sandy TOPSOIL. Gravel is fine to coarse sub-rounded to angular chert. | 0.10 0.20 0.30 0.40 | | 0.40 (0.40) | | | | | | | | | | | | | | | |
| Loose light yellowish brown slightly gravelly SAND. Gravel is fine to coarse sub-rounded to angular chert. | 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50 1.60 | | 1.60 (1.20) | 0.90 | 1 | ES | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | | | | |
| Medium dense light greenish yellow slightly gravelly SAND. Gravel is fine to coarse sub-rounded to angular chert. | 1.70 1.80 1.90 2.00 2.10 2.20 2.30 2.40 2.50 2.60 2.70 2.80 2.90 3.00 3.10 3.20 3.30 3.40 3.50 3.60 | | 3.60 (2.00) | 2.10 | 3 | ES | | 3 | 2 | 3 | 4 | 4 | 6 | 17 | | | | |
| Medium dense to dense light yellowish brown mottled greenish yellow SAND & GRAVEL. Gravel is fine to coarse sub-rounded to angular chert. | 3.70 3.80 3.90 4.00 | | 4.00 (0.40) | 3.30 | 4 | ES | | 5 | 6 | 6 | 7 | 9 | 9 | 31 | | | | |
| Borehole terminated at 4.00mbgl. | 4.10 4.20 4.30 4.40 4.50 4.60 4.70 4.80 4.90 5.00 | | | | | | | 14 | 14 | 13 | 15 | 15 | 7 | 50 | | | | |

| Casing record | | Chiselling records | | | | | | | | | |
|---|--------------------------------|--|------|----------|--------|------------|--------------|----------------------------|----------|----------------|---------|
| Date | Diameter (mm) | Depth (m) | Time | From (m) | To (m) | Date | Water strike | Water level (after 20mins) | Flow | Standing level | Remarks |
| | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |
| 1. Borehole reinstated with arisings upon completion. | 2. No groundwater encountered. | 3. Borehole remained stable throughout drilling. | | | | Logged By: | Checked By: | | Date | Scale | |
| | | | | | | PD | PD | | 27.07.21 | | NTS |



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 Email: p.devitt@arda-ltd.co.uk
 Mob: 07531 051197

CLIENT
 Merchant Land Investments Limited

SITE LOCATION
 Manor Lodge, Northwood

Date: 16th July 2021

BOREHOLE NO.
WS02

Sheet No. 1 of 1

Job No.
EAL.67.21

| Description of Strata | Reduced level (m) | Legend | Depth (Thickness) m | SAMPLES/TESTS | | | SPT Results | | | | | | N Value | Installation | Test Sample Details |
|---|--|--------|---------------------|---------------|----|------|-------------|------|------------|------|------|------|---------|--------------|---------------------|
| | | | | Depth | No | Type | Seating | | Test Drive | | | | | | |
| | | | | | | | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | 75mm | |
| Dark brown slightly gravelly sandy TOPSOIL. Gravel is fine to coarse sub-rounded to angular chert. | 0.10 0.20 0.30 | | 0.30 (0.30) | 0.20 | 1 | ES | | | | | | | | | |
| Medium dense light yellowish brown slightly gravelly SAND. Gravel is fine to coarse sub-rounded to angular chert. | 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50 | | 1.50 (1.20) | 0.50 | 2 | ES | | | | | | | | | |
| Medium dense light greenish yellow slightly gravelly SAND. Gravel is fine to coarse sub-rounded to angular chert. | 1.60 1.70 1.80 1.90 2.00 2.10 2.20 2.30 2.40 2.50 2.60 2.70 2.80 2.90 3.00 3.10 3.20 3.30 | | 3.30 (1.80) | 1.10 | 3 | ES | 1 | 1 | 2 | 3 | 4 | 4 | 4 | 13 | |
| Medium dense to dense light yellowish brown mottled greenish yellow SAND & GRAVEL. Gravel is fine to coarse sub-rounded to angular chert. | 3.40 3.50 3.60 3.70 3.80 3.90 4.00 4.10 4.20 4.30 4.40 4.50 4.60 4.70 4.80 4.90 5.00 | | 5.00 (1.70) | 2.40 | 4 | ES | | | | | | | | | |

Borehole terminated at 5.00mbgl.

| Casing record | | | Chiselling records | | | | | | | | | |
|---|---------------|-----------|--------------------|----------|--------|------|--------------|----------------------------|-------------|----------------|---------|--|
| Date | Diameter (mm) | Depth (m) | Time | From (m) | To (m) | Date | Water strike | Water level (after 20mins) | Flow | Standing level | Remarks | |
| Remarks: | | | | | | | | | | | | |
| 1. Borehole reinstated with arisings upon completion. 2. No groundwater encountered. 3. Borehole remained stable throughout drilling. | | | | | | | | Logged By: | Checked By: | Date | Scale | |
| | | | | | | | | PD | PD | 27.07.21 | NTS | |



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CLIENT

Merchant Land Investments Limited

SITE LOCATION

Manor Lodge, Northwood

Date: 16th July 2021

BOREHOLE NO.

