



## Geotechnical and Geoenvironmental Report

Site: Former Lidl, Priory Street,  
Carmarthen

Prepared For: Wales & West Housing Association

Issue Date: October 2021

Job No: 16761

**REPORT TITLE :** **Geotechnical and Geoenvironmental Report:  
Proposed Residential Development, Former  
Lidl, Priory Street, Carmarthen**




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## Executive Summary

|  |  |   |           |               |   |
|--|--|---|-----------|---------------|---|
| Site Location and Proposed Development | Wales & West Housing Association (the Client) is proposing the residential development of the former Lidl supermarket on Priory Street in Carmarthen, SA31 1LS.  |   |           |               |   |
| Site History                           | The site has been occupied by buildings throughout its researched history and includes houses, pubs, a coal yard, warehouses, gardens, a garage, and in most recent years by a Lidl supermarket and car park.  |   |           |               |   |
| Geology                                | Glaciofluvial Deposits above Tetragraptus Beds (bedrock)   |   |           |               |   |
| Radon                                  | No radon protection is required for new dwellings at the site.   |   |           |               |   |
| Ground Conditions                      | Depth (m)  |   |           | Thickness (m) | Stratum   |
|  | 0.00   | - | 0.06/0.23 | 0.06/0.23     | ASPHALT/CONCRETE  |
|  | 0.06/0.23  | - | 0.3/0.6   | 0.14/0.51     | SUB-BASE)   |
|  | 0.3/0.6  | - | 0.9/2.7   | 0.35/2.1      | MADE GROUND   |
|  | 0.9/2.7  | - | 3.0/>5.0  | 1.0/3.0       | Soft to very stiff brown mottled slightly sandy slightly gravelly <b>CLAY</b> with occasional lenses/pockets of clayey gravelly <b>SAND</b> , silty sandy <b>CLAY</b> and sandy <b>SILT</b> |
|  | 3.0/>5.0   |   | >5.0      | -             | Medium dense to very dense grey and brown clayey sandy to very sandy <b>GRAVEL</b> /gravelly <b>SAND</b> of angular and tabular mudstone  |
| Contamination of Concern               | Several contaminants have been identified above their relevant generic assessment criteria. Consequently, the site should be capped. The capping should consist of the proposed buildings and hard standings. In garden and soft landscaped areas, the capping should consist of 600mm of suitable inert topsoil, and subsoil if desired. Alternatively made ground soils could be removed from site and disposed of at a suitably licenced landfill site. |   |           |               |   |
| Ground Gas Risk Assessment             | The site is classified as ‘Gas Characteristic Situation 2’ (CS1) in line with recommendations provided in CIRIA C665.  |   |           |               |   |
| Foundation Solution                    | The below recommendations should be revisited following the recommended further work outlined in Section 10 following the demolition of the existing building.   |   |           |               |   |
|  | Due to the variable strength of the shallow soils, it is considered that shallow spread foundations are not practicable at the site. It is therefore recommended that a piled foundation solution is used. It is recommended that a series of boreholes with in-situ strength testing is undertaken to inform pile design.   |   |           |               |   |
|  | Measurements should be put in place to monitor vibrations during pile installation. If vibrations exceed guideline levels, then measures should also be taken to dampen such vibrations. If, however, vibrations exceed permissible values then consideration should be given to an alternative solution.  |   |           |               |   |
|  | The estimated working pile loads, pile type and lengths should be confirmed by a specialist piling contractor and it may be prudent to test drive/install piles at selected locations.   |   |           |               |   |
| Recommended Further Works              | Floor slabs should be designed as suspended.   |   |           |               |   |
|  | After the existing building has been demolished, it is recommended that trial pitting is undertaken in the areas of the site that are currently inaccessible.  |   |           |               |   |
|  | The trial pits will allow additional soil samples to be taken for an updated geoenvironmental assessment and will inform an updated geotechnical investigation.  |   |           |               |   |
|  | It is also recommended that a series of boreholes with standard penetration tests are sunk to inform pile design. It is recommended that this is also undertaken following the demolition of the existing building so that as much of the site is accessible as possible   |   |           |               |   |

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Drawing 01 Exploratory Hole Locations

## **SECTION 1 Introduction and Proposed Development**

### **1.1 Introduction**

Wales & West Housing Association (the Client) is proposing the residential development of the former Lidl supermarket on Priory Street in Carmarthen, SA31 1LS.

Terra Firma (Wales) Limited have been commissioned by the Client to undertake a geoenvironmental assessment and geotechnical investigation of the site.

The main objectives of the geoenvironmental assessment programme are:

- Investigate the potential human health and environmental liabilities at the site associated with any contamination
- Provide a summary of the human health and environmental conditions at the site, together with any necessary further intrusive works and / or remediation works to render the site fit for its intended use

The main objectives of the geotechnical site investigation are:

- Investigated the type, strength and bearing characteristics of the shallow superficial and underlying solid geology
- Investigate the risk, if any, from historical shallow underground mining features
- Provide engineering foundation and floor slab recommendations for the proposed development
- Provide infiltration rates and stormwater drainage viability.
- Provide recommendations regarding any other geotechnical aspects pertaining to the development

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a site walkover, a review of existing data, followed by a field investigation to collect geotechnical and geoenvironmental data from selected locations.

### **1.2 Limitations and Exceptions of Investigation**

The Client has requested that a Geoenvironmental Site Assessment (GSA) and Geotechnical Investigation (GI) be performed to enable the outlined main objectives.

The GSA and GI were 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 Terra Firma (Wales) Limited. 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. Terra Firma (Wales) Limited does not provide legal advice and the advice of lawyers may be required.

The subsurface geological profiles, any contamination and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

The investigation was limited by the presence of underground services and the existing supermarket building.

### **1.3 Quality Assurance**

The quality and environmental aspects of the assessment comply with Terra Firma Wales Ltd business management system which is UKAS Accredited to ISO 9001:2015 and ISO 14001:2015 standards.



## SECTION 2 Review of Existing Data

### 2.1 Physical Setting and Current Site Use

The development site is roughly rectangular in shape and locates to the southeast of Priory Street, Carmarthen, SA31 1LS. The site centres on an approximate National Grid Reference of 241640 220250, occupying a plan area of approximately 0.46 Hectares.

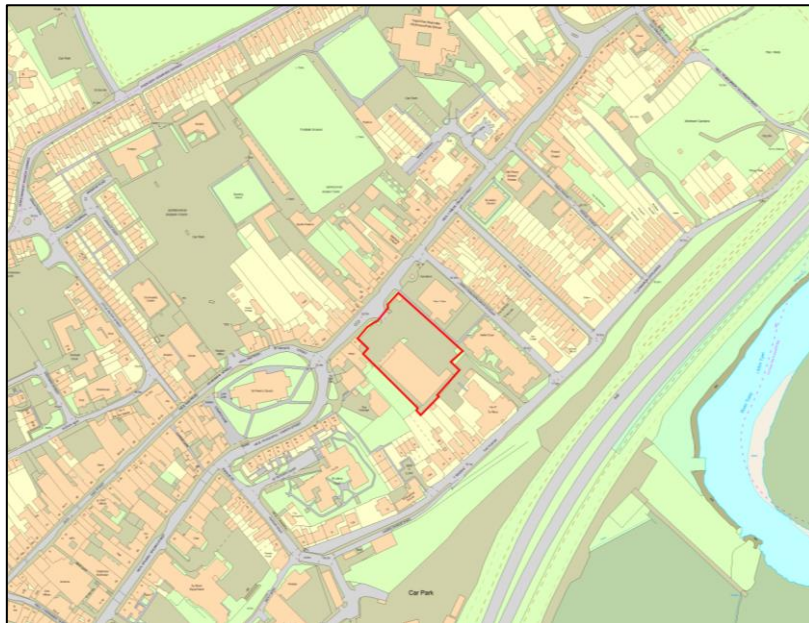
The rectangular supermarket building occupies the southern portion of the site. An asphalt-covered car park occupies the northeast, north and west of the site. A shelter is located at the far north corner of the site.

The northwest boundary is defined by Priory Street. Residential buildings are located to the northeast and southeast. Low rise commercial buildings and church grounds are located to the south/southwest.

The local area mostly comprises low rise residential and commercial buildings, and local infrastructure such as roads, car parks, allotments and a football ground.

The site elevation is approximately 22m AOD at the north, sloping gently down to the south/southeast towards the banks of the River Towy, approximately 200m away.

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



**Figure 2.1 Site Location**

## 2.2 Site History

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, where quoted 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  |
|---------------------------|---|--|
| 1888<br>1:500             | The northwest of the site is occupied by several buildings including public houses. Most of the buildings front onto Priory Street and extend south-eastwards. A coal yard located alongside a side street known as Maes-y-Crugiau Yard and is located at the centre/north of the site. To the northwest and southeast of the coal yard there appears to be warehouse-type buildings. Gardens occupy the south and far northeast of the site. | An infirmary is located to the immediate northeast of the site. Commercial buildings which extend south-eastward from Priory Street, and gardens belonging to a vicarage and nearby houses lie to the southwest and southeast. Priory Street is located to the northwest. The surrounding area is densely occupied by buildings with gardens. A railway line is located 70m to the southeast. Gardens lie to the east. |
| 1906<br>1:2,500           | No significant changes.   | No significant changes.  |
| 1938<br>1:10,560          | No significant changes.   | The infirmary to the north has been extended.  |
| 1964<br>1:10,000          | The garden at the far northeast of the site is occupied by a building.  | The infirmary to the north has been extended again.  |
| 1969<br>1:10,000          | The entire site apart from the centre is occupied by buildings. The site is recorded as being a garage.   | No significant changes apart from some small changes to the layout of nearby buildings.  |
| 1990<br>1:1,250           | Five of the terrace buildings fronting onto Priory Street have been demolished. A new building has been constructed at the centre/north of the site.  | A small residential estate has been built 15m to the south and the nearby railway has been dismantled.   |
| 2000<br>Aerial Photograph | The supermarket is under construction. All previous buildings have been demolished and cleared for the development.   | No significant changes.  |
| 2021<br>1:10,000          | The site is occupied by a supermarket, a small shelter at the north and a car park.   | The hospital has been replaced by flats.   |

## 2.3 Geological Setting

### 2.3.1 Geology

The 1:50,000 scale British Geological Map of the area (Sheet 229) was consulted for geology underlying the site. The site is shown to be underlain by mudstones of the Tetragraptus Beds. Overlying the bedrock is glaciofluvial deposits. Detailed stratigraphical information is provided in

**Table 2.2.**

**Table 2.2 Detailed Stratigraphical Information**

| Period     | Deposits  |
|------------|---|
| Ordovician | Tetragraptus Beds – Comprising alternating conglomerates, shales and grits  |
| Devensian  | Glaciofluvial Deposits - deposited by meltwater streams. Includes mostly coarse-grained sediments (i.e. sand and gravel) with some finer-grained layers (i.e. clay and silt). Sand and gravel, locally with lenses of silt, clay or organic material. |

Made ground of unknown thickness is anticipated at the site.

### 2.3.2 BGS Borehole Information

There are no BGS boreholes located within 100m of the site.

### 2.3.3 Radon

The Envirocheck Report (**Annex A**) details that **NO** radon protective measures are required for new developments on the investigation site.

### 2.3.4 Mining

The site situates outside of a coal field.

There are no BGS mineral sites recorded within 250m of the site.

### 2.3.5 Natural Hazards

The underlying geology is not prone to dissolution.

Given the gently sloping topography at the site, the potential risk from slope instability is considered to be low.

Shallow superficial soils have the potential for running sand conditions.

There is considered to be a risk from Shrink/Swell potential due to the anticipated high clay content of the soil.

## 2.4 Environmental Setting

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

### 2.4.1 Hydrogeology

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

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

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.

There are no groundwater abstraction points located within 250m of the site.

## 2.4.2 Hydrology

The nearest surface water feature locates 179m to the southeast and comprises River Towy.

The topography of the site slopes down towards to the southeast. Surface water is likely to drain in this direction.

## 2.4.3 Flooding

The site is not at risk from extreme flooding from rivers or sea, or from Surface Water 1 in 1000-year Flood Extent.

The site is located within an area with Potential for Groundwater Flooding to Occur at Surface.

## 2.4.4 Waste

There are no recorded landfill sites within 250m of the site.

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

## 2.4.5 Pollution

No pollution incidents are recorded to have occurred within 200m radius of the site.

## 2.4.6 Sensitive Land Use

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

## 2.4.7 Industrial Land Use

Relevant contemporary trade directory entries recorded within proximity of the site are summarised in **Table 2.3**.

**Table 2.3 Relevant Contemporary Trade Summary**

| Company         | Distance/Direction from site | Classification                  | Status   |
|-----------------|------------------------------|---------------------------------|----------|
| Westcoast Print | On site                      | Printers                        | Inactive |
| Buyright        | 19m west                     | Kitchen furniture manufacturers | Inactive |
| Pro Print       | 21m northwest                | Printers                        | Active   |
| Tanks           | 37m southeast                | Industrial Features             | -        |
| Denzil Evans    | 50m north                    | Car dealers                     | Inactive |
|                 | 60m southeast                | Roller Shutter Manufacturers    | Inactive |

## 2.4.8 Infilled Land

Potentially infilled land features within 250m of the site are summarised in **Table 2.4**.

**Table 2.4 Potentially Infilled Land**

| Feature   | Distance/Direction from site |
|---|------------------------------|
| Unknown filled ground (pit, quarry, etc.) following construction of A40 bridge. The site was previously occupied by a kiln, and later by a depot, coal yard, builders yard. The site is marshland on the banks of River Towy. | 177m south                   |

## 2.5 Ecology

Please note that Terra Firma (Wales) Ltd are not specialists in this field and the advice of an expert should be sought.

## 2.6 Archaeology

Please note that Terra Firma (Wales) Ltd are not specialists in this field and the advice of an expert should be sought.

## SECTION 3 Preliminary Human Health and Environmental Risk Assessment

### 3.1 General

The 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 (EPA) 1990, a Pollutant Linkage needs to be identified. Pollutant linkages are defined by having a valid 'source – pathway – receptor' as established in the preliminary conceptual site model.

For our definitions of pollution linkage and how we define risk please refer to **Annex B** 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 the sites current and historical land use are summarised in **Table 3.1**.

**Table 3.1 Contamination Sources**

| ID | Source                                | Contaminant   |
|----|---------------------------------------|---|
| S1 | Made Ground & Past Contaminative Uses | Metals, metalloids, PAHs, TPH, VOCs, SVOCs, ethylene glycol, asbestos, ground gas (methane, carbon dioxide, CO, H <sub>2</sub> S) |

No other significant potential on-site or off-site sources of contamination have been identified during the desk study.

### 3.3 Potential Pollution Pathways

Potential contaminant pathways associated with a residential with home grown produce land use are as follows.

- P1 – Direct soil and dust ingestion
- P2 – Consumption of home grown produce
- P3 – Dermal contact
- P4 – Inhalation of dust and vapours
- P5 – Vertical migration of leachates (unsaturated zone)
- P6 – Horizontal and vertical migration of contaminants (saturated zone)
- P7 – Artificial contaminant pathway (borehole, pile, excavation etc)
- P8 – Surface run-off
- P9 – Plant uptake
- P10 – Horizontal and vertical migration of ground gasses and vapours
- P11 – Direct contact with construction materials
- P12 – 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 include.

- 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)

### 3.5 Preliminary Conceptual Site Model

The preliminary conceptual site model establishes potential pollutant linkages between contaminants (source), pathways and receptors, realised during the preparation of the desk study report. Where a potential pollutant linkage is identified an assessment of risk is subsequently undertaken. The preliminary conceptual site model is tabulated in **Table 3.2**.

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

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

**Table 3.2 Preliminary Conceptual Site Model**

| Source                                      | Pathway   | Receptor   | Preliminary Risk Assessment |                |   |
|---|---|--|-----------------------------|----------------|---|
|   |   |  | Consequence                 | Probability    | Risk  |
| Human Health                                |   |  |                             |                |   |
| Contaminated Soils S1                       | Direct soil and dust ingestion P1<br>Dermal contact P3<br>Inhalation of dust and vapours P4 | Construction and maintenance workers R1                                      | Medium                      | Low Likelihood | Medium Risk - COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended |
|   |   | Passers-by or neighbouring site users R3                                     | Medium                      | Unlikely       | Low Risk - Dust suppression measures if required.   |
|   |   | Future site users (residents) R2   | Medium                      | Low Likelihood | High Risk - Suitably designed site investigation recommended  |
| Radon Gas S2                                | Horizontal and vertical migration of ground gasses and vapours P10                          | Future site users (residents) R2   | Medium                      | Unlikely       | Low Risk - No radon protection measures required  |
| Landfill Gas S3                             |   | Future site users (residents) R2,<br>Construction and maintenance workers R1 | Severe                      | Unlikely       | Low Risk  |
| Ground Gas S1                               |   |  |                             |                |   |
| Vapours S1                                  |   |  |                             |                |   |
| Mine Gas S4                                 |   |  |                             |                |   |
| Impacted Groundwaters S1                    | Horizontal and vertical migration of contaminants (saturated zone) P6<br>Dermal contact P3  | Construction and maintenance workers R1                                      | Medium                      | Unlikely       | Low Risk  |
| Contaminated Soils S1                       | Plant uptake P9<br>Consumption of home grown produce P2                                     | Future site users (residents) R2   | Medium                      | Unlikely       | Low Risk  |
| Contaminated Soils S1                       | Direct Contact P11  | Construction materials (water pipes) R7                                      | Mild                        | Low Likelihood | Low Risk  |
| Aggressive ground conditions - Sulphates S1 |   | Construction materials (concrete) R7   |                             |                |   |
| Aquatic Environment                         |   |  |                             |                |   |
| Contaminated Soils S1                       | Vertical migration of leachates (unsaturated zone) P5                                       | Groundwater (aquifer) R4<br>Surface waters (river/lake) R5                   | Mild                        | Low Likelihood | Low Risk  |
|   | Surface run-off P8  | Surface waters (river/lake) R5   |                             |                |   |

|  |   |  |  |  |  |
|--|---|--|--|--|--|
|  | Horizontal and vertical migration of contaminants (saturated zone) P6 |  |  |  |  |
|--|---|--|--|--|--|

## SECTION 4 Field Investigation

### 4.1 Site Works

A geotechnical and geoenvironmental site investigation comprising 16No. windowless sampler boreholes was undertaken between the 28<sup>th</sup> and 30<sup>th</sup> July 2021.

The fieldwork was supervised by Terra Firma (Wales) Limited, who logged the exploratory holes to the requirements of BS 5930:2015+A1:2020. The proposed locations of the exploratory holes were determined by Terra Firma (Wales) Ltd in general accordance with BS 10175:2011+A2:2017 in order to assess the findings of the preliminary conceptual site model.

The boreholes referenced WS01 and WS15, were formed using a Terrier 2000 rig. Dynamic sampling techniques were employed from surface to produce a continuous disturbed sample.

Standard penetration tests (SPT) were carried out at regular intervals in general accordance with BS1377: Part 9:1990:3.3. SPT results summarised as N values are presented on the borehole log.

Boreholes were monitored for groundwater ingress as drilling proceeded.

Representative disturbed samples were taken and retained in airtight containers for environmental and geotechnical testing.

The borehole logs are presented in **Annex C**

Exploratory hole locations are shown on **Drawing 01**.

Whilst lifting the manhole covers to determine the route of drains beneath the site, what is believed to be an oil interceptor tank was recorded. Not all the manhole covers could be lifted. A photograph of the structure is presented in **Annex D**.

### 4.2 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 4.1**.

**Table 4.1 Summary of Typical Ground Conditions**

| Depth (m) |   |           | Thickness (m) | Stratum   |
|-----------|---|-----------|---------------|---|
| 0.00      | - | 0.06/0.23 | 0.06/0.23     | <b>ASPHALT/CONCRETE</b>   |
| 0.06/0.23 | - | 0.3/0.6   | 0.14/0.51     | Grey coarse sandy <b>GRAVEL</b> of angular mudstone. <b>(SUB-BASE)</b>  |
| 0.3/0.6   | - | 0.9/2.7   | 0.35/2.1      | <b>MADE GROUND</b> : Soft to firm grey and brown mottled multicoloured sandy slightly gravelly <b>CLAY</b> . Gravel is angular mudstone, sandstone concrete, brick and rare coal. Rare ash. Occasional pockets of clayey very sandy <b>GRAVEL</b> . Low cobble content. |
| 0.9/2.7   | - | 3.0/>5.0  | 1.0/3.0       | Soft to very stiff brown mottled slightly sandy slightly gravelly <b>CLAY</b> with occasional lenses/pockets of clayey gravelly <b>SAND</b> , silty sandy <b>CLAY</b> and sandy <b>SILT</b>   |
| 3.0/>5.0  |   | >5.0      | -             | Medium dense to very dense grey and brown clayey sandy to very sandy <b>GRAVEL</b> /gravelly <b>SAND</b> of angular and tabular mudstone  |

### 4.3 Groundwater

Groundwater inflows were not recorded in any of the windowless sampler boreholes.

### 4.4 Stability and Obstructions

WS09 and WS09A both terminated within the made ground at 1.5m depth.

Some instability was recorded in the made ground; in particular the sub-base, which collapsed in on occasion following removal of the windowless sampler barrel or when filling the borehole with water when undertaking the falling head tests.

### 4.5 Installation Well Construction

Ground gas well locations were selected on a non-targeted basis to characterise the gas contamination status of the site.

Gas installation well construction details are summarised in **Table 4.2**.

**Table 4.2 Installation Well Summary**

| Location | Response Zone |        | Stratum                                      |
|----------|---------------|--------|--|
|          | From (m)      | To (m) |  |
| WS01     | 1.0           | 4.0    | Made ground and natural superficial deposits |
| WS06     | 1.0           | 5.0    | Made ground and natural superficial deposits |
| WS12     | 1.0           | 4.8    | Made ground and natural superficial deposits |

### 4.6 Laboratory Chemical Testing

#### 4.6.1 Sampling Strategy

Soil sampling locations were selected on a non-targeted basis to characterise the contamination status of a defined area. A herringbone sampling pattern was adopted.

Sample locations, depths and suspected/known contamination source targets are summarised in **Table 4.3**:

**Table 4.3 Sample Locations, Depths and Targets**

| Location | Depth (m) | Contamination Targets |
|----------|-----------|-----------------------|
| WS01     | 0.6       | S1                    |
| WS02     | 0.3       | S1                    |
| WS05     | 0.7       | S1                    |
| WS06     | 0.6       | S1                    |
| WS09     | 0.7       | S1                    |
| WS11     | 0.8       | S1                    |
| WS12     | 1.2       | S1                    |
| WS14     | 0.6       | S1                    |

#### 4.6.2 Soil Laboratory Analysis

During the site investigation works soil samples were taken and despatched to the accredited laboratories of Eurofins Chemtest for laboratory chemical testing. Soil samples were tested for the determinands listed in **Table 4.4**.



**Table 4.4 Soil Laboratory Analysis**

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

The results are discussed in detail in **SECTION 6** and the laboratory test results certificates may be found in **Annex E**.

## 4.7 Soil Property Testing

### 4.7.1 In-situ Permeability Testing

Falling head tests were carried out in WS03, WS10, and WS13 in general accordance with BS5930:2015. The tests were carried out by adding water to the borehole and timing the fall of the head of water.

The fall of the head of water was insufficient to enable the calculation of an infiltration rate.

The test results are discussed in **SECTION 9.6** and the calculation sheets may be found in **Annex F**.

### 4.7.2 Laboratory Geotechnical Testing

A schedule of laboratory tests was prepared by Terra Firma Wales Ltd and samples were despatched to the accredited laboratories of GSTL. A summary of the testing carried out is presented in **Table 4.5**.

**Table 4.5 Summary of Geotechnical Testing**

| Geotechnical Test                | Standard (BS1377:1990)   | No. Tested |
|----------------------------------|--------------------------|------------|
| Moisture Content                 | Part 2, Clause 3.2       | 7          |
| 4 Point Liquid and Plastic Limit | Part 2, Clause 4.3 & 5.3 | 7          |

The test results are presented in **Annex G** and discussed in **SECTION 7** of this report.

### 4.7.3 TRL Dynamic Cone Penetrometer Testing

Dynamic Cone Penetrometer tests were carried out alongside nominated windowless sampler boreholes using a CNS Farnell A2465 dynamic cone penetrometer. Probe depths were measured with respect to ground level and the number of blows for the penetration of the probe was recorded. Equivalent CBR values have been calculated and presented with the results in **Annex H** and are discussed further in **Section 9.5**.

## SECTION 5 Evaluation of Geoenvironmental Analytical Results

### 5.1 Assessment Methodology

Comparison of the analytical results has been made with the 2015 Suitable 4 Use Levels (S4UL) provided by Land Quality Management (LQM) Limited and the Chartered Institute of Environmental Health (CIEH) or provisional Category 4 Screening Levels (pC4SL).

Soil leachate and groundwater analytical results have been compared with available published guidelines in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 and Drinking Water Directive (98/83/EC).

Sulphate results have been compared to guidelines presented in British Research Establishment (BRE SD1:2015). Sulphate levels need only be considered for buried concrete risk assessment and are not human health related.

Soils subjected to a UK Water Industry Research (UKWIR) suite of testing have been compared with guidelines set out in UKWIR Guidance for the Selection of Water Supply Pipes to be Used in Brownfield Sites (Ref 10/WM/03/21).

### 5.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in a residential setting with plant uptake are given in the following tables. The complete results can be found in **Annex E**.

#### 5.2.1 Inorganics & Miscellaneous

Eight samples were tested for a standard suite of inorganics, pH and organic matter. The summarised results are in **Table 5.1**.

**Table 5.1 Summary of Soil Chemical Test Results – Inorganics & Miscellaneous**

| Substance                | Threshold Value (mg/kg) | Source   | Measured Concentrations (mg/kg) |         | Number of Exceedances |
|--------------------------|-------------------------|----------|---------------------------------|---------|-----------------------|
|                          |                         |          | Minimum                         | Maximum |                       |
| Arsenic                  | 37                      | LQM/CIEH | 11                              | 20      | 0                     |
| Cadmium                  | 11                      | LQM/CIEH | <0.1                            | 0.72    | 0                     |
| Chromium III             | 910                     | LQM/CIEH | 4.6                             | 25      | 0                     |
| Chromium VI              | 6                       | LQM/CIEH | <0.5                            | <0.5    | 0                     |
| Copper                   | 2400                    | LQM/CIEH | 3.7                             | 130     | 0                     |
| Lead                     | 200                     | pC4SL    | 9.3                             | 1900    | 7                     |
| Mercury (inorganic)      | 40                      | LQM/CIEH | 0.07                            | 1.2     | 0                     |
| Nickel                   | 180                     | LQM/CIEH | 4.6                             | 38      | 0                     |
| Selenium                 | 250                     | LQM/CIEH | <0.2                            | 0.56    | 0                     |
| Zinc                     | 3700                    | LQM/CIEH | 7.8                             | 210     | 0                     |
| Cyanide                  | -                       | -        | <0.5                            | 1.4     | -                     |
| Boron                    | 290                     | LQM/CIEH | <0.4                            | 2.0     | 0                     |
| Sulphate (%)             | 0.24                    | BRE      | 0.06                            | 0.19    | 0                     |
| Organic Matter (%)       | -                       | -        | 0.3                             | 4.6     | -                     |
| pH                       | -                       | -        | 8.0                             | 9.0     | -                     |
| Notes:                   |                         |          |                                 |         |                       |
| - No available guideline |                         |          |                                 |         |                       |

## 5.2.2 Organics

Eight samples were tested for speciated polycyclic aromatic hydrocarbons. The summarised results are in **Table 5.2**.

**Table 5.2 Summary of Soil Chemical Test Results – Speciated Polycyclic Aromatic Hydrocarbons**

| Substance                                    | Threshold Value (mg/kg) | Source   | Measured Concentrations (mg/kg) |         | Number of Exceedances |
|--|-------------------------|----------|---------------------------------|---------|-----------------------|
|  |                         |          | Minimum                         | Maximum |                       |
| Naphthalene                                  | 2.3                     | LQM/CIEH | <0.1                            | 1.90    | 0                     |
| Acenaphthylene                               | 170                     | LQM/CIEH | <0.1                            | 8.00    | 0                     |
| Acenaphthene                                 | 210                     | LQM/CIEH | <0.1                            | 0.55    | 0                     |
| Fluorene                                     | 170                     | LQM/CIEH | <0.1                            | 3.00    | 0                     |
| Phenanthrene                                 | 95                      | LQM/CIEH | <0.1                            | 32.00   | 0                     |
| Anthracene                                   | 2400                    | LQM/CIEH | <0.1                            | 28.00   | 0                     |
| Fluoranthene                                 | 280                     | LQM/CIEH | <0.1                            | 80.00   | 0                     |
| Pyrene                                       | 620                     | LQM/CIEH | <0.1                            | 73.00   | 0                     |
| Benzo(a)anthracene                           | 7.2                     | LQM/CIEH | <0.1                            | 51.00   | 1                     |
| Chrysene                                     | 15                      | LQM/CIEH | <0.1                            | 38.00   | 1                     |
| Benzo(b)fluoranthene                         | 2.6                     | LQM/CIEH | <0.1                            | 59.00   | 2                     |
| Benzo(k)fluoranthene                         | 77                      | LQM/CIEH | <0.1                            | 24.00   | 0                     |
| Benzo(a)pyrene                               | 2.2                     | LQM/CIEH | <0.1                            | 45.00   | 1                     |
| Indeno(123cd)pyrene                          | 27                      | LQM/CIEH | <0.1                            | 30.00   | 1                     |
| Dibenzo(ah)anthracene                        | 0.24                    | LQM/CIEH | <0.1                            | 8.50    | 1                     |
| Benzo(ghi)perylene                           | 320                     | LQM/CIEH | <0.1                            | 25.00   | 0                     |
| Total PAH                                    | -                       | -        | <2.0                            | 510.00  | -                     |
| Notes:                                       |                         |          |                                 |         |                       |
| Thresholds based on 1.0% soil organic matter |                         |          |                                 |         |                       |
| - No available guidelines                    |                         |          |                                 |         |                       |

Eight samples were tested for petroleum hydrocarbon. The summarised results are shown in **Table 5.3**.

