

Draft Tier 1 Geoenvironmental & Geotechnical Report

Site: Wolf's Castle Public House,
Llanishen, Cardiff

Prepared For: Cardiff City Council

Issue Date: April 2025

Job No: TF-24-310

REPORT TITLE : **Draft Tier 1 Geoenvironmental and Geotechnical Report: Proposed Residential Development, Wolf's Castle Public House, Llanishen, Cardiff**

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Executive Summary

Site Location and Proposed Development	<i>Cardiff City Council (the Client) is proposing the construction of a new residential development at Wolf's Castle Public House on the corner of Templeton Avenue and Wolf's Castle Avenue in Llanishen, Cardiff, CF14 5JS. The proposed development will consist of a block of flats and associated infrastructure including access road, car parking, soft landscaping and gardens.</i>								
Site History	<i>The earliest map dated 1873 shows the site occupied by the buildings and grounds of Llanishen Fawr. Changes to the building footprints began sometime between 1940 and 1960. The buildings then became occupied by a public house around the same time as significant residential development in the surrounding area. The site has remained mainly unaltered until present day, although the pub is no longer operational.</i>								
Geology	<i>Till overlies red sandstones of Llanishen Conglomerate.</i>								
Radon	<i>Basic radon protective measures are required for new developments constructed at ground level on the investigation site.</i>								
Coal Mining	<i>The site situates outside the South Wales coal fields.</i>								
Anticipated Ground Conditions	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #c6e0b4;">Stratum</th> <th style="background-color: #c6e0b4;">Depth (m)</th> </tr> </thead> <tbody> <tr> <td>Made ground</td> <td><1.0m</td> </tr> <tr> <td>Till deposits (sandy gravelly clay with cobbles)</td> <td>>5.0</td> </tr> <tr> <td>St Maughan's Group</td> <td>>5.0-7.0</td> </tr> </tbody> </table>	Stratum	Depth (m)	Made ground	<1.0m	Till deposits (sandy gravelly clay with cobbles)	>5.0	St Maughan's Group	>5.0-7.0
Stratum	Depth (m)								
Made ground	<1.0m								
Till deposits (sandy gravelly clay with cobbles)	>5.0								
St Maughan's Group	>5.0-7.0								
Possible Contamination Sources	<ol style="list-style-type: none"> 1. Made Ground (metals, metalloids, asbestos, TPH, PAH, cyanide, and phenol) 2. Radon 								
Anticipated Foundation Solution	<i>Based upon the desk study information, it is likely that traditional shallow spread foundations will be feasible for low rise development on site.</i>								
Recommended Further Works	<p><i>It is recommended that an intrusive investigation is undertaken to inspect the ground conditions, and to take soil samples for laboratory chemical and geotechnical testing.</i></p> <p><i>It is perceived a combination of trial pitting, and dynamically sampled boreholes will be suitably to investigate the site.</i></p> <p><i>Soakaway testing should also be carried out to aid drainage design.</i></p>								

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SECTION 1 Introduction & Proposed Development

1.1 Background

Cardiff City Council (the Client) is proposing the construction of a new residential development at Wolf's Castle Public House on the corner of Templeton Avenue and Wolf's Castle Avenue in Llanishen, Cardiff, CF14 5JS. The proposed development will consist of a block of flats and associated infrastructure including access road, car parking, soft landscaping and gardens. The proposed layout can be seen within the red line boundary on **Figure 1.1**.



Figure 1.1 Proposed Site Layout

Powell Dobson is the Architect for the project.

TFW Group Ltd (Terra Firma) have been commissioned by the Client to undertake a Geotechnical and Geoenvironmental Report

This report comprises a Tier 1 (Desk Study) including a Preliminary Geoenvironmental and Geotechnical Assessment.

1.2 Objectives

Land Contamination Risk Management (LCRM) guidance provided by the Environment Agency advocates using a tiered approach. This comprises Tier 1; the Preliminary Risk Assessment, Tier 2; the Generic Quantitative Risk Assessment and Tier 3; the Detailed Quantitative Risk Assessment. As each tier is completed a decision is made whether it is necessary to advance to the next tier.

In addition to LCRM, geotechnical aspects of the development also need to be considered and are approached in a similar manner, with the risks identified in the preliminary assessment, and then investigated through subsequent phase of investigation.

1.2.1 Tier 1

The main objectives of the Tier 1 Geoenvironmental Assessment programme are:

- provide information on past and current uses of the site and surrounding area;
- identify the likely potential environmental liabilities at the site associated with any soil, groundwater, vapour and gas contamination from past site and surrounding land uses;
- provide information on the likely ground conditions beneath the site, including soil types, groundwater and if made ground is likely to be present;
- produce an initial conceptual site model, to detail the nature and extent of potential contamination, its source, potential pathways and likely receptors (pollutant linkage);
- prepare a preliminary human health and environmental risk assessment for the site; and
- inform the design of subsequent phases of intrusive site investigation.

The main objectives of the Preliminary Geotechnical Assessment programme are:

- identify possible geotechnical risks pertaining to the development; and
- scrutinise the risk, if any, from legacy coal mining features.

In order to achieve the above objectives, Terra Firma carried out an assessment programme including a site walkover and a review of existing data.

1.3 Geotechnical Category

In accordance with BS EN 1997-1:2004+A1:2013, the proposed development comprises the following geotechnical category:

[Delete below as appropriate]

Geotechnical Category 2: conventional types of structures and foundation with no exceptional risk of difficult soil or loading conditions (e.g., spread, raft & pile foundations; retaining structures; excavations; earthworks and ground anchors).

1.4 Information Sources

The following sources of information have been referenced in support of this assessment:

- Landmark Envirocheck Report (**Annex A**)
- Zetica UXO Risk Map
- British Geological Map Sheet 249 Solid and Drift (1:50,000 scale), and Sheet ST18NE (1:10,560 scale)
- Client provided information, plans etc. (**Figure 1.1** and **2.1**); and
- Historical investigations

1.5 Roles & Responsibilities

Table 1.1 Roles and Responsibilities

Role	Organisation	Contact Details
Client/Developer	Cardiff City Council	beverley.bailey2@caerdydd.gov.uk
Geotechnical/Geoenvironmental Consultant	TFW Group Limited	cardiff@tfwgroup.co.uk
Architect/Engineer	Powell Dobson	cardiff@powelldobson.com
Local Authority	Cardiff City Council	development@cardiff.gov.uk

1.6 Limitations & Exceptions of Investigation

The Client has requested that a Tier 1 Geoenvironmental and Geotechnical Risk Assessment (Desk Study) be undertaken to enable the outlined main objectives.

The Tier 1 report was conducted, and this report has been prepared for the sole internal reliance of the Client and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of TFW Group Ltd. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill. The report represents the findings and opinions of experienced geoenvironmental and geotechnical consultants. TFW Group Ltd does not provide legal advice and the advice of lawyers may be required.

Human health and environmental risk assessment outcomes may not take into account the potential for the creation of new contaminant linkages as a result of variation to the proposed development and recommended engineering solutions. It is therefore imperative that the Client engages a geoenvironmental consultant to re-visit the conceptual site model and potential risks upon completion of final designs, prior to development.

1.7 Quality Assurance

The quality, health, safety and environmental aspects of the assessment comply with Terra Firma business management system which is UKAS accredited and complies with the requirements of BS EN ISO 9001:2015, BS EN ISO 14001:2015 and BS EN ISO 45001:2018 standards.

SECTION 2 Review of Existing Data

2.1 Physical Setting & Current Site Use

The development site is triangular in shape and locates off Wolfs Castle Avenue and Templeton Avenue, Llanishen, Cardiff. The site centres on an approximate national grid reference of 317430, 182260, occupying a plan area of approximately 0.47 Hectares.

The site is composed of a large disused building and associated carpark and gardens. The building was previously used as a public house.

Site boundaries are defined by three roads, Wolfs Castle Avenue, Templeton Avenue and Llangefni Place. Beyond the immediate roads are residential housing.

Site elevation is approximately 55m AOD gently sloping down to the south.

The site location can be seen on **Figure 2.1**.

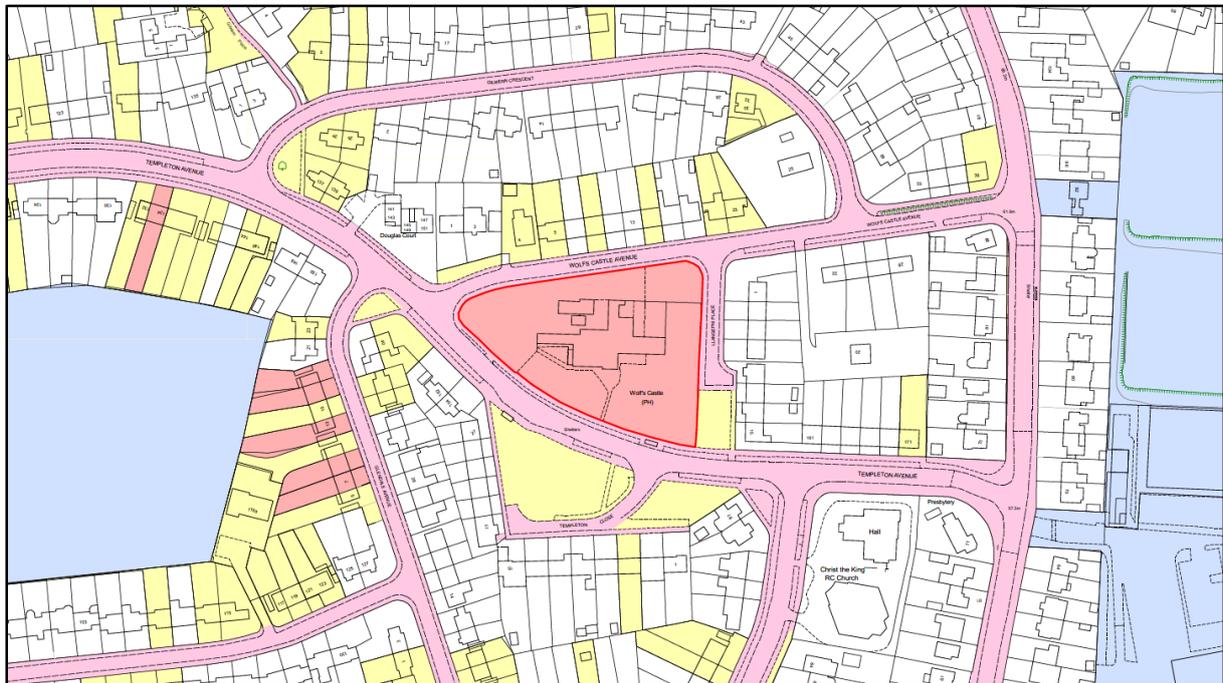


Figure 2.1 Site Location

2.2 Historical Setting

Historical maps of the site have been obtained in an Envirocheck report, provided by Landmark Information Group. The history plans are supplied in **Annex A** of this report, and the most relevant editions are summarised in **Table 2.1**. Distances are approximate, and any changes in-between map editions may not be recorded.