WS03

Sheet No. 1 of 1

Job No.

EAL.67.21

Borehole terminated at 5.00mbgl.

Appendix D





ANALYTICAL TEST REPORT

Contract no: 98524

Contract name: Manor Lodge, Northwood

Client reference: EAL.67.21

Clients name: Erda Associates

Clients address:
102 Scalpcliffe Road
Burton on Trent
Staffordshire
DE15 9AB

Samples received: 19 July 2021

Analysis started: 19 July 2021

Analysis completed: 26 July 2021

Report issued: 26 July 2021

Notes:
Opinions and interpretations expressed herein are outside the UKAS accreditation scope.
Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.
All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.
Methods, procedures and performance data are available on request.
Results reported herein relate only to the material supplied to the laboratory.
This report shall not be reproduced except in full, without prior written approval.
Samples will be disposed of 6 weeks from initial receipt unless otherwise instructed.
BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

Key:
U UKAS accredited test
M MCERTS & UKAS accredited test
\$ Test carried out by an approved subcontractor
I/S Insufficient sample to carry out test
N/S Sample not suitable for testing

Approved by:

Rachael Burton
Customer Support Squad Leader

Chemtech Environmental Limited

SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

All results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones.

| Lab ref | Sample id | Depth (m) | Sample description | Material removed | % Removed | % Moisture |
|---------|-----------|-----------|-------------------------|------------------|-----------|------------|
| 98524-1 | WS01 | 2.10 | Clayey Sand | - | - | 7.5 |
| 98524-2 | WS01 | 3.30 | Clayey Sand | - | - | 5.4 |
| 98524-3 | WS02 | 1.10 | Clayey Sand | - | - | 12.5 |
| 98524-4 | WS02 | 2.40 | Sandy Clay | - | - | 8.4 |
| 98524-5 | WS02 | 4.60 | Sandy Clay with Gravel | - | - | 13.9 |
| 98524-6 | WS03 | 1.30 | Clayey Sand | - | - | 6.4 |
| 98524-7 | WS03 | 2.40 | Clayey Sand | - | - | 3.2 |
| 98524-8 | WS03 | 3.50 | Clayey Sand with Gravel | - | - | 4.1 |
| 98524-9 | WS03 | 4.30 | Clayey Sand with Gravel | - | - | 4.4 |

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SOILS

| Lab number | 98524-1 | 98524-2 | 98524-3 | 98524-4 | 98524-5 | 98524-6 |
|------------------------------|--------------------|--------------|------------|------------|------------|------------|
| Sample id | WS01 | WS01 | WS02 | WS02 | WS02 | WS03 |
| Depth (m) | 2.10 | 3.30 | 1.10 | 2.40 | 4.60 | 1.30 |
| Date sampled | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | | |
| VPH (>C5-C7) | CE067 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 |
| VPH (>C7-C8) | CE067 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 |
| VPH (>C8-C10) | CE067 | mg/kg | <0.1 | <0.1 | <0.1 | <0.1 |
| EPH (>C10-C12) | CE033 ^U | mg/kg | <4 | <4 | <4 | <4 |
| EPH (>C12-C16) | CE033 ^M | mg/kg | <4 | <4 | <4 | <4 |
| EPH (>C16-C21) | CE033 ^M | mg/kg | <4 | <4 | <4 | <4 |
| EPH (>C21-C35) | CE033 ^M | mg/kg | 9 | <6 | <6 | <6 |
| EPH (>C35-C44) | CE033 ^M | mg/kg | <10 | <10 | <10 | <10 |
| BTEX | | | | | | |
| MTBE | CE192 ^U | mg/kg | <0.02 | - | - | <0.02 |
| Benzene | CE192 ^U | mg/kg | <0.01 | - | - | <0.01 |
| Toluene | CE192 ^U | mg/kg | <0.01 | - | - | <0.01 |
| Ethylbenzene | CE192 ^U | mg/kg | <0.01 | - | - | <0.01 |
| m & p-Xylene | CE192 ^U | mg/kg | <0.02 | - | - | <0.02 |
| o-Xylene | CE192 ^U | mg/kg | <0.01 | - | - | <0.01 |
| Volatiles | | | | | | |
| Dichlorodifluoromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Chloromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Vinyl chloride | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Bromomethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Chloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Trichlorofluoromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,1-Dichloroethene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Trans-1,2-Dichloroethene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,1-Dichloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 2,2-Dichloropropane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Cis-1,2-Dichloroethene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Bromochloromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Chloroform | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,1,1-Trichloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Carbon tetrachloride | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,1-Dichloro-1-propene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,2-Dichloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Trichloroethene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,2-Dichloropropane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Dibromomethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Bromodichloromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| cis-1,3-Dichloro-1-propene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| trans-1,3-Dichloro-1-propene | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| 1,1,2-Trichloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 |
| Tetrachloroethene | CE174 | mg/kg | <0.01 | - | - | <0.01 |