**Table 5.3 Summary of Soil Chemical Test Results – Petroleum Hydrocarbons**

| Substance        | Threshold Value (mg/kg) | Source   | Measured Concentrations (mg/kg) |         | Number of Exceedances |
|------------------|-------------------------|----------|---------------------------------|---------|-----------------------|
|                  |                         |          | Minimum                         | Maximum |                       |
| Aliphatic        |                         |          |                                 |         |                       |
| PH C5 – C6 Ali   | 42                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C6 – C8 Ali   | 100                     | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C8 – C10 Ali  | 27                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C10 – C12 Ali | 130                     | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C12 – C16 Ali | 1100                    | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C16 – C21 Ali | 65000*                  | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C21 – C35 Ali | 65000*                  | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C35 – C44 Ali | 65000                   | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| Aromatic         |                         |          |                                 |         |                       |
| PH C5 – C7 Arom  | 70                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| PH C7 – C8 Arom  | 130                     | LQM/CIEH | <1.0                            | <1.0    | 0                     |

|                   |      |          |      |      |   |
|-------------------|------|----------|------|------|---|
| PH C8 – C10 Arom  | 34   | LQM/CIEH | <1.0 | <1.0 | 0 |
| PH C10 – C12 Arom | 74   | LQM/CIEH | <1.0 | <1.0 | 0 |
| PH C12 – C16 Arom | 140  | LQM/CIEH | <1.0 | <1.0 | 0 |
| PH C16 – C21 Arom | 260  | LQM/CIEH | <1.0 | 290  | 1 |
| PH C21 – C35 Arom | 1100 | LQM/CIEH | <1.0 | 1400 | 1 |
| PH C35 – C44 Arom | 1100 | LQM/CIEH | <1.0 | <1.0 | 0 |

Notes:

PH – Petroleum Hydrocarbon

Ali – Aliphatic

Arom – Aromatic

Thresholds based on 1.0% soil organic matter

\* – Ali C16-21 and C21-C35 based on criteria for Ali EC &gt;16-35

Eight samples were tested for Phenols, BTEX and MTBE compounds. The summarised results are in **Table 5.4**.

**Table 5.4 Summary of Soil Chemical Test Results – Phenols, BTEX & MTBE**

| Substance       | Threshold Value (mg/kg) | Source   | Measured Concentrations (mg/kg) |         | Number of Exceedances |
|-----------------|-------------------------|----------|---------------------------------|---------|-----------------------|
|                 |                         |          | Minimum                         | Maximum |                       |
| Phenols         | 120                     | LQM/CIEH | <0.1                            | <0.1    | 0                     |
| Benzene         | 0.087                   | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| Toluene         | 130                     | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| Ethylbenzene    | 47                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| o- xylene       | 60                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| m- xylene       | 59                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| p- xylene       | 56                      | LQM/CIEH | <1.0                            | <1.0    | 0                     |
| MTBE            | -                       | -        | <1.0                            | <1.0    | -                     |
| Ethylene Glycol | -                       | -        | <0.1                            | <0.1    | -                     |

Notes:

- No available guideline

Eight samples were tested for a full suite of volatile and semi-volatile organic compounds. Noteworthy compounds exceeding laboratory limits of detection are summarised in **Table 5.5**.

**Table 5.5 Summary of Soil Chemical Test Results – Noteworthy VOC & SVOC**

| Substance                  | Threshold Value (mg/kg) | Source  | Measured Concentrations (mg/kg) |         | Number of Exceedances |
|----------------------------|-------------------------|---------|---------------------------------|---------|-----------------------|
|                            |                         |         | Minimum                         | Maximum |                       |
| Carbazole                  | -                       | -       | <0.5                            | 5.4     | -                     |
| Bis(2-Ethylhexyl)Phthalate | 280                     | CL:AIRE | <0.5                            | 1.2     | 0                     |

Notes:

CL:AIRE – Soil Generic Assessment Criteria for Human Health Risk Assessment based on 1% soil organic matter

- No available guideline

## 5.2.3 Asbestos Testing

All made ground soil samples were scheduled for asbestos screening. Asbestos was not detected. The results are summarised in **Table 5.6**.

**Table 5.6 Summary of Soil Chemical Test Results – Asbestos Quantification**

| Sample | Depth (m) | Comment | Result (mass %) |
|--------|-----------|---------|-----------------|
|--------|-----------|---------|-----------------|

|      |     |                      |   |
|------|-----|----------------------|---|
| WS01 | 0.6 | No Asbestos Detected | - |
| WS02 | 0.3 | No Asbestos Detected | - |
| WS05 | 0.7 | No Asbestos Detected | - |
| WS06 | 0.6 | No Asbestos Detected | - |
| WS09 | 0.7 | No Asbestos Detected | - |
| WS12 | 1.2 | No Asbestos Detected | - |
| WS14 | 0.6 | No Asbestos Detected | - |
| WS11 | 0.8 | No Asbestos Detected | - |

## SECTION 6 Geotechnical Testing Results

Geotechnical testing results are summarised in the following sections and presented in their entirety in **Annex G**.

### 6.1 Plasticity & Moisture Content Testing

During the investigation seven samples of the shallow clay material was taken and submitted for plasticity testing. The test results are summarised in **Table 6.1**.

**Table 6.1 Plasticity & Moisture Content Test Results**

| Location | Depth (m) | Laboratory Principal Soil Type | Moisture Content (%) | Plasticity Index (%) | Passing 425µm Sieve (%) | Modified Plasticity Index (%) | Volume Change Potential |
|----------|-----------|--------------------------------|----------------------|----------------------|-------------------------|-------------------------------|-------------------------|
| WS01     | 2.5       | CLAY                           | 11                   | 21                   | 89                      | 18.7                          | Low                     |
| WS02     | 1.8       | CLAY                           | 10                   | 17                   | 72                      | 12.2                          | Low                     |
| WS03     | 1.5       | CLAY                           | 14                   | 24                   | 78                      | 18.7                          | Low                     |
| WS04     | 1.8-2.4   | CLAY                           | 10                   | 26                   | 60                      | 15.6                          | Low                     |
| WS06     | 2.8       | CLAY                           | 12                   | 21                   | 76                      | 16.0                          | Low                     |
| WS12     | 2.5       | CLAY                           | 33                   | 33                   | 100                     | 33                            | Medium                  |
| WS13     | 2.8       | CLAY                           | 15                   | 20                   | 100                     | 20                            | Low to medium           |

In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the soils on site should be assumed to have a medium volume change potential.

### 6.2 BRE SD1 Testing

Thirteen samples were subject to BRE SD1 testing for concrete classification. The results are summarised in **Table 6.2**.

**Table 6.2 BRE SD1 Testing Summary**

| Location | Depth (m) | 2:1 Water/Soil Extract | Total Potential Sulphate (%) | pH  | Acid Soluble Sulphate (%) | Oxidisable Sulphates (%) |
|----------|-----------|------------------------|------------------------------|-----|---------------------------|--------------------------|
|          |           | SO <sub>4</sub> (mg/l) |                              |     |                           |                          |
| WS02     | 0.3       | <10                    | 0.135                        | 9.0 | 0.071                     | 0.064                    |
| WS05     | 0.7       | <10                    | 0.222                        | 8.4 | 0.06                      | 0.162                    |
| WS06     | 0.6       | 53                     | 0.51                         | 8.3 | 0.15                      | 0.36                     |
| WS09     | 0.7       | 210                    | 1.29                         | 8.0 | 0.18                      | 1.11                     |
| WS11     | 0.8       | <10                    | 0.39                         | 8.1 | 0.064                     | 0.326                    |
| WS12     | 1.2       | <10                    | 0.195                        | 8.3 | 0.085                     | 0.11                     |
| WS01     | 2.5       | 26                     | 0.12                         | 7.2 | 0.04                      | 0.08                     |
| WS02     | 1.8       | 14                     | 0.06                         | 7.6 | 0.02                      | 0.04                     |
| WS03     | 1.5       | 65                     | 0.09                         | 6.7 | 0.03                      | 0.06                     |
| WS04     | 1.8-2.4   | 37                     | 0.06                         | 7.8 | 0.02                      | 0.04                     |
| WS06     | 2.8       | 18                     | 0.06                         | 8.0 | 0.02                      | 0.04                     |
| WS12     | 2.5       | 20                     | 0.06                         | 7.4 | 0.02                      | 0.04                     |
| WS13     | 2.8       | 15                     | <0.03                        | 7.6 | 0.02                      | <0.01                    |



## SECTION 7 Ground Gas Risk Assessment

### 7.1 Gas Screening Value

Three ground gas monitoring wells were installed in WS01, WS06, and WS12. Installation details are shown on the relevant log.

Three rounds of gas monitoring have been carried out. The installations were tested for carbon dioxide, methane, oxygen, carbon monoxide and hydrogen sulphide using a Gas Analyser GA2000/5000.

Recorded gas concentrations are summarised in **Table 7.1**.

**Table 7.1 Measured Gas Concentration Summary**

| Gas            | Minimum (% V/V) | Maximum (% V/V) |
|----------------|-----------------|-----------------|
| Methane        | 0.0             | 0.0             |
| Carbon Dioxide | 3.4             | 9.1             |
| Oxygen         | 7.7             | 16.9            |

Methane levels were not recorded above 0.0% V/V. Carbon dioxide levels varied between 3.4% and 9.1% V/V. Oxygen concentrations varied between 7.7% and 16.9% V/V.

The gas flow rate from the boreholes was also assessed, a maximum flow rate of 0.0l/hr was recorded.

Based on a flow rate of 0.1 l/hr and the highest recorded carbon dioxide concentration of 9.1%, a gas screening value of 0.0091 l/hr is calculated, as follows:

$$(9.1/100) \times 0.1 = 0.0091 \text{ l/hr}$$

The results to date are presented in **Annex I**.

### 7.2 Conclusion

When this monitoring result is compared with Table 8.5 of CIRIA report C665, the site is classified as 'Gas Characteristic Situation 2' (CS1) in line with recommendations provided in CIRIA C665.

## SECTION 8 Quantitative Risk Assessment

### 8.1 Contaminants of Concern

Contaminants identified as part of the investigation are summarised in **Table 8.1**, along with an interpretation of the likely contamination source. Where applicable, the contaminant, source relationship is based on the inferences made in the preliminary conceptual site model.

**Table 8.1 Contaminants of Concern**

| Location | Depth | Contaminant  | Source           |
|----------|-------|--|------------------|
| WS01     | 0.6   | Lead   | S1 (made ground) |
| WS05     | 0.7   |  |                  |
| WS06     | 0.6   |  |                  |
| WS09     | 0.7   |  |                  |
| WS11     | 0.8   |  |                  |
| WS12     | 1.2   |  |                  |
| WS14     | 0.6   |  |                  |
| WS09     | 0.7   | Carbazole (above laboratory detection limits – no GAC available) | S1 (made ground) |
| WS09     | 0.7   | Cyanide (above laboratory detection limits – no GAC available)   | S1 (made ground) |
| WS11     | 0.8   |  |                  |
| WS12     | 1.2   |  |                  |
| WS14     | 0.6   |  |                  |
| WS09     | 0.7   | Aromatic TPH >C16-C21  | S1 (made ground) |
| WS09     | 0.7   | Aromatic TPH >C21-C35  | S1 (made ground) |
| WS09     | 0.7   | Benzo[a]anthracene   | S1 (made ground) |
| WS09     | 0.7   | Chrysene   | S1 (made ground) |
| WS09     | 0.7   | Benzo[b]fluoranthene   | S1 (made ground) |
| WS01     | 0.6   |  |                  |
| WS09     | 0.7   | Benzo[a]pyrene   | S1 (made ground) |
| WS09     | 0.7   | Indeno(1,2,3-c,d)Pyrene  | S1 (made ground) |
| WS09     | 0.7   | Dibenz(a,h)Anthracene  | S1 (made ground) |

### 8.2 Pollutant Linkages

Based on the findings of the intrusive site investigation and identified contaminants, the preliminary conceptual site model has been revised. Significant pollutant linkages are tabulated in the refined conceptual site model **Table 8.2**. Identified pollutant linkages will require detailed risk assessment, appropriate mitigation or remedial measures.

**Table 8.2 Refined Conceptual Site Model**

| Source | Pathway   | Receptor  |
|--------|---|---|
| S1     | P1 – Direct soil and dust ingestion<br>P2 – Consumption of home grown produce<br>P3 – Dermal contact<br>P4 – Inhalation of dust and vapours<br>P10 – Horizontal and vertical migration of ground gasses and vapours | R1 – Construction and maintenance workers<br>R2 – Future site users (residents)<br>R3 – Passers-by or neighbouring site users |

### 8.3 Mitigation and Remedial Measures

The following sections summarise the likely mitigation and remedial measures suitable for the identified contamination and proposed development. Detailed methodology to achieve the measures should be prescribed in a Remediation Strategy Report and the results presented in a Validation Report upon completion of the development.

#### 8.3.1 Human Health

##### 8.3.1.1 Contaminated Soils

To protect future site users from the identified contamination the site will need to be capped. The capping should consist of the proposed buildings and hard standings. In garden and soft landscaped areas, the capping should consist of 600mm of suitable inert topsoil, and subsoil if desired. Alternatively made ground soils could be removed from site and disposed of at a suitably licenced landfill site.

Carbazole was recorded above laboratory detection limits within the made ground at 0.9m depth in WS09. Carbazole is a semi-volatile organic compound with a boiling point of 354°C. Under normal temperature conditions it is not considered to be volatile and subsequently will not present a vapour risk.

As good practice, construction workers should adhere to good site management, COSHH, good standards of hygiene and appropriate health & safety on site, with personal protection equipment (PPE) and dust suppression where appropriate.

All imported soils should be validated as clean and suitable for use in accordance with 'Requirements for the Chemical Testing of Imported Soils for Various End Uses and Validation Cover Systems'.

For proposed new supply water pipes, the UK Water Industry Research publication 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites (Report 10/WM/03/21)' should be consulted.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils 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.

If during earthworks ground conditions are encountered that are markedly different to those found during the investigation then the ground should be subject to additional sampling and testing and any necessary remedial measures designed and implemented before continuing with the works.

##### 8.3.1.2 Ground Gas/Radon

To protect the future site users from identified ground gas, proposed structures will need to incorporate within its construction a suitable ground gas protection system. The ground gas protection system should be designed, verified, installed and validated in accordance with the British Standard 8485:2015+A1:2019 and CIRIA guidance C735:2014.

It is recommended that a specialist consultant is retained to prepare a risk assessed ground gas protection system Verification Plan for the proposed development. The Verification Plan will detail the required protection measures based on the perceived risk associated with the complexity of design, experience of the installer, size of the site and gas characteristic situation. The Verification Plan also details the step-by-step process and requirements to allow

for the completion of a Validation Report. Terra Firma (Wales) Ltd offer Verification and Validation services.

Validation of installed ground gas protection systems by an independent third party will be required upon completion of the development. Validation may only be achieved if processes prescribed in the Verification Plan are undertaken.

### 8.3.2 Aquatic Environment

Whilst a potential risk to controlled waters has been recognised at the site due to the site's past use as a garage, no significant sources have been identified during the site investigation. No olfactory or visual evidence of contamination have been identified either. Groundwater was not recorded in any of the exploratory holes, or in any of the wells installed up to 5m depth.

The site was developed into the Lidl supermarket approximately 20 years ago, and it is considered highly likely that any gross contamination will have been dealt with at this time, including the removal of buried tanks, service pits and foundations, etc. Whilst there may be some remnants of unidentified contamination within the shallow ground, it is unlikely to present a significant risk to controlled waters.

The shallow soils are predominantly cohesive, which will significantly reduce the pathway from unidentified sources of contamination in the near surface into the underlying groundwater, or laterally towards nearby surface water bodies. On site drainage can be a pathway for contamination to migrate off-site, however the installation of a hydrocarbon interceptor tank at the downslope end of the site will significantly reduce any off-site migration of hydrocarbons. It is also significant that no olfactory evidence of hydrocarbons was recorded when the interceptor tank cover was removed.

Further assessment will be required following the demolition of the existing building. Following this assessment, the recommendations from this report will be revisited and if necessary updated. It is also worth repeating that if during earthworks ground conditions are encountered that are markedly different to those found during the investigation, or if any olfactory or visual contamination is encountered then the ground should be subject to additional sampling and testing and any necessary remedial measures designed and implemented before continuing with the works.

Based on the above, and the fact that the site has been occupied by a commercial building that is unlikely to have produced significant sources of contamination for the past 20 years, it is considered that the risk to controlled waters from the site is very low and that further assessment is not warranted. As previously mentioned these recommendations should be revisited following the demolition of the existing building.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconconnections, discharges to local surface waters or the ground, runoff from construction materials and/or exposed ground, wheel washings and oil or chemical spills.

The risk is considered to be negligible as any adverse effects will be easily preventable by due diligence to good construction practise and housekeeping in preventing surface runoff and the spillage of materials.

The basic measures that should be taken are as follows:

- Prepare a drainage plan and mark the manholes to prevent pollutants accidentally reaching the surface water sewers;
- Carry out any activities that could cause pollution in a designated, bunded area, away from rivers or boreholes. Where possible it should drain to the foul sewer;
- Use settlement ponds to remove silty water;

- Store all oils and chemicals in a fully bunded area to prevent leaks or spills;
- Get advice on whether you need an environmental permit and apply in good time

## **SECTION 9 Engineering Recommendations**

### **9.1 Preparation of Site**

Prior to demolishing the existing buildings, a full asbestos survey should be carried out. All deleterious materials should then be removed by licensed contractors to a suitable landfill facility.

All hard standing, floor slabs and foundations should be removed from beneath the proposed buildings and areas of hard standing. Any buried obstructions should also be excavated and removed.

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. Terra Firma (Wales) Ltd offer this service if required.

### **9.2 Foundation and Floor Slab Solution**

The below recommendations should be revisited following the recommended further work outlined in Section 10 following the demolition of the existing building.

Due to the variable strength of the shallow soils, it is considered that shallow spread foundations are not practicable at the site. It is therefore recommended that a piled foundation solution is used. It is recommended that a series of boreholes with in-situ strength testing is undertaken to inform pile design.

Measurements should be put in place to monitor vibrations during pile installation. If vibrations exceed guideline levels, then measures should also be taken to dampen such vibrations. If, however, vibrations exceed permissible values then consideration should be given to an alternative solution.

The estimated working pile loads, pile type and lengths should be confirmed by a specialist piling contractor and it may be prudent to test drive/install piles at selected locations.

Floor slabs should be designed as suspended.

If trees are to be incorporated within the proposed development, foundations will need to be taken deeper within influencing distance of the tree root systems. The National House Building Council (NHBC) Chapter 4.2 gives guidelines as to the appropriate type of floor slab and void



based on the type of tree, distance of the foundation from the tree and the plasticity index of the in-situ materials.

During the investigation seven samples of the in-situ clay were taken and submitted for plasticity testing. In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the superficial cohesive deposits should be assumed to have a medium volume change potential.

Foundations should be taken down to a minimum depth of 900mm below finished levels when founding in medium volume change potential soils.

All foundation formations should be inspected by a suitably qualified Engineer before being concreted.

### **9.3 Excavations and Formations**

Most of the shallow excavations will be possible with normal soil excavating machinery. However, hydraulic breakers will be required when breaking out buried obstructions such as old foundations or slabs.

Shallow perched water and groundwater flows were not encountered during the investigation. Any water inflows together with rainwater infiltration should be dealt with by conventional pumping techniques. However, it should be noted that during times of heavy rainfall a higher water table will be encountered.

The sides of any excavations deeper than 1.20m, or shallower if unstable, should be supported by planking and strutting or other proprietary means.

The sub-formations/formations are likely to be susceptible to loosening, softening and deterioration by exposure to weather (rain, frost and drying conditions), the action of water (flood water or removal of groundwater) and site traffic.

Formations should never be left unprotected and continuously exposed to rain causing degradation, or left exposed/uncovered overnight, unless permitted by a qualified engineer.

Construction plant and other vehicular traffic should not be operated on unprotected formations.

As a minimum the formation/excavation surfaces must be protected by blinding concrete immediately after exposure.

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

Allowances should also be made for special precautions to prevent formation deterioration in addition to the above.

### **9.4 Protection of Buried Concrete**

When the results are compared with Table C2 of BRE Digest 1:2005, it indicates that buried concrete should generally conform to DS-3 Class AC-2s.

### **9.5 Access Roads and Car Parking Areas**

For car parking and road areas, formations within the in-situ natural soils a CBR value of 5% may be used for design purposes.

Allowances should be made for the removal of any 'soft spots/areas' and their replacement with well-compacted granular materials as previously described.

Please note that the Local Council / Highways Authority may require in-situ CBR testing to be undertaken before a road is adopted. In-situ CBR Testing should be performed following earthworks to verify the performance of the engineered fill.

## **9.6 Storm Water Drainage**

Falling head tests were carried out in WS03, WS10, and WS13 in general accordance with BS5930:2015. The tests were carried out by adding water to the borehole and timing the fall of the head of water.

The fall of the head of water was insufficient to enable the calculation of an infiltration rate.

Together with the predominantly cohesive ground conditions encountered across the site and the infiltration test results, it is considered that soakaway storm water drainage is unsuitable at the site.

## **SECTION 10 Recommended Further Work**

After the existing building has been demolished, it is recommended that trial pitting is undertaken in the areas of the site that are currently inaccessible.

The trial pits will allow additional soil samples to be taken for an updated geoenvironmental assessment and will inform an updated geotechnical investigation.

It is also recommended that a series of boreholes with standard penetration tests are sunk to inform pile design. It is recommended that this is also undertaken following the demolition of the existing building so that as much of the site is accessible as possible.

**ANNEX A  
Envirocheck Report**

# Historical Mapping Legends

## Ordnance Survey County Series 1:10,560

|  |   |  |                             |  |               |
|--|---|--|-----------------------------|--|---------------|
|  | Gravel Pit                                    |  | Sand Pit                    |  | Other Pits    |
|  | Quarry  |  | Shingle                     |  | Orchard       |
|  | Osiers  |  | Reeds                       |  | Marsh         |
|  | Mixed Wood                                    |  | Deciduous                   |  | Brushwood     |
|  | Fir   |  | Furze                       |  | Rough Pasture |
|  | Arrow denotes flow of water                   |  | Trigonometrical Station     |  |               |
|  | Site of Antiquities                           |  | Bench Mark                  |  |               |
|  | Pump, Guide Post, Signal Post                 |  | Well, Spring, Boundary Post |  |               |
|  | •285 Surface Level                            |  |                             |  |               |
|  | Sketched Contour                              |  | Instrumental Contour        |  |               |
|  | Main Roads                                    |  | Minor Roads                 |  |               |
|  | Sunken Road                                   |  | Raised Road                 |  |               |
|  | Road over Railway                             |  | Railway over River          |  |               |
|  | Railway over Road                             |  | Level Crossing              |  |               |
|  | Road over River or Canal                      |  | Road over Stream            |  |               |
|  | Road over Stream                              |  |                             |  |               |
|  | County Boundary (Geographical)                |  |                             |  |               |
|  | County & Civil Parish Boundary                |  |                             |  |               |
|  | Administrative County & Civil Parish Boundary |  |                             |  |               |
|  | County Borough Boundary (England)             |  |                             |  |               |
|  | County Burgh Boundary (Scotland)              |  |                             |  |               |
|  | Rural District Boundary                       |  |                             |  |               |
|  | Civil Parish Boundary                         |  |                             |  |               |

## Ordnance Survey Plan 1:10,000

|  |   |  |   |
|--|---|--|---|
|  | Chalk Pit, Clay Pit or Quarry   |  | Gravel Pit  |
|  | Sand Pit  |  | Disused Pit or Quarry                                   |
|  | Refuse or Slag Heap   |  | Lake, Loch or Pond                                      |
|  | Dunes   |  | Boulders  |
|  | Coniferous Trees  |  | Non-Coniferous Trees                                    |
|  | Orchard   |  | Scrub   |
|  | Bracken   |  | Heath   |
|  | Marsh   |  | Reeds   |
|  | Building  |  | Glasshouse  |
|  | Sloping Masonry   |  | Pylon   |
|  | Cutting   |  | Embankment  |
|  | Road Under  |  | Road Over   |
|  | Level Crossing  |  | Foot Bridge   |
|  | Standard Gauge Multiple Track   |  | Standard Gauge Single Track                             |
|  | Siding, Tramway or Mineral Line                                       |  | Narrow Gauge  |
|  | Geographical County   |  | Administrative County, County Borough or County of City |
|  | Municipal Borough, Urban or Rural District, Burgh or District Council |  | Borough, Burgh or County Constituency                   |
|  | Civil Parish  |  |   |
|  | BP, BS Boundary Post or Stone   |  | Police Station  |
|  | Church  |  | Post Office   |
|  | Club House  |  | Public Convenience                                      |
|  | Fire Engine Station   |  | Public House  |
|  | Foot Bridge   |  | Signal Box  |
|  | Fountain  |  | Spring  |
|  | Guide Post  |  | Telephone Call Box                                      |
|  | Mile Post   |  | Telephone Call Post                                     |
|  | Mile Stone  |  | Well  |

## 1:10,000 Raster Mapping

|  |  |  |  |
|--|--|--|--|
|  | Gravel Pit   |  | Refuse tip or slag heap                    |
|  | Rock   |  | Rock (scattered)                           |
|  | Boulders   |  | Boulders (scattered)                       |
|  | Shingle  |  | Mud  |
|  | Sand   |  | Sand Pit                                   |
|  | Slopes   |  | Top of cliff                               |
|  | General detail   |  | Underground detail                         |
|  | Overhead detail  |  | Narrow gauge railway                       |
|  | Multi-track railway                                      |  | Single track railway                       |
|  | County boundary (England only)                           |  | Civil, parish or community boundary        |
|  | District, Unitary, Metropolitan, London Borough boundary |  | Constituency boundary                      |
|  | Area of wooded vegetation                                |  | Non-coniferous trees                       |
|  | Non-coniferous trees (scattered)                         |  | Coniferous trees                           |
|  | Coniferous trees (scattered)                             |  | Positioned tree                            |
|  | Orchard  |  | Coppice or Osiers                          |
|  | Rough Grassland  |  | Heath                                      |
|  | Scrub  |  | Marsh, Salt Marsh or Reeds                 |
|  | Water feature  |  | Flow arrows                                |
|  | Mean high water (springs)                                |  | Mean low water (springs)                   |
|  | Telephone line (where shown)                             |  | Electricity transmission line (with poles) |
|  | Bench mark (where shown)                                 |  | Triangulation station                      |
|  | Point feature (e.g. Guide Post or Mile Stone)            |  | Pylon, flare stack or lighting tower       |
|  | Site of (antiquity)                                      |  | Glasshouse                                 |
|  | General Building   |  | Important Building                         |

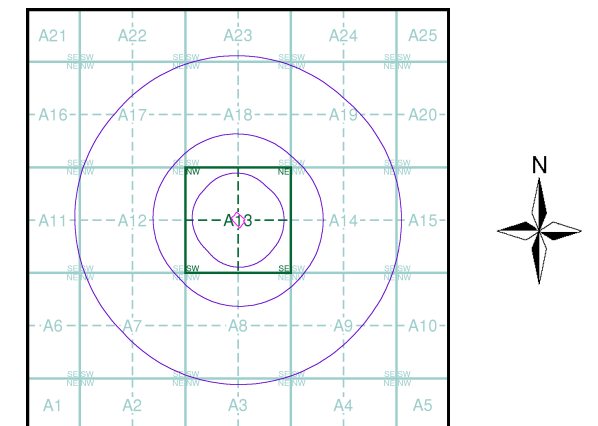


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Historical Mapping & Photography included:

| Mapping Type         | Scale    | Date        | Pg |
|----------------------|----------|-------------|----|
| Carmarthenshire      | 1:10,560 | 1888        | 2  |
| Carmarthenshire      | 1:10,560 | 1907        | 3  |
| Carmarthenshire      | 1:10,560 | 1938        | 4  |
| Carmarthenshire      | 1:10,560 | 1952        | 5  |
| Ordnance Survey Plan | 1:10,000 | 1964        | 6  |
| Ordnance Survey Plan | 1:10,000 | 1973        | 7  |
| Ordnance Survey Plan | 1:10,000 | 1980        | 8  |
| Ordnance Survey Plan | 1:10,000 | 1990 - 1993 | 9  |
| 10K Raster Mapping   | 1:10,000 | 2000        | 10 |
| 10K Raster Mapping   | 1:10,000 | 2006        | 11 |
| VectorMap Local      | 1:10,000 | 2021        | 12 |

## Historical Map - Slice A



## Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
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Site Area (Ha): 0.46  
Search Buffer (m): 1000