Table 2.1 Historical Development from Map Information

Map Edition & Scale	Key Features On Site	Key Features Off Site
1873-1875 1:2,500	The site is occupied by the grounds of Llanishen Fawr and largely comprises several small buildings with associated green space and trees. The site is intersected by public footpaths. A pump 'P' is located in the centre of the site.	The site is primarily surrounded by agricultural fields and woodland, with several footpaths and roads in proximity. The buildings on site extend northwards off site. A road running north to south is located 120m to the east. A small settlement named Mill Farm is located 440m to the east. Llanishen Station is located 620m to the east and a north-south trending railway. Llanishen Brook flows north to south 10m to the west and appears to feed a pond located 55m to the south.
1900-1901 1:2,500	No significant changes have been recorded.	Extensive development of Llanishen has taken place 300m southeast of the site. A spring is denoted 60m west of the site.
1919-1920 1:2,500	No significant changes have been recorded.	Two semi-detached houses have been constructed 15m northwest of the site. Another small building has built 50m to the northeast.
1940-1941 1:2,500	No significant changes have been recorded.	Additional small out buildings have been constructed around the Llanishen Fawr main building.
1960 1:1,250	The footprint of the main central building has remained largely the same as previous years, but two additional small buildings have been added to the west, and the buildings at the north have been demolished. The grounds have been altered with the introduction of a site access and car parking, and soft landscaping. The boundaries are now formed by Templeton Avenue at the south/southwest, and Wolf's Castle Avenue to the north. Llanishen Place lies to the east. The site now lies within a densely developed residential area, with houses, streets and infrastructure. A telephone call box is located at the far west of the site.	Significant development of the entire region into a residential suburb, with organised housing blocks, streets and possibly amenities like parks or schools. Wolfs Castle Avenue (north) Llangefni Place (east) and Templeton Avenue (south) roads developed bordering the site.
1961 1:1,250	An extension has been added to the western and southern sides of the original building footprint. More minor changes to the landscaping have been carried out and the buildings at the west of the site have been demolished to make room for	Further development and expansion of surrounding suburb.

	the extension. The building is now known as Wolf's Castle Public House. A telephone call box is located at the far west of the site.	
1992 1:1,250	Extensions have been built onto the east of the main building and to one of the smaller buildings at the northwest.	No significant changes.
2006 1:10,000	No significant changes have been recorded.	No significant changes have been recorded.
2025 Aerial Image	Car parking is located at the west and north of the building. Grass and trees lie to the south and east of the buildings.	No significant changes have been recorded.

2.3 Geological Setting

2.3.1 Geological Mapping

The 1:50,000 and 1:10,560 scale British Geological Survey geological maps of the area, Sheet 249 and Sheet Glamorgan 37 SW respectively, and the online GeoIndex map viewer (British Geological Survey, 2025) were consulted for geology underlying the site. The site is shown to be underlain by conglomerate and sandstone interbedded forming the Llanishen Conglomerate which are Devonian in age.

Superficial deposits of Diamicton Till, Quaternary in age are indicated.

Made ground is anticipated, associated with previous land use and construction of the public house. However, its composition and thickness is undetermined.

Detailed stratigraphical information beneath the site is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Age	Formation	Description
Quaternary	Till	Till is unsorted and unstratified drift, generally over-consolidated, deposited directly by and underneath a glacier without subsequent reworking by water from the glacier. It consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape (diamicton).
Devonian	Llanishen Conglomerate	Red sandstones, siltstones and mudstones with beds of pebbly sandstone and conglomerate containing exotic pebbles sourced from the south; common calcrete profiles.

Strata are typically dipping 47° to the northwest in the local area.

No faults, coal outcrops or coal seams are recorded on or around the site.

An extract of the geological map is presented on Figure 2.2.



Figure 2.2 Geological Map Extract (ST18NE 1:10,560)

2.3.2 BGS Borehole Information

A search of the British Geological Survey (BGS) online GeolIndex map viewer (British Geological Survey, 2025) has been undertaken for available borehole records on, or in proximity to the site.

BGS borehole ST18SE73 is located 84m to the west of the site. The geological log has been summarised in **Table 2.3**.

Table 2.3 Summary of BGS Borehole Record (ST18SE73)

Depth Range (Ft)	Description
GL-1.00	Fill of stiff friable red/brown silty clay with sand patches with occasional stone fragments.
1.00->4.94	Stiff dark red brown sandy silty clay with patches of yellow sand. Occasional, becoming frequent small gravel, cobbles and angular boulders.

BGS borehole ST18SE74 is present 120m to the southwest of the site. The geological log has been summarised in **Table 2.4**.

Table 2.4 Summary of BGS Borehole Record (ST18SE74)

Depth Range (Ft)	Description
GL-0.5	Tarmac on fill of cobbles and ash.
0.5-1.0	Fill of clinker, ash, sand and gravel.
1.0-1.5	Firm brown silty CLAY with traces of roots.
1.5->4.9	Firm red brown sandy silty CLAY with patches of yellow sand and small gravel. Occasional cobbles. Becoming stiff from 3.5m

2.3.3 Mining & Mineral Sites

The site situates outside the South Wales coal fields.

There are no BGS mineral sites recorded in proximity of the site.

2.4 Natural Hazards

2.4.1 Geotechnical Risks

The natural hazards have been considered for their potential geotechnical risk to the proposed development and are summarised in **Table 2.5**.

Table 2.5 Summary of Geotechnical Risks

Hazard	Hazard Potential	Details
Ground Dissolution / Karstic Features	No Hazard	The geology underlying the site comprises sandstone / mudstone rocks of Llanishen Conglomerate.
Collapsible Ground	Very Low Potential	The geology underlying the site comprises sandstone / mudstone rocks of Llanishen Conglomerate which are not prone to collapsible ground features.
Compressible Ground	No Hazard	Till is not susceptible to compressible ground conditions.
Landslide	Very Low Potential	No landslips have occurred in the area.
Running Sand	Very Low Potential	Till is not susceptible to running sand.
Shrinking and Swelling Clays	Very Low Potential	Till is not susceptible to shrinking and swelling clays

2.4.2 Radon

The Envirocheck report (**Annex A**) details that basic radon protective measures are required for new developments constructed at ground level on the investigation site.

Additional consideration will need to be given to the requirement of radon protection within basements or other occupied spaces below ground level.

Further guidance on reducing the concentration of radon in new buildings, extensions, conversions and refurbishment projects, in order to reduce the risk to occupants, is provided in BR:211:2023.

2.4.3 Aggressive Ground Conditions

Made Ground

No made ground information available. However, based on historical maps made ground is anticipated to be present. This is likely to comprise demolition waste and may contain elevated levels of sulphates and acids which can be damaging to buried concrete. Therefore, the presence of aggressive agents is considered plausible.

Natural Ground

The geological formation beneath the site is not conducive to the formation of aggressive agents, and their presence is considered unlikely.

2.5 Environmental Setting

The following sections have been compiled using the Landmark Information Group Envirocheck datasheet and maps which can be found in **Annex A**.

2.5.1 Hydrogeology

Superficial deposits beneath the site have an aquifer designation of secondary aquifer – Undifferentiated.

The bedrock deposits beneath the site have an aquifer designation of secondary aquifer – A.

Deeper groundwater flow within the underlying bedrock will be controlled by the strata dip and any fractures or bedding planes within the rock units.

The hydraulic gradient will be at its steepest during periods of heavy rainfall and aquifer recharge.

The site does not locate within a groundwater source protection zone.

The nearest groundwater abstraction point is located 340m south from the site, operated by Dwr Cymru Cyfyngedig.

2.5.2 Hydrology

The nearest surface water feature locates off site 234m to the northwest and comprises a north south trending brook (Llanishen Brook) that once intersected with the site. The brook flows to the south, this coincides with the topography of the area.

2.5.3 Flooding

The site is not at risk from extreme flooding from rivers or sea.

The site is not at risk from surface water flooding.

The site is not at risk of groundwater flooding.

2.5.4 Waste

There are no licensed waste management facilities, waste transfer sites or historical landfill sites within 250m of the site.

There are no discharge consents within 250m of the site. The nearest discharge consent is 711m southwest, controlled by Cardiff City Council.

2.5.5 Infilled Land

Potentially infilled land features within 250m of the site are summarised in **Table 2.6**.

Table 2.6 Potentially Infilled Land

Feature	Distance/Direction
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with the Llanishen Brook. The feature was became built upon between 1953-1969.	0m west
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a small stream connecting a spring 60m west of the site and the Llanishen Brook. The feature was became built upon between 1953-1969.	52m southwest
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a 'fish pond'. The feature was became built upon between 1953-1969.	76m south
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a potential small north south trending stream, following the Hoel Hir road. The feature was became built upon between 1953-1969.	124m east
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a potential small surface water stream. The feature was became built upon between 1953-1969.	177m northwest
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a potential small surface water land drain. The feature was became built upon between 1953-1969.	207m southeast
Potentially Infilled Land (Water)- Based on the historical map the infilled land corresponds with a potential small surface water stream. The feature was became built upon between 1953-1969.	229m northeast

2.5.6 Pollution

No pollution incidents are recorded within influencing distance of the site.

2.5.7 Sensitive Land Use

The site is not located within a sensitive land use area.

2.5.8 Estimated/Measured Urban Soil Chemistry

The British Geological Survey have published estimated/measured urban soil chemistry concentrations locally to the site for a number of common contaminants, i.e. arsenic, cadmium, chromium, lead and nickel. All of the given determinands have anticipated concentrations that are below the recognised trigger levels for a residential with plant uptake scenario/commercial scenario.

2.5.9 Industrial Land Use

Relevant contemporary trade directory entries recorded in proximity of the site are summarised in **Table 2.7**.

Table 2.7 Relevant Contemporary Trade Summary

Company	Distance/Direction	Classification	Status
J M Car-Diff	51m south	Car Dealers	Inactive
Harmony Of Cardiff Ltd	123m southwest	Blinds, Awnings & Canopies	Inactive
Dreamclean Cardiff Ltd	169m southeast	Cleaning Services - Domestic	Inactive
Capricorn Carpet Upholstery Cleaners	173m north	Carpet, Curtain & Upholstery Cleaners	Inactive

There are no recorded Control of Major Accident Hazards Sites (COMAH) and Notifications of Installations Handling Hazardous Substances (NIHHS) within 250m of the site.

2.6 Unexploded Ordnance Risk (UXO)

Based on the historical setting of the site and Zetica UXO Risk Maps, military activity has been recorded within the area. Therefore, a Preliminary Unexploded Ordnance Risk Assessment is recommended before any ground investigation commences.