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SOILS

| Lab number | Sample id | Depth (m) | Date sampled | 98524-1 WS01 2.10 15/07/2021 | 98524-2 WS01 3.30 15/07/2021 | 98524-3 WS02 1.10 15/07/2021 | 98524-4 WS02 2.40 15/07/2021 | 98524-5 WS02 4.60 15/07/2021 | 98524-6 WS03 1.30 15/07/2021 |
|-----------------------------|-----------|-----------|--------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Test | Method | Units | | | | | | | |
| 1,3-Dichloropropane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Dibromochloromethane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2-Dibromoethane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Chlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,1,1,2-Tetrachloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Styrene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Tribromomethane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Isopropylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Bromobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,1,2,2-Tetrachloroethane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2,3-Trichloropropane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Propylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 2-Chlorotoluene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 4-Chlorotoluene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,3,5-Trimethylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| tert-Butylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2,4-Trimethylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| sec-Butylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,3-Dichlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 4-Isopropyltoluene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,4-Dichlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2-Dichlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Butylbenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2-Dibromo-3-chloropropane | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2,4-Trichlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Hexachloro-1,3-butadiene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| 1,2,3-Trichlorobenzene | CE174 | mg/kg | <0.01 | - | - | <0.01 | - | - | - |
| Semi-volatiles | | | | | | | | | |
| Naphthalene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Acenaphthylene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Acenaphthene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Fluorene | CE087 U | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Phenanthrene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Anthracene | CE087 U | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Fluoranthene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Pyrene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Benzo(a)anthracene | CE087 U | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Chrysene | CE087 M | mg/kg | <0.03 | - | - | <0.03 | - | - | - |
| Benzo(b)fluoranthene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Benzo(k)fluoranthene | CE087 M | mg/kg | <0.03 | - | - | <0.03 | - | - | - |
| Benzo(a)pyrene | CE087 U | mg/kg | <0.02 | - | - | <0.02 | - | - | - |

Chemtech Environmental Limited

SOILS

| Lab number | Sample id | Depth (m) | Date sampled | 98524-1 WS01 2.10 15/07/2021 | 98524-2 WS01 3.30 15/07/2021 | 98524-3 WS02 1.10 15/07/2021 | 98524-4 WS02 2.40 15/07/2021 | 98524-5 WS02 4.60 15/07/2021 | 98524-6 WS03 1.30 15/07/2021 |
|-----------------------------|-----------|-----------|--------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Test | Method | Units | | | | | | | |
| Indeno(123cd)pyrene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Dibenz(ah)anthracene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| Benzo(ghi)perylene | CE087 M | mg/kg | <0.02 | - | - | <0.02 | - | - | - |
| N-Nitrosodimethylamine | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Phenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Bis(2-chloroethyl)ether | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Chlorophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 1,3-Dichlorobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 1,4-Dichlorobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Methylphenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 1,2-Dichlorobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Bis(2-chloroisopropyl)ether | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 3&4-Methylphenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| N-Nitrosodi-n-propylamine | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Hexachloroethane | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Nitrobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Isophorone | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4-Dimethylphenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Nitrophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Bis(2-chloroethoxy)methane | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4-Dichlorophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 1,2,4-Trichlorobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 4-Chloroaniline | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Hexachlorobutadiene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 4-Chloro-3-methylphenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Methylnaphthalene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 1-Methylnaphthalene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Hexachlorocyclopentadiene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4,6-Trichlorophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4,5-Trichlorophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Chloronaphthalene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2-Nitroaniline | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Dimethyl phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,6-Dinitrotoluene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 3-Nitroaniline | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4-Dinitrophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 4-Nitrophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 2,4-Dinitrotoluene | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Dibenzofuran | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| Diethyl phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |
| 4-Chlorophenylphenyl ether | CE189 | mg/kg | <0.1 | - | - | <0.1 | - | - | - |