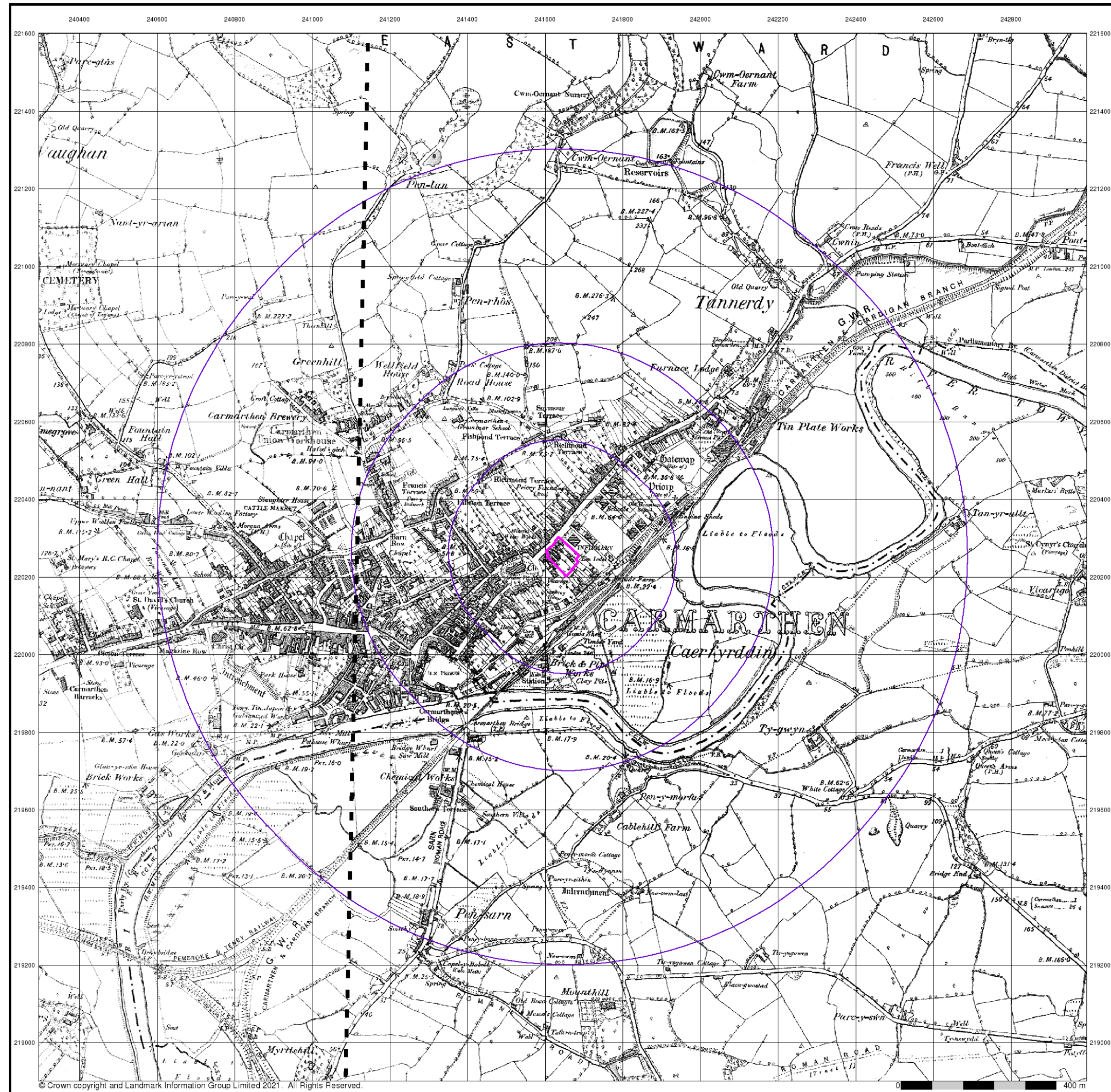
## Site Details

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**Landmark**  
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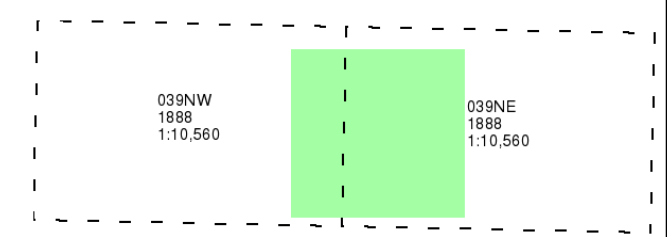
## Carmarthenshire

Published 1888

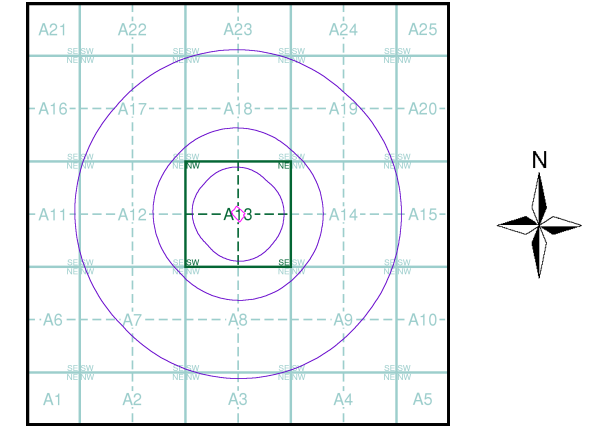
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



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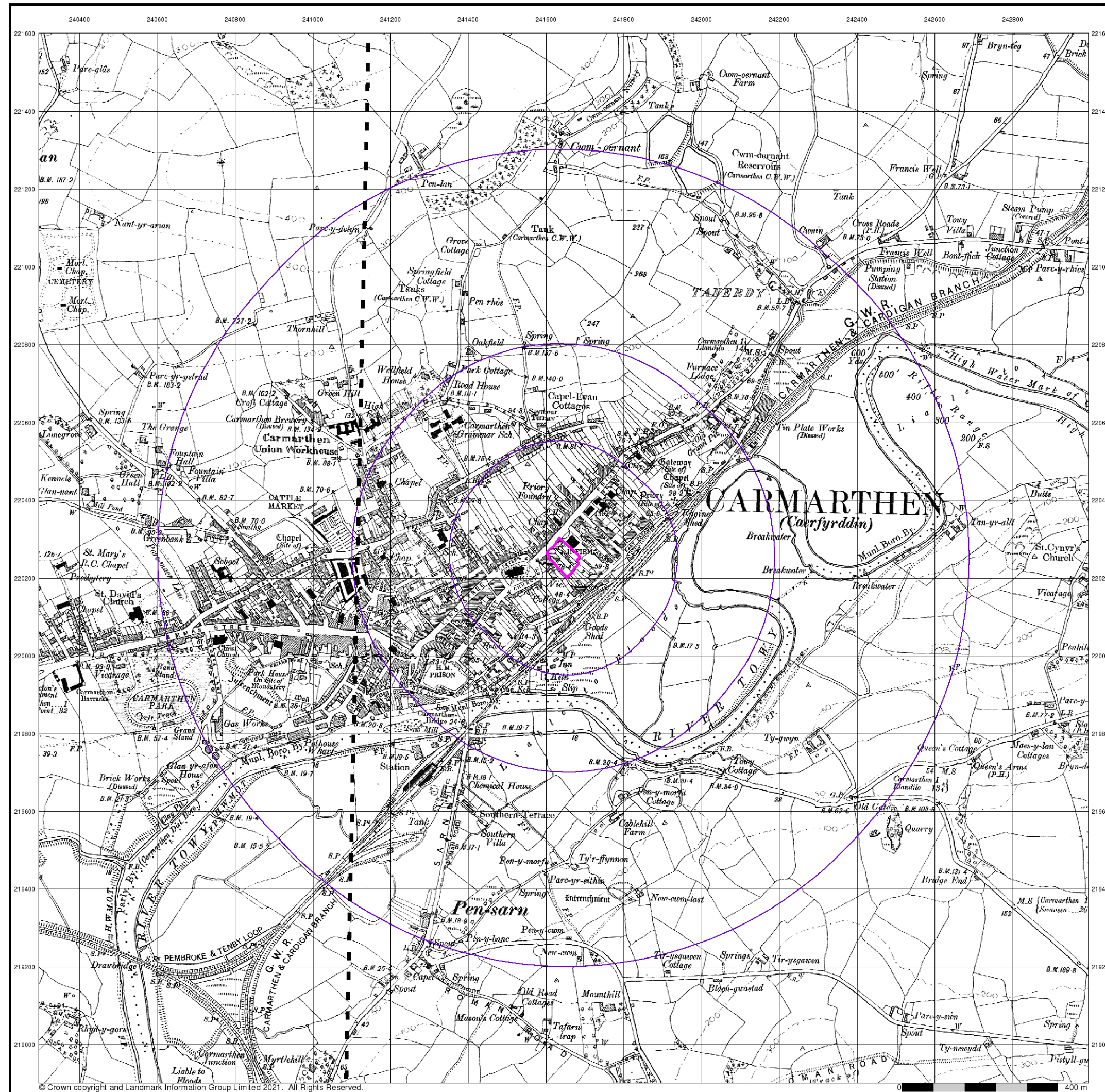
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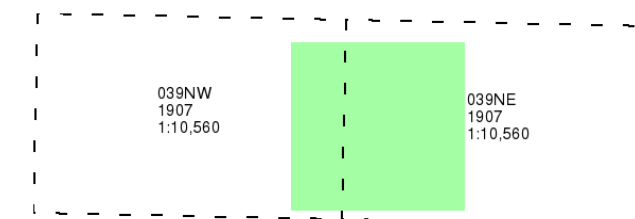
## Carmarthenshire

Published 1907

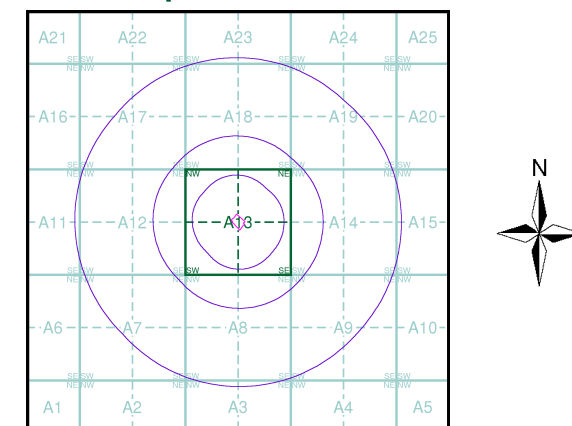
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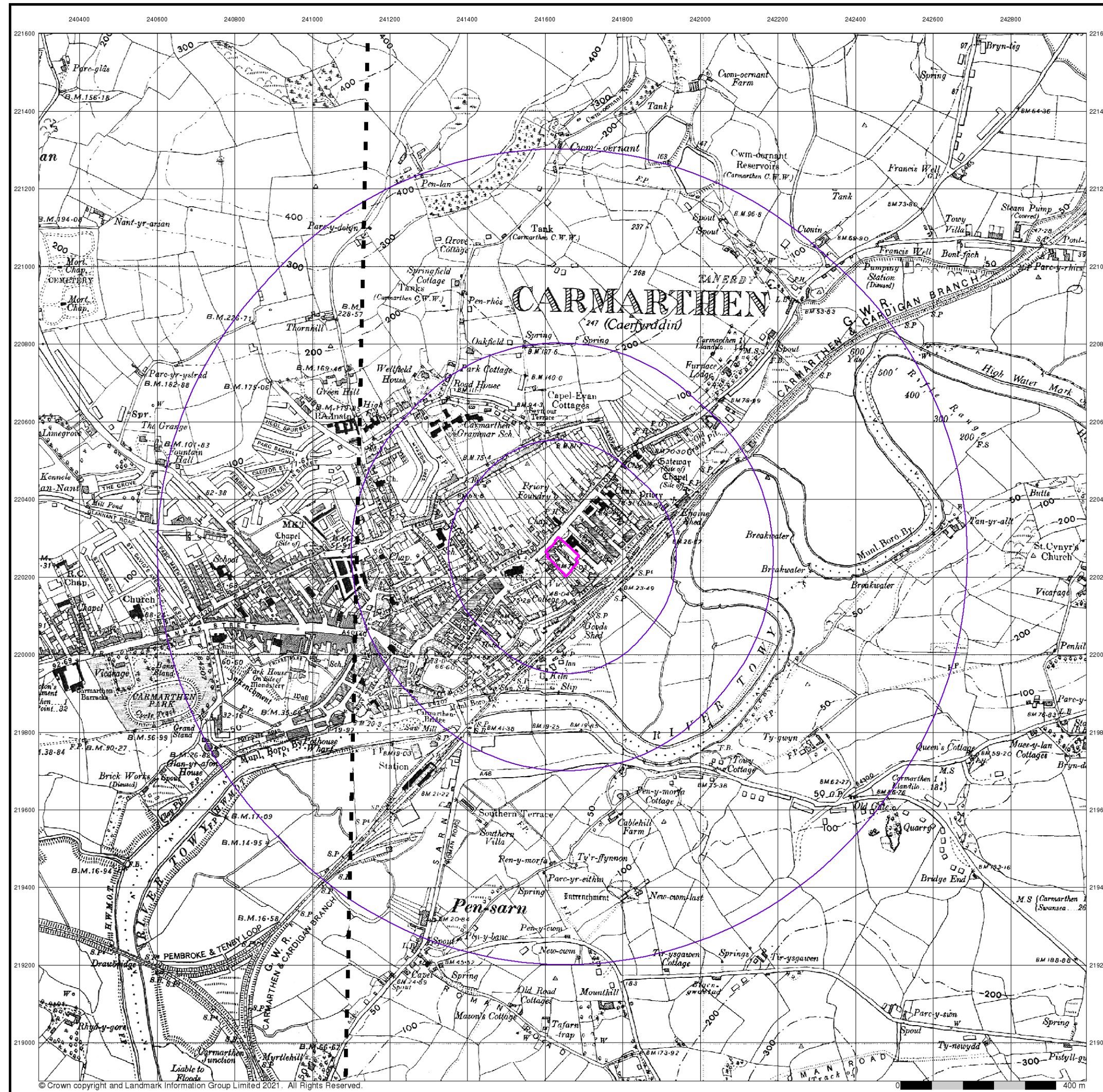
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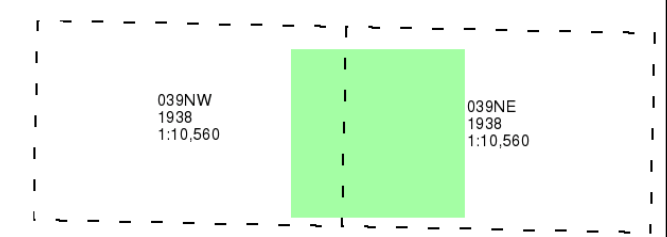
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Published 1938

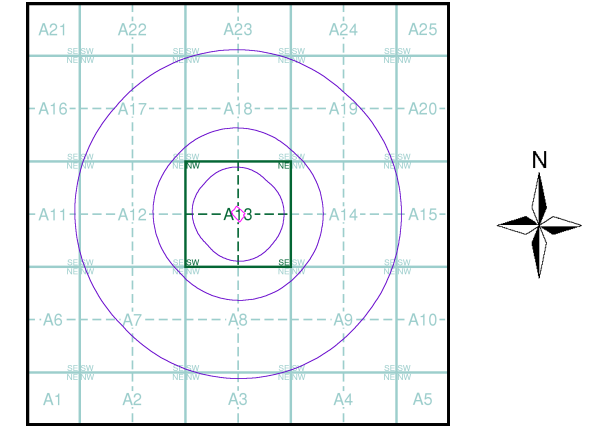
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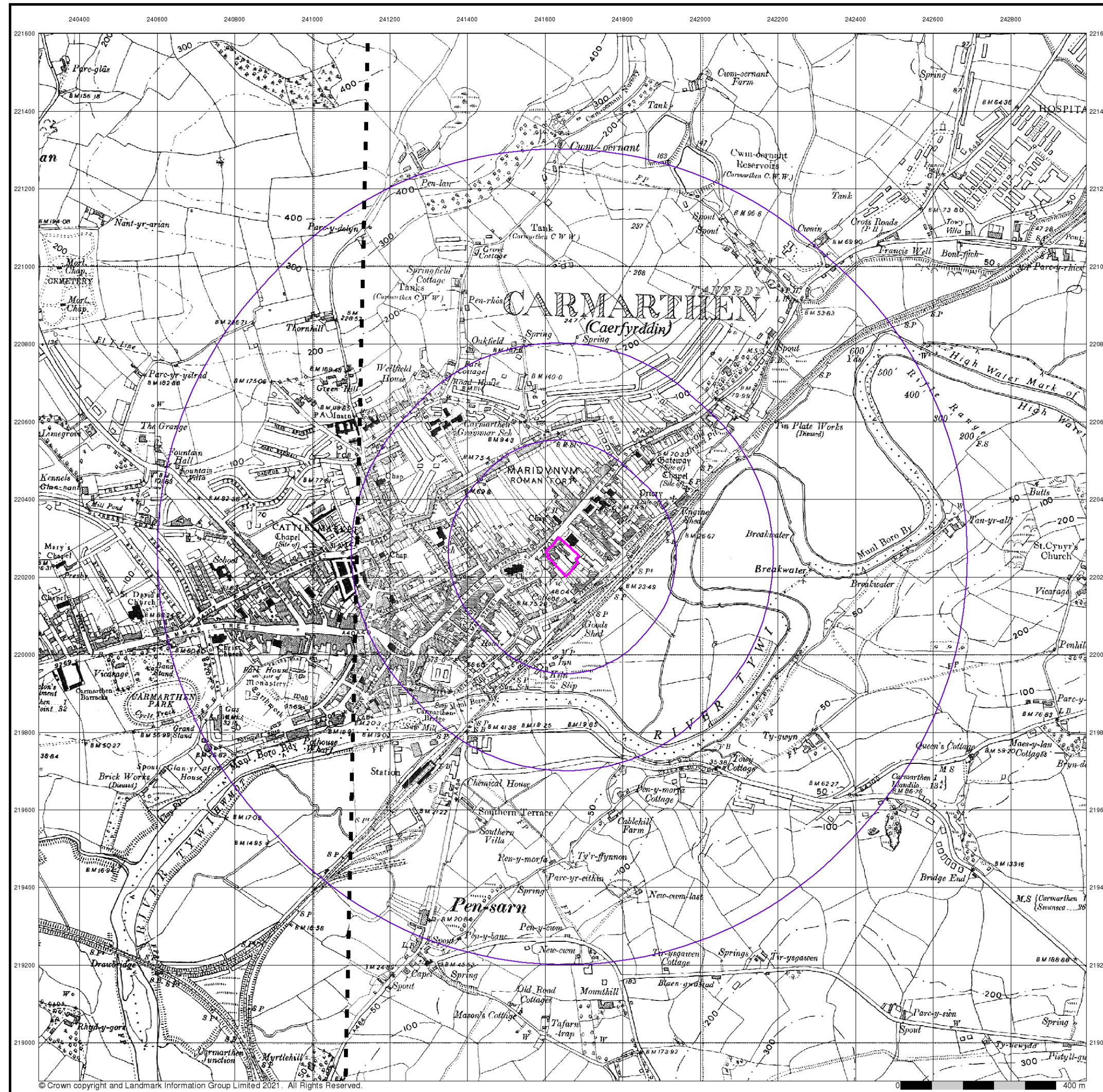
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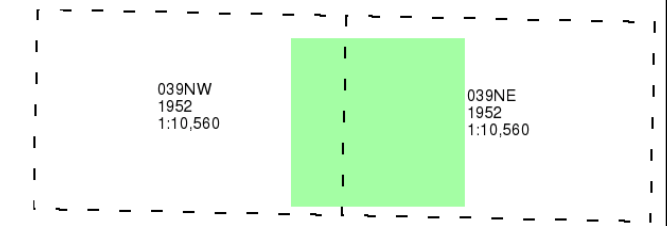
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Published 1952

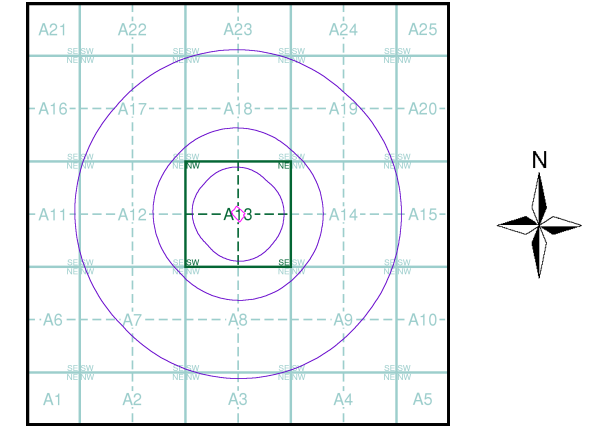
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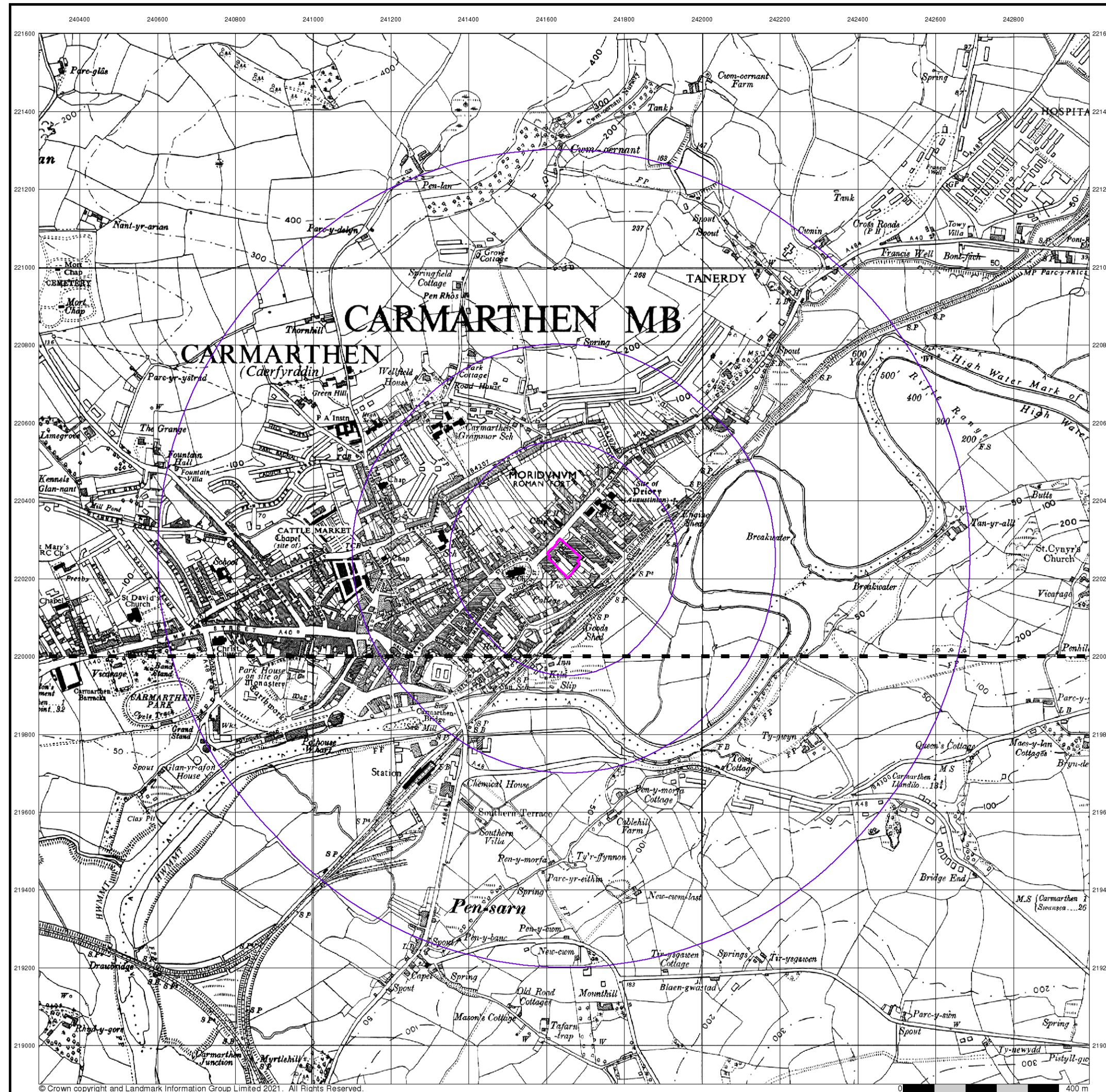
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## Ordnance Survey Plan

Published 1964

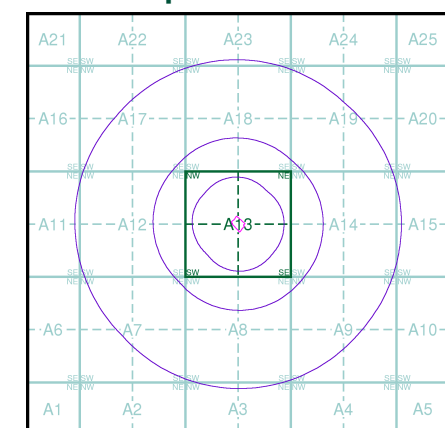
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### Map Name(s) and Date(s)

|          |      |
|----------|------|
| SN42SW   | 1964 |
| 1:10,560 |      |
| SN41NW   | 1964 |
| 1:10,560 |      |

### Historical Map - Slice A



### Order Details

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| Customer Ref:            | 16761-MW       |
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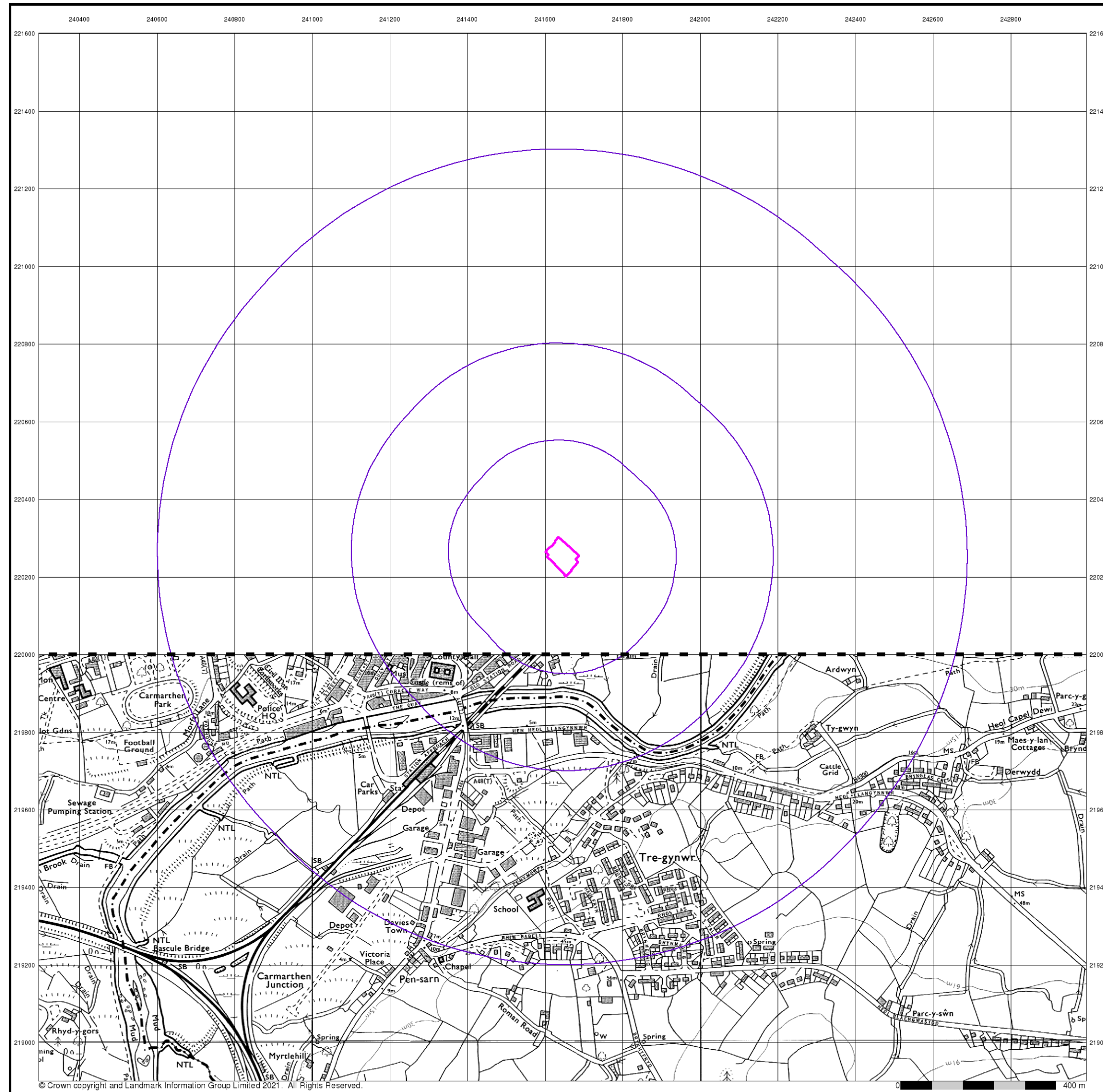
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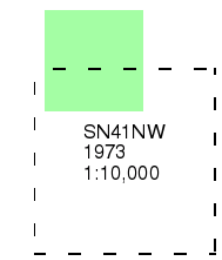
## Ordnance Survey Plan

Published 1973

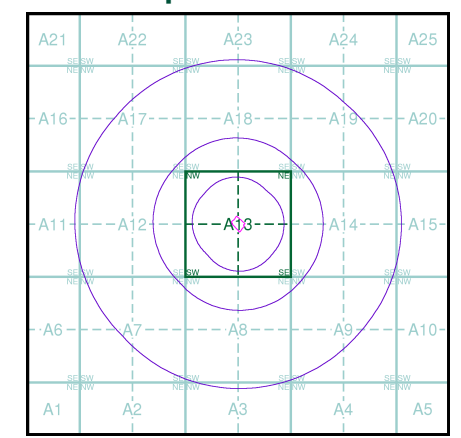
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