2.7 Site Services

Buried utility services and their backfill can provide preferential pathways for gas, vapour or groundwater to migrate to other parts of the site or to a sensitive receptor. They can also represent significant constraints to development.

A statutory utility search and review has been undertaken.

The utility survey for The Wolf Castle Pub in Llanishen, conducted to PAS128 standards, identifies various underground services, including electricity, gas, water, telecommunications, and drainage systems. The site is intersected by a number of storm water systems and their associated covers. The site contains a single water service, trending north south joining the existing building to the mains water located on Wolf Castle Avenue. Power is also largely situated on the northern side of the site, between the Wolf Castle Public House and Wolf Castle Avenue. The site is littered with ground probing radar locates, which could suggest the location of services but also could be a result of GPR reflections from buried metal objects, reinforced concrete or the presence of moisture and clays.

Statutory utility plans are appended in **Annex B**.

2.8 Previous Nearby Site Investigations

Two site investigations have been carried out by Terra Firma at Llanishen High School, located approximately 190m to the southeast.

A site investigation was carried out in October 2011, reference 11502. The site is underlain by made ground over till deposits over St Maughan's Group bedrock. Four cable percussive boreholes, sixteen windowless sample boreholes, and six machine trial pits were excavated. Topsoil and 'tarmac over sub-base was recorded to a depth of between 0.1m and 0.55m followed by made ground to 0.3m/1.6m. Till comprising wet very soft to firm sandy gravelly silt and sandy gravelly clay and clay gravelly sand was proven to depths of between 4.1m and 6.9m. Possible weathered mudstone/sandstone was encountered beneath the till.

A second site investigation was carried out at Llanishen High School in August 2020, reference 16225. The site is located approximately 215m to the south southeast. The investigation

included the excavation of 2No. machine excavated trial pits, and 7No. windowless sample boreholes.

The site was underlain by asphalt and sub-base or topsoil-like soils over various layers of firm reddish and yellowish brown silty gravelly very sandy CLAY and/or loose to dense very clayey variably gravelly SAND to at least 5m. Elevated concentrations of PAHs were recorded within the made ground. Pad foundations were recommended for the proposed low-rise development. Modified plasticity results classified the cohesive soils as having low and medium volume change potential. No infiltration was recorded by the soakaway testing.

SECTION 3 Preliminary Human Health & Environmental Risk Assessment

3.1 General

The Tier 1 preliminary human health and environmental risk assessment is a qualitative evaluation of unacceptable risks to human health or the environment from potential 'contaminated land', based on reviewed information in preceding sections of this report.

For contaminated land to exist as defined in Part 2A of the Environmental Protection Act 1990, a contaminant linkage needs to be identified. Contaminant linkages are defined by having a valid 'source – pathway – receptor' as established in the preliminary conceptual site model.

For our definitions of contaminant linkages and how we define risk please refer to **Annex C** which includes our classifications of consequence and probability, and risk assessment matrix.

3.2 Potential Sources of Contamination

Potential or known sources of contamination associated with the site current and historical land uses are summarised in **Table 3.1**.

Table 3.1 Contamination Sources

ID	Contamination Source	Contaminant	Source of Information
S1	Made Ground/ Reworked Natural- Potential Contaminated Soil	Metals, Metalloids, Organics and Inorganics Asbestos, Hydrocarbons, Petroleum Hydrocarbons (TPH) and Polycyclic Aromatic Hydrocarbons (PAH)	Historical maps
S2	Radon Gas		Envirocheck report

3.2.1 Omitted Potential Sources

Other potential sources of contamination highlighted in preceding sections of this assessment have been reviewed and omitted from further risk assessment, for the reasoning listed in **Table 3.2**.

Table 3.2 Omitted Contamination Sources

Contaminant & Source	Reasoning
Infilled land	The volume of infilled land is very small and is unlikely to comprise a significant quantity of biodegradable material given the land is now covered by housing and infrastructure. Additionally, the infilled land will be shallow and bound by cohesive soils. In the unlikely event that any ground gas was generated, it would most likely be emitted vertically into the atmosphere rather than horizontally towards the proposed development. The fill located on site is very limited and if still present would be excavated as part of the development if located beneath a dwelling.

3.3 Potential Pollution Pathways

Potential contaminant pathways associated with a **residential with home grown produce land use** are summarised in **Table 3.3**.

Table 3.3 Contamination Pathways

ID	Pathway
P1	Direct soil and dust ingestion
P2	Plant uptake & consumption of home grown produce
P3	Dermal contact
P4	Inhalation of dust and vapours
P5	Vertical migration of leachates/liquid contaminants (unsaturated zone)
P6	Horizontal and vertical migration of contaminants (saturated zone)
P7	Artificial contaminant pathway (borehole, pile, excavation etc)
P8	Surface run-off
P9	Horizontal and vertical migration of ground gasses and vapours
P10	Direct contact with construction materials
P11	Inhalation of asbestos fibres

3.4 Potential Receptors

There are human and hydrological receptors to any contamination that may be present on site. Potential receptors are summarised in **Table 3.4**.

Table 3.4 Contamination Receptor

ID	Receptor
R1	Construction and maintenance workers
R2	Future site users (residents)
R3	Passers-by or neighbouring site users
R4	Groundwater (aquifer)
R5	Surface waters (river/lake)
R6	Area of public open space
R7	Construction materials (concrete/potable water pipes)
R8	Areas of Sensitive Land (SSSI's etc)

3.5 Preliminary Conceptual Site Model

The preliminary conceptual site model establishes potential contaminant linkages between contaminants (source), pathways and receptors, realised during the preparation of the Tier 1 assessment. Where a potential contaminant linkage is identified, an assessment of risk is subsequently undertaken. The preliminary conceptual site model is tabulated in **Table 5.5**.

Outcomes of the preliminary conceptual site model are then used as a basis for the design and implementation of the site investigation, whereby point sources of potential contamination can be targeted, as well as investigating more broadly the wider site.

Findings of the site investigation can in turn be used to develop and refine the conceptual site model.

3.5.1 Data Gaps & Uncertainties

Key data gaps and uncertainties identified in the conceptual site model at Tier 1 assessment stage include:

- there are no previous site investigations available for the site, therefore no information is available on actual concentrations of contaminants in soil and groundwater at this stage;
- the precise ground conditions below the site are unknown; and
- groundwater depth and flow direction are conceptual at this stage.

Table 3.5 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Preliminary Risk Assessment		
			Consequence	Probability	Risk & Justification
Human Health					
Soils S1	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4 Inhalation of asbestos fibres P11	Construction and maintenance workers R1	Medium	Low Likelihood	Low Risk: COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures to be adopted, if required.
		Passers-by or neighbouring site users R3	Medium	Unlikely	Near Zero Risk: Dust suppression measures may be adopted to mitigate this risk, if required.
		Future site users R2	Medium	Likely	Medium Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review.
Radon Gas S2	Horizontal and vertical migration of ground gasses and vapours P9	Future site users R2	Medium	Likely	Medium Risk: Basic radon protection measures required
Impacted Groundwaters S1	Horizontal and vertical migration of contaminants (saturated zone) P6 Dermal contact P3	Construction and maintenance workers R1	Medium	Unlikely	Near Zero Risk: Contaminative uses have not been identified at the site
Soils S1	Plant uptake & consumption of home grown produce P2	Future site users R2	Medium	Low Likelihood	Medium Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review.
Soils S1	Direct Contact P10	Construction materials (water pipes) R7	Mild	Low Likelihood	Low Risk: An appropriate water supply pipe material should be chosen after the potable water supplier has completed an assessment in accordance with UK Water Industry Research guidance; Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UKWIR Report Ref: 10/WM/03/21.
Aggressive ground conditions – Sulphates S1		Construction materials (concrete) R7	Mild	Low Likelihood	Low Risk: Chemical analysis of the soils must be undertaken and the appropriate classification of concrete should be specified

					as per BRE Special Digest 1: Concrete in Aggressive Ground.
Aquatic Environment					
Soils (leachate) S1	Surface run-off P8	Surface waters (river/lake) R5	Mild	Low Likelihood	Low Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review. The closest surface water feature is 234m to the northwest.
Soil S1 (leachate)	Vertical migration of leachates/liquid contaminants (unsaturated zone) P5	Groundwater (aquifer) R4	Mild	Low Likelihood	Low Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review. Cohesive soils are expected beneath the site, which will limit the migration of unlikely leachate contamination. Free product is not anticipated.
Soils (leachate) S1	Horizontal and vertical migration of contaminants (saturated zone) P6	Surface waters (river/lake) R5	Mild	Low Likelihood	Low Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review and free product is not anticipated. The closest surface water feature is 234m to the northwest.
		Groundwater (aquifer) R4	Mild	Low Likelihood	Low Risk: The site has previously been occupied by buildings, some of which have been demolished. Significant contaminative uses have not been identified by the historical review. Cohesive soils are expected beneath the site, which will limit the migration of unlikely leachate contamination. Free product is not anticipated.

3.6 Conclusion

It is determined that potential contaminant linkages have been identified, and more information is needed to refine the conceptual site model. It is therefore necessary to proceed to a Tier 2 generic quantitative risk assessment.

SECTION 4 Preliminary Engineering Recommendations

Recommendations given in this section are based upon the available desk study information and need to be confirmed by a relevant intrusive investigation.

4.1 Preliminary Ground Model

Based on the available desk study information anticipated ground conditions at the site are summarised in **Table 4.1**.

Table 4.1 Anticipated Ground Conditions

Stratum	Depth (m)
Made ground	<1.0m
Till deposits (sandy gravelly clay with cobbles)	>5.0
St Maughan's Group	~5.0-7.0

4.1.1 Groundwater

The depth to groundwater is not currently known but is likely to lie in excess of 5m.

4.2 Preparation of Site

Prior to site works commencing an appropriate asbestos survey should be carried out in the existing building. Any asbestos containing materials identified should be removed and disposed of at appropriate landfill facility by a specialist contractor.

Areas of vegetation including all roots should be stripped and removed from beneath the proposed development site.

Allowances should be made for any temporary/permanent support works to any existing adjacent structure necessary as a result of the proposed works.

Contingencies should be made for the protection/diversion of any underground/overhead services present beneath/above the site brought about as a result of the proposed works.

Any reduced levels should be brought up to the required levels with suitable inert mainly granular materials. Department of Transport (DTp) type 2 sub-base or similar should be used and compacted in layers to the requirements of the Specification for Highway Works.

Allowances should also be made for the excavation of any soft spots/areas and their replacement with well compacted imported granular materials.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils and other materials destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties.

4.3 Tentative Foundation and Floor Slab Solution

Based upon the desk study information, it is likely that traditional shallow spread foundations will be feasible for low rise development on site.