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SOILS

| Lab number | 98524-1 | 98524-2 | 98524-3 | 98524-4 | 98524-5 | 98524-6 |
|----------------------------|------------|------------|------------|------------|------------|------------|
| Sample id | WS01 | WS01 | WS02 | WS02 | WS02 | WS03 |
| Depth (m) | 2.10 | 3.30 | 1.10 | 2.40 | 4.60 | 1.30 |
| Date sampled | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | | |
| 4-Nitroaniline | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| 2-Methyl-4,6-dinitrophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Azobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| 4-Bromophenylphenyl ether | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Hexachlorobenzene | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Pentachlorophenol | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Carbazole | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Di-n-butyl phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Butylbenzyl phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Bis(2-ethylhexyl)phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 |
| Di-n-octyl phthalate | CE189 | mg/kg | <0.1 | - | - | <0.1 |

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SOILS

| Lab number | | | 98524-7 | 98524-8 | 98524-9 |
|------------------------------|--------------------|-------|------------|------------|------------|
| Sample id | | | WS03 | WS03 | WS03 |
| Depth (m) | | | 2.40 | 3.50 | 4.30 |
| Date sampled | | | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | |
| VPH (>C5-C7) | CE067 | mg/kg | <0.1 | - | <0.1 |
| VPH (>C7-C8) | CE067 | mg/kg | <0.1 | - | <0.1 |
| VPH (>C8-C10) | CE067 | mg/kg | <0.1 | - | <0.1 |
| EPH (>C10-C12) | CE033 ^U | mg/kg | <4 | - | <4 |
| EPH (>C12-C16) | CE033 ^M | mg/kg | <4 | - | <4 |
| EPH (>C16-C21) | CE033 ^M | mg/kg | <4 | - | <4 |
| EPH (>C21-C35) | CE033 ^M | mg/kg | 7 | - | 9 |
| EPH (>C35-C44) | CE033 ^M | mg/kg | <10 | - | <10 |
| BTEX | | | | | |
| MTBE | CE192 ^U | mg/kg | <0.02 | <0.02 | - |
| Benzene | CE192 ^U | mg/kg | <0.01 | <0.01 | - |
| Toluene | CE192 ^U | mg/kg | <0.01 | <0.01 | - |
| Ethylbenzene | CE192 ^U | mg/kg | <0.01 | <0.01 | - |
| m & p-Xylene | CE192 ^U | mg/kg | <0.02 | <0.02 | - |
| o-Xylene | CE192 ^U | mg/kg | <0.01 | <0.01 | - |
| Volatiles | | | | | |
| Dichlorodifluoromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Chloromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Vinyl chloride | CE174 | mg/kg | <0.01 | <0.01 | - |
| Bromomethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Chloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Trichlorofluoromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1-Dichloroethene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Trans-1,2-Dichloroethene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1-Dichloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| 2,2-Dichloropropane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Cis-1,2-Dichloroethene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Bromochloromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Chloroform | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1,1-Trichloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Carbon tetrachloride | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1-Dichloro-1-propene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2-Dichloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Trichloroethene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2-Dichloropropane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Dibromomethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Bromodichloromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| cis-1,3-Dichloro-1-propene | CE174 | mg/kg | <0.01 | <0.01 | - |
| trans-1,3-Dichloro-1-propene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1,2-Trichloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Tetrachloroethene | CE174 | mg/kg | <0.01 | <0.01 | - |

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SOILS

| Lab number | | | 98524-7 | 98524-8 | 98524-9 |
|-----------------------------|---------|-------|------------|------------|------------|
| Sample id | | | WS03 | WS03 | WS03 |
| Depth (m) | | | 2.40 | 3.50 | 4.30 |
| Date sampled | | | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | |
| 1,3-Dichloropropane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Dibromochloromethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2-Dibromoethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Chlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1,1,2-Tetrachloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Styrene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Tribromomethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Isopropylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Bromobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,1,2,2-Tetrachloroethane | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2,3-Trichloropropane | CE174 | mg/kg | <0.01 | <0.01 | - |
| Propylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 2-Chlorotoluene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 4-Chlorotoluene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,3,5-Trimethylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| tert-Butylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2,4-Trimethylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| sec-Butylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,3-Dichlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 4-Isopropyltoluene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,4-Dichlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2-Dichlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Butylbenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2-Dibromo-3-chloropropane | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2,4-Trichlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Hexachloro-1,3-butadiene | CE174 | mg/kg | <0.01 | <0.01 | - |
| 1,2,3-Trichlorobenzene | CE174 | mg/kg | <0.01 | <0.01 | - |
| Semi-volatiles | | | | | |
| Naphthalene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Acenaphthylene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Acenaphthene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Fluorene | CE087 U | mg/kg | <0.02 | <0.02 | - |
| Phenanthrene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Anthracene | CE087 U | mg/kg | <0.02 | <0.02 | - |
| Fluoranthene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Pyrene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Benzo(a)anthracene | CE087 U | mg/kg | <0.02 | <0.02 | - |
| Chrysene | CE087 M | mg/kg | <0.03 | <0.03 | - |
| Benzo(b)fluoranthene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Benzo(k)fluoranthene | CE087 M | mg/kg | <0.03 | <0.03 | - |
| Benzo(a)pyrene | CE087 U | mg/kg | <0.02 | <0.02 | - |