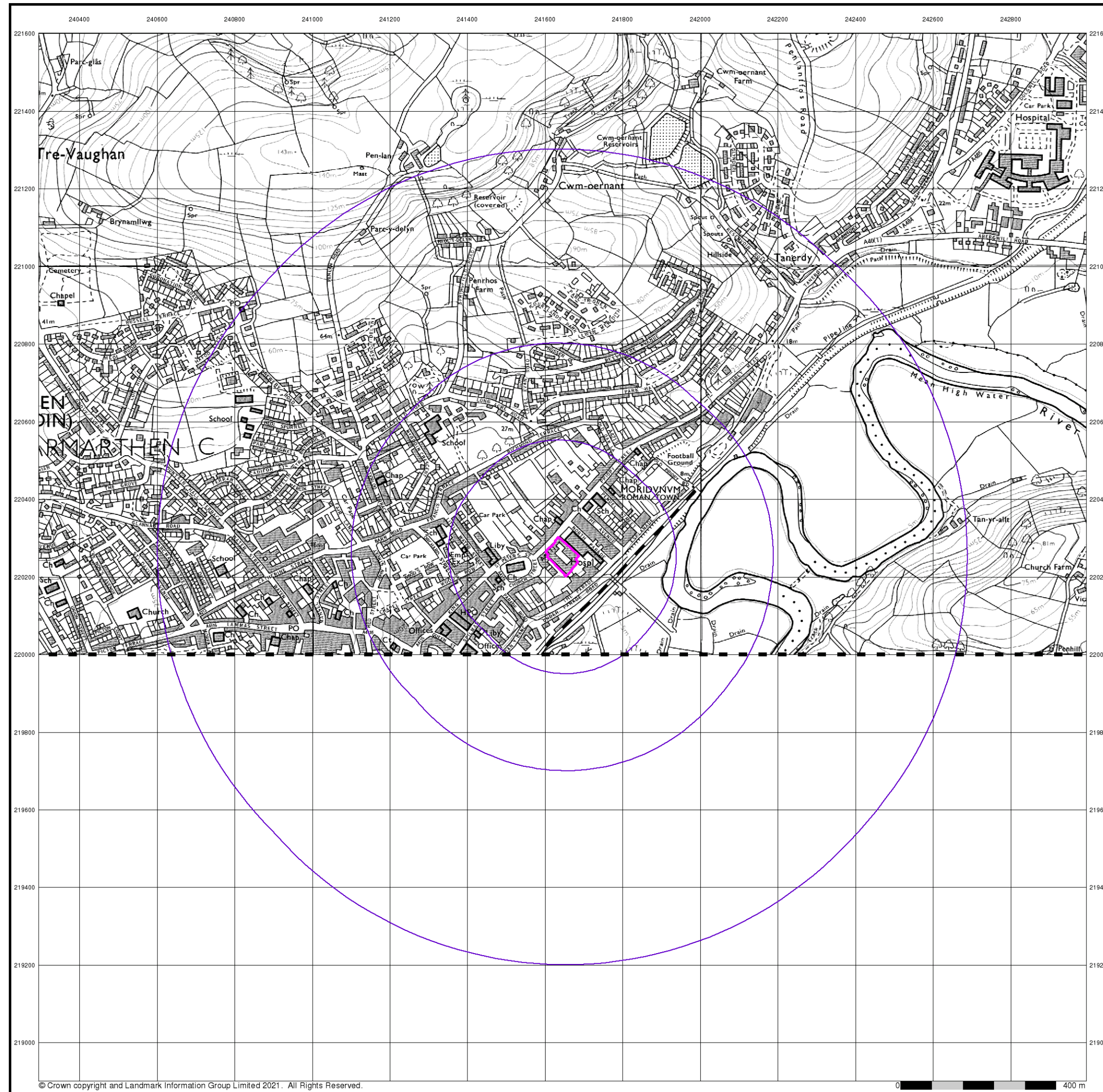
### Site Details

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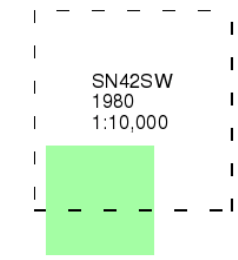
## Ordnance Survey Plan

Published 1980

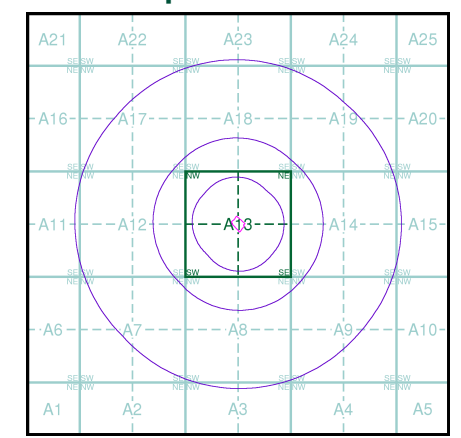
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

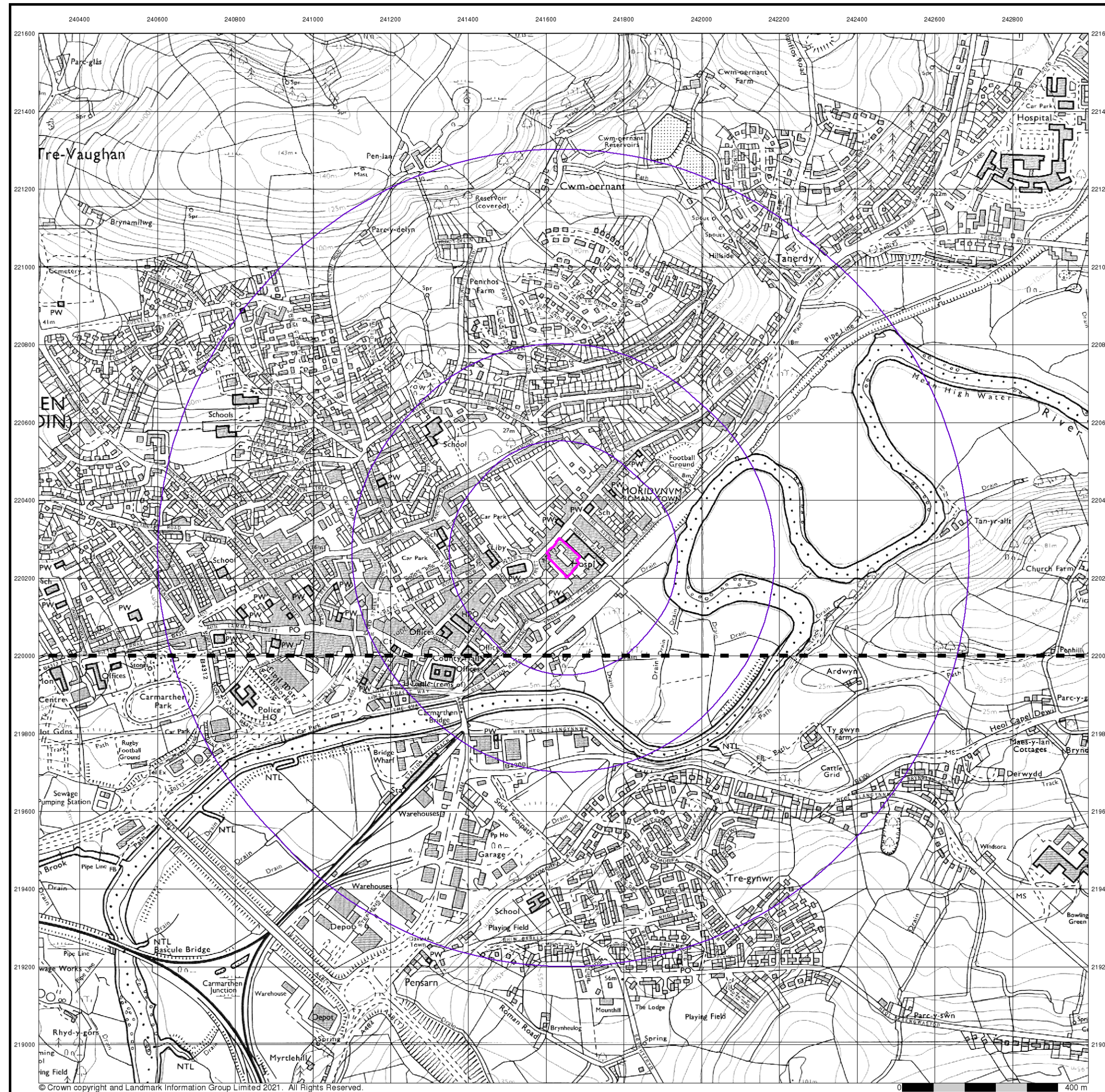
### Site Details

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## Ordnance Survey Plan

Published 1990 - 1993

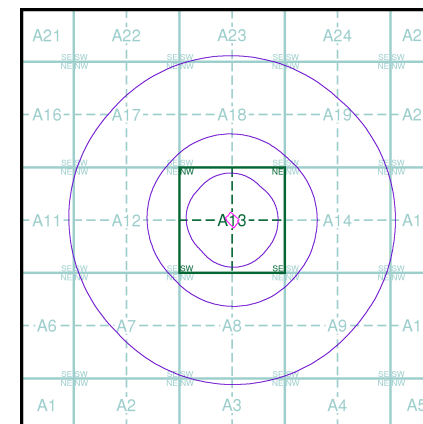
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

|          |      |
|----------|------|
| SN42SW   | 1993 |
| 1:10,000 |      |
| SN41NW   | 1990 |
| 1:10,000 |      |

### Historical Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

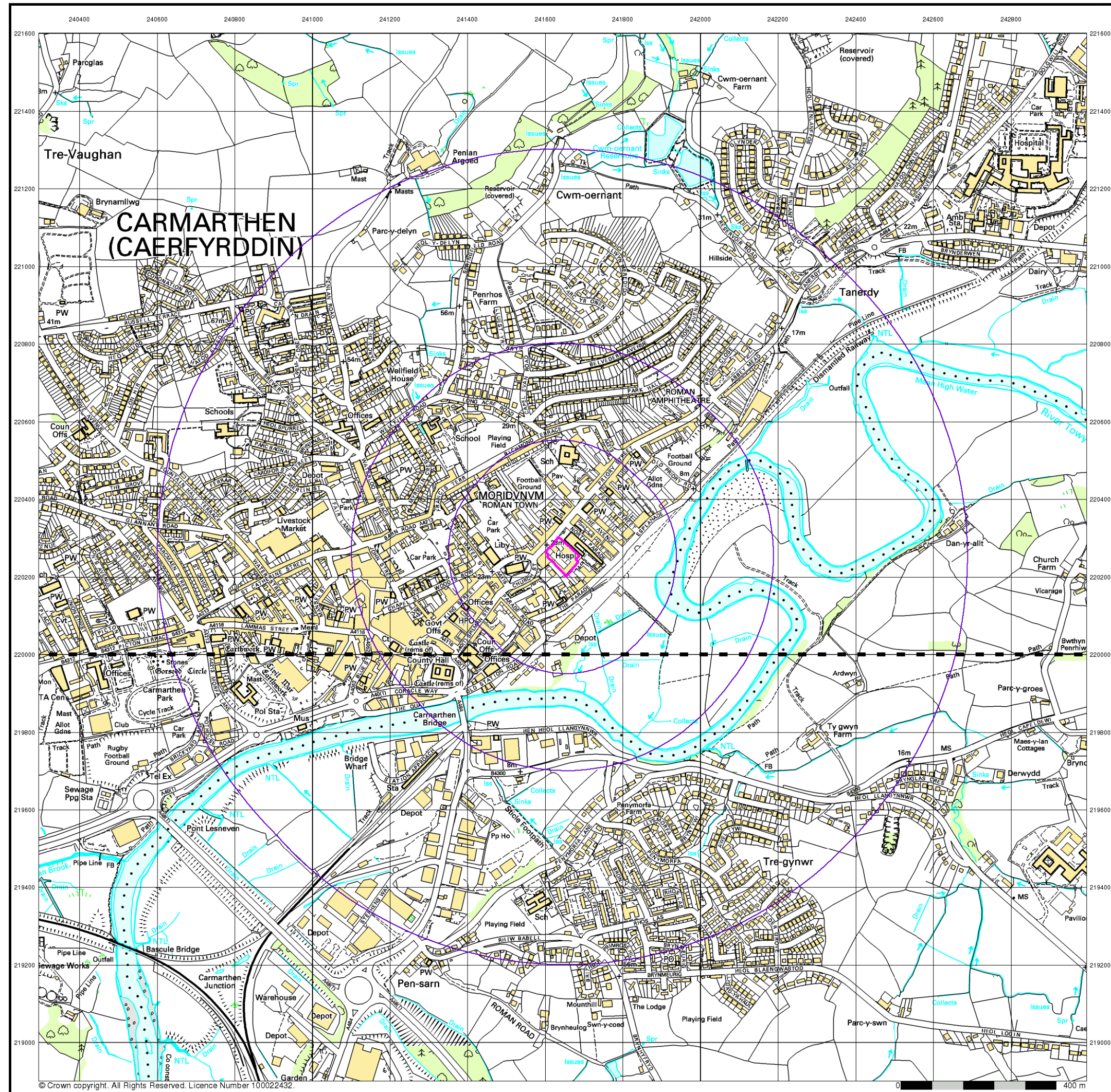
### Site Details

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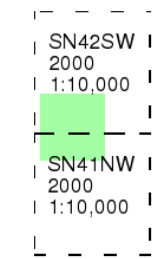
## 10k Raster Mapping

Published 2000

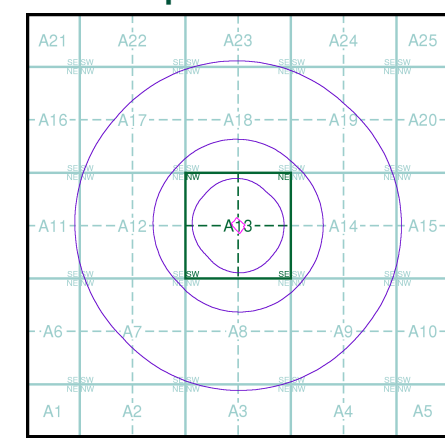
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

### Site Details

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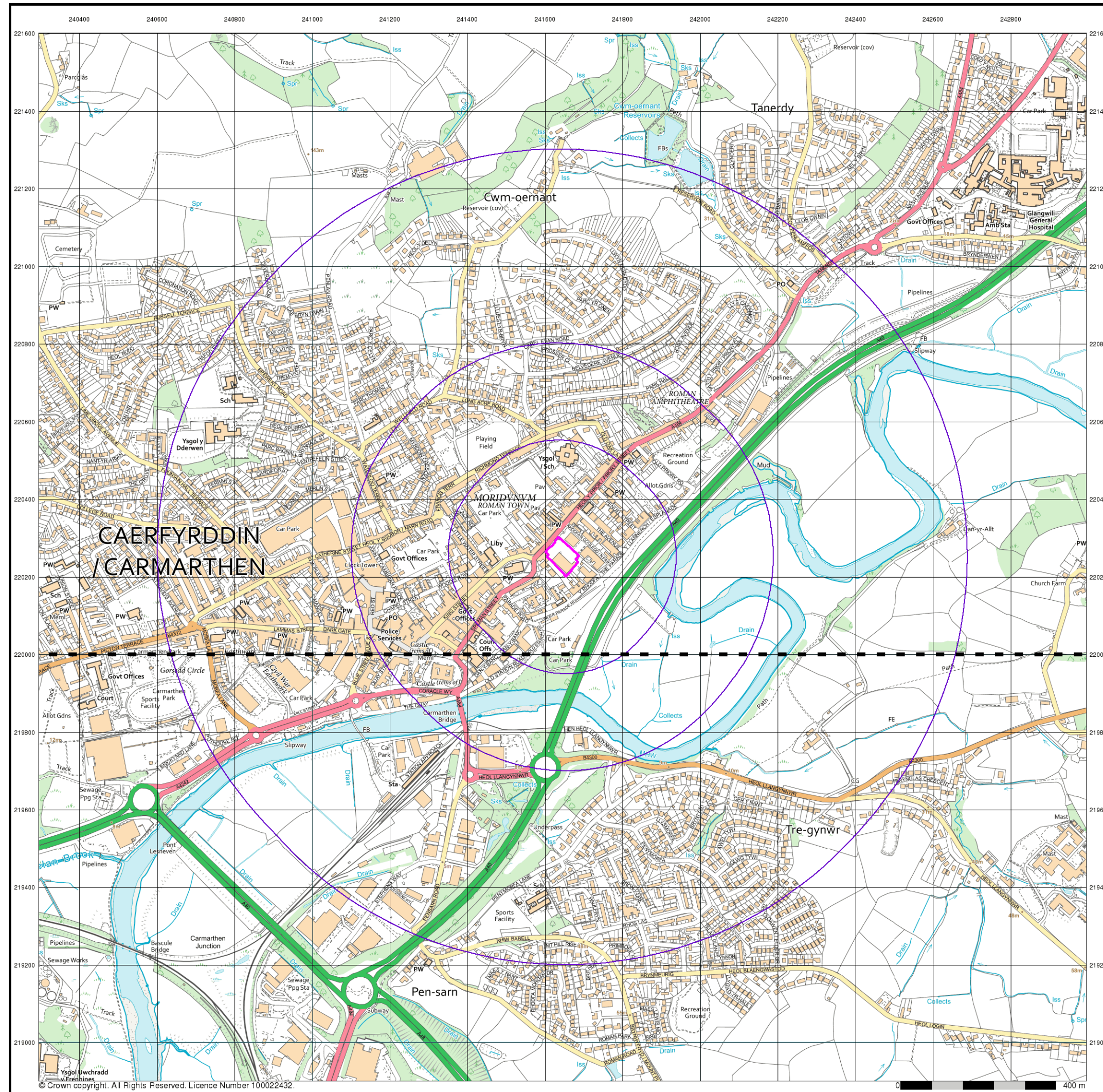


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## VectorMap Local

Published 2021

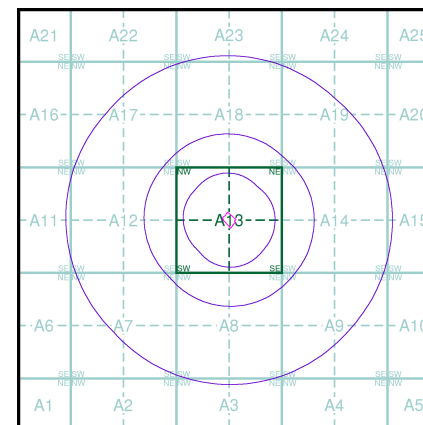
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

### Map Name(s) and Date(s)

SN42SW  
2021  
Variable  
SN41NW  
2021  
Variable

### Historical Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

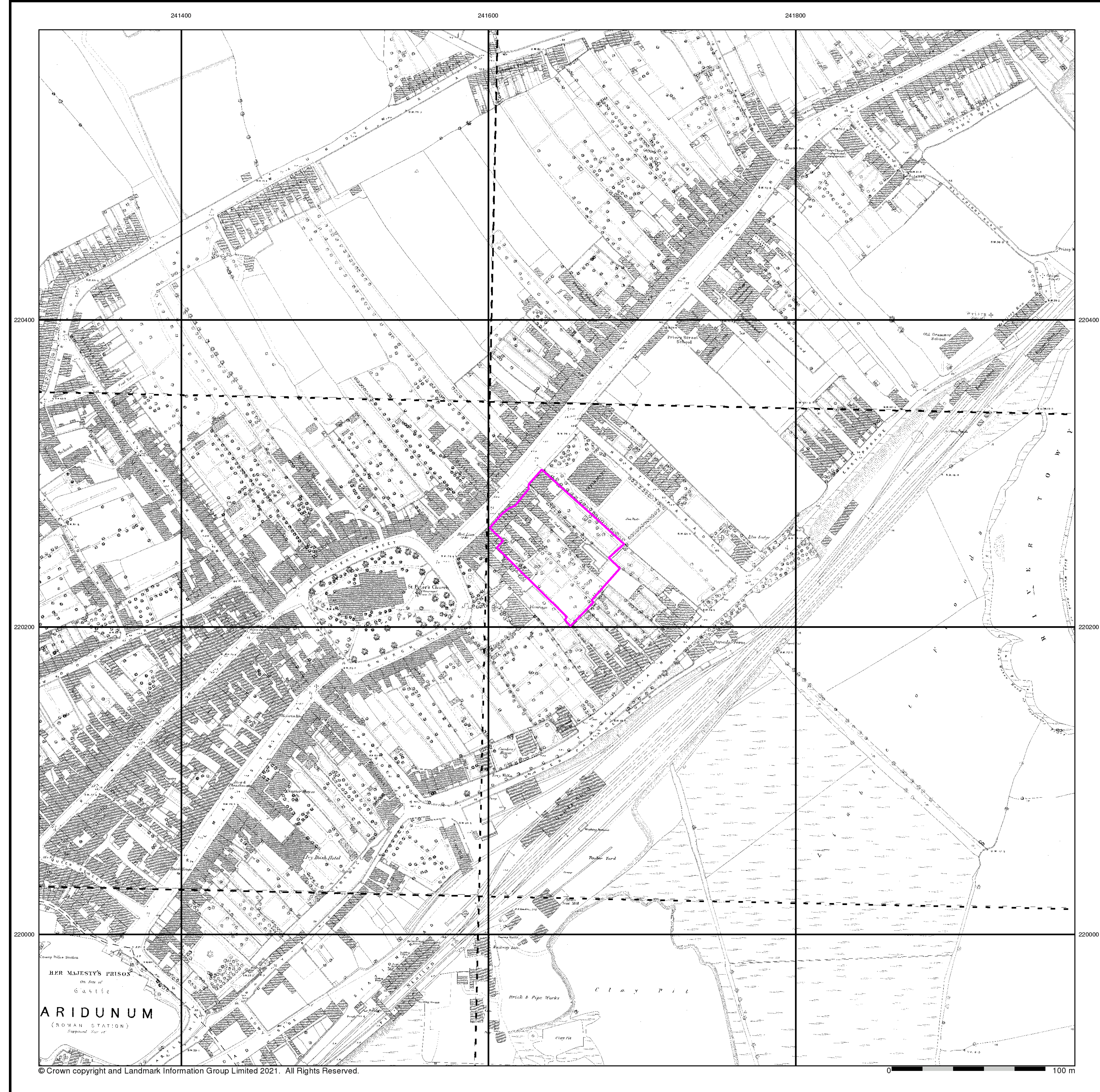
### Site Details

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## Carmarthenshire

Published 1888

Source map scale - 1:500

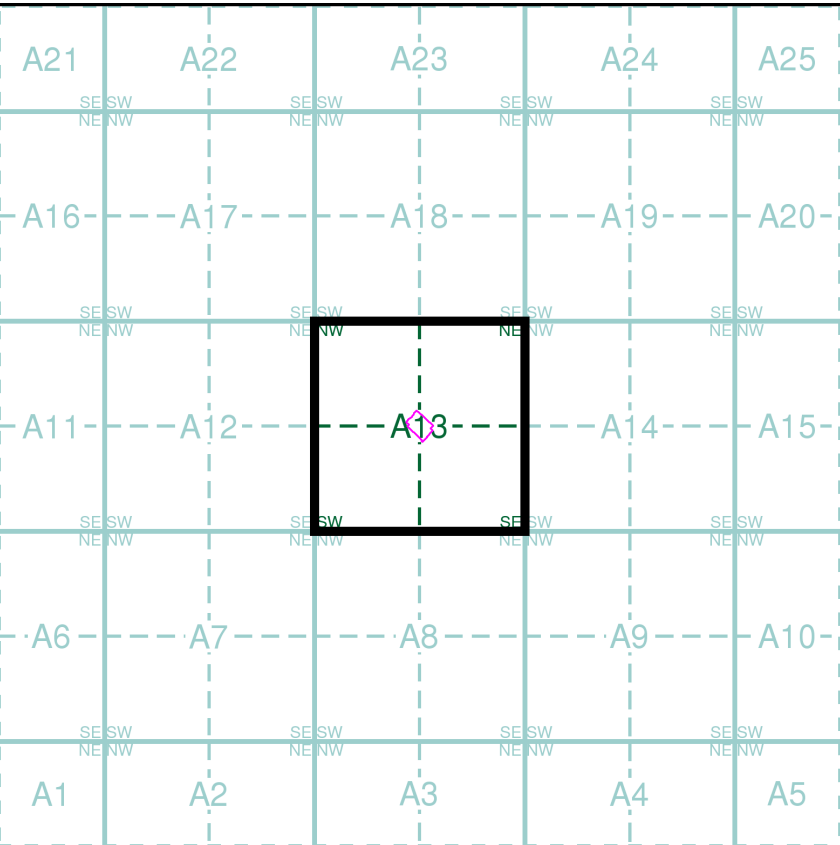
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to compliment the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped more than once at this scale, and none have been since 1910. The 1:500 scale gives particular emphasis to such features as lamp posts, man holes, arched passages and minor building projections. Also often featured are divisions between tenements, interior ground floor layouts of public buildings, and on earlier plans, the functions of the various parts of larger industrial premises are also indicated. Content of the plans does vary however, from one town to the next in terms of, for example, the completeness of railway tracks and the coverage of public buildings.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

### Map Name(s) and Date(s)

|            |            |
|------------|------------|
| 039_03_021 | 039_03_022 |
| 1888       | 1888       |
| 1:500      | 1:500      |
| 039_07_001 | 039_07_002 |
| 1888       | 1888       |
| 1:500      | 1:500      |
| 039_07_006 | 039_07_007 |
| 1888       | 1888       |
| 1:500      | 1:500      |

### Historical Town Plan - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 0

### Site Details

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# Historical Mapping Legends

## Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



## Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



## Large-Scale National Grid Data 1:2,500 and 1:1,250

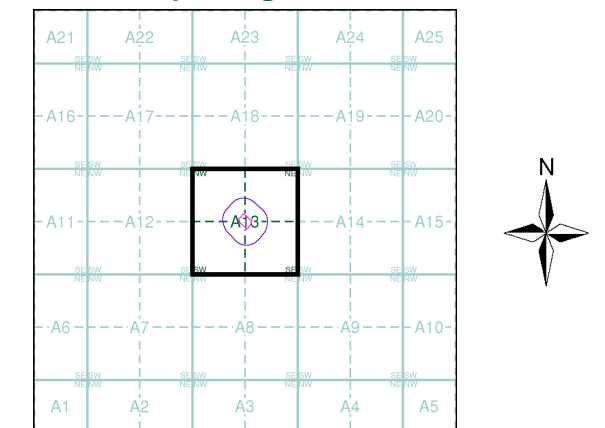


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Historical Mapping & Photography included:

| Mapping Type                   | Scale   | Date        | Pg |
|--------------------------------|---------|-------------|----|
| Carmarthenshire                | 1:2,500 | 1890        | 2  |
| Carmarthenshire                | 1:2,500 | 1906        | 3  |
| Ordnance Survey Plan           | 1:2,500 | 1969        | 4  |
| Additional SIMs                | 1:2,500 | 1978        | 5  |
| Additional SIMs                | 1:1,250 | 1980 - 1990 | 6  |
| Ordnance Survey Plan           | 1:1,250 | 1983        | 7  |
| Large-Scale National Grid Data | 1:1,250 | 1993 - 1994 | 8  |
| Historical Aerial Photography  | 1:2,500 | 2000        | 9  |

## Historical Map - Segment A13



## Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

## Site Details

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## Carmarthenshire

Published 1890

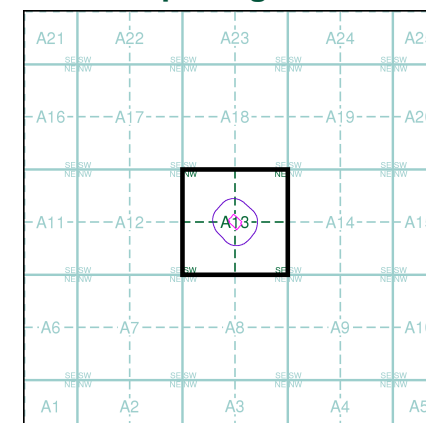
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

|         |
|---------|
| 039_03  |
| 1890    |
| 1:2,500 |
| 039_07  |
| 1890    |
| 1:2,500 |

### Historical Map - Segment A13



### Order Details

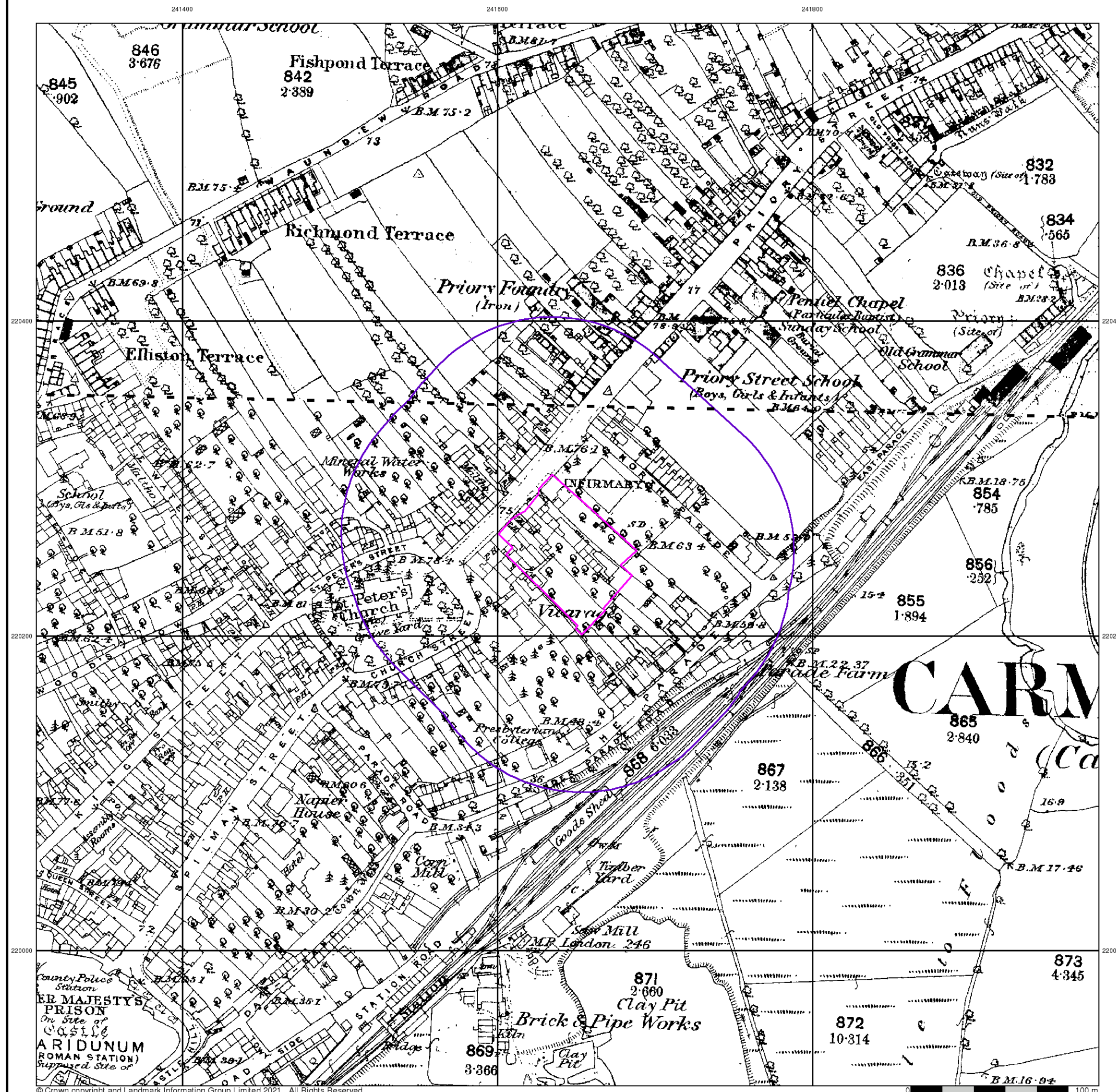
Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