4.4 Excavations and Formations

Shallow excavations will likely be possible with normal soil excavating machinery. Breaker attachments will be required when excavating buried foundations and structures such as basements.

Excavations are unlikely to encounter shallow groundwater flows. Any inflows together with rainwater infiltration should be dealt with by conventional pumping techniques.

4.5 Storm Water Drainage

Soakaway drainage is unlikely to be viable due to the anticipated cohesive soils beneath the site.

The suitability of stormwater drainage should however be confirmed by in-situ soakaway testing.

Proposed soakaways should be positioned at least 5.0m away from any structure.

SECTION 5 Recommended Site Investigation

5.1 General

An intrusive site investigation designed and justified in accordance with guidance provided in BS10175:2011+A2:2017 must be undertaken to achieve the following objectives:

- Identify the potential environmental liabilities at the site associated with any soil, gas, vapours and groundwater contamination from past site uses, to substantiate and enhance the conceptual site model, for a residential with home grown produce scenario.
- Provide a summary of the environmental conditions at the site, together with any necessary remediation works to render the site fit for its intended use.
- Provide recommendations regarding any relevant geotechnical aspects pertaining to the development

5.2 Intrusive Investigation

It is recommended that an intrusive investigation is undertaken to inspect the ground conditions, and to take soil samples for laboratory chemical and geotechnical testing.

It is perceived a combination of trial pitting, and dynamically sampled boreholes will be suitable to investigate the site.

Soakaway testing should also be carried out to aid drainage design.

5.3 Soil Sampling Strategy

Soil sampling locations must be selected on a targeted basis to investigate suspected/known sources of contamination or potential contamination migration pathways.

Soil sampling locations must also be selected on a non-targeted basis to characterise the contamination status of a defined site area. A herringbone sampling pattern should be adopted.

5.4 Recommended Soil Chemical Analysis

It is recommended that soil samples be taken of the made ground and underlying natural materials and tested at an accredited laboratory for the determinands listed in **Table 5.1**.

Table 5.1 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	
Chromium VI			
Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

Soil samples exhibiting elevated levels of metal and metalloid determinands should be further schedule for leachate testing of the offending substance.

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DRAFT

ANNEX A
Envirocheck Report



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

367367815_1_1

Customer Reference:

24-310-CA wolfscastle

National Grid Reference:

317430, 182260

Slice:

A

Site Area (Ha):

0.47

Search Buffer (m):

1000

Site Details:

Wolfs Castle Hotel, Wolfs Castle Avenue

Llanishen

CARDIFF

CF14 5JS

Client Details:

Ms R Howells (Liley)

TFW Group Ltd

5 Deryn Court

Wharfdale Road

Pentwyn

Cardiff

CF23 7HB

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 32			3	10
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	168	1	317300 182100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	248	1	317250 182050
1	Discharge Consents Operator: Cardiff City Council Property Type: Undefined Or Other Location: Not Supplied Authority: Natural Resources Wales Catchment Area: River Rhymney Reference: An0143301 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 22nd June 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Llanishien Brook Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	711	2	317100 181600
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Not Supplied Location: Cardiff Lisvane- Millrace Close Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0025801 Permit Version: Not Supplied Effective Date: 8th June 1987 Issued Date: 8th June 1987 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Millrace, Tributary Of Nant Fa Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NE (E)	807	2	318250 182500
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Not Supplied Location: Cardiff Lisvane- Millrace Close Authority: Natural Resources Wales Catchment Area: NANT GLANDULAS - SOURCE TO CONF RHYMNEY R Reference: AN0025801 Permit Version: 1 Effective Date: 8th June 1987 Issued Date: 8th June 1987 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Millrace, Tributary Of Nant Fa Status: Effective Positional Accuracy: Located by supplier to within 100m	A14NE (E)	807	2	318250 182500
3	Discharge Consents Operator: Cardiff City Council Property Type: Undefined Or Other Location: Not Supplied Authority: Natural Resources Wales Catchment Area: River Rhymney Reference: An0143301 Permit Version: 2 Effective Date: 23rd June 1989 Issued Date: 23rd June 1989 Revocation Date: 23rd September 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Llanishien Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8SE (S)	813	2	317684 181433

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>Discharge Consents</p> <p>Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Ps Off Blossom Drive Lisvane Cardi, Lisvane, Cardiff, Cardiff Cbc Authority: Natural Resources Wales Catchment Area: ROATH BROOK Reference: An0230801 Permit Version: 1 Effective Date: 1st December 1991 Issued Date: 1st December 1991 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unspecified Status: Effective Positional Accuracy: Located by supplier to within 10m</p>	A17NE (NW)	848	2	317060 183060
4	<p>Discharge Consents</p> <p>Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Ps Off Blossom Drive Lisvane Cardi, Lisvane, Cardiff, Cardiff Cbc Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: AN0230801 Permit Version: Not Supplied Effective Date: 1st December 1991 Issued Date: 1st December 1991 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unspecified Status: Effective Positional Accuracy: Located by supplier to within 100m</p>	A17NE (NW)	848	2	317060 183060
5	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Johnsons Dry Cleaners Location: 42 Station Road, Llanishen, Cardiff, Cf14 5lt Authority: Cardiff Council, Pollution Control Division Permit Reference: PPC/137/7 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location</p>	A8NE (SE)	473	3	317675 181792
6	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: J Sainsbury Plc Location: Excalibur Drive, Thornhill, CARDIFF, South Glamorgan, CF14 9BB Authority: Cardiff Council, Pollution Control Division Permit Reference: PPC/75/1.2 Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location</p>	A18SW (N)	550	3	317215 182800
7	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: R H Babbage And Son Ltd Location: 19 Kimberley Terrace, Llanishen, CARDIFF, South Glamorgan, CF14 5EA Authority: Cardiff Council, Pollution Control Division Permit Reference: Ppc/03/1.1 Dated: 17th June 1992 Process Type: Local Authority Air Pollution Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input Status: Authorised Positional Accuracy: Manually positioned to the address or location</p>	A8NE (S)	599	3	317680 181657
	<p>Nearest Surface Water Feature</p>	A13NW (NW)	234	-	317267 182480

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Merretts Bakery Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Acid Note: Accident Incident Date: 28th January 1997 Incident Reference: 31693 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	678	4	317000 181700
9	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Thornhill Road, Adjacent Nine Giants Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Deliberate Act Incident Date: 10th April 1996 Incident Reference: 27974 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	918	4	316500 182000
9	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Thornhill Road, ACTON Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Deliberate Act Incident Date: 10th April 1996 Incident Reference: 27974 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	920	4	316500 181995
10	<p>Registered Radioactive Substances</p> <p>Name: Cardiff Cat Clinic Location: Bridge House, Station Road, Llanishen, Cardiff, Cf14 5uw Authority: Natural Resources Wales Permit Reference: Bt2475 Dated: 9th December 2002 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (SE)	462	2	317828 181925
11	<p>Registered Radioactive Substances</p> <p>Name: Cardiff Cat Clinic Location: Bridge House, Station Road, Llanishen, Cardiff, Cf14 5uw Authority: Natural Resources Wales Permit Reference: Bt1037 Dated: 9th December 2002 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (E)	528	2	317977 182069
12	<p>Registered Radioactive Substances</p> <p>Name: Rsr Ltd Location: Firs Laboratory Rsr Ltd, Parc Ty Glas, Llanishen, CARDIFF, CF14 5DU Authority: Natural Resources Wales Permit Reference: BF0193 Dated: 23rd March 1999 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the road within the address or location</p>	A8SW (S)	883	2	317423 181336

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<p>Registered Radioactive Substances</p> <p>Name: Rsr Ltd Location: Firs Laboratory Rsr Ltd, Parc Ty Glas, Llanishen, CARDIFF, CF14 5DU Authority: Natural Resources Wales Permit Reference: AX8896 Dated: 10th February 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)</p> <p>Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the road within the address or location</p>	A8SW (S)	883	2	317423 181336
12	<p>Registered Radioactive Substances</p> <p>Name: Rsr Ltd Location: Firs Laboratory Rsr Ltd, Parc Ty Glas, Llanishen, CARDIFF, CF14 5DU Authority: Natural Resources Wales Permit Reference: AT9017 Dated: 1st December 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)</p> <p>Description: Initial variation to an authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the road within the address or location</p>	A8SW (S)	883	2	317423 181336
13	<p>Registered Radioactive Substances</p> <p>Name: Rsr Ltd Location: Cardiff Business Park, CARDIFF, CF4 5DU Authority: Natural Resources Wales Permit Reference: BF0185 Dated: 23rd March 1999 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1)</p> <p>Description: Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	921	2	317471 181297
14	<p>Substantiated Pollution Incident Register</p> <p>Authority: Natural Resources Wales Incident Date: 10th September 2015 Incident Reference: 1371937 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay</p>	A8SE (S)	690	2	317626 181546
15	<p>Water Abstractions</p> <p>Operator: Dwr Cymru Cyfyngedig Licence Number: 21/57/12/0033 Permit Version: 100 Location: Llanishen Brook Authority: Natural Resources Wales Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Llanishen Brook Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th October 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A8NE (S)	340	2	317510 181880
	<p>Water Abstractions</p> <p>Operator: Dwr Cymru Cyfyngedig Licence Number: 21/57/12/0033 Permit Version: 100 Location: Nant Fawr Authority: Natural Resources Wales Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nant Fawr Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th October 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15SW (E)	1200	2	318670 182200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Dwr Cymru Cyfyngedig Licence Number: 21/57/12/0033 Permit Version: Not Supplied Location: Llanishen And Lisvane Reservoirs, Llanishen, Cardiff, Cardiff, Cf14 0rg Authority: Natural Resources Wales Abstraction: Private Non-Industrial Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1201	2	318671 182199
	Water Abstractions Operator: Dwr Cymru Cyfyngedig Licence Number: 21/57/12/0033 Permit Version: Not Supplied Location: Llanishen And Lisvane Reservoirs, Llanishen, Cardiff, Cf14 0rg Authority: Natural Resources Wales Abstraction: Private Non-Industrial Amenity: Make-Up Or Top Up Water Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): 2045700 Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1201	2	318671 182199
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial: >90% Patchiness: Superficial 3-10m Thickness: Superficial High Recharge:	A13NE (S)	0	2	317434 182258
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (S)	0	2	317434 182258
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (S)	0	2	317434 182258
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 611.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A13SW (W)	23	5	317368 182231

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 405.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A13NW (NW)	234	5	317267 182480
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 580.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A13NW (NW)	234	5	317267 182480
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A13SE (SE)	271	5	317627 181997
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 153.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A13SE (SE)	271	5	317609 181985
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 109.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A13SE (SE)	284	5	317703 182055
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A8NE (S)	305	5	317497 181914
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A8NE (S)	356	5	317517 181865
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: Underground Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A8NE (S)	423	5	317538 181800
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1377.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A8NE (S)	442	5	317539 181782