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SOILS

| Lab number | | | 98524-7 | 98524-8 | 98524-9 |
|-----------------------------|---------|-------|------------|------------|------------|
| Sample id | | | WS03 | WS03 | WS03 |
| Depth (m) | | | 2.40 | 3.50 | 4.30 |
| Date sampled | | | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | |
| Indeno(123cd)pyrene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Dibenz(ah)anthracene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| Benzo(ghi)perylene | CE087 M | mg/kg | <0.02 | <0.02 | - |
| N-Nitrosodimethylamine | CE189 | mg/kg | <0.1 | <0.1 | - |
| Phenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| Bis(2-chloroethyl)ether | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Chlorophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 1,3-Dichlorobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 1,4-Dichlorobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Methylphenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 1,2-Dichlorobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| Bis(2-chloroisopropyl)ether | CE189 | mg/kg | <0.1 | <0.1 | - |
| 3&4-Methylphenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| N-Nitrosodi-n-propylamine | CE189 | mg/kg | <0.1 | <0.1 | - |
| Hexachloroethane | CE189 | mg/kg | <0.1 | <0.1 | - |
| Nitrobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| Isophorone | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4-Dimethylphenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Nitrophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| Bis(2-chloroethoxy)methane | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4-Dichlorophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 1,2,4-Trichlorobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 4-Chloroaniline | CE189 | mg/kg | <0.1 | <0.1 | - |
| Hexachlorobutadiene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 4-Chloro-3-methylphenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Methylnaphthalene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 1-Methylnaphthalene | CE189 | mg/kg | <0.1 | <0.1 | - |
| Hexachlorocyclopentadiene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4,6-Trichlorophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4,5-Trichlorophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Chloronaphthalene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Nitroaniline | CE189 | mg/kg | <0.1 | <0.1 | - |
| Dimethyl phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,6-Dinitrotoluene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 3-Nitroaniline | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4-Dinitrophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 4-Nitrophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2,4-Dinitrotoluene | CE189 | mg/kg | <0.1 | <0.1 | - |
| Dibenzofuran | CE189 | mg/kg | <0.1 | <0.1 | - |
| Diethyl phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |
| 4-Chlorophenylphenyl ether | CE189 | mg/kg | <0.1 | <0.1 | - |

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SOILS

| Lab number | | | 98524-7 | 98524-8 | 98524-9 |
|----------------------------|--------|-------|------------|------------|------------|
| Sample id | | | WS03 | WS03 | WS03 |
| Depth (m) | | | 2.40 | 3.50 | 4.30 |
| Date sampled | | | 15/07/2021 | 15/07/2021 | 15/07/2021 |
| Test | Method | Units | | | |
| 4-Nitroaniline | CE189 | mg/kg | <0.1 | <0.1 | - |
| 2-Methyl-4,6-dinitrophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| Azobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| 4-Bromophenylphenyl ether | CE189 | mg/kg | <0.1 | <0.1 | - |
| Hexachlorobenzene | CE189 | mg/kg | <0.1 | <0.1 | - |
| Pentachlorophenol | CE189 | mg/kg | <0.1 | <0.1 | - |
| Carbazole | CE189 | mg/kg | <0.1 | <0.1 | - |
| Di-n-butyl phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |
| Butylbenzyl phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |
| Bis(2-ethylhexyl)phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |
| Di-n-octyl phthalate | CE189 | mg/kg | <0.1 | <0.1 | - |