### Site Details

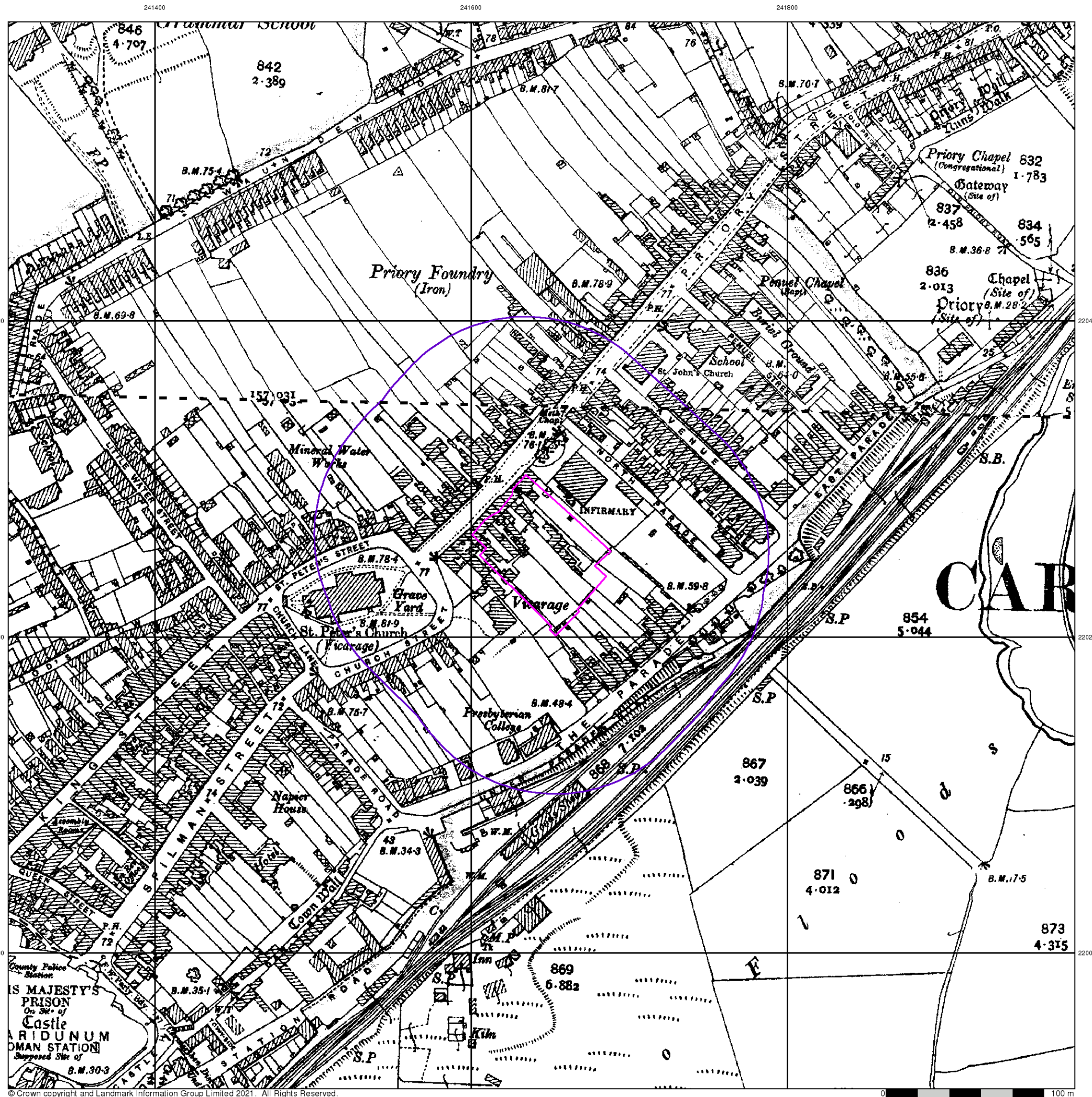
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## Carmarthenshire

Published 1906

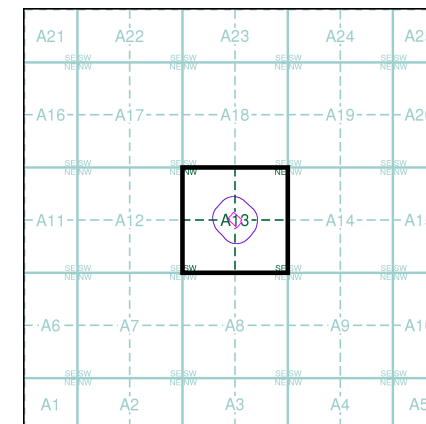
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

|         |
|---------|
| 039_03  |
| 1906    |
| 1:2,500 |
| 039_07  |
| 1906    |
| 1:2,500 |

### Historical Map - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

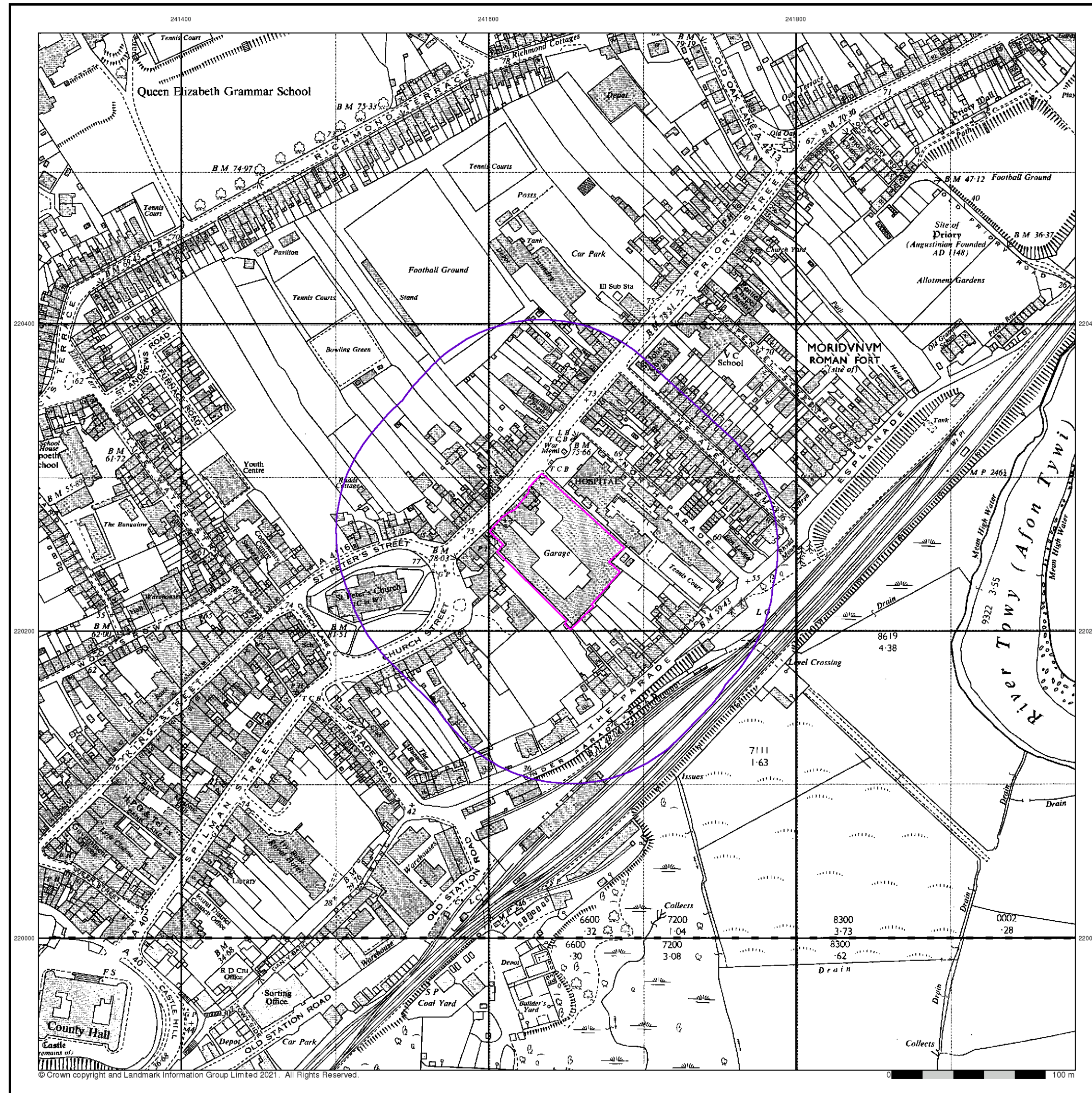
### Site Details

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## Ordnance Survey Plan

Published 1969

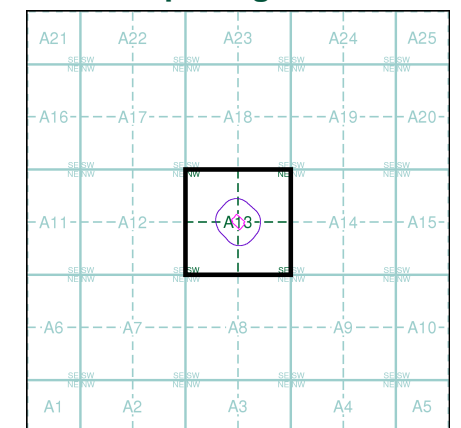
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

|         |
|---------|
| SN4120  |
| 1969    |
| 1:2,500 |
| SN4119  |
| 1969    |
| 1:2,500 |

### Historical Map - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

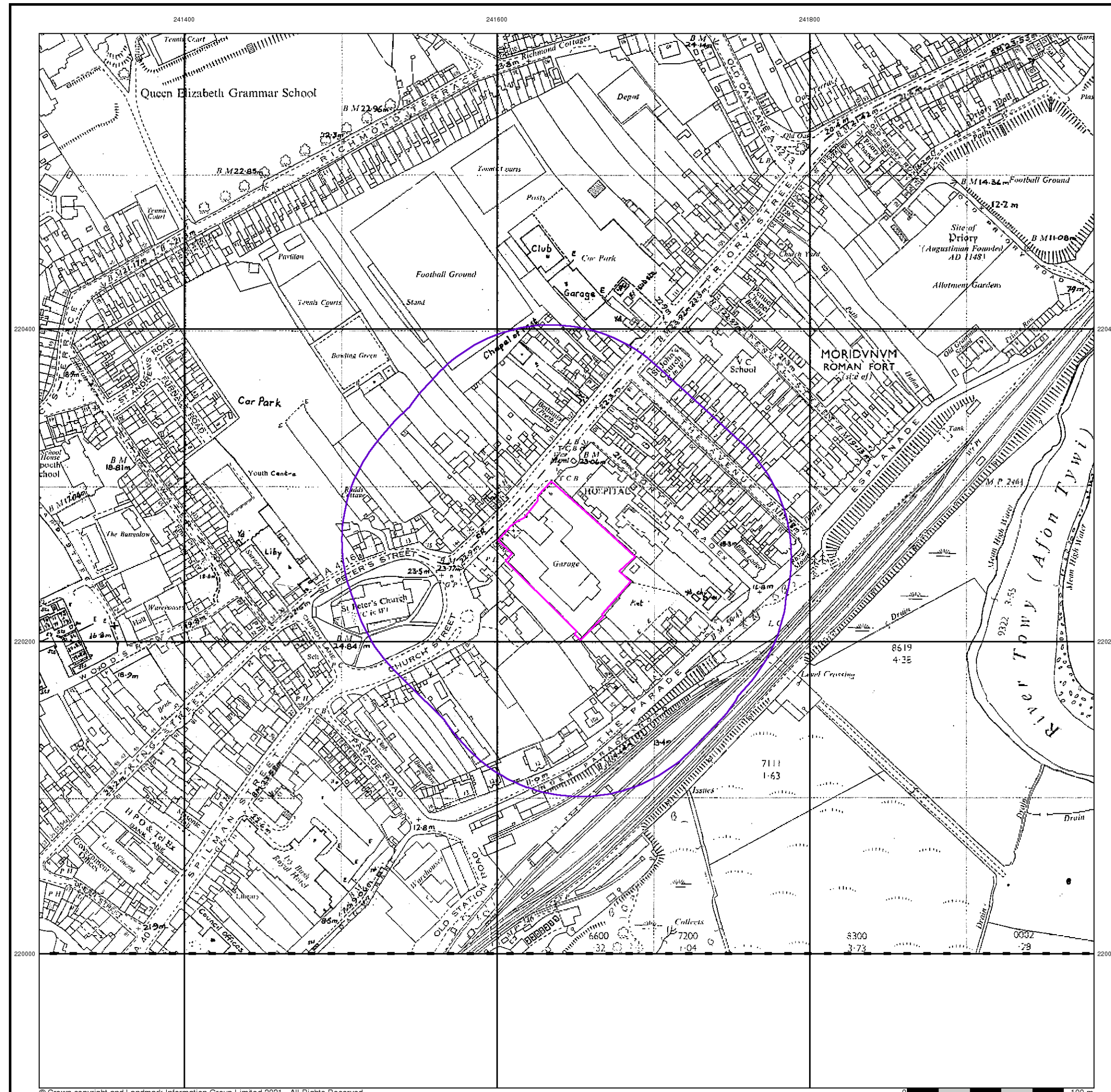
### Site Details

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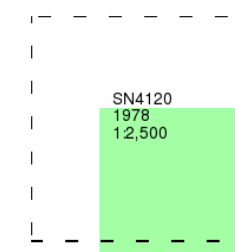
## Additional SIMs

Published 1978

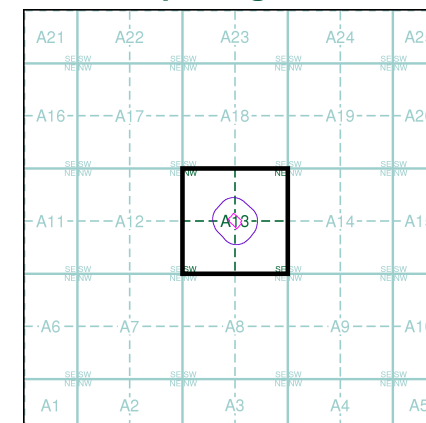
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

## Map Name(s) and Date(s)



## Historical Map - Segment A13



## Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

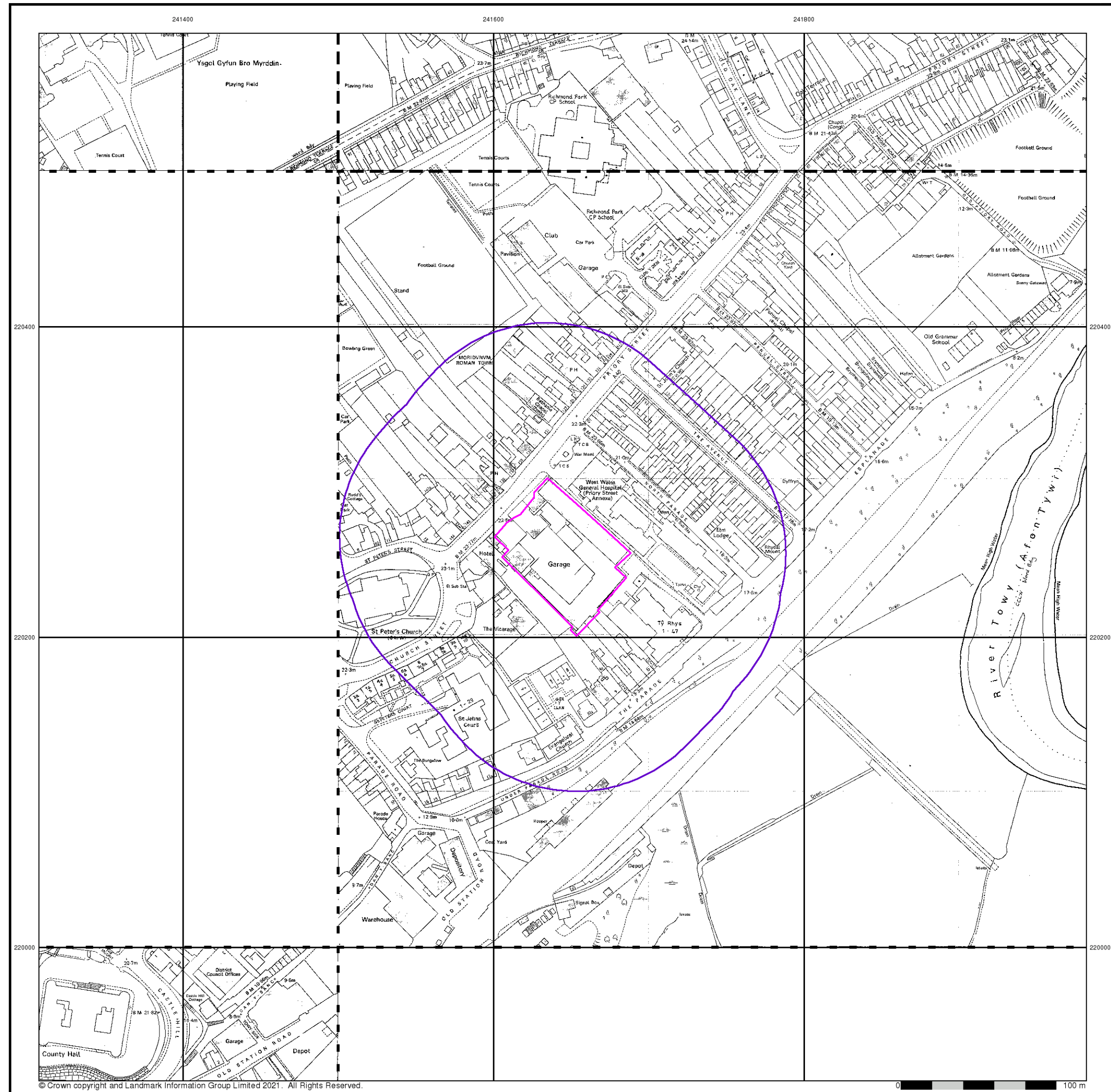
## Site Details

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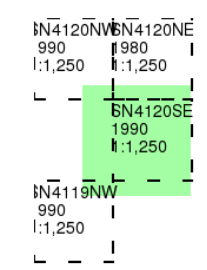
### Additional SIMs

Published 1980 - 1990

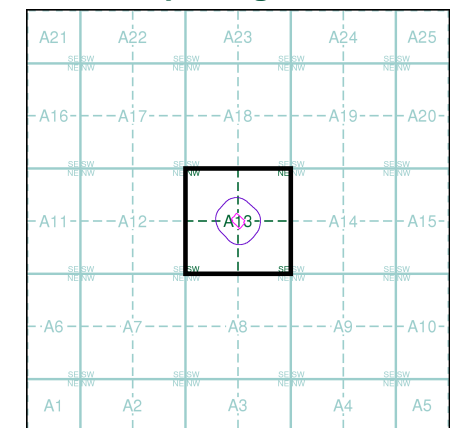
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

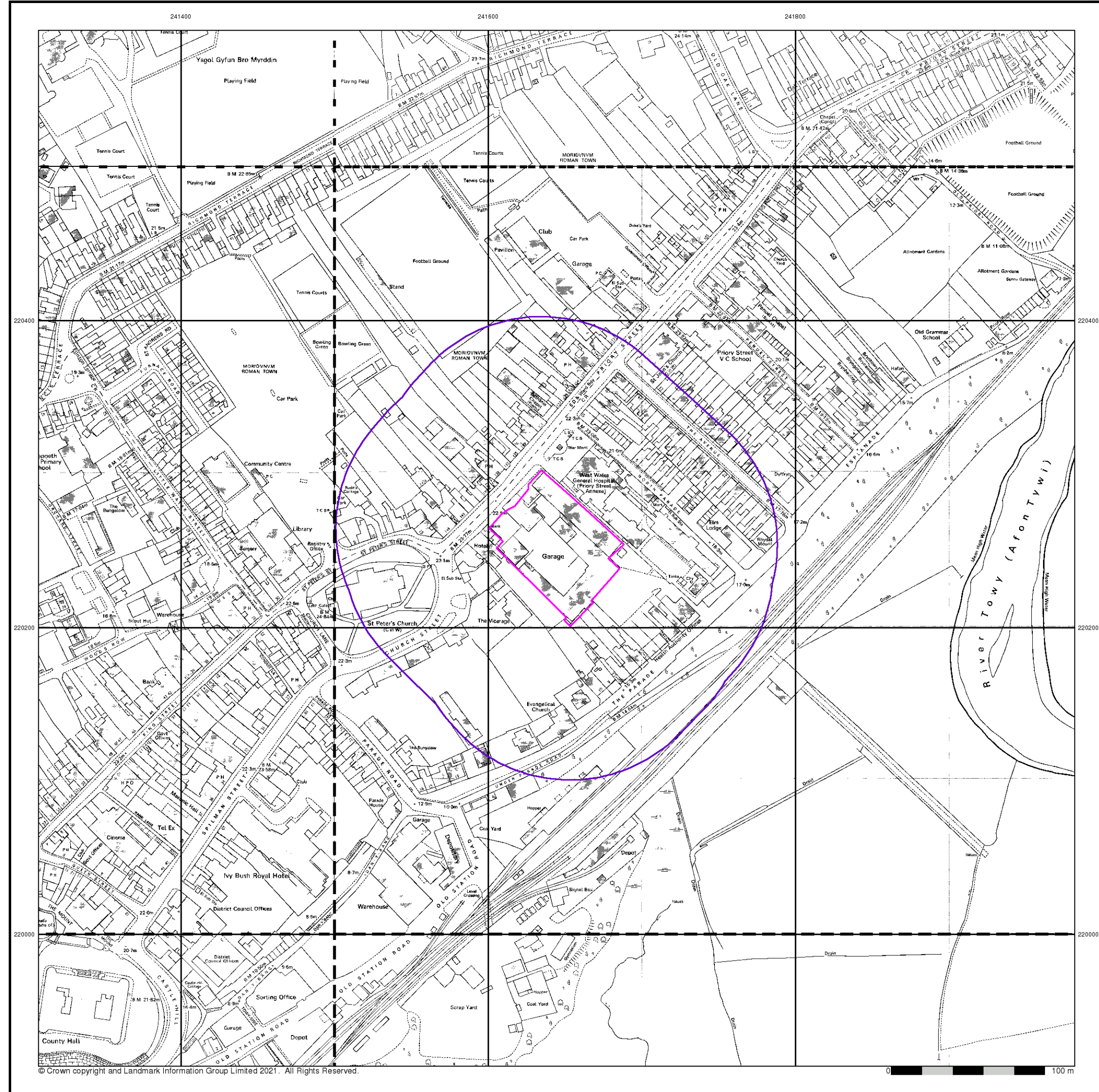
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## Ordnance Survey Plan

Published 1983

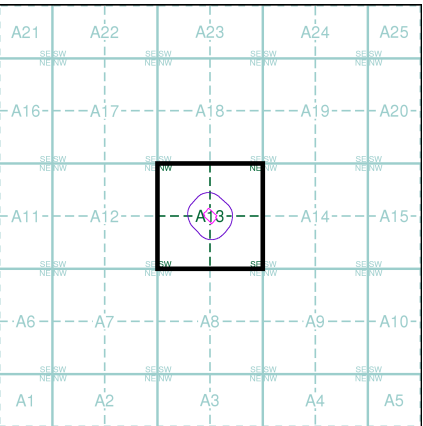
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

|         |         |
|---------|---------|
| N4120N  | N4120NE |
| 983     | 983     |
| 1:1,250 | 1:1,250 |
| N4120S  | N4120SE |
| 983     | 983     |
| 1:1,250 | 1:1,250 |
| N4119N  | N4119NE |
| 983     | 983     |
| 1:1,250 | 1:1,250 |

### Historical Map - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

### Site Details

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## Large-Scale National Grid Data

Published 1993 - 1994

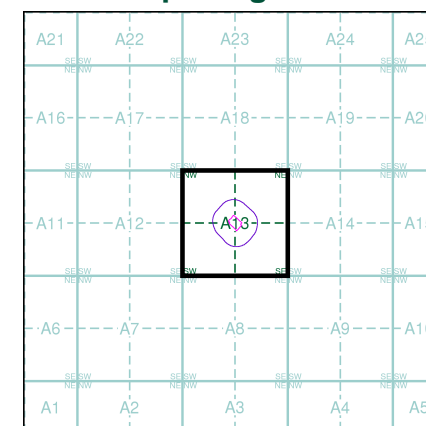
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)

|         |          |
|---------|----------|
| IN4120N | IN4120NE |
| 994     | 994      |
| 1:1,250 | 1:1,250  |
| IN4120S | IN4120SE |
| 994     | 994      |
| 1:1,250 | 1:1,250  |
| IN4119N | IN4119NE |
| 993     | 993      |
| 1:1,250 | 1:1,250  |

### Historical Map - Segment A13



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 100

### Site Details

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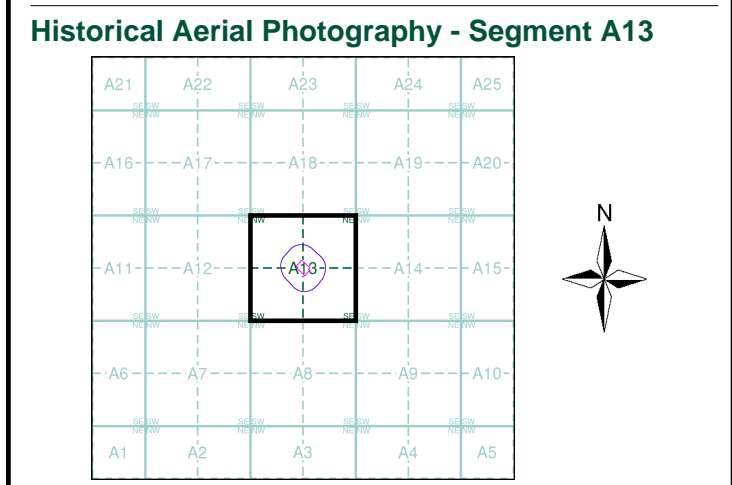




## Historical Aerial Photography

**Published 2000**

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain



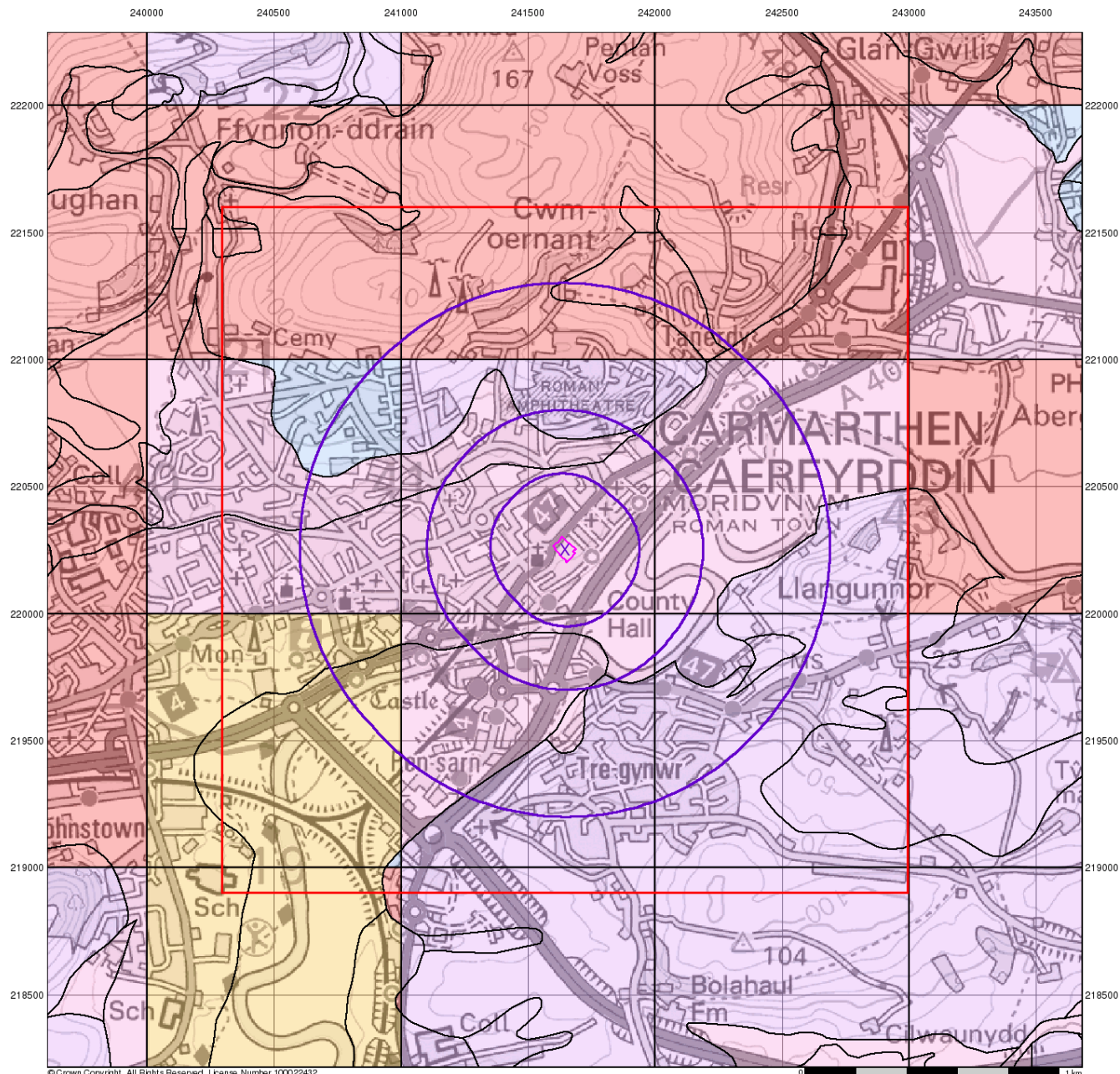
### Order Details

|                          |                |
|--------------------------|----------------|
| Order Number:            | 282224393_1_1  |
| Customer Ref:            | 16761-MW       |
| National Grid Reference: | 241640, 220250 |
| Slice:                   | A              |
| Site Area (Ha):          | 0.46           |
| Search Buffer (m):       | 100            |