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SE (SW)	463	5	317047 181943
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18SW (NW)	581	5	317139 182804
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A18SW (NW)	581	5	317139 182804
29	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18SW (NW)	600	5	317110 182810
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18SW (NW)	603	5	317104 182811
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: Underground Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A18SW (NW)	663	5	317160 182901
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 192.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A17SE (NW)	668	5	317058 182860
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 267.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A18SW (NW)	671	5	317157 182908
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	719	5	316687 182468

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	724	5	316682 182470
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	728	5	316679 182471
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 117.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	734	5	316673 182474
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NE (N)	800	5	317608 183077
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	809	5	316632 182584
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A14NE (E)	818	5	318232 182589
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.4 Watercourse Level: Underground Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A14NE (E)	823	5	318241 182581
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A17NE (NW)	829	5	316881 182935
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	831	5	316614 181941

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NW (SW)	831	5	316642 181880
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NW (SW)	832	5	316631 181901
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 546.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A14NE (E)	833	5	318254 182573
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 134.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NE (SW)	834	5	316883 181594
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 243.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NE (SW)	834	5	316883 181594
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.7 Watercourse Level: Underground Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A19SE (NE)	837	5	318228 182647
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	839	5	316586 181993
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 134.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NW (SW)	839	5	316660 181834
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NE (N)	840	5	317694 183100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A19SE (NE)	840	5	318225 182659
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NE (N)	841	5	317696 183100
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	848	5	317824 183059
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	848	5	317824 183059
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7SE (SW)	857	5	316977 181500
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	860	5	316543 182063
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7SE (SW)	862	5	316996 181484
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 126.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NW (N)	867	5	317158 183114
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7SE (SW)	868	5	317022 181463

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NE (N)	869	5	317743 183115
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A18NE (N)	871	5	317745 183116
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 349.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A19SE (NE)	871	5	318139 182847
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	872	5	316522 182100
66	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 20.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	875	5	317828 183088
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 322.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7SE (SW)	878	5	317033 181447
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	878	5	316512 182125
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12SW (W)	878	5	316512 182125
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19SE (NE)	879	5	318169 182822

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	885	5	317818 183103
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A18NW (N)	885	5	317092 183112
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 496.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llanishen Brook Catchment Name: Rhymney Primacy: 1	A18NW (N)	886	5	317101 183116
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19SE (NE)	891	5	318176 182834
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	893	5	317814 183114
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (N)	897	5	317772 183135
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	902	5	317809 183126
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 188.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (NE)	902	5	317809 183126
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 445.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant-fawr Catchment Name: Rhymney Primacy: 1	A19NW (NE)	904	5	317964 183046

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A12NW (W)	907	5	316484 182426
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19SE (NE)	919	5	318195 182855
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 190.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19SE (NE)	919	5	318195 182855
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A9NE (SE)	919	5	318295 181814
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A19NW (N)	932	5	317776 183170
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A17SW (NW)	933	5	316537 182675
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A8SW (S)	950	5	317298 181283
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A9NE (SE)	950	5	318334 181824
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A9NE (SE)	959	5	318341 181817

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A8SW (S)	961	5	317296 181273
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A8SW (S)	961	5	317298 181273
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 232.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A7NW (SW)	971	5	316560 181745
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A17NW (NW)	973	5	316725 182993
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A8SW (S)	987	5	317298 181246
94	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rhymney Primacy: 1	A9NE (SE)	1000	5	318369 181782
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Roath Brook WaterBody ID: GB109057027150 Operational Catchment: Rhymney Management: South East Valleys Catchment: Not Supplied	A13NE (S)	0	2	317434 182258
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Nant Glandulas - source to conf Rhymney R WaterBody ID: GB109057027160 Operational Catchment: Rhymney Management: South East Valleys Catchment: Not Supplied	A18SE (N)	646	2	317610 182920
	Water Framework Directive - Groundwater Waterbody Name: SE Valleys Southern Devonian Old Red Sandstone & Triassic Mercia Mudstone Waterbody ID: GB40902G201500 URL Address: Not Available Overall Rating: Good Chemical Rating: Good Quantitative: Good Measure: 2023	A13NE (S)	0	2	317434 182258

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	Historical Landfill Sites Licence Holder: Not Supplied Location: Llanishen, Cardiff Name: Lambourne Crescent North Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15219 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6815/0054 BGS Ref: Not Supplied Other Ref: Not Supplied	A8SE (S)	871	2	317431 181347
96	Historical Landfill Sites Licence Holder: Not Supplied Location: Llanshen Name: Ty Glas Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15266 First Input Date: 31st December 1951 Last Input Date: 31st December 1961 Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6815/0111 BGS Ref: Not Supplied Other Ref: Not Supplied	A7SE (SW)	956	2	317047 181354
97	Historical Landfill Sites Licence Holder: Easifill Limited Location: Cardiff Name: Cleeve Drive Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15206 First Input Date: 31st December 1987 Last Input Date: 31st December 1987 Specified Waste: Deposited Waste included Inert, Commercial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6815/0021 BGS Ref: Not Supplied Other Ref: 87/01	A3NE (S)	987	2	317430 181232
	Local Authority Landfill Coverage Name: Cardiff Council - Has no landfill data to supply		0	6	317434 182258
98	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A13NW (W)	0	-	317390 182263
99	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A13SW (SW)	52	-	317349 182219
100	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A13SE (S)	76	-	317428 182150
101	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A13NE (E)	124	-	317596 182265
102	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	177	-	317284 182423
103	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13SE (SE)	207	-	317598 182056
104	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A13NE (NE)	229	-	317541 182507

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
105	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13SE (SE)	276	-	317641 182001
106	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8NE (S)	537	-	317585 181693
107	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A14NW (E)	628	-	318094 182379
108	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8NE (S)	634	-	317639 181606
109	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A12SE (W)	675	-	316761 181995
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A12NW (W)	702	-	316698 182446
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A12NW (W)	725	-	316676 182453
112	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A12SW (W)	735	-	316691 182007
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8SE (S)	739	-	317636 181497
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A12NW (W)	756	-	316662 182514
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18NW (N)	765	-	317144 183003
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A12NW (W)	805	-	316573 182267
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A17NE (NW)	838	-	317066 183052
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18NE (N)	840	-	317433 183130
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17NE (NW)	852	-	317065 183066
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A17SW (NW)	869	-	316701 182816
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17NE (NW)	897	-	316782 182942
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A7NW (SW)	898	-	316671 181714
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1886	A9NE (SE)	921	-	318173 181622
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8SW (S)	930	-	317327 181299
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8SW (S)	966	-	317297 181267

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	<p>Potentially Infilled Land (Water)</p> <p>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)</p> <p>Date of Mapping: 1965</p>	A17NE (NW)	981	-	316896 183128

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Devonian Rocks (Undifferentiated)	A13NE (S)	0	1	317434 182258
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	1	317434 182258
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317250, 182250 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 10.50 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 56.40 mg/kg Lead Measured Concentration: 62.40 mg/kg Nickel Measured Concentration: 16.90 mg/kg	A13SW (W)	129	1	317250 182250
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317760, 182250 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 12.50 mg/kg Cadmium Measured Concentration: 0.40 mg/kg Chromium Measured Concentration: 62.60 mg/kg Lead Measured Concentration: 57.70 mg/kg Nickel Measured Concentration: 20.20 mg/kg	A13SE (E)	288	1	317760 182250
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317250, 181780 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 14.50 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 144.00 mg/kg Lead Measured Concentration: 88.20 mg/kg Nickel Measured Concentration: 24.70 mg/kg	A8NW (S)	484	1	317250 181780
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317230, 182770 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 11.60 mg/kg Cadmium Measured Concentration: 0.40 mg/kg Chromium Measured Concentration: 62.40 mg/kg Lead Measured Concentration: 83.40 mg/kg Nickel Measured Concentration: 24.50 mg/kg	A18SW (N)	517	1	317230 182770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 317760, 182760 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 16.00 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 70.20 mg/kg Concentration: Lead Measured 60.60 mg/kg Concentration: Nickel Measured 23.10 mg/kg Concentration:</p>	A18SE (NE)	553	1	317760 182760
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 316800, 182280 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 12.20 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 64.20 mg/kg Concentration: Lead Measured 102.90 mg/kg Concentration: Nickel Measured 27.20 mg/kg Concentration:</p>	A12NE (W)	578	1	316800 182280
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 317780, 181720 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 14.80 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 69.20 mg/kg Concentration: Lead Measured 101.80 mg/kg Concentration: Nickel Measured 25.00 mg/kg Concentration:</p>	A9NW (SE)	586	1	317780 181720
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 318250, 182270 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 13.50 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 65.10 mg/kg Concentration: Lead Measured 181.50 mg/kg Concentration: Nickel Measured 29.70 mg/kg Concentration:</p>	A14NE (E)	777	1	318250 182270
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 316720, 182750 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 13.30 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 63.70 mg/kg Concentration: Lead Measured 74.90 mg/kg Concentration: Nickel Measured 21.00 mg/kg Concentration:</p>	A17SW (NW)	814	1	316720 182750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 316750, 181750 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 12.70 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 57.30 mg/kg Concentration: Lead Measured 58.30 mg/kg Concentration: Nickel Measured 24.30 mg/kg Concentration:</p>	A7NW (SW)	814	1	316750 181750
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 318230, 182750 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 28.10 mg/kg Concentration: Cadmium Measured 0.10 mg/kg Concentration: Chromium Measured 69.80 mg/kg Concentration: Lead Measured 94.00 mg/kg Concentration: Nickel Measured 27.90 mg/kg Concentration:</p>	A19SE (NE)	888	1	318230 182750
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 318310, 181750 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 12.50 mg/kg Concentration: Cadmium Measured 0.20 mg/kg Concentration: Chromium Measured 57.50 mg/kg Concentration: Lead Measured 70.10 mg/kg Concentration: Nickel Measured 11.90 mg/kg Concentration:</p>	A9NE (SE)	961	1	318310 181750
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 317730, 183240 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 15.40 mg/kg Concentration: Cadmium Measured 0.20 mg/kg Concentration: Chromium Measured 59.00 mg/kg Concentration: Lead Measured 72.80 mg/kg Concentration: Nickel Measured 14.90 mg/kg Concentration:</p>	A18NE (N)	985	1	317730 183240
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 317220, 181260 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured 9.90 mg/kg Concentration: Cadmium Measured 0.10 mg/kg Concentration: Chromium Measured 67.00 mg/kg Concentration: Lead Measured 44.80 mg/kg Concentration: Nickel Measured 19.90 mg/kg Concentration:</p>	A8SW (S)	989	1	317220 181260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317800, 181280 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 13.70 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 73.80 mg/kg Lead Measured Concentration: 55.70 mg/kg Nickel Measured Concentration: 21.10 mg/kg	A9SW (S)	994	1	317800 181280
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 317250, 183270 Soil Sample Type: Topsoil Sample Area: Cardiff Arsenic Measured Concentration: 13.90 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 64.10 mg/kg Lead Measured Concentration: 93.20 mg/kg Nickel Measured Concentration: 20.30 mg/kg	A23SW (N)	1000	1	317250 183270
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: Cardiff Count Id: 506 Arsenic Minimum Concentration: 6.00 mg/kg Arsenic Average Concentration: 18.00 mg/kg Arsenic Maximum Concentration: 149.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 100.60 mg/kg Chromium Minimum Concentration: 28.00 mg/kg Chromium Average Concentration: 86.00 mg/kg Chromium Maximum Concentration: 2933.00 mg/kg Lead Minimum Concentration: 20.00 mg/kg Lead Average Concentration: 190.00 mg/kg Lead Maximum Concentration: 8158.00 mg/kg Nickel Minimum Concentration: 8.00 mg/kg Nickel Average Concentration: 35.00 mg/kg Nickel Maximum Concentration: 482.00 mg/kg	A13NE (S)	0	1	317434 182258
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	317434 182258
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	317434 182258
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	317434 182258