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METHOD DETAILS

| METHOD | SOILS | METHOD SUMMARY | SAMPLE | STATUS | LOD | UNITS |
|--------|------------------------------|----------------------------|-------------|--------|------|-------|
| CE067 | VPH (>C5-C7) | Headspace GC-FID | As received | | 0.1 | mg/kg |
| CE067 | VPH (>C7-C8) | Headspace GC-FID | As received | | 0.1 | mg/kg |
| CE067 | VPH (>C8-C10) | Headspace GC-FID | As received | | 0.1 | mg/kg |
| CE033 | EPH (>C10-C12) | Solvent extraction, GC-FID | As received | U | 4 | mg/kg |
| CE033 | EPH (>C12-C16) | Solvent extraction, GC-FID | As received | M | 4 | mg/kg |
| CE033 | EPH (>C16-C21) | Solvent extraction, GC-FID | As received | M | 4 | mg/kg |
| CE033 | EPH (>C21-C35) | Solvent extraction, GC-FID | As received | M | 6 | mg/kg |
| CE033 | EPH (>C35-C44) | Solvent extraction, GC-FID | As received | M | 10 | mg/kg |
| CE192 | MTBE | Headspace GC-FID | As received | U | 0.02 | mg/kg |
| CE192 | Benzene | Headspace GC-FID | As received | U | 0.01 | mg/kg |
| CE192 | Toluene | Headspace GC-FID | As received | U | 0.01 | mg/kg |
| CE192 | Ethylbenzene | Headspace GC-FID | As received | U | 0.01 | mg/kg |
| CE192 | m & p-Xylene | Headspace GC-FID | As received | U | 0.02 | mg/kg |
| CE192 | o-Xylene | Headspace GC-FID | As received | U | 0.01 | mg/kg |
| CE174 | Dichlorodifluoromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Chloromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Vinyl chloride | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Bromomethane | Headspace GC-MS | As received | | 0.03 | mg/kg |
| CE174 | Chloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Trichlorodifluoromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1-Dichloroethene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Trans-1,2-Dichloroethene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1-Dichloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 2,2-Dichloropropane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Cis-1,2-Dichloroethene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Bromochloromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Chloroform | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1,1-Trichloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Carbon tetrachloride | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1-Dichloro-1-propene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2-Dichloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Trichloroethene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2-Dichloropropane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Dibromomethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Bromodichloromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | cis-1,3-Dichloro-1-propene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | trans-1,3-Dichloro-1-propene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1,2-Trichloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Tetrachloroethene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,3-Dichloropropane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Dibromochloromethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2-Dibromoethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Chlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1,1,2-Tetrachloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |

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METHOD DETAILS

| METHOD | SOILS | METHOD SUMMARY | SAMPLE | STATUS | LOD | UNITS |
|--------|-----------------------------|---------------------------|-------------|--------|------|-------|
| CE174 | Styrene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Tribromomethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Isopropylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Bromobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,1,2,2-Tetrachloroethane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2,3-Trichloropropane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Propylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 2-Chlorotoluene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 4-Chlorotoluene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,3,5-Trimethylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | tert-Butylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2,4-Trimethylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | sec-Butylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,3-Dichlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 4-Isopropyltoluene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,4-Dichlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2-Dichlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Butylbenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2-Dibromo-3-chloropropane | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2,4-Trichlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | Hexachloro-1,3-butadiene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE174 | 1,2,3-Trichlorobenzene | Headspace GC-MS | As received | | 0.01 | mg/kg |
| CE087 | Naphthalene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Acenaphthylene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Acenaphthene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Fluorene | Solvent extraction, GC-MS | As received | U | 0.02 | mg/kg |
| CE087 | Phenanthrene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Anthracene | Solvent extraction, GC-MS | As received | U | 0.02 | mg/kg |
| CE087 | Fluoranthene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Pyrene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Benzo(a)anthracene | Solvent extraction, GC-MS | As received | U | 0.02 | mg/kg |
| CE087 | Chrysene | Solvent extraction, GC-MS | As received | M | 0.03 | mg/kg |
| CE087 | Benzo(b)fluoranthene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Benzo(k)fluoranthene | Solvent extraction, GC-MS | As received | M | 0.03 | mg/kg |
| CE087 | Benzo(a)pyrene | Solvent extraction, GC-MS | As received | U | 0.02 | mg/kg |
| CE087 | Indeno(123cd)pyrene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Dibenz(ah)anthracene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE087 | Benzo(ghi)perylene | Solvent extraction, GC-MS | As received | M | 0.02 | mg/kg |
| CE189 | N-Nitrosodimethylamine | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Phenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Bis(2-chloroethyl)ether | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Chlorophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 1,3-Dichlorobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 1,4-Dichlorobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |

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METHOD DETAILS

| METHOD | SOILS | METHOD SUMMARY | SAMPLE | STATUS | LOD | UNITS |
|--------|-----------------------------|---------------------------|-------------|--------|-----|-------|
| CE189 | 2-Methylphenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 1,2-Dichlorobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Bis(2-chloroisopropyl)ether | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 3&4-Methylphenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | N-Nitrosodi-n-propylamine | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Hexachloroethane | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Nitrobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Isophorone | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4-Dimethylphenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Nitrophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Bis(2-chloroethoxy)methane | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4-Dichlorophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 1,2,4-Trichlorobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Chloroaniline | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Hexachlorobutadiene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Chloro-3-methylphenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Methylnaphthalene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 1-Methylnaphthalene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Hexachlorocyclopentadiene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4,6-Trichlorophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4,5-Trichlorophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Chloronaphthalene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Nitroaniline | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Dimethyl phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,6-Dinitrotoluene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 3-Nitroaniline | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4-Dinitrophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Nitrophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2,4-Dinitrotoluene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Dibenzofuran | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Diethyl phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Chlorophenylphenyl ether | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Nitroaniline | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 2-Methyl-4,6-dinitrophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Azobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | 4-Bromophenylphenyl ether | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Hexachlorobenzene | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Pentachlorophenol | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Carbazole | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Di-n-butyl phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Butylbenzyl phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Bis(2-ethylhexyl)phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |
| CE189 | Di-n-octyl phthalate | Solvent extraction, GC-MS | As received | | 0.1 | mg/kg |

Chemtech Environmental Limited

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

| | |
|-----|---|
| N | No (not deviating sample) |
| Y | Yes (deviating sample) |
| NSD | Sampling date not provided |
| NST | Sampling time not provided (waters only) |
| EHT | Sample exceeded holding time(s) |
| IC | Sample not received in appropriate containers |
| HP | Headspace present in sample container |
| NCF | Sample not chemically fixed (where appropriate) |
| OR | Other (specify) |

| Lab ref | Sample id | Depth (m) | Deviating | Tests (Reason for deviation) |
|---------|-----------|-----------|-----------|------------------------------|
| 98524-1 | WS01 | 2.10 | N | |
| 98524-2 | WS01 | 3.30 | N | |
| 98524-3 | WS02 | 1.10 | N | |
| 98524-4 | WS02 | 2.40 | N | |
| 98524-5 | WS02 | 4.60 | N | |
| 98524-6 | WS03 | 1.30 | N | |
| 98524-7 | WS03 | 2.40 | N | |
| 98524-8 | WS03 | 3.50 | N | |
| 98524-9 | WS03 | 4.30 | N | |

Appendix E



Tier 1 Assessment Criteria

| Determinand | Residential With Produce | Residential Without Produce | Allotments | Commercial (Office) | Commercial (Warehouse) |
|----------------------|-----------------------------|--------------------------------|------------|------------------------|---------------------------|
| Arsenic | 32.40 | 35.00 | 43.00 | 635.00 | 635.00 |
| Cadmium | 5.17 | 17.70 | 1.05 | 230.00 | 230.00 |
| Mercury, elemental | 1.02 | 1.02 | 316.00 | 109.00 | 83.40 |
| Mercury, inorganic | 169.00 | 238.00 | 80.30 | 3640.00 | 3640.00 |
| Mercury, methyl | 11.40 | 14.10 | 7.97 | 407.00 | 409.00 |
| Selenium | 350.00 | 595.00 | 121.00 | 13000.00 | 13000.00 |
| Phenol | 415.00 | 519.00 | 282.00 | 37600.00 | 38000.00 |
| Toulene | 611.00 | 2710.00 | 118.00 | 189000.00 | 166000.00 |
| Lead | 210.00 | 210.00 | 84.00 | 2300.00 | 2300.00 |
| Nickel | 130.00 | 130* | 180.00 | 980.00 | 980.00 |
| Total Cyanide | 34.00 | 34.00 | | | |
| Benzo(a)pyrene | 3.00 | 3.20 | 3.50 | 36.00 | 14.40 |
| Dibenz(ah)anthracene | 0.30 | 0.32 | 0.43 | 3.60 | 13.00 |
| Acenaphthene | 1100.00 | 6000.00 | 200.00 | 100000.00 | 103000.00 |
| Acenaphthylene | 920.00 | 6000.00 | 160.00 | 100000.00 | 103000.00 |
| Anthracene | 11000.00 | 37000.00 | 2200.00 | 540000.00 | 542000.00 |
| Benzo(a)anthracene | 13.00 | 15.00 | 13.00 | 180.00 | 97.50 |
| Benzo(b)fluoranthene | 3.70 | 4.00 | 3.90 | 45.00 | 103.00 |
| Benzo(ghi)perylene | 350.00 | 360.00 | 640.00 | 4000.00 | 661.00 |
| Benzo(k)fluoranthene | 100.00 | 110.00 | 130.00 | 1200.00 | 144.00 |
| Chrysene | 27.00 | 32.00 | 19.00 | 350.00 | 143.00 |
| Fluoranthene | 890.00 | 1600.00 | 290.00 | 23000.00 | 22700.00 |
| Fluorene | 860.00 | 4500.00 | 160.00 | 71000.00 | 70700.00 |
| Indeno(123cd)pyrene | 41.00 | 46.00 | 39.00 | 510.00 | 61.70 |
| Phenanthrene | 440.00 | 1500.00 | 90.00 | 23000.00 | 22600.00 |
| Pyrene | 2000.00 | 3800.00 | 620.00 | 54000.00 | 54500.00 |
| Naphthalene | 13.00 | 13.00 | 24.00 | 1100.00 | 875.00 |
| Chromium VI | 3.38 | 4.12 | 2.11 | 34.20 | 34.20 |
| Chromium III | 627.00 | 627.00 | 15300.00 | 8840.00 | 8840.00 |
| Copper | 2330.00 | 6200* | 524.00 | 71700.00 | 71700.00 |
| Vanadium | 79.00 | 226.00 | 17.90 | 5590.00 | 5590.00 |
| Zinc | 3750.00 | 40400* | 618.00 | 665000.00 | 665000.00 |