### Site Details

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## Groundwater Vulnerability

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Agency and Hydrological

#### Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

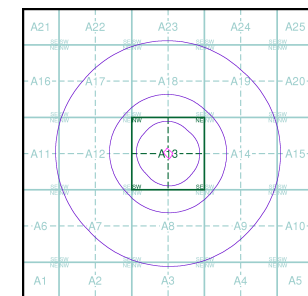
#### Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

### Site Sensitivity Context Map - Slice A



### Order Details

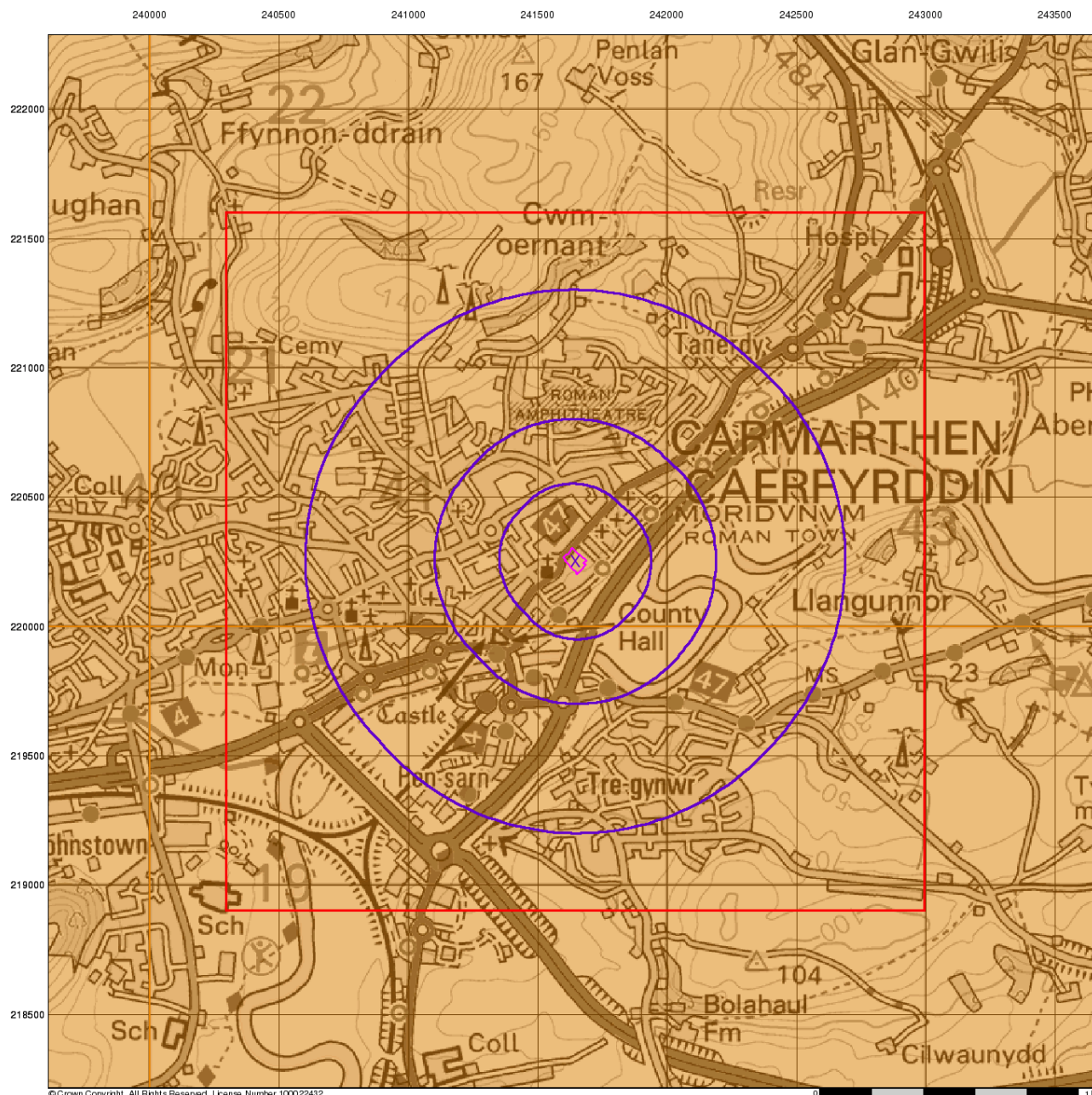
Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS

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## Bedrock Aquifer Designation

### General

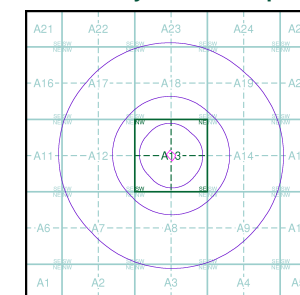
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Agency and Hydrological

#### Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

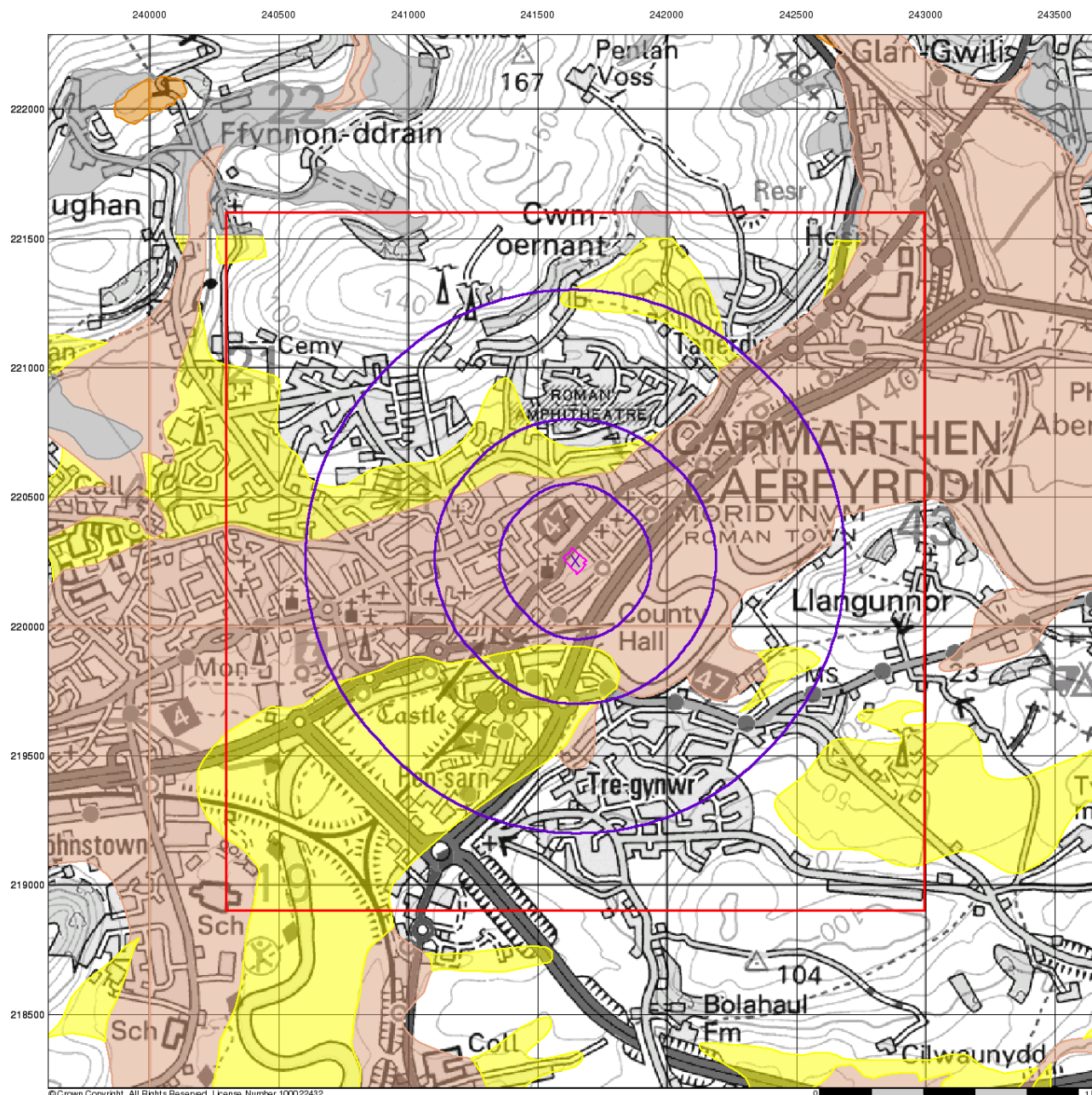
### Site Details

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## Superficial Aquifer Designation

### General

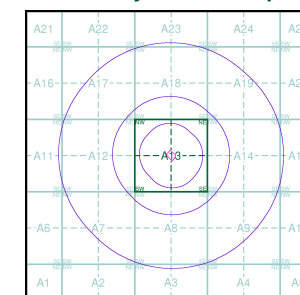
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

### Agency and Hydrological

#### Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

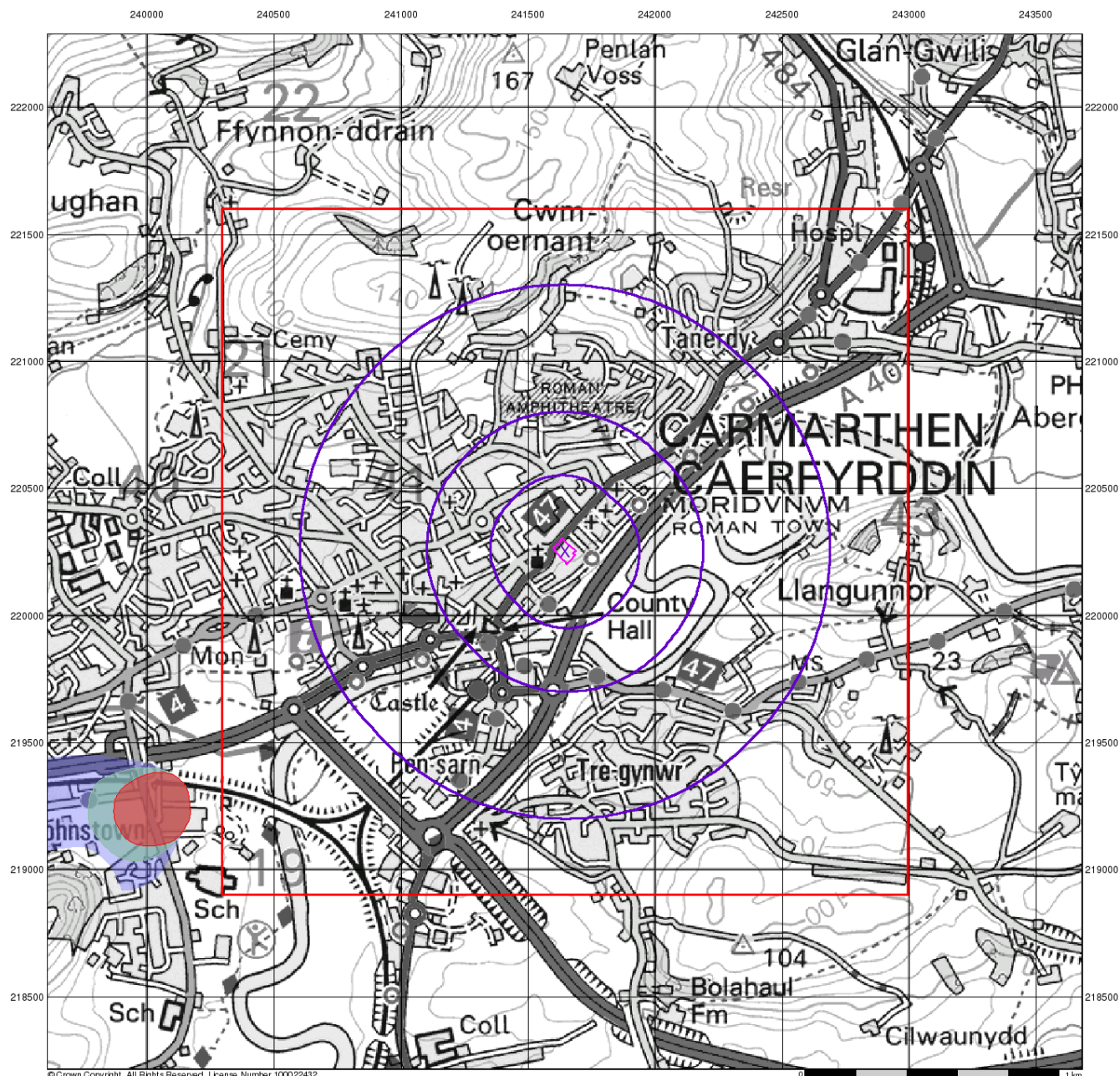
### Site Details

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## Source Protection Zones

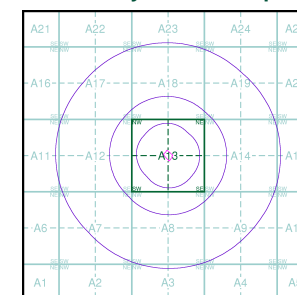
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

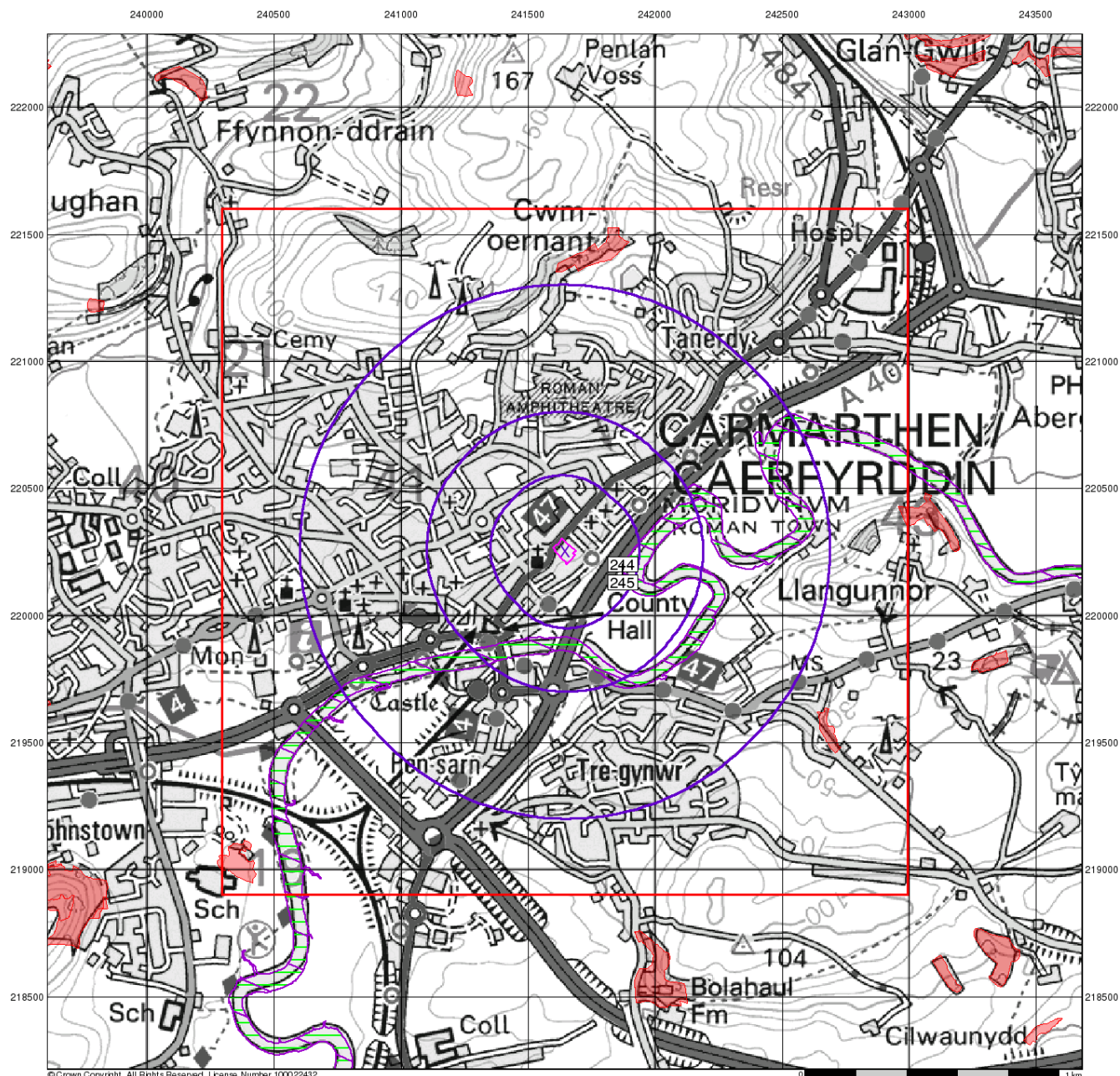
### Site Details

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## Sensitive Land Uses

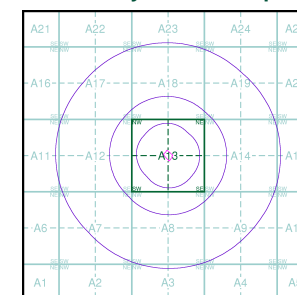
### General

- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

### Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

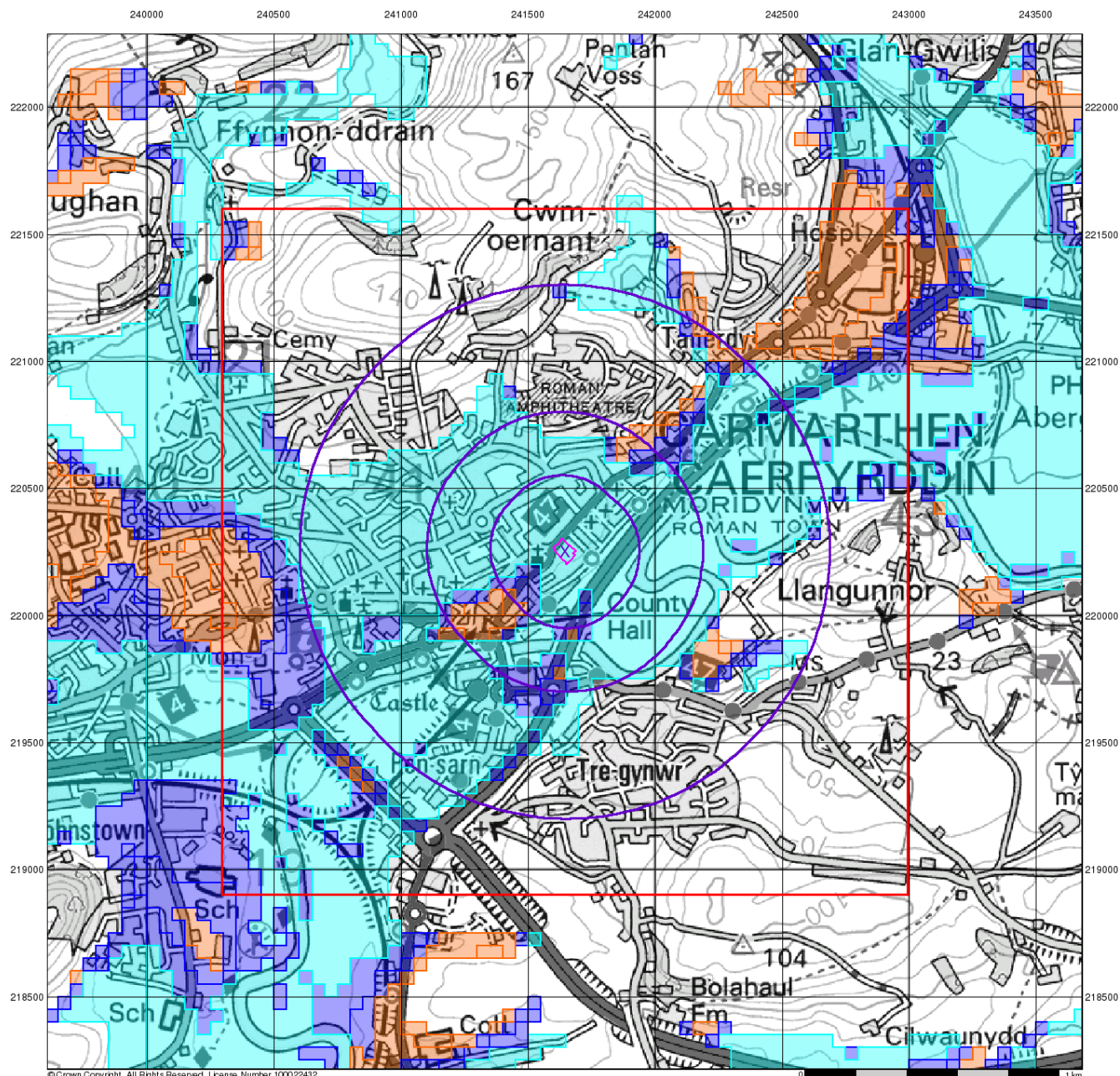
### Site Details

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## BGS Flood GFS Data

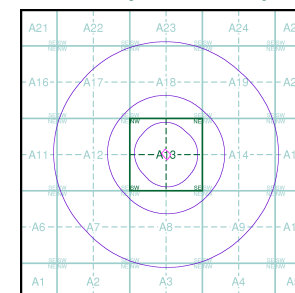
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

### Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

### Site Details

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# Envirocheck<sup>®</sup> Report:

## Datasheet

### Order Details:

**Order Number:**

282224393\_1\_1

**Customer Reference:**

16761-MW

**National Grid Reference:**

241640, 220250

**Slice:**

A

**Site Area (Ha):**

0.46

**Search Buffer (m):**

1000

### Site Details:

Lidl Supermarket, Priory Street  
CARMARTHEN  
SA31 1LS

### Client Details:

Mr M Watkins  
Terra Firma (Wales) Ltd  
5 Deryn Court  
Wharfdale Road  
Pentwyn  
Cardiff  
CF23 7HB

| Report Section        | Page Number |
|-----------------------|-------------|
| Summary               | -           |
| Agency & Hydrological | 1           |
| Waste                 | 33          |
| Hazardous Substances  | 34          |
| Geological            | 35          |
| Industrial Land Use   | 38          |
| Sensitive Land Use    | 54          |
| Data Currency         | 55          |
| Data Suppliers        | 60          |
| Useful Contacts       | 61          |

## Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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## Report Version v53.0

| Data Type   | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| <b>Agency &amp; Hydrological</b>                              |             |         |           |             |                             |
| BGS Groundwater Flooding Susceptibility                       | pg 1        | Yes     | Yes       | Yes         | n/a                         |
| Contaminated Land Register Entries and Notices                |             |         |           |             |                             |
| Discharge Consents  | pg 2        |         |           | 14          | 28                          |
| Prosecutions Relating to Controlled Waters                    |             |         | n/a       | n/a         | n/a                         |
| Enforcement and Prohibition Notices                           |             |         |           |             |                             |
| Integrated Pollution Controls                                 |             |         |           |             |                             |
| Integrated Pollution Prevention And Control                   |             |         |           |             |                             |
| Local Authority Integrated Pollution Prevention And Control   | pg 12       |         |           |             | 1                           |
| Local Authority Pollution Prevention and Controls             | pg 13       |         |           |             | 3                           |
| Local Authority Pollution Prevention and Control Enforcements |             |         |           |             |                             |
| Nearest Surface Water Feature                                 | pg 13       |         | Yes       |             |                             |
| Pollution Incidents to Controlled Waters                      | pg 13       |         | 1         | 7           | 22                          |
| Prosecutions Relating to Authorised Processes                 | pg 18       |         |           |             | 1                           |
| Registered Radioactive Substances                             |             |         |           |             |                             |
| River Quality   | pg 18       |         |           | 1           |                             |
| River Quality Biology Sampling Points                         |             |         |           |             |                             |
| River Quality Chemistry Sampling Points                       |             |         |           |             |                             |
| Substantiated Pollution Incident Register                     | pg 18       |         | 1         |             | 1                           |
| Water Abstractions  | pg 19       |         |           | 1           | 1 (*9)                      |
| Water Industry Act Referrals                                  |             |         |           |             |                             |
| Groundwater Vulnerability Map                                 | pg 21       | Yes     | n/a       | n/a         | n/a                         |
| Bedrock Aquifer Designations                                  | pg 21       | Yes     | n/a       | n/a         | n/a                         |
| Superficial Aquifer Designations                              | pg 21       | Yes     | n/a       | n/a         | n/a                         |
| Source Protection Zones                                       |             |         |           |             |                             |
| Extreme Flooding from Rivers or Sea without Defences          | pg 21       |         | Yes       | n/a         | n/a                         |
| Flooding from Rivers or Sea without Defences                  | pg 22       |         | Yes       | n/a         | n/a                         |
| Areas Benefiting from Flood Defences                          |             |         |           | n/a         | n/a                         |
| Flood Water Storage Areas                                     |             |         |           | n/a         | n/a                         |
| Flood Defences  |             |         |           | n/a         | n/a                         |
| OS Water Network Lines  | pg 23       |         | 6         | 14          | 66                          |



| Data Type   | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| <b>Waste</b>  |             |         |           |             |                             |
| BGS Recorded Landfill Sites   |             |         |           |             |                             |
| Historical Landfill Sites   |             |         |           |             |                             |
| Integrated Pollution Control Registered Waste Sites                 |             |         |           |             |                             |
| Licensed Waste Management Facilities (Landfill Boundaries)          |             |         |           |             |                             |
| Licensed Waste Management Facilities (Locations)                    |             |         |           |             |                             |
| Local Authority Landfill Coverage                                   | pg 33       | 1       | n/a       | n/a         | n/a                         |
| Local Authority Recorded Landfill Sites                             |             |         |           |             |                             |
| Potentially Infilled Land (Non-Water)                               | pg 33       |         | 1         | 1           | 2                           |
| Potentially Infilled Land (Water)                                   | pg 33       |         |           |             | 9                           |
| Registered Landfill Sites   |             |         |           |             |                             |
| Registered Waste Transfer Sites                                     | pg 33       |         |           |             | 1                           |
| Registered Waste Treatment or Disposal Sites                        |             |         |           |             |                             |
| <b>Hazardous Substances</b>   |             |         |           |             |                             |
| Control of Major Accident Hazards Sites (COMAH)                     | pg 34       |         |           |             | 1                           |
| Explosive Sites   |             |         |           |             |                             |
| Notification of Installations Handling Hazardous Substances (NIHHS) |             |         |           |             |                             |
| Planning Hazardous Substance Consents                               | pg 34       |         |           |             | 1                           |
| Planning Hazardous Substance Enforcements                           |             |         |           |             |                             |

| Data Type   | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| <b>Geological</b>   |             |         |           |             |                             |
| BGS 1:625,000 Solid Geology                                       | pg 35       | Yes     | n/a       | n/a         | n/a                         |
| BGS Estimated Soil Chemistry                                      | pg 35       | Yes     | Yes       |             | Yes                         |
| BGS Recorded Mineral Sites  | pg 35       |         |           | 2           | 2                           |
| BGS Urban Soil Chemistry  |             |         |           |             |                             |
| BGS Urban Soil Chemistry Averages                                 |             |         |           |             |                             |
| CBSCB Compensation District                                       |             |         | n/a       | n/a         | n/a                         |
| Coal Mining Affected Areas  |             |         | n/a       | n/a         | n/a                         |
| Mining Instability  |             |         | n/a       | n/a         | n/a                         |
| Man-Made Mining Cavities  |             |         |           |             |                             |
| Natural Cavities  |             |         |           |             |                             |
| Non Coal Mining Areas of Great Britain                            | pg 36       | Yes     | Yes       | n/a         | n/a                         |
| Potential for Collapsible Ground Stability Hazards                | pg 36       | Yes     |           | n/a         | n/a                         |
| Potential for Compressible Ground Stability Hazards               | pg 36       |         | Yes       | n/a         | n/a                         |
| Potential for Ground Dissolution Stability Hazards                |             |         |           | n/a         | n/a                         |
| Potential for Landslide Ground Stability Hazards                  | pg 36       | Yes     | Yes       | n/a         | n/a                         |
| Potential for Running Sand Ground Stability Hazards               | pg 37       | Yes     | Yes       | n/a         | n/a                         |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 37       |         | Yes       | n/a         | n/a                         |
| Radon Potential - Radon Affected Areas                            | pg 37       | Yes     | n/a       | n/a         | n/a                         |
| Radon Potential - Radon Protection Measures                       |             |         | n/a       | n/a         | n/a                         |
| <b>Industrial Land Use</b>  |             |         |           |             |                             |
| Contemporary Trade Directory Entries                              | pg 38       | 1       | 9         | 32          | 69                          |
| Fuel Station Entries  | pg 47       |         |           |             | 5                           |
| Points of Interest - Commercial Services                          | pg 47       |         |           | 14          | 18                          |
| Points of Interest - Education and Health                         |             |         |           |             |                             |
| Points of Interest - Manufacturing and Production                 | pg 50       |         | 2         | 2           | 6                           |
| Points of Interest - Public Infrastructure                        | pg 51       |         |           | 2           | 20                          |
| Points of Interest - Recreational and Environmental               | pg 53       |         |           | 3           | 2                           |
| Gas Pipelines   |             |         |           |             |                             |
| Underground Electrical Cables                                     |             |         |           |             |                             |