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Potential for Ground Dissolution Stability Hazards</p> <p>Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258
	<p>Potential for Landslide Ground Stability Hazards</p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258
	<p>Potential for Running Sand Ground Stability Hazards</p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258
	<p>Potential for Shrinking or Swelling Clay Ground Stability Hazards</p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258
	<p>Radon Potential - Radon Affected Areas</p> <p>Affected Area: The property is in an Intermediate probability radon area (5 to 10% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258
	<p>Radon Potential - Radon Protection Measures</p> <p>Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (S)	0	1	317434 182258

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
127	<p>Contemporary Trade Directory Entries</p> <p>Name: J M Car-Diff Location: 3, Templeton Close, Llanishen, Cardiff, CF14 5JQ Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (S)	51	-	317452 182170
128	<p>Contemporary Trade Directory Entries</p> <p>Name: Harmony Of Cardiff Ltd Location: 1, Glendale Avenue, Llanishen, Cardiff, South Glamorgan, CF14 5JP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	123	-	317357 182129
129	<p>Contemporary Trade Directory Entries</p> <p>Name: Dreamclean Cardiff Ltd Location: 52, Heol Hir, Llanishen, Cardiff, CF14 5AE Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	169	-	317605 182117
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Capricorn Carpet Cleaning Location: 77, Llanon Road, Llanishen, Cardiff, CF14 5AH Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NW (N)	173	-	317425 182459
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Capricorn Carpet Upholstery Cleaners Location: 77, Llanon Road, Llanishen, Cardiff, CF14 5AH Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NW (N)	173	-	317425 182459
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Capricorn Cleaning Location: 77, Llanon Road, Llanishen, Cardiff, CF14 5AH Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NW (N)	173	-	317425 182459
131	<p>Contemporary Trade Directory Entries</p> <p>Name: C P Services Location: 19, Llanon Road, Llanishen, Cardiff, CF14 5AF Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NW (NW)	262	-	317150 182401
132	<p>Contemporary Trade Directory Entries</p> <p>Name: The French Polishing Shop Location: 7, Wigmore Close, Thornhill, Cardiff, CF14 9BN Classification: French Polishing Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NE (N)	297	-	317498 182586
133	<p>Contemporary Trade Directory Entries</p> <p>Name: All Day Rubbish Location: 114, Morris Avenue, Llanishen, Cardiff, CF14 5JY Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12NE (W)	414	-	316970 182337
134	<p>Contemporary Trade Directory Entries</p> <p>Name: Johnson Cleaners (Uk) Ltd Location: 42, Station Road, Llanishen, Cardiff, CF14 5LT Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8NE (SE)	473	-	317675 181792
135	<p>Contemporary Trade Directory Entries</p> <p>Name: R C O Cleaning Services Location: Flat E, 7, Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Classification: Cleaning Services - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	508	-	317600 181727
136	<p>Contemporary Trade Directory Entries</p> <p>Name: Sainsbury'S Petrol Station Location: Petrol Filling Station, Sainsbury's, Excalibur Drive, Cardiff, CF14 9BB Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address</p>	A18SW (N)	561	-	317218 182813

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Llanishen M O T & Service Centre Ltd Location: 19, Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	601	-	317649 181644
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Llanishen Mot & Service Centre Location: 19, Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Classification: Brake & Clutch Service Centres Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	601	-	317649 181644
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Llanishen M O T & Service Centre Ltd Location: 19, Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	602	-	317648 181643
138	<p>Contemporary Trade Directory Entries</p> <p>Name: L G & D L Evans Location: 10, Norwood, Thornhill, Cardiff, CF14 9DE Classification: Medical Equipment Maintenance & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18SE (N)	615	-	317606 182889
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Isomedical.Co.Uk Location: 76, Whitebarn Road, Llanishen, Cardiff, CF14 5HB Classification: Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	664	-	316768 182006
140	<p>Contemporary Trade Directory Entries</p> <p>Name: Britvic Soft Drinks Ltd Location: Ty Glas Avenue, Llanishen, Cardiff, CF14 5YQ Classification: Soft Drinks - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	703	-	317454 181515
141	<p>Contemporary Trade Directory Entries</p> <p>Name: Massey Equine Transport Location: 10, WHITESANDS ROAD, LLANISHEN, CARDIFF, CF14 5LD Classification: Horse Boxes & Transporting Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	711	-	316668 182224
142	<p>Contemporary Trade Directory Entries</p> <p>Name: Buzz Trampoline Park Location: Ty-Glas Avenue, Llanishen, Cardiff, South Glamorgan, CF14 5DX Classification: Sports Equipment Manufacturers & Distributors Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A9SW (SE)	733	-	317820 181574
142	<p>Contemporary Trade Directory Entries</p> <p>Name: Go Air Location: Ty Glas Avenue, Llanishen, Cardiff, South Glamorgan, CF14 5DX Classification: Sports Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A9SW (SE)	733	-	317819 181573
143	<p>Contemporary Trade Directory Entries</p> <p>Name: The Old Joinery Location: 173, Fidas Road, CARDIFF, CF14 5LZ Classification: Furniture - Repairing & Restoring Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	734	-	317968 181679
144	<p>Contemporary Trade Directory Entries</p> <p>Name: Serenity Cleaning Cardiff Location: 12, Percival Close, Thornhill, Cardiff, CF14 9AY Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12NW (NW)	746	-	316700 182581
145	<p>Contemporary Trade Directory Entries</p> <p>Name: Phototill Ltd Location: 48a, Woodlawn Way, Thornhill, Cardiff, CF14 9EB Classification: Cash Registers & Check-Out Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18NW (N)	748	-	317184 182998

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
146	<p>Contemporary Trade Directory Entries</p> <p>Name: Altodigital Location: PARC TY GLAS, LLANISHEN, CARDIFF, CF14 5DU Classification: Office Furniture & Equipment Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	759	-	317327 181473
147	<p>Contemporary Trade Directory Entries</p> <p>Name: J J Morris Maintenance Ltd Location: 74, Johnston Road, Llanishen, Cardiff, South Glamorgan, CF14 5HH Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12NW (W)	767	-	316611 182265
148	<p>Contemporary Trade Directory Entries</p> <p>Name: John Edwards Location: 35, Crundale Crescent, Llanishen, Cardiff, CF14 5PX Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	789	-	317777 181491
149	<p>Contemporary Trade Directory Entries</p> <p>Name: Christoni Location: The Rise, Cardiff, South Glamorgan, CF14 0RD Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SE (E)	796	-	318244 182034
150	<p>Contemporary Trade Directory Entries</p> <p>Name: L F Cleaning Contractors Ltd Location: 8, Fishguard Road, Llanishen, Cardiff, CF14 5PP Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	813	-	317924 181543
151	<p>Contemporary Trade Directory Entries</p> <p>Name: Aard Vark Location: 46, Johnston Road, Llanishen, Cardiff, CF14 5HG Classification: Insulation Materials Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	817	-	316572 182139
152	<p>Contemporary Trade Directory Entries</p> <p>Name: B B I Solutions Location: Golden Gate, 73, Ty Glas Avenue, Llanishen, Cardiff, CF14 5DX Classification: Laboratories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	824	-	317606 181405
153	<p>Contemporary Trade Directory Entries</p> <p>Name: Acheson Glover Precast Ltd Location: Unit 3, Cwrt y Parc, Earlswood Road, Llanishen, Cardiff, South Glamorgan, CF14 5GH Classification: Concrete Products Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A8SE (S)	848	-	317449 181370
153	<p>Contemporary Trade Directory Entries</p> <p>Name: Cardiff Orthodontic Laboratory Location: Unit 6, Cwrt y Parc, Earlswood Road, Llanishen, Cardiff, CF14 5GH Classification: Medical & Dental Laboratories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	849	-	317470 181369
154	<p>Contemporary Trade Directory Entries</p> <p>Name: Insync Healthcare Location: 67, Thornhill Road, Cardiff, South Glamorgan, CF14 6PE Classification: Chemists' & Pharmacists' Suppliers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7NW (SW)	892	-	316640 181768
155	<p>Contemporary Trade Directory Entries</p> <p>Name: Evans Halshaw Location: Thornhill Garage, Thornhill Road, Cardiff, CF14 6ZA Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	895	-	316514 182035

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	<p>Contemporary Trade Directory Entries</p> <p>Name: Bets Service Centre Location: Thornhill Garage, Heol Llanishen Fach, Cardiff, CF14 6RG Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	895	-	316514 182035
155	<p>Contemporary Trade Directory Entries</p> <p>Name: Thornhill Cars Location: Heol Llanishen Fach, Cardiff, CF14 6RG Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	895	-	316514 182035
155	<p>Contemporary Trade Directory Entries</p> <p>Name: Thornhill Cars Location: Heol Llanishen Fach, Cardiff, CF14 6RG Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	895	-	316514 182035
156	<p>Contemporary Trade Directory Entries</p> <p>Name: Tee Gee International Engineering Ltd Location: 25, North Rise, Cardiff, CF14 0RN Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	905	-	318361 182063
157	<p>Contemporary Trade Directory Entries</p> <p>Name: Waynes Grab Loading Location: 23, St. Dogmaels Avenue, Llanishen, Cardiff, CF14 5PZ Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (S)	908	-	317801 181372
158	<p>Contemporary Trade Directory Entries</p> <p>Name: New Dawn Carpet & Upholstery Location: 20, Galahad Close, Thornhill, Cardiff, CF14 9AL Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12NW (W)	919	-	316487 182494
159	<p>Contemporary Trade Directory Entries</p> <p>Name: Okazaki Manufacturing Company Location: SUITE 114, MILLGROVE HOUSE, PARC TY GLAS, LLANISHEN, CARDIFF, CF14 5DU Classification: Temperature Monitoring Systems Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	921	-	317471 181297
160	<p>Contemporary Trade Directory Entries</p> <p>Name: Adaptmyhome Location: 160, HEOL LLANISHEN FACH, RHIWBINA, CARDIFF, CF14 6RG Classification: Stairlifts - Manufacturers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	929	-	316498 181970
161	<p>Contemporary Trade Directory Entries</p> <p>Name: Selco Cardiff Llanishen Location: 14, Ty Glas Road, Llanishen, Cardiff, South Glamorgan, CF14 5EP Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SW)	934	-	316994 181403
162	<p>Contemporary Trade Directory Entries</p> <p>Name: Alpha & Yapps Garages Location: 146, Fidas Road, Cardiff, CF14 0YW Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	937	-	318179 181605
162	<p>Contemporary Trade Directory Entries</p> <p>Name: Alpha & Yapps Garages Location: 146, Fidas Road, Cardiff, CF14 0YW Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	937	-	318179 181605