Note:

All figures are in mg/kg

Values calculated using CLEA v1.071

Soil type chosen is sandy loam, pH 7

All organic determinands calculated using 6% SOM

PAH = S4UL (except warehouse model - CLEA v1.071)

* Phytotoxic assessment based on pH range of <6.0 to >7.0, Copper = 100-200mg/kg, Nickel=60-110mg/kg, Zinc = 200-300mg/kg

Tier 1 Assessment Criteria

| Determinand | Residential With Produce | Residential Without Produce | Allotments | Commercial (Office) | Commercial (Warehouse) |
|---|-----------------------------|--------------------------------|------------|------------------------|---------------------------|
| Benzene | 0.33 | 1.00 | 0.07 | 94.70 | 80.30 |
| Ethylbenzene | 354.00 | 843.00 | 91.20 | 65700.00 | 55600.00 |
| Phenol | 415.00 | 519.00 | 282.00 | 37600.00 | 38000.00 |
| Toulene | 611.00 | 2710.00 | 118.00 | 189000.00 | 166000.00 |
| Xylene, o- | 246.00 | 321.00 | 159.00 | 34600.00 | 27600.00 |
| Xylene, m- | 240.00 | 302.00 | 175.00 | 32700.00 | 26100.00 |
| Xylene, p- | 228.00 | 288.00 | 164.00 | 31400.00 | 25100.00 |
| | | | | | |
| Aliphatic C5-C6 | 113.00 | 113.00 | 3910.00 | 12800.00 | 10800.00 |
| Aliphatic C6-C8 | 48.10 | 48.20 | 13300.00 | 5470.00 | 4620.00 |
| Aliphatic C8-C10 | 108.00 | 109.00 | 1710.00 | 11900.00 | 10200.00 |
| Aliphatic C10-C12 | 537.00 | 538.00 | 7280.00 | 49300.00 | 43700.00 |
| Aliphatic C12-C16 | 3030.00 | 3040.00 | 13400.00 | 90500.00 | 89600.00 |
| Aliphatic C16-C35 | 88400.00 | 89100.00 | 281000.00 | 1910000.00 | 1910000.00 |
| Aliphatic C35-C44 | 88400.00 | 89100.00 | 281000.00 | 1910000.00 | 1910000.00 |
| | | | | | |
| Aromatic C5-C7 | 275.00 | 978.00 | 57.30 | 89900.00 | 76800.00 |
| Aromatic C7-C8 | 611.00 | 2710.00 | 118.00 | 189000.00 | 166000.00 |
| Aromatic C8-C10 | 151.00 | 189.00 | 50.50 | 17800.00 | 15700.00 |
| Aromatic C10-C12 | 346.00 | 866.00 | 73.80 | 34500.00 | 33800.00 |
| Aromatic C12-C16 | 593.00 | 1710.00 | 134.00 | 37800.00 | 37800.00 |
| Aromatic C16-C21 | 770.00 | 1340.00 | 260.00 | 28600.00 | 28600.00 |
| Aromatic C21-C35 | 1230.00 | 1340.00 | 1550.00 | 28600.00 | 28600.00 |
| Aromatic C35-C44 | 1230.00 | 1340.00 | 1550.00 | 28600.00 | 28600.00 |
| | | | | | |
| Combined Aliphatic and Aromatic C44-C70 | 1300.00 | 1340.00 | 2950.00 | 28600.00 | 28600.00 |

Note:

All figures are in mg/kg

Values calculated using CLEA v1.071

Soil type chosen is sandy loam, pH 7

All organic determinands calculated using 6% SOM