| Data Type                            | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| <b>Sensitive Land Use</b>            |             |         |           |             |                             |
| Ancient Woodland                     |             |         |           |             |                             |
| 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 | pg 54       |         | 1         |             |                             |
| Special Areas of Conservation        | pg 54       |         | 1         |             |                             |
| Special Protection Areas             |             |         |           |             |                             |
| World Heritage Sites                 |             |         |           |             |                             |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 76                           | 1       | 241550 220200 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SE (S)                              | 111                          | 1       | 241700 220100 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 147                          | 1       | 241500 220150 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SE (S)                              | 158                          | 1       | 241700 220050 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 186                          | 1       | 241450 220150 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SE (S)                              | 201                          | 1       | 241645 220000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13SW (S)                              | 208                          | 1       | 241600 220000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (SW)                             | 215                          | 1       | 241450 220100 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SE (S)                              | 251                          | 1       | 241650 219950 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 253                          | 1       | 241500 220000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (SW)                             | 256                          | 1       | 241400 220100 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (SW)                             | 286                          | 1       | 241450 220000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 298                          | 1       | 241350 220100 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SW (SW)                             | 323                          | 1       | 241450 219950 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A18SE (NE)                             | 341                          | 1       | 241800 220600 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SE (SW)                             | 342                          | 1       | 241300 220100 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8NE (S)                               | 351                          | 1       | 241645 219850 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (SW)                             | 357                          | 1       | 241400 219950 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NE (NE)                             | 362                          | 1       | 241900 220550 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A18SE (NE)                             | 368                          | 1       | 241850 220600 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A18SE (NE)                             | 399                          | 1       | 241900 220600 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur  | A8NE (S)                               | 401                          | 1       | 241645 219800 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur  | A12SE (SW)                             | 409                          | 1       | 241250 220050 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level   | A8NE (S)                               | 451                          | 1       | 241645 219750 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level   | A8NE (S)                               | 451                          | 1       | 241650 219750 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level   | A12SE (SW)                             | 453                          | 1       | 241200 220050 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur  | A12SE (SW)                             | 467                          | 1       | 241250 219950 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level   | A14NW (NE)                             | 468                          | 1       | 242050 220550 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level   | A12SE (SW)                             | 478                          | 1       | 241200 220000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur  | A18SE (NE)                             | 478                          | 1       | 241900 220700 |
| 1      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Carmarthen - Station Road Pump, Nr Council Offices, Old Station Rd, Carmarthen, Sa31 2bd<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053409<br>Permit Version: 2<br>Effective Date: 26th February 2020<br>Issued Date: 26th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m               | A13SW (S)                              | 273                          | 2       | 241528 219959 |
| 1      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Carmarthen - Station Road Pump, Nr Council Offices, Old Station Rd, Carmarthen, Sa31 2bd<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053409<br>Permit Version: 2<br>Effective Date: 26th February 2020<br>Issued Date: 26th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A13SW (S)                              | 273                          | 2       | 241528 219959 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
| 2      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Old Priory Row Cso Parc Hinds Ps C, Parc Hinds Ps Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053405<br>Permit Version: 2<br>Effective Date: 26th June 1998<br>Issued Date: 25th June 1998<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m  | A13NE (NE)                             | 313                          | 2       | 241940 220440 |
| 2      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Old Priory Row Cso Parc Hinds Ps C, Parc Hinds Ps Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053405<br>Permit Version: 2<br>Effective Date: 26th June 1998<br>Issued Date: 25th June 1998<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m  | A13NE (NE)                             | 313                          | 2       | 241940 220440 |
| 3      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Station - Water Company<br>Location: Old Priory Row Cso Parc Hinds Ps C, Parc Hinds Ps Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: BH0053405<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: 25th June 1998<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Authorisation revoked</b><br>Positional Accuracy: Located by supplier to within 100m   | A14NW (NE)                             | 345                          | 2       | 242000 220400 |
| 3      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Old Priory Row Cso Parc Hinds Ps C, Sunny Gateway, Old Priory Rd, Carms, Sa31 1np<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053405<br>Permit Version: 3<br>Effective Date: 23rd October 2019<br>Issued Date: 23rd October 2019<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A14NW (E)                              | 347                          | 2       | 242018 220359 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
| 3      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Pentwyn Road<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Park Hinds Cso, Nr Sunny Gateway, Old Priors Road, Carmarthen, Sa31 1np<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Ab3794zt<br>Permit Version: 1<br>Effective Date: 29th March 2018<br>Issued Date: 29th March 2018<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A14NW (E)                              | 347                          | 2       | 242019 220357 |
| 3      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Park Hinds Cso, Nr Sunny Gateway, Old Priors Road, Carmarthen, Sa31 1np<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Ab3794zt<br>Permit Version: 1<br>Effective Date: 29th March 2018<br>Issued Date: 29th March 2018<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m   | A14NW (E)                              | 347                          | 2       | 242019 220357 |
| 3      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Park Hinds Cso, Nr Sunny Gateway, Old Priors Road, Carmarthen, Sa31 1np<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Ab3794zt<br>Permit Version: 1<br>Effective Date: 29th March 2018<br>Issued Date: 29th March 2018<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m   | A14NW (E)                              | 347                          | 2       | 242019 220357 |
| 4      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Stations<br>Location: Carmarthen - Station Road Pump<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: BH0053409<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m                              | A8NW (S)                               | 430                          | 2       | 241500 219800 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 4      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Stations<br>Location: Carmarthen - Station Road Pump<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053409<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m   | A8NW (S)                               | 430                          | 2       | 241500<br>219800 |
| 5      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Sps At Castle Hill Drainage Area, Carmarthen Bridge, Old Station Rd, Carmarthen, Sa31 3jr<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053408<br>Permit Version: 2<br>Effective Date: 6th February 2020<br>Issued Date: 6th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m               | A8NW (SW)                              | 434                          | 2       | 241362<br>219879 |
| 5      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Sps At Castle Hill Drainage Area, Carmarthen Bridge, Old Station Rd, Carmarthen, Sa31 3jr<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053408<br>Permit Version: 2<br>Effective Date: 6th February 2020<br>Issued Date: 6th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A8NW (SW)                              | 434                          | 2       | 241362<br>219879 |
| 6      | <b>Discharge Consents</b><br>Operator: Carmarthenshire County Council<br>Property Type: Undefined Or Other<br>Location: Unigate Creamery Pensarn (Stor<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bj0088901<br>Permit Version: 1<br>Effective Date: 10th March 1970<br>Issued Date: 10th March 1970<br>Revocation Date: 23rd October 1992<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 100m  | A8NW (SW)                              | 475                          | 2       | 241400<br>219800 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 7      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Castle Hill Drainage Area<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: BH0053408<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m   | A7NE (SW)                              | 535                          | 2       | 241300<br>219800 |
| 7      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Castle Hill Drainage Area<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053408<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m   | A7NE (SW)                              | 535                          | 2       | 241300<br>219800 |
| 8      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Carmarthen Market Cso, Maket Precinct, The Market, Carmarthen, Sa31 1qy<br>Authority: Natural Resources Wales<br>Catchment Area: TAWELON - HEADWATERS TO TIDAL LIMIT<br>Reference: Ab3797cv<br>Permit Version: 1<br>Effective Date: 4th April 2018<br>Issued Date: 4th April 2018<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Afon Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A12SE (W)                              | 537                          | 2       | 241068<br>220199 |
| 8      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Carmarthen Market Cso, Maket Precinct, The Market, Carmarthen, Sa31 1qy<br>Authority: Natural Resources Wales<br>Catchment Area: TAWELON - HEADWATERS TO TIDAL LIMIT<br>Reference: Ab3797cv<br>Permit Version: 1<br>Effective Date: 4th April 2018<br>Issued Date: 4th April 2018<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Afon Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A12SE (W)                              | 537                          | 2       | 241068<br>220199 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 9      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Carmarthen - Sticle Path, Penymorfa Lane, Carmarthen, Sa31 2nn<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Ab3596zt<br>Permit Version: 1<br>Effective Date: 19th October 2017<br>Issued Date: 19th October 2017<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Unknown Trib. Of The River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A8NW (S)                               | 629                          | 2       | 241577<br>219577 |
| 9      | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Carmarthen - Sticle Path, Penymorfa Lane, Carmarthen, Sa31 2nn<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Ab3596zt<br>Permit Version: 1<br>Effective Date: 19th October 2017<br>Issued Date: 19th October 2017<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Unknown Trib. Of The River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A8NW (S)                               | 629                          | 2       | 241577<br>219577 |
| 10     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Undefined Or Other<br>Location: Llangunnor Sewerage Scheme Tem<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bh0061501<br>Permit Version: 1<br>Effective Date: 11th August 1966<br>Issued Date: 11th August 1966<br>Revocation Date: 16th September 1994<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: Trib. Of Tywi<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 10m  | A9NW (SE)                              | 635                          | 2       | 242100<br>219750 |
| 11     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Undefined Or Other<br>Location: Pensarn Stw<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bh0053303<br>Permit Version: 1<br>Effective Date: 21st March 1966<br>Issued Date: 21st March 1966<br>Revocation Date: 16th September 1994<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: Trib. Of Towy<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 10m   | A8NW (S)                               | 635                          | 2       | 241450<br>219600 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--|--|------------------------------|---------|------------------|
| 12     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Station - Water Company<br>Location: Sso Pothouse Wharf P.S., Carmarthen, Sa31 3ln<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: BH0053407<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: 10th May 2010<br>Discharge Type: Public Sewage: Storm Sewage Overflow<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: New Consent, by Application (Water Resources Act 1991, Section 88)</b><br>Positional Accuracy: Located by supplier to within 100m                 | A7NE (SW)                              | 678                          | 2       | 241100<br>219800 |
| 13     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Tregynwr C'Marthen Swo<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bp0209701<br>Permit Version: 1<br>Effective Date: 19th October 1989<br>Issued Date: 19th October 1989<br>Revocation Date: 14th March 1994<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: Towy<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 10m   | A8SW (S)                               | 702                          | 2       | 241620<br>219500 |
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Stations<br>Location: Cso Pothouse Wharf Ps, Quayside, Off A4242, Carmarthen, Sa31 3ll<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053407<br>Permit Version: 3<br>Effective Date: 24th February 2020<br>Issued Date: 24th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A7NE (SW)                              | 712                          | 2       | 241038<br>219823 |
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Stations<br>Location: Cso Pothouse Wharf Ps, Quayside, Off A4242, Carmarthen, Sa31 3ll<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053407<br>Permit Version: 3<br>Effective Date: 24th February 2020<br>Issued Date: 24th February 2020<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Tywi<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m               | A7NE (SW)                              | 712                          | 2       | 241038<br>219823 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Sso Pothouse Wharf P.S., Carmarthen, Sa31 3ln<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053407<br>Permit Version: 2<br>Effective Date: 11th May 2010<br>Issued Date: 11th February 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A7NE (SW)                              | 712                          | 2       | 241038 219823 |
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Sso Pothouse Wharf P.S., Carmarthen, Sa31 3ln<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053407<br>Permit Version: 2<br>Effective Date: 11th May 2010<br>Issued Date: 11th February 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m               | A7NE (SW)                              | 712                          | 2       | 241038 219823 |
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Sso Pothouse Wharf P.S., Carmarthen, Sa31 3ln<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053407<br>Permit Version: 2<br>Effective Date: 11th May 2010<br>Issued Date: 11th February 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A7NE (SW)                              | 712                          | 2       | 241038 219823 |
| 14     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Pumping Staions<br>Location: Sso Pothouse Wharf P.S., Carmarthen, Sa31 3ln<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053407<br>Permit Version: 2<br>Effective Date: 11th May 2010<br>Issued Date: 11th February 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Pumping Station - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m               | A7NE (SW)                              | 712                          | 2       | 241038 219823 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 15     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Jewsons Cso Tanerdy Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bp0209801<br>Permit Version: 2<br>Effective Date: 26th June 1998<br>Issued Date: 25th June 1998<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m   | A19SW (NE)                             | 787                          | 2       | 242290<br>220760 |
| 15     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Jewsons Cso Tanerdy Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bp0209801<br>Permit Version: 2<br>Effective Date: 26th June 1998<br>Issued Date: 25th June 1998<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m   | A19SW (NE)                             | 787                          | 2       | 242290<br>220760 |
| 15     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Jewsons Cso Tanerdy Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: Not Given<br>Reference: BP0209801<br>Permit Version: 1<br>Effective Date: 19th October 1989<br>Issued Date: 19th October 1989<br>Revocation Date: 25th June 1998<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Authorisation revoked</b><br>Positional Accuracy: Located by supplier to within 100m   | A19SW (NE)                             | 808                          | 2       | 242310<br>220770 |
| 16     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Jewsons Cso Tanerdy Carmarthen, 129m From 20 Abbey Mead, Carmarthenshire, Sa31 2en<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI - CONFLUENCE WITH COTHI TO SPRING TIDAL LIMIT<br>Reference: Bp0209801<br>Permit Version: 3<br>Effective Date: 21st October 2019<br>Issued Date: 21st October 2019<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Tywi Estuary<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A19SE (NE)                             | 828                          | 2       | 242389<br>220695 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 17     | <b>Discharge Consents</b><br>Operator: Thomas M<br>Property Type: Undefined Or Other<br>Location: Parc-Y-Delyn Farm Penlan Road Carma, Penlan Road Carmarthen.<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bp0065401<br>Permit Version: 1<br>Effective Date: 12th October 1987<br>Issued Date: 12th October 1987<br>Revocation Date: 18th November 1992<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: To Land<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 100m  | A17NE (NW)                             | 879                          | 2       | 241100<br>221000 |
| 18     | <b>Discharge Consents</b><br>Operator: Canynge Bicknell (Investments) Ltd.<br>Property Type: Retail Distribution<br>Location: Land Opp P.O. Pensarn Carmarthen<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bp0069101<br>Permit Version: 1<br>Effective Date: 8th December 1987<br>Issued Date: 8th December 1987<br>Revocation Date: 16th May 1994<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 10m   | A7SE (SW)                              | 905                          | 2       | 241180<br>219430 |
| 19     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Morfa Lane Carmarthen, Morfa Ln Swo Draina, Sa31 3ar<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053406<br>Permit Version: 3<br>Effective Date: 8th September 2010<br>Issued Date: 8th September 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m | A7NW (SW)                              | 924                          | 2       | 240800<br>219800 |
| 19     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Morfa Lane Carmarthen, Morfa Ln Swo Draina, Sa31 3ar<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bh0053406<br>Permit Version: 3<br>Effective Date: 8th September 2010<br>Issued Date: 8th September 2010<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 100m | A7NW (SW)                              | 924                          | 2       | 240800<br>219800 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
| 19     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Morfa Lane Carmarthen, Morfa Ln Swo Draina, Sa31 3ar<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: BH0053406<br>Permit Version: 2<br>Effective Date: 19th October 1989<br>Issued Date: 19th October 1989<br>Revocation Date: 7th September 2010<br>Discharge Type: Public Sewage: Storm Sewage Overflow<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: New Consent, by Application (Water Resources Act 1991, Section 88)</b><br>Positional Accuracy: Located by supplier to within 100m                                     | A7NW (SW)                              | 924                          | 2       | 240800 219800 |
| 19     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Morfa Lane Carmarthen, Morfa Ln Swo Draina, Sa31 3ar<br>Authority: Natural Resources Wales<br>Catchment Area: River Tywi<br>Reference: Bh0053406<br>Permit Version: 1<br>Effective Date: 2nd December 1971<br>Issued Date: 2nd December 1971<br>Revocation Date: 18th October 1989<br>Discharge Type: Public Sewage: Storm Sewage Overflow<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Authorisation revoked</b><br>Positional Accuracy: Located by supplier to within 100m  | A7NW (SW)                              | 924                          | 2       | 240800 219800 |
| 20     | <b>Discharge Consents</b><br>Operator: Dwr Cymru Cyfyngedig<br>Property Type: Sewerage Network - Sewers - Water Company<br>Location: Morfa Lane Cso, Carmarthen, Access Rd To Tesco, Morfa Lane, Camarthen, Sa31 3ax<br>Authority: Natural Resources Wales<br>Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY<br>Reference: Bh0053406<br>Permit Version: 4<br>Effective Date: 25th September 2019<br>Issued Date: 25th September 2019<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Towy<br><b>Status: Effective</b><br>Positional Accuracy: Located by supplier to within 10m | A7NW (SW)                              | 971                          | 2       | 240786 219731 |
| 21     | <b>Discharge Consents</b><br>Operator: Hunt G<br>Property Type: Undefined Or Other<br>Location: Bungalow Penlanffos Road Carmarthen, Penlanffos Road Carmarthen Dyfed<br>Authority: Natural Resources Wales<br>Catchment Area: Not Supplied<br>Reference: Bg0049401<br>Permit Version: 1<br>Effective Date: 23rd April 1963<br>Issued Date: 23rd April 1963<br>Revocation Date: 22nd April 1994<br>Discharge Type: Unspecified<br>Discharge: Not Supplied<br>Environment:<br>Receiving Water: To Land Near River Towy<br><b>Status: Consent expired</b><br>Positional Accuracy: Located by supplier to within 100m  | A19NW (NE)                             | 978                          | 2       | 242200 221100 |
| 22     | <b>Local Authority Integrated Pollution Prevention And Control</b><br>Name: Jewson Limited<br>Location: The Old Tin Works, Priory Street, Carmarthen, Carmarthenshire, Sa31 1nr<br>Authority: Carmarthenshire County Council, Environmental Health Department<br>Permit Reference: EPR/A2/01/6.6<br>Dated: Not Supplied<br>Process Type: Other Activities<br>Description: Timber Treatment<br><b>Status: Application Not Yet Authorised</b><br>Positional Accuracy: Located by supplier to within 10m   | A14NW (NE)                             | 543                          | 3       | 242121 220581 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
| 23     | <b>Local Authority Pollution Prevention and Controls</b><br>Name: Towy Service Station Ltd<br>Location: The Bridge, Carmarthen, SA31 2bn<br>Authority: Carmarthenshire County Council, Environmental Health Department<br>Permit Reference: EP/69/1.2(VR)<br>Dated: 30th June 2010<br>Process Type: Local Authority Pollution Prevention and Control<br>Description: PG1/14 Petrol filling station<br><b>Status: Permitted</b><br>Positional Accuracy: Manually positioned to the address or location          | A8NW (SW)                              | 505                          | 3       | 241419 219754 |
| 24     | <b>Local Authority Pollution Prevention and Controls</b><br>Name: Tanerdy Service Station<br>Location: Tanerdy, CARMARTHEN, Carmarthenshire, SA31 2EY<br>Authority: Carmarthenshire County Council, Environmental Health Department<br>Permit Reference: EP/15/1.2(VRII)<br>Dated: 23rd March 2006<br>Process Type: Local Authority Pollution Prevention and Control<br>Description: PG1/14 Petrol filling station<br><b>Status: Permitted</b><br>Positional Accuracy: Automatically positioned to the address | A19NW (NE)                             | 885                          | 3       | 242237 220950 |
| 25     | <b>Local Authority Pollution Prevention and Controls</b><br>Name: Dyfed Cleaning Services Ltd<br>Location: 68 St Catherine Street, Carmarthen, SA31 3du<br>Authority: Carmarthenshire County Council, Environmental Health Department<br>Permit Reference: EP/56/7.0 (DC)<br>Dated: 24th April 2007<br>Process Type: Local Authority Pollution Prevention and Control<br>Description: PG6/46 Dry cleaning<br><b>Status: Permitted</b><br>Positional Accuracy: Manually positioned to the address or location   | A12SW (W)                              | 979                          | 3       | 240642 220069 |
|        | <b>Nearest Surface Water Feature</b>   | A13SE (SE)                             | 179                          | -       | 241793 220088 |
| 26     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Richmond Terrace, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Light Oil<br>Note: Drains To River Towy; Leakage<br>Incident Date: 12th December 1997<br>Incident Reference: 34466<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Neglect<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m    | A13NW (NW)                             | 240                          | 4       | 241500 220500 |
| 27     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Algae<br>Note: Not Supplied<br>Incident Date: 28th August 1995<br>Incident Reference: 25815<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A13SW (SW)                             | 252                          | 4       | 241501 220001 |
| 27     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Tidal<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Not Supplied<br>Incident Date: 28th August 1995<br>Incident Reference: 25814<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A13SW (SW)                             | 256                          | 4       | 241501 219996 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 28     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Park Splotts, Sewage Treatment Works<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Natural Causes<br>Incident Date: 24th August 1995<br>Incident Reference: 25826<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Natural Causes<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                                | A8NW (S)                               | 306                          | 4       | 241600<br>219900 |
| 29     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Nantgaredig Road Bridge<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Not Supplied<br>Incident Date: 16th May 1996<br>Incident Reference: 28659<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A14NW (E)                              | 437                          | 4       | 242100<br>220400 |
| 30     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Below Esplanade, Priory Road<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Natural Causes<br>Incident Date: 11th September 1995<br>Incident Reference: 25833<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Natural Causes<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                                     | A8NW (SW)                              | 475                          | 4       | 241400<br>219800 |
| 30     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Industrial Premises<br>Location: Towy Bridge, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Coal Solids<br>Note: Poor Operational Practise<br>Incident Date: 2nd March 1991<br>Incident Reference: 1849<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Runoff<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m                               | A8NW (SW)                              | 479                          | 4       | 241400<br>219795 |
| 30     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Old Bridge, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Farm Effluent/Slurry<br>Note: Not Supplied<br>Incident Date: 20th May 1991<br>Incident Reference: 460<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m   | A8NW (SW)                              | 503                          | 4       | 241350<br>219800 |
| 31     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Water Company Sewage: Surface Water Outfall<br>Location: Main Sewer To, Rear Of Jewsons, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Cattle Yard Washings<br>Note: Weather<br>Incident Date: 31st March 1995<br>Incident Reference: 23128<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Runoff<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m | A14NW (NE)                             | 480                          | 4       | 242100<br>220500 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 32     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Industrial Premises<br>Location: Tarmac Topmix, Llangunor, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Unknown<br>Note: Inadequate Design/Capacity<br>Incident Date: 1st February 1991<br>Incident Reference: 1180<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Bypass Of Treatment Facilities<br>Incident Severity: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m             | A8NW (S)                               | 504                          | 4       | 241600<br>219700 |
| 33     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Close To Heritage Centre, Quay Side, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Oils - Diesel (Including Agricultural)<br>Note: River Towy (Surface Water Drains)<br>Incident Date: 14th November 1997<br>Incident Reference: 34207<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m | A7NE (SW)                              | 535                          | 4       | 241305<br>219795 |
| 33     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Behinbd Tywi Work, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Oils - Diesel (Including Agricultural)<br>Note: River Towy (Surface Water Drains)<br>Incident Date: 14th November 1997<br>Incident Reference: 34207<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                   | A7NE (SW)                              | 538                          | 4       | 241300<br>219795 |
| 34     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Ty Gwyn Farm, LLANGUNNOR, Carmarthenshire<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Accident; River Towy<br>Incident Date: 26th September 1998<br>Incident Reference: 36859<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Direct Discharge<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                                   | A19SW (NE)                             | 676                          | 4       | 242200<br>220695 |
| 34     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Ty Gwyn, LLANGUNNOR<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Accident; River Towy<br>Incident Date: 26th September 1998<br>Incident Reference: 36859<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Direct Discharge<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A19SW (NE)                             | 679                          | 4       | 242200<br>220700 |
| 34     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Ty Gwyn Farm, LLANGUNNOR<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Accident; River Towy<br>Incident Date: 26th September 1998<br>Incident Reference: 36859<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Direct Discharge<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m  | A19SW (NE)                             | 680                          | 4       | 242205<br>220695 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 35     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Between Pothouse Warf, And Fountain Public House<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Unknown<br>Note: Mechanical/Electrical Plant Failure<br>Incident Date: 16th February 1996<br>Incident Reference: 27610<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m | A7NE (SW)                              | 682                          | 4       | 241100<br>219795 |
| 36     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: B And Q, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Not Supplied<br>Incident Date: 18th December 1996<br>Incident Reference: 30678<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A7NE (SW)                              | 697                          | 4       | 241300<br>219600 |
| 36     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Between Main Bridge In, Carmarthen And New Castle, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Heavy Fuel Oil<br>Note: Not Supplied<br>Incident Date: 18th December 1996<br>Incident Reference: 30678<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m     | A7NE (SW)                              | 702                          | 4       | 241300<br>219595 |
| 37     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Water Company Sewage: Other<br>Location: Esplanade<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Unknown<br>Note: Weather<br>Incident Date: 1st September 1995<br>Incident Reference: 25809<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Bypass Of Treatment Facilities<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                            | A19SW (NE)                             | 703                          | 4       | 242300<br>220600 |
| 38     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Carmarthen Town, CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Mud/Clay/Soil<br>Note: Not Supplied<br>Incident Date: 29th July 1995<br>Incident Reference: 25110<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m  | A7NE (SW)                              | 756                          | 4       | 241000<br>219800 |
| 39     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Behind Jewsons<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Unknown<br>Note: Poor Management<br>Incident Date: 6th June 1997<br>Incident Reference: 32656<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Runoff<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m  | A19SW (NE)                             | 817                          | 4       | 242300<br>220795 |

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| 39     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Priory Road Ps<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Sewage Sludge<br>Note: Mechanical/Electrical Plant Failure<br>Incident Date: 30th January 1996<br>Incident Reference: 27270<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m      | A19SW (NE)                             | 820                          | 4       | 242300<br>220800 |
| 39     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Opposite Garage, Just Before Glan Gwili Hospital<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Blockage<br>Incident Date: 1st January 1997<br>Incident Reference: 30987<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m | A19SW (NE)                             | 821                          | 4       | 242305<br>220795 |
| 39     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Behind Jewsons<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Unknown<br>Note: River Towry; Run-Off<br>Incident Date: 6th June 1997<br>Incident Reference: 32656<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Poor Management Control<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                | A19SW (NE)                             | 824                          | 4       | 242305<br>220800 |
| 40     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Water Company Sewage: Sewerage<br>Location: TANERDY<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Foam/Soap Suds<br>Note: Blocked Sewer<br>Incident Date: 18th April 1995<br>Incident Reference: 23361<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m               | A19SW (NE)                             | 887                          | 4       | 242300<br>220895 |
| 40     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: CLARBESTON ROAD<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Heavy Fuel Oil<br>Note: Blocked Sewer<br>Incident Date: 30th November 1996<br>Incident Reference: 30606<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                         | A19SW (NE)                             | 890                          | 4       | 242305<br>220895 |
| 40     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Down Stream Of, The Old Reservoir<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Farm Effluent/Slurry<br>Note: Not Supplied<br>Incident Date: 5th February 1996<br>Incident Reference: 27276<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Unknown<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m    | A19SW (NE)                             | 890                          | 4       | 242300<br>220900 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
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| 40     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: At Rifles Pools<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Blockage<br>Incident Date: 30th April 1997<br>Incident Reference: 32143<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m   | A19SW (NE)                             | 894                          | 4       | 242305 220900 |
| 40     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Near Tannerdy Filling Station<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Blockage<br>Incident Date: 26th January 1997<br>Incident Reference: 31110<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m                             | A19SW (NE)                             | 897                          | 4       | 242305 220905 |
| 41     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Not Given<br>Location: Behind Jewsons, Carmarthen (Tanerdy), CARMARTHEN<br>Authority: Environment Agency, Welsh Region<br>Pollutant: Crude Sewage<br>Note: Blockage<br>Incident Date: 29th May 1997<br>Incident Reference: 32438<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Overflow<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m              | A19SE (NE)                             | 898                          | 4       | 242400 220800 |
| 42     | <b>Prosecutions Relating to Authorised Processes</b><br>Location: Land adjoining Awel Tywi, Llangunnor, CARMARTHEN, Dyfed, SA31<br>Prosecution Text: EA News Release 07/07/1997 Causing building waste material to be disposed of on land, other than in accordance with a waste management licence.<br>Prosecution Act: EPA90 s33(1)(6) & s34(1a)<br>Hearing Date: 7th July 1997<br>Verdict: Guilty<br>Fine: 400<br>Costs: 700<br>Positional Accuracy: Manually positioned to the road within the address or location | A9SW (SE)                              | 796                          | 4       | 242048 219510 |
|        | <b>River Quality</b><br>Name: Not Supplied<br>GQA Grade: Unclassified Tidal River<br>Reach: Not Supplied<br>Estimated Distance (km): Not Supplied<br>Flow Rate: Not Supplied<br>Flow Type: Not Supplied<br>Year: 1995  | A13SE (S)                              | 276                          | 4       | 241645 219925 |
| 43     | <b>Substantiated Pollution Incident Register</b><br>Authority: Natural Resources Wales<br>Incident Date: 8th September 2002<br>Incident Reference: 106796<br>Water Impact: Category 2 - Significant Incident<br>Air Impact: Category 3 - Minor Incident<br>Land Impact: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m<br>Pollutant: Agricultural Materials And Wastes: Other Agricultural Material Or Waste   | A13NW (NW)                             | 240                          | 2       | 241500 220500 |
| 44     | <b>Substantiated Pollution Incident Register</b><br>Authority: Natural Resources Wales<br>Incident Date: 9th May 2020<br>Incident Reference: 2003230<br>Water Impact: Category 3 - Minor Incident<br>Air Impact: Category 4 - No Impact<br>Land Impact: Category 4 - No Impact<br>Positional Accuracy: Located by supplier to within 10m<br>Pollutant: Agricultural Materials And Wastes: Slurry And Dilute Slurry   | A18NW (N)                              | 804                          | 2       | 241369 221061 |