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
163	Contemporary Trade Directory Entries Name: Grime Blasters Ltd Location: 5, Hillcrest Close, Thornhill, Cardiff, CF14 9ER Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	945	-	317548 183232
163	Contemporary Trade Directory Entries Name: Grime Busters Ltd Location: 5, Hillcrest Close, Thornhill, Cardiff, CF14 9ER Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	945	-	317548 183232
164	Contemporary Trade Directory Entries Name: Rotary Equipment Services Location: Unit 4, Parc ty Glas, Llanishen, Cardiff, CF14 5DU Classification: Electric Motor Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	946	-	317347 181280
165	Contemporary Trade Directory Entries Name: Pro-Copy Location: Parc ty Glas, Llanishen, Cardiff, CF14 5DU Classification: Photocopiers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	952	-	317175 181312
165	Contemporary Trade Directory Entries Name: Pro-Copy Ltd Location: Parc ty Glas, Llanishen, Cardiff, CF14 5DU Classification: Photocopiers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	952	-	317175 181312
165	Contemporary Trade Directory Entries Name: Global Merchandise & Design Location: Second Floor Rear, Pro Copy Building, Parc ty Glas, Cardiff, CF14 5DU Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	956	-	317177 181307
166	Contemporary Trade Directory Entries Name: Cardiff Cars Location: 107, Fydias Road, Cardiff, CF14 0LY Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SE (SE)	966	-	318152 181533
167	Contemporary Trade Directory Entries Name: Wulfrath Refractories (Uk) Ltd Location: Quadrant Centre, Cardiff Business Park, Cardiff, South Glamorgan, CF14 5WF Classification: Refractory Materials & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	979	-	317265 181261
168	Fuel Station Entries Name: Sainsburys Thornhill Location: Excalibur Drive, Thornhill, Cardiff, Cardiff, CF14 9BB Brand: Sainsburys Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A18SW (N)	551	-	317216 182802
169	Points of Interest - Commercial Services Name: Mini-valet Location: 18 Bardsey Crescent, Llanishen, Cardiff, CF14 5JZ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A12NE (W)	434	7	316968 182414
170	Points of Interest - Commercial Services Name: R H Babbage & Son Ltd Location: Llanishen M O T & Repair Centre, Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (S)	461	7	317575 181768

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Points of Interest - Commercial Services Name: Sainsburys Thornhill Location: Excalibur Drive, Thornhill, Cardiff, CF14 9BB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A18SW (N)	551	7	317216 182802
171	Points of Interest - Commercial Services Name: Car Wash Location: Excalibur Drive, Thornhill, Cardiff, South Glamorgan, CF14 9BB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A18SW (N)	551	7	317216 182802
172	Points of Interest - Commercial Services Name: R.H. Babbage & Son Ltd Location: 19 Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (S)	601	7	317649 181644
172	Points of Interest - Commercial Services Name: Llanishen M O T & Service Centre Ltd Location: 19 Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (S)	602	7	317648 181643
172	Points of Interest - Commercial Services Name: Llanishen M O T & Service Centre Ltd Location: 19 Kimberley Terrace, Llanishen, Cardiff, CF14 5EA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (S)	602	7	317648 181643
173	Points of Interest - Commercial Services Name: Britvic Soft Drinks Ltd Location: Parc ty Glas, Llanishen, Cardiff, CF14 5YQ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8SE (S)	703	7	317454 181515
174	Points of Interest - Commercial Services Name: Phh (Environmental) Location: Unit 3, Cwrt Y Parc, Earlswood Rd, Llanishen, Cardiff, South Glamorgan, CF14 5GH Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A8SE (S)	849	7	317448 181369
175	Points of Interest - Commercial Services Name: Bets Location: Thornhill Garage, Heol Llanishen Fach, Cardiff, CF14 6RG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	895	7	316514 182035
175	Points of Interest - Commercial Services Name: Bets Service Centres Location: Thornhill Garage, Heol Llanishen Fach, Cardiff, CF14 6RG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	895	7	316514 182035
176	Points of Interest - Commercial Services Name: Alpha & Yapps Garages Location: 146 Fidas Road, Cardiff, CF14 0YW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	937	7	318179 181605
176	Points of Interest - Commercial Services Name: Alpha & Yapps Garages Location: 146 Fidas Road, Cardiff, CF14 0YW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	937	7	318179 181605
176	Points of Interest - Commercial Services Name: Alpha & Yapps Garages Ltd Location: 146 Fidas Road, Cardiff, CF14 0YW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	937	7	318179 181605

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
177	Points of Interest - Commercial Services Name: UK Direct Specialist Logistics Ltd Location: 8 Havenwood Drive, Thornhill, Cardiff, CF14 9HX Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A17NE (NW)	945	7	316987 183134
178	Points of Interest - Commercial Services Name: Vehicle Valeting Solutions Location: 33 Heol Erwin, Rhiwbina, Cardiff, CF14 6QP Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A11SE (W)	984	7	316400 182160
179	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	715	7	317331 181517
179	Points of Interest - Manufacturing and Production Name: Tank Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	757	7	317392 181465
180	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	742	7	317480 181476
180	Points of Interest - Manufacturing and Production Name: Factory Location: CF14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	742	7	317480 181476
180	Points of Interest - Manufacturing and Production Name: Factory Location: CF14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A8SE (S)	753	7	317513 181466
180	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	753	7	317531 181467
180	Points of Interest - Manufacturing and Production Name: Tanks Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	764	7	317405 181457
181	Points of Interest - Manufacturing and Production Name: Allstone Sw Ltd Location: 33 Mayflower Avenue, Llanishen, Cardiff, CF14 5HQ Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A12NW (W)	843	7	316547 182413
182	Points of Interest - Manufacturing and Production Name: Tank Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	897	7	317330 181332
182	Points of Interest - Manufacturing and Production Name: Parc Ty Glas Industrial Estate Location: CF14 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	917	7	317374 181306

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
182	Points of Interest - Manufacturing and Production Name: Tank Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	920	7	317260 181322
182	Points of Interest - Manufacturing and Production Name: Parc Ty Glas Industrial Estate Location: CF14 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	922	7	317344 181305
182	Points of Interest - Manufacturing and Production Name: Tank Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	924	7	317260 181318
182	Points of Interest - Manufacturing and Production Name: Tanks Location: CF14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	925	7	317254 181318
183	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	403	7	317679 181873
183	Points of Interest - Public Infrastructure Name: Cemetery Location: CF14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	403	7	317679 181873
183	Points of Interest - Public Infrastructure Name: Llanishen Police Station Location: Police Station, Station Road, Llanishen, Cardiff, CF14 5LS Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A8NE (SE)	448	7	317715 181843
184	Points of Interest - Public Infrastructure Name: All Day Rubbish Location: 114 Morris Avenue, Llanishen, Cardiff, CF14 5JY Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NE (W)	414	7	316970 182337
185	Points of Interest - Public Infrastructure Name: Sainsbury's Petrol Station Location: Sainsbury's, Excalibur Drive, Thornhill, Cardiff, CF14 9BB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18SW (N)	547	7	317218 182798
185	Points of Interest - Public Infrastructure Name: Sainsbury's Thornhill Location: Excalibur Drive, Thornhill, Cardiff, CF14 9BB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18SW (N)	551	7	317216 182802
186	Points of Interest - Public Infrastructure Name: Llanishen Rail Station Location: CF14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14SE (E)	642	7	318112 182198
186	Points of Interest - Public Infrastructure Name: Llanishen Station Location: Lisvane Road, CF14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14SE (E)	642	7	318112 182198

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
187	Points of Interest - Public Infrastructure Name: Weir Location: CF14 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	818	7	318224 182610
188	Points of Interest - Public Infrastructure Name: Waynes Grab Loading Ltd Location: 23 St. Dogmaels Avenue, Llanishen, Cardiff, CF14 5PZ Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9SW (S)	908	7	317801 181372
188	Points of Interest - Public Infrastructure Name: Waynes Grab Hire Location: 23 St. Dogmaels Avenue, Llanishen, Cardiff, CF14 5PZ Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9SW (S)	908	7	317801 181372
189	Points of Interest - Public Infrastructure Name: Outfall Location: CF14 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	915	7	318194 182849
189	Points of Interest - Public Infrastructure Name: Outfall Location: CF14 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	918	7	318199 182848
190	Points of Interest - Public Infrastructure Name: Sluice Location: CF14 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	936	7	318392 182462
190	Points of Interest - Public Infrastructure Name: Sluice Location: CF14 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	941	7	318397 182462
191	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	438	7	317175 181871
191	Points of Interest - Recreational and Environmental Name: Play Area Location: Nr Blue House Road, CF14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NW (SW)	440	7	317172 181870
192	Points of Interest - Recreational and Environmental Name: Skatepark Location: CF14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	640	7	317386 181583
193	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	660	7	318119 182418
193	Points of Interest - Recreational and Environmental Name: Play Area Location: Millheath Drive, CF14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NE (E)	664	7	318125 182411