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| 45     | <b>Water Abstractions</b><br>Operator: Alfred McAlpine Construction Ltd<br>Licence Number: 22/60/3/0057<br>Permit Version: Not Supplied<br>Location: Watercourse Formerly Part Of River Towy<br>Authority: Environment Agency, Welsh Region<br>Abstraction: Construction: Dust Suppression<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): 32<br>Yearly Rate (m3): 5500<br>Details: Licenced from 01-Apr to 31-Aug<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m               | A14NW (NE)                             | 394                          | 4       | 242030<br>220450 |
| 46     | <b>Water Abstractions</b><br>Operator: Carmarthen District Council<br>Licence Number: 22/60/3/0047<br>Permit Version: Not Supplied<br>Location: Not Supplied<br>Authority: Natural Resources Wales<br>Abstraction: Impounding<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m  | A23SE (N)                              | 996                          | 2       | 241870<br>221270 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0021<br>Permit Version: 100<br>Location: Tawelan Brook<br>Authority: Natural Resources Wales<br>Abstraction: Food & Drink: Effluent/Slurry Dilution<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Tawelan Brook<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st January 2007<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                       | A6SW (SW)                              | 1656                         | 2       | 240130<br>219500 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0021<br>Permit Version: Not Supplied<br>Location: Effluent Dilution<br>Authority: Natural Resources Wales<br>Abstraction: Other Industrial/Commercial/Public Services: Effluent/Slurry Dilution<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A6SW (SW)                              | 1656                         | 2       | 240130<br>219500 |



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|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: 100<br>Location: Well In The Community Of Johnstown<br>Authority: Natural Resources Wales<br>Abstraction: Food And Drink: Water Bottling<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Well Usedfor Vegetable/Food Washing And Processing<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st January 2007<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m              | A6SW (SW)                              | 1787                         | 2       | 240120<br>219260 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: 100<br>Location: Well In The Community Of Johnstown<br>Authority: Natural Resources Wales<br>Abstraction: Food & Drink: Effluent/Slurry Dilution<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Licenced from 01-Jan to 31-Dec<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st January 2007<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m                          | A6SW (SW)                              | 1787                         | 2       | 240120<br>219260 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: Not Supplied<br>Location: Land At Castle Merlin Food Park<br>Authority: Natural Resources Wales<br>Abstraction: Food And Drink: Water Bottling<br>Abstraction Type: Water may be abstracted from any point within an area<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m  | A6SW (SW)                              | 1787                         | 2       | 240120<br>219260 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: Not Supplied<br>Location: Land At Castle Merlin Food Park<br>Authority: Natural Resources Wales<br>Abstraction: Other Industrial/Commercial/Public Services: Effluent/Slurry Dilution<br>Abstraction Type: Water may be abstracted from any point within an area<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A6SW (SW)                              | 1787                         | 2       | 240120<br>219260 |

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|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: 100<br>Location: Well In The Community Of Johnstown Used For Bottling<br>Authority: Natural Resources Wales<br>Abstraction: Food & Drink: Effluent/Slurry Dilution<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Licenced from 01-Jan to 31-Dec<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st January 2007<br>Permit End Date: Not Supplied<br>Positional Accuracy: Approximate location provided by supplier | A6SW (SW)                              | 1835                         | 2       | 240065<br>219255 |
|        | <b>Water Abstractions</b><br>Operator: Mekatek Ltd<br>Licence Number: 22/60/3/0022<br>Permit Version: 100<br>Location: Well In The Community Of Johnstown Used For Bottling<br>Authority: Natural Resources Wales<br>Abstraction: Food And Drink: Water Bottling<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Well Used For Bottling Water For Resale<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st January 2007<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m       | A6SW (SW)                              | 1837                         | 2       | 240060<br>219260 |
|        | <b>Water Abstractions</b><br>Operator: Alfred McAlpine Construction Ltd<br>Licence Number: 22/60/3/0057<br>Permit Version: Not Supplied<br>Location: River Gwilli<br>Authority: Environment Agency, Welsh Region<br>Abstraction: Construction: Dust Suppression<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): 32<br>Yearly Rate (m3): 5500<br>Details: Licenced from 01-Apr to 31-Oct<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m  | A20NE (NE)                             | 1895                         | 4       | 243300<br>221250 |
|        | <b>Groundwater Vulnerability Map</b><br>Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability<br>Combined Vulnerability: Medium<br>Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer<br>Pollutant Speed: High<br>Bedrock Flow: Well Connected Fractures<br>Dilution: >550 mm/year<br>Baseflow Index: 40-70%<br>Superficial Patchiness: <90%<br>Superficial Thickness: >10m<br>Superficial Recharge: No Data  | A13NE (NW)                             | 0                            | 2       | 241645<br>220252 |
|        | <b>Bedrock Aquifer Designations</b><br>Aquifer Designation: Secondary Aquifer - B   | A13NE (NW)                             | 0                            | 2       | 241645<br>220252 |
|        | <b>Superficial Aquifer Designations</b><br>Aquifer Designation: Secondary Aquifer - A   | A13NE (NW)                             | 0                            | 2       | 241645<br>220252 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SE (SE)                             | 70                           | 2       | 241720<br>220169 |



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|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial/Tidal Models<br>Boundary Accuracy: As Supplied                      | A13SE (SE)                             | 151                          | 2       | 241819<br>220168 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models and Fluvial Events<br>Boundary Accuracy: As Supplied         | A13SE (S)                              | 196                          | 2       | 241651<br>220005 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Events<br>Boundary Accuracy: As Supplied                            | A13SE (S)                              | 197                          | 2       | 241681<br>220006 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Events<br>Boundary Accuracy: As Supplied                            | A13SE (S)                              | 215                          | 2       | 241645<br>219986 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial / Tidal Models and Fluvial Events<br>Boundary Accuracy: As Supplied | A13SE (S)                              | 224                          | 2       | 241725<br>219989 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied                            | A13SE (S)                              | 226                          | 2       | 241652<br>219975 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models and Fluvial Events<br>Boundary Accuracy: As Supplied         | A13SW (S)                              | 240                          | 2       | 241636<br>219962 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial/Tidal Models<br>Boundary Accuracy: As Supplied                      | A13SE (S)                              | 247                          | 2       | 241645<br>219954 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Events<br>Boundary Accuracy: As Supplied                            | A13SW (S)                              | 250                          | 2       | 241604<br>219956 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (SE)                             | 148                          | 2       | 241809<br>220158 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial/Tidal Models<br>Boundary Accuracy: As Supplied                                      | A13SE (SE)                             | 151                          | 2       | 241819<br>220168 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (SE)                             | 152                          | 2       | 241820<br>220169 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (E)                              | 153                          | 2       | 241829<br>220188 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (SE)                             | 184                          | 2       | 241754<br>220048 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (SE)                             | 196                          | 2       | 241744<br>220028 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied  | A13SE (S)                              | 208                          | 2       | 241665<br>219994 |

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|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SE (S)                              | 210                          | 2       | 241734<br>220008 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SW (SW)                             | 214                          | 2       | 241520<br>220034 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SE (S)                              | 225                          | 2       | 241724<br>219988 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SE (S)                              | 228                          | 2       | 241705<br>219979 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied   | A13SW (S)                              | 249                          | 2       | 241625<br>219954 |
|        | <b>Areas Benefiting from Flood Defences</b><br>None   |  |                              |         |                  |
|        | <b>Flood Water Storage Areas</b><br>None  |  |                              |         |                  |
|        | <b>Flood Defences</b><br>None   |  |                              |         |                  |
| 47     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 896.2<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1      | A13SW (SW)                             | 8                            | 5       | 241608<br>220231 |
| 48     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 56.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A13SE (SE)                             | 179                          | 5       | 241793<br>220088 |
| 49     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 11.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A13SE (S)                              | 229                          | 5       | 241746<br>219992 |
| 50     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 1477.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1    | A13SE (E)                              | 231                          | 5       | 241912<br>220195 |
| 51     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 152.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A13SE (S)                              | 239                          | 5       | 241747<br>219981 |



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| 52     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 148.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A13SE (S)                              | 239                          | 5       | 241747<br>219981 |
| 53     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 229.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A13SE (SE)                             | 300                          | 5       | 241919<br>220050 |
| 54     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 669.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A8NW (S)                               | 319                          | 5       | 241615<br>219885 |
| 55     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 122.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A8NE (S)                               | 356                          | 5       | 241725<br>219853 |
| 56     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 21.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A14SW (SE)                             | 390                          | 5       | 242027<br>220052 |
| 57     | <b>OS Water Network Lines</b><br>Watercourse Form: Lake<br>Watercourse Length: 11.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1          | A14SW (SE)                             | 402                          | 5       | 242029<br>220031 |
| 58     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 187.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A14SW (SE)                             | 411                          | 5       | 242037<br>220027 |
| 59     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 59.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NE (SE)                              | 432                          | 5       | 241876<br>219831 |
| 60     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 45.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NE (SE)                              | 432                          | 5       | 241876<br>219831 |

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| 61     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 4.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Not Supplied<br>Primacy: 1     | A8NE (S)                               | 451                          | 5       | 241834<br>219789 |
| 62     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 18.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Not Supplied<br>Primacy: 1    | A8NE (S)                               | 451                          | 5       | 241832<br>219788 |
| 63     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 190.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1    | A8NE (S)                               | 457                          | 5       | 241819<br>219775 |
| 64     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 3.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NE (SE)                              | 459                          | 5       | 241920<br>219828 |
| 65     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 3.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NE (SE)                              | 459                          | 5       | 241920<br>219828 |
| 66     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 3.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NE (SE)                              | 459                          | 5       | 241921<br>219829 |
| 67     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 177.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A9NW (SE)                              | 552                          | 5       | 241993<br>219766 |
| 68     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 331.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1    | A9NW (SE)                              | 552                          | 5       | 241993<br>219766 |
| 69     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 42.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A8NW (S)                               | 558                          | 5       | 241552<br>219652 |



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| 70     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 298.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A17SE (NW)                             | 575                          | 5       | 241298<br>220768 |
| 71     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 10.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NW (S)                               | 588                          | 5       | 241517<br>219629 |
| 72     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 40.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NW (S)                               | 588                          | 5       | 241517<br>219629 |
| 73     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 34.8<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A8NW (S)                               | 588                          | 5       | 241555<br>219621 |
| 74     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 7.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A8NW (S)                               | 596                          | 5       | 241507<br>219623 |
| 75     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 19.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 2  | A8NW (S)                               | 596                          | 5       | 241507<br>219623 |
| 76     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 59.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8NW (S)                               | 598                          | 5       | 241586<br>219607 |
| 77     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 68.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8SE (S)                               | 625                          | 5       | 241661<br>219576 |
| 78     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 18.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8SW (S)                               | 665                          | 5       | 241590<br>219539 |

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| 79     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 38.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8SW (S)                               | 665                          | 5       | 241639<br>219536 |
| 80     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 23.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A8SW (S)                               | 677                          | 5       | 241603<br>219526 |
| 81     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 2.3<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A9NW (SE)                              | 691                          | 5       | 242145<br>219716 |
| 82     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 287.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A9NW (SE)                              | 692                          | 5       | 242127<br>219698 |
| 83     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 58.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A9NW (SE)                              | 694                          | 5       | 242147<br>219714 |
| 84     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 194.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A7NE (SW)                              | 704                          | 5       | 241073<br>219793 |
| 85     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 35.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A7NE (SW)                              | 704                          | 5       | 241073<br>219793 |
| 86     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 162.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A7NE (SW)                              | 717                          | 5       | 241100<br>219743 |
| 87     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 540.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A9NW (SE)                              | 740                          | 5       | 242196<br>219698 |



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| 88     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 14.8<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A18NW (N)                              | 753                          | 5       | 241358<br>221002 |
| 89     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 92.6<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1       | A18NW (N)                              | 767                          | 5       | 241354<br>221016 |
| 90     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 210.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A14NE (E)                              | 820                          | 5       | 242464<br>220519 |
| 91     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 146.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19SE (NE)                             | 820                          | 5       | 242430<br>220603 |
| 92     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 225.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A14NE (E)                              | 827                          | 5       | 242449<br>220577 |
| 93     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 18.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19SE (NE)                             | 838                          | 5       | 242387<br>220716 |
| 94     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 7.0<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1         | A19SE (NE)                             | 838                          | 5       | 242385<br>220718 |
| 95     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 64.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19SE (NE)                             | 840                          | 5       | 242383<br>220725 |
| 96     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 138.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A17NE (N)                              | 859                          | 5       | 241306<br>221095 |

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| 97     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 69.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1      | A14NE (E)                              | 860                          | 5       | 242545<br>220322 |
| 98     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 106.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Not Supplied<br>Primacy: 2    | A14NE (E)                              | 860                          | 5       | 242545<br>220322 |
| 99     | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 78.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A14NE (E)                              | 860                          | 5       | 242537<br>220388 |
| 100    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 253.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A19SW (NE)                             | 861                          | 5       | 242260<br>220898 |
| 101    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 258.2<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1      | A19SW (NE)                             | 862                          | 5       | 242258<br>220900 |
| 102    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 12.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19SE (NE)                             | 867                          | 5       | 242370<br>220789 |
| 103    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 75.5<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1       | A7SE (SW)                              | 872                          | 5       | 241102<br>219526 |
| 104    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 309.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A7NE (SW)                              | 872                          | 5       | 241035<br>219584 |
| 105    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 18.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A7SE (SW)                              | 875                          | 5       | 241160<br>219478 |



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| 106    | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 224.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1     | A7NW (SW)                              | 883                          | 5       | 240885<br>219742 |
| 107    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 1.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A7SE (SW)                              | 885                          | 5       | 241196<br>219443 |
| 108    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 117.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A7SE (SW)                              | 887                          | 5       | 241196<br>219442 |
| 109    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 49.4<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A19NW (NE)                             | 901                          | 5       | 242079<br>221086 |
| 110    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 6.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A19NW (NE)                             | 921                          | 5       | 242050<br>221124 |
| 111    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 10.5<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A19NW (NE)                             | 926                          | 5       | 242048<br>221131 |
| 112    | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 10.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1   | A14NE (E)                              | 930                          | 5       | 242608<br>220386 |
| 113    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 23.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19NW (NE)                             | 934                          | 5       | 242045<br>221141 |
| 114    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 242.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A18NE (N)                              | 938                          | 5       | 241686<br>221239 |

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| 115    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 27.9<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A14NE (E)                              | 940                          | 5       | 242618<br>220387 |
| 116    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 49.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19NW (N)                              | 944                          | 5       | 241997<br>221174 |
| 117    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 121.7<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1      | A19NW (N)                              | 944                          | 5       | 241997<br>221174 |
| 118    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 18.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A19NW (NE)                             | 950                          | 5       | 242038<br>221162 |
| 119    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 20.7<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1        | A19NW (NE)                             | 967                          | 5       | 242039<br>221181 |
| 120    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 270.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A14NE (E)                              | 968                          | 5       | 242646<br>220389 |
| 121    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 125.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A7SE (SW)                              | 974                          | 5       | 241083<br>219412 |
| 122    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 92.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 2  | A18NE (N)                              | 980                          | 5       | 241860<br>221256 |
| 123    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 52.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1  | A18NE (N)                              | 980                          | 5       | 241860<br>221256 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--|--|------------------------------|---------|------------------|
| 124    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 102.7<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1              | A23SE (N)                              | 983                          | 5       | 241709<br>221283 |
| 125    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 5.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1          | A19NW (NE)                             | 986                          | 5       | 242039<br>221201 |
| 126    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 16.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1         | A19NW (N)                              | 991                          | 5       | 242038<br>221207 |
| 127    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 151.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 2        | A19NW (N)                              | 991                          | 5       | 242038<br>221207 |
| 128    | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 47.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1          | A19SE (NE)                             | 993                          | 5       | 242539<br>220766 |
| 129    | <b>OS Water Network Lines</b><br>Watercourse Form: Tidal river<br>Watercourse Length: 704.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Afon Tywi<br>Catchment Name: Tywi and Cothi<br>Primacy: 1            | A19SE (NE)                             | 993                          | 5       | 242539<br>220766 |
| 130    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 117.6<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1              | A17NE (N)                              | 993                          | 5       | 241267<br>221225 |
| 131    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 78.0<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: Tywi and Cothi<br>Primacy: 1              | A23SE (N)                              | 993                          | 5       | 241691<br>221294 |
| 132    | <b>OS Water Network Lines</b><br>Watercourse Form: Reservoir<br>Watercourse Length: 159.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Cwm-oernant Reservoirs<br>Catchment Name: Tywi and Cothi<br>Primacy: 1 | A19NW (N)                              | 1000                         | 5       | 242029<br>221221 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
|        | <b>Local Authority Landfill Coverage</b><br>Name: Carmarthenshire County Council<br>- Has no landfill data to supply  |  | 0                            | 6       | 241645<br>220252 |
| 133    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: S<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990   | A13SE (S)                              | 177                          | -       | 241688<br>220027 |
| 134    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1993  | A13NE (NE)                             | 402                          | -       | 241977<br>220535 |
| 135    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: S<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1990   | A8NE (S)                               | 508                          | -       | 241818<br>219721 |
| 136    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1993  | A19NW (NE)                             | 854                          | -       | 242183<br>220956 |
| 137    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A19SW (NE)                             | 594                          | -       | 242128<br>220652 |
| 138    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A8NW (S)                               | 599                          | -       | 241499<br>219623 |
| 139    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A8SW (S)                               | 682                          | -       | 241432<br>219556 |
| 140    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1891  | A8NW (SW)                              | 689                          | -       | 241317<br>219600 |
| 141    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A19SW (NE)                             | 725                          | -       | 242192<br>220774 |
| 142    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A7SE (SW)                              | 738                          | -       | 241289<br>219559 |
| 143    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A7NE (SW)                              | 832                          | -       | 241070<br>219608 |
| 144    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1964  | A7SE (SW)                              | 870                          | -       | 241182<br>219470 |
| 145    | <b>Potentially Infilled Land (Water)</b><br>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)<br>Date of Mapping: 1891  | A7SE (SW)                              | 877                          | -       | 241147<br>219485 |
| 146    | <b>Registered Waste Transfer Sites</b><br>Licence Holder: Dana Ltd T/A Brown Brothers<br>Licence Reference: TFR/STN2<br>Site Location: Stephens Way, Pensarn Road, Carmarthen, Carmarthenshire<br>Operator Location: As Site Address<br>Authority: Environment Agency Wales, South West Area<br>Site Category: Transfer<br>Max Input Rate: Very Small (Less than 10,000 tonnes per year)<br>Waste Source: No known restriction on source of waste<br>Restrictions:<br>Licence Status: Site exempt from licenceExempt<br>Dated: 1st August 1991<br>Preceded By: Not Given<br>Licence:<br>Superseded By: Not Given<br>Licence:<br>Positional Accuracy: Manually positioned to the address or location<br>Boundary Quality: Not Supplied<br>Authorised Waste: Cleaning Solvents<br>Contam. Car Refinishing Paints<br>Max.Storage | A7SE (SW)                              | 794                          | 4       | 241300<br>219490 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
| 147    | <b>Control of Major Accident Hazards Sites (COMAH)</b><br>Name: Carmarthen Warehousing Ltd<br>Location: Stephens Way, Pensarn, CARMARTHEN, Dyfed<br>Reference: Not Supplied<br>Type: Lower Tier<br><b>Status: Record Ceased To Be Supplied Under COMAH Regulations</b><br>Positional Accuracy: Manually positioned to the road within the address or location   | A7SE (SW)                              | 965                          | 7       | 241171 219366 |
| 148    | <b>Planning Hazardous Substance Consents</b><br>Name: Carmarthen Warehousing Ltd<br>Location: Stephens Way South, Pensarn, CARMARTHEN, Dyfed, SA31 2BB<br>Authority: Carmarthenshire County Council, Area Planning Office (East Area)<br>Application Ref: D4/22987<br>Hazardous: Part B, Highly Reactive and Explosive Substance, Ammonium nitrate based products, where amount held is greater than or equal to 1000 tonnes<br>Substance: 0<br>Maximum Quantity: 1st November 1992<br>Application date: <b>Deemed Consent Granted</b><br><b>Decision: Granted</b><br>Positional Accuracy: Manually positioned to the road within the address or location | A7SE (SW)                              | 916                          | 8       | 241198 219406 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
|        | <b>BGS 1:625,000 Solid Geology</b><br>Description: Arenig Rocks (Undifferentiated)   | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg   | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: 15 - 25 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg   | A13SE (SE)                             | 68                           | 1       | 241726 220176 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: 15 - 25 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg   | A14SE (E)                              | 769                          | 1       | 242454 220187 |
| 149    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Carmarthen Brick & Pipe Works<br>Location: Carmarthen, Carmarthenshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 102281<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Ordovician<br>Geology: Tetragraptus Beds<br>Commodity: Common Clay and Shale<br>Positional Accuracy: Located by supplier to within 10m   | A13SE (S)                              | 275                          | 1       | 241667 219927 |
| 150    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Carmarthen Gravel Pit<br>Location: Carmarthen, Carmarthenshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 100369<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Quaternary<br>Geology: Glaciofluvial Deposits, Devensian<br>Commodity: Sand and Gravel<br>Positional Accuracy: Located by supplier to within 10m | A14NW (NE)                             | 433                          | 1       | 242001 220553 |
| 151    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Pen Y Morfa<br>Location: Carmarthen, Carmarthenshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 100208<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Ordovician<br>Geology: Didymograptus Bifidus Beds<br>Commodity: Common Clay and Shale<br>Positional Accuracy: Located by supplier to within 10m            | A8NE (S)                               | 503                          | 1       | 241813 219724 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 152    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Tannerdy<br>Location: Carmarthen, Carmarthenshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 100224<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Unknown Operator<br>Operator Location: Not Supplied<br>Periodic Type: Ordovician<br>Geology: Didymograptus Bifidus Beds<br>Commodity: Sandstone<br>Positional Accuracy: Located by supplier to within 10m | A19NW (NE)                             | 854                          | 1       | 242180<br>220959 |
|        | <b>BGS Measured Urban Soil Chemistry</b><br>No data available  |  |                              |         |                  |
|        | <b>BGS Urban Soil Chemistry Averages</b><br>No data available  |  |                              |         |                  |
|        | <b>Coal Mining Affected Areas</b><br>In an area that might not be affected by coal mining  |  |                              |         |                  |
|        | <b>Non Coal Mining Areas of Great Britain</b><br>Risk: Highly Unlikely<br>Source: British Geological Survey, National Geoscience Information Service   | A13NE (NW)                             | 0                            | 1       | 241645<br>220252 |
|        | <b>Non Coal Mining Areas of Great Britain</b><br>Risk: Highly Unlikely<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 201                          | 1       | 241645<br>220000 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service  | A13NE (NW)                             | 0                            | 1       | 241645<br>220252 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (SE)                             | 68                           | 1       | 241726<br>220176 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 201                          | 1       | 241645<br>220000 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service  | A13NE (NW)                             | 0                            | 1       | 241645<br>220252 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: Moderate<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (SE)                             | 68                           | 1       | 241726<br>220176 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: Moderate<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 201                          | 1       | 241645<br>220000 |
|        | <b>Potential for Ground Dissolution Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service   | A13NE (NW)                             | 0                            | 1       | 241645<br>220252 |
|        | <b>Potential for Ground Dissolution Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 201                          | 1       | 241645<br>220000 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service  | A13NE (NW)                             | 0                            | 1       | 241645<br>220252 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (E)                              | 154                          | 1       | 241836<br>220208 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (SE)                             | 156                          | 1       | 241786<br>220114 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SW (SW)                             | 166                          | 1       | 241556<br>220067 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 193                          | 1       | 241731<br>220024 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service  | A13SE (S)                              | 201                          | 1       | 241645 220000 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 214                          | 1       | 241727 220000 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SW (SW)                             | 237                          | 1       | 241529 220000 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service  | A13SE (SE)                             | 68                           | 1       | 241726 220176 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service  | A13SE (S)                              | 201                          | 1       | 241645 220000 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service  | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (SE)                             | 68                           | 1       | 241726 220176 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13SE (S)                              | 201                          | 1       | 241645 220000 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service   | A13NW (N)                              | 224                          | 1       | 241569 220516 |
|        | <b>Radon Potential - Radon Affected Areas</b><br>Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level).<br>Source: British Geological Survey, National Geoscience Information Service | A13NE (NW)                             | 0                            | 1       | 241645 220252 |
|        | <b>Radon Potential - Radon Protection Measures</b><br>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions<br>Source: British Geological Survey, National Geoscience Information Service                        | A13NE (NW)                             | 0                            | 1       | 241645 220252 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
| 153    | <b>Contemporary Trade Directory Entries</b><br>Name: Westcoast Print<br>Location: Priory Street, Carmarthen, Dyfed, SA31 1LS<br>Classification: Printers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A13SE (SE)                             | 0                            | -       | 241656 220228 |
| 154    | <b>Contemporary Trade Directory Entries</b><br>Name: Buyright<br>Location: 1, Priory Street, Carmarthen, Dyfed, SA31 1LS<br>Classification: Kitchen Furniture Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location                                  | A13SW (W)                              | 19                           | -       | 241598 220233 |
| 155    | <b>Contemporary Trade Directory Entries</b><br>Name: Pro Print<br>Location: 136, Priory Street, Carmarthen, Dyfed, SA31 1LR<br>Classification: Printers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A13NW (NW)                             | 21                           | -       | 241614 220310 |
| 155    | <b>Contemporary Trade Directory Entries</b><br>Name: A2 Repro<br>Location: 136, Priory Street, Carmarthen, Dyfed, SA31 1LR<br>Classification: Printers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location   | A13NW (NW)                             | 21                           | -       | 241614 220310 |
| 156    | <b>Contemporary Trade Directory Entries</b><br>Name: Denzil Evans<br>Location: 125, Priory Street, Carmarthen, Dyfed, SA31 1NB<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A13NE (N)                              | 50                           | -       | 241646 220351 |
| 157    | <b>Contemporary Trade Directory Entries</b><br>Name: Apex<br>Location: Suite 116 Frimley House, 5 The Parade, Camberley, Surrey, GU16 7QJ<br>Classification: Roller Shutter Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location    | A13SE (SE)                             | 60                           | -       | 241708 220172 |
| 158    | <b>Contemporary Trade Directory Entries</b><br>Name: Towy Agricultural<br>Location: 4 Carmarthen Mart Complex, Carmarthen, Dyfed, SA33 1XX<br>Classification: Agricultural Machinery - Sales & Service<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned within the geographical locality | A13NE (N)                              | 115                          | -       | 241673 220410 |
| 159    | <b>Contemporary Trade Directory Entries</b><br>Name: Bibby Agriculture Ltd<br>Location: Priory House, Priory Street, Carmarthen, Dyfed, SA31 1NE<br>Classification: Pet Foods & Animal Feeds<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                          | A13NE (NE)                             | 138                          | -       | 241731 220401 |
| 160    | <b>Contemporary Trade Directory Entries</b><br>Name: Mellangth Stained Glass<br>Location: 30, King Street, Carmarthen, Dyfed, SA31 1BS<br>Classification: Stained Glass Designers & Producers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                       | A13SW (W)                              | 150                          | -       | 241457 220225 |
| 161    | <b>Contemporary Trade Directory Entries</b><br>Name: Mount Ridge<br>Location: 20b, King Street, Carmarthen, Dyfed, SA31 1BH<br>Classification: Woodburning Stoves<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A13SW (SW)                             | 204                          | -       | 241427 220154 |
| 162    | <b>Contemporary Trade Directory Entries</b><br>Name: Quiltknit Clothing<br>Location: Richmond Terrace, Carmarthen, Dyfed, SA31 1HG<br>Classification: Clothing & Fabrics - Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                            | A13NE (N)                              | 254                          | -       | 241678 220552 |
| 163    | <b>Contemporary Trade Directory Entries</b><br>Name: Peter Jones<br>Location: Old Station Road, Carmarthen, SA31 1LP<br>Classification: Car Body Repairs<br><b>Status: Active</b><br>Positional Accuracy: Manually positioned within the geographical locality   | A13SW (SW)                             | 268                          | -       | 241493 219987 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---|--|------------------------------|---------|---------------|
| 164    | <b>Contemporary Trade Directory Entries</b><br>Name: Pethau Bychain<br>Location: 52 King Street, Carmarthen, Dyfed, SA31 1BH<br>Classification: Mirrors & Decorative Glass<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                           | A13SW (SW)                             | 306                          | -       | 241337 220106 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Agent Force<br>Location: Towyside Sale Rooms, Old Station Road, Carmarthen, SA31 1JN<br>Classification: Car Engine Tuning & Diagnostic Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address | A13SW (SW)                             | 309                          | -       | 241461 219960 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Peter Jones<br>Location: Old Station Road, Carmarthen, Dyfed, SA31 1JN<br>Classification: Car Body Repairs<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                      | A13SW (SW)                             | 345                          | -       | 241431 219937 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Rink Garage<br>Location: Old Station Road, Carmarthen, Dyfed, SA31 1JN<br>Classification: Car Body Repairs<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                      | A13SW (SW)                             | 345                          | -       | 241431 219937 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: W B Rice & Son<br>Location: Old Station Road, Carmarthen, Dyfed, SA31 1JN<br>Classification: Coal & Smokeless Fuel Merchants & Distributors<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address     | A13SW (SW)                             | 345                          | -       | 241431 219937 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Preseli Tyres<br>Location: 8, Old Station Road, CARMARTHEN, Dyfed, SA31 1JN<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                       | A13SW (SW)                             | 345                          | -       | 241431 219937 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Steve'S Auto Services<br>Location: 8, Old Station Road, Carmarthen, Dyfed, SA31 1JN<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                          | A13SW (SW)                             | 345                          | -       | 241431 219937 |
| 165    | <b>Contemporary Trade Directory Entries</b><br>Name: Ryan<br>Location: Old Station Road, Carmarthen, Dyfed, SA31 1JN<br>Classification: Joinery Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A13SW (SW)                             | 355                          | -       | 241443 219915 |
| 166    | <b>Contemporary Trade Directory Entries</b><br>Name: I Wamt Epos<