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
194	Ancient Woodland Name: Not Supplied Reference: 10713 Area(m ²): 41672.43 Type: Restored Ancient Woodland Site	A13SW (SW)	290	2	317221 182019
195	Ancient Woodland Name: Not Supplied Reference: 22074 Area(m ²): 2838.08 Type: Restored Ancient Woodland Site	A8NW (SW)	392	2	317260 181876
196	Ancient Woodland Name: Not Supplied Reference: 22075 Area(m ²): 1265.81 Type: Restored Ancient Woodland Site	A12SE (SW)	444	2	317005 182028
197	Ancient Woodland Name: Not Supplied Reference: 8371 Area(m ²): 19792.23 Type: Ancient and Semi-Natural Woodland	A8SE (S)	803	2	317627 181430
198	Ancient Woodland Name: Not Supplied Reference: 15577 Area(m ²): 6549.76 Type: Ancient and Semi-Natural Woodland	A19SE (NE)	813	2	318118 182782
199	Ancient Woodland Name: Not Supplied Reference: 15585 Area(m ²): 17620.8 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	832	2	317850 183030
200	Ancient Woodland Name: Not Supplied Reference: 15579 Area(m ²): 8159.84 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	854	2	317969 182982
201	Ancient Woodland Name: Not Supplied Reference: 15584 Area(m ²): 5886.36 Type: Ancient and Semi-Natural Woodland	A18NW (N)	863	2	317158 183110
202	Ancient Woodland Name: Not Supplied Reference: 8781 Area(m ²): 55231.03 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	864	2	317999 182972
203	Ancient Woodland Name: Not Supplied Reference: 8378 Area(m ²): 84585.09 Type: Ancient and Semi-Natural Woodland	A18NW (N)	868	2	317158 183115
204	Ancient Woodland Name: Not Supplied Reference: 15583 Area(m ²): 12461.6 Type: Ancient and Semi-Natural Woodland	A18NE (N)	894	2	317664 183163
205	Ancient Woodland Name: Not Supplied Reference: 8377 Area(m ²): 14722.96 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	921	2	318296 181811
206	Ancient Woodland Name: Not Supplied Reference: 15570 Area(m ²): 4421.73 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	998	2	318401 181858

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Newport City Council - Public Protection and Environmental Services Cardiff Council - Pollution Control Division Natural Resources Wales Rhondda Cynon Taff County Borough Council - Environmental Services Caerphilly County Borough Council - Environmental Health Department	January 2015 January 2020 November 2023 October 2017 September 2017	Annual Rolling Update Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 November 2024	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	July 2024 November 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Newport City Council - Public Protection and Environmental Services Cardiff Council - Pollution Control Division Caerphilly County Borough Council - Environmental Health Department Rhondda Cynon Taff County Borough Council - Public Health and Protection Division	December 2020 March 2016 September 2014 September 2014	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Newport City Council - Public Protection and Environmental Services Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Cardiff Council - Pollution Control Division Caerphilly County Borough Council - Environmental Health Department	December 2020 December 2020 March 2016 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Not Applicable
Local Authority Pollution Prevention and Control Enforcements Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Newport City Council - Public Protection and Environmental Services Cardiff Council - Pollution Control Division Caerphilly County Borough Council - Environmental Health Department	December 2020 June 2014 March 2016 September 2014	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	November 2024	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Historical Prosecutions Environment Agency, Welsh Region Natural Resources Wales	March 2013 March 2013	Not Applicable Not Applicable
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	
Substantiated Pollution Incident Register Environment Agency Wales - South East Area Natural Resources Wales	January 2021 November 2024	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	December 2024 October 2024	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations Natural Resources Wales	January 2018	As notified
Superficial Aquifer Designations Natural Resources Wales	January 2018	As notified
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	
OS Water Network Lines Ordnance Survey	October 2024	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified
Water Framework Directive - Catchment Natural Resources Wales	July 2024	Annually
Water Framework Directive - Groundwater Natural Resources Wales	July 2024	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Natural Resources Wales Environment Agency Wales - South East Area	August 2024 January 2023	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency Wales - South East Area Natural Resources Wales	July 2024 November 2024	Quarterly Quarterly
Local Authority Landfill Coverage Caerphilly County Borough Council - Environmental Health Department Cardiff Council Newport City Council Rhondda Cynon Taff County Borough Council	February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Caerphilly County Borough Council - Environmental Health Department Cardiff Council Newport City Council Rhondda Cynon Taff County Borough Council	October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South East Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Cardiff Council - Regulatory Services Newport City Council - Planning Department	February 2016 January 2023 July 2023 October 2015	Variable Variable Variable Variable
Planning Hazardous Substance Consents Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Cardiff Council - Regulatory Services Newport City Council - Planning Department	February 2016 January 2023 October 2015 October 2015	Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	March 2024	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	December 2015	As notified
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	November 2024	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	November 2024	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	December 2024	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2024	Quarterly
Points of Interest - Commercial Services PointX	December 2024	Quarterly
Points of Interest - Education and Health PointX	December 2024	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2024	Quarterly
Points of Interest - Public Infrastructure PointX	December 2024	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2024	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	October 2024	Bi-Annually
Areas of Adopted Green Belt Caerphilly County Borough Council Cardiff Council Newport City Council Rhondda Cynon Taff County Borough Council	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Caerphilly County Borough Council Cardiff Council Newport City Council Rhondda Cynon Taff County Borough Council	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	November 2024	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Caerphilly County Borough Council Cardiff Council Newport City Council Rhondda Cynon Taff County Borough Council	August 2024 August 2024 August 2024 August 2024	Bi-Annually Bi-Annually Annually Bi-Annually Annually Bi-Annually Annually
Marine Nature Reserves Natural Resources Wales	August 2024	Bi-Annually
National Nature Reserves Natural Resources Wales	January 2025	Bi-Annually
National Parks Natural Resources Wales	September 2024	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 November 2024	Bi-Annually
Ramsar Sites Natural Resources Wales	August 2024	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	November 2024	Bi-Annually
Special Areas of Conservation Natural Resources Wales	October 2024	Bi-Annually
Special Protection Areas Natural Resources Wales	November 2024	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 <p>British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Centre for Ecology and Hydrology	 <p>Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Cardiff Council - Pollution Control Division Regulatory Services, City Hall, Cardiff, Mid Glamorgan, CF10 3ND	Telephone: 029 20872000 Fax: 01222 873212 Website: www.cardiff.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.co.uk
6	Cardiff Council County Hall, Atlantic Wharf, Cardiff, Mid Glamorgan, CF1 5UW	Telephone: 029 2087 2000 Fax: 029 2087 3212 Website: www.cardiff.gov.uk
7	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0330 036 6618 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MMG	Mercia Mudstone Group	Mudstone	Not Supplied - Early Triassic
	CCL	Castell Coch Limestone Formation	Limestone	Not Supplied - Tournaisian
	CCM	Cwmyscoy Mudstone Formation	Mudstone	Not Supplied - Tournaisian
	QCG	Quartz Conglomerate Group (South Wales)	Sandstone	Not Supplied - Famennian
	BRS	Brownstones Formation	Sandstone and [Subequal/subordinate] Argillaceous Rocks, Interbedded	Not Supplied - Lochkovian
	LLC	Llanishen Conglomerate	Conglomerate and [Subequal/Subordinate] Sandstone, Interbedded	Not Supplied - Early Devonian
	SMG	St Maughans Formation	Argillaceous Rocks and [Subequal/Subordinate] Sandstone, Interbedded	Not Supplied - Early Devonian
	RG	Raglan Mudstone Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Pridoli



Geotechnical & Geoenvironmental Specialists

Geology 1:50,000 Maps

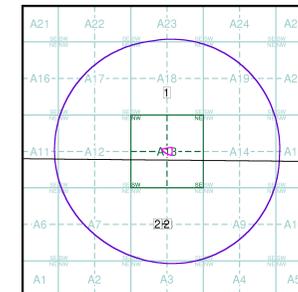
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1	Map ID:	2
Map Sheet No:	249	Map Sheet No:	263
Map Name:	Newport	Map Name:	Cardiff
Map Date:	1969	Map Date:	1988
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Available	Landslip:	Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

Order Number: 367367815_1_1
 Customer Reference: 24-310-CA wolfscastle
 National Grid Reference: 317430, 182260
 Slice: A
 Site Area (Ha): 0.47
 Search Buffer (m): 1000

Site Details:

Wolfs Castle Hotel, Wolfs Castle Avenue, Llanishen, CARDIFF, CF14 5JS



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Risk Assessment Definitions

The contaminated land regime is set out in Part 2A of the Environmental Protection Act (EPA) 1990 and was introduced on the 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overarching objectives:

- (a) To identify and remove unacceptable risks to human health and the environment.
- (b) To seek to ensure that contaminated land is made suitable for its current use.
- (c) To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Under Part 2A the statutory definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated, to be in such a condition, by reason of substances in, on, or under the land, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) Pollution of controlled waters is being, or is likely to be, caused."

Under Part 2A, for land to be classified as 'Contaminated Land' there must be one or more contaminant, pathway, receptor linkages, known as the '**Contaminant Linkage**'. A contaminant linkage requires three essential elements:

- (a) A **CONTAMINANT (SOURCE)** – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- (b) A **RECEPTOR** – something which could be adversely affected by a contaminant.
- (c) A **PATHWAY** – a route by which a receptor is or might be exposed to or affected by a contaminant.

Guidance provided by the Environment Agency to aid in managing risks from land contamination (Land Contamination Risk Management - LCRM), defines a 'Hazard' as:

'Hazard – a property or situation that in particular circumstances could lead to harm'

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is also given in LCRM guidance:

'Risk – a combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

A framework for qualitative risk assessment is provided in CIRIA publication C552 Contaminated Land Risk Assessment – A Guide to Good Practice (2001). The method requires an assessment of the magnitude of the probability of the risk occurring and the magnitude of the potential consequence. Classifications of consequences and probability, levels and descriptions of risk have been devised from the above publication and are defined in the following sections.



Classification of Consequence

Table A Classification of Consequence	
Classification	Definition
Severe	<ul style="list-style-type: none"> • Short term (acute) risk to human health likely to result in significant harm. • Short term risk to controlled waters. • Catastrophic damage to buildings/structures. • Short term risk to an ecosystem or organism within the particular ecosystem.
Medium	<ul style="list-style-type: none"> • Chronic damage to human health (long term risk). • Pollution of a sensitive water resource. • A significant change in an ecosystem or organism within the ecosystem.
Mild	<ul style="list-style-type: none"> • Pollution of non-sensitive water resources. • Significant damage to buildings/structures. • Damage to sensitive buildings/structure/services or the environment.
Negligible	<ul style="list-style-type: none"> • Harm (not necessarily significant) which may result in financial loss. • Non-permanent health effects to humans (easily prevented by PPE for example). • Easily repairable effects of structural (building) damage.

Classification of Probability

Table B Classification of Probability	
Classification	Definition
High Likelihood	<ul style="list-style-type: none"> • There is a complete contaminant linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor.
Likely	<ul style="list-style-type: none"> • There is a complete contaminant linkage which means that it is probable that an event will occur. • The event is not inevitable but possible in short term and likely in the long term.
Low Likelihood	<ul style="list-style-type: none"> • There is a complete contaminant linkage and circumstances are possible under which an event could occur. • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term.
Unlikely	<ul style="list-style-type: none"> • There is a complete contaminant linkage but circumstances are such that it is improbable that an event would occur even in the long term.

Risk Assessment Matrix

By comparing the consequences of a risk and the probability of the risk of a contaminant linkage, the likely risk category can be determined as shown in **Table C** below.

Table C Risk Assessment Matrix					
Increasing acceptability ↘		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High Likelihood	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

High Risk

There is a high probability that severe harm could arise to a receptor, or there is evidence that a receptor is currently being severely harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However, it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.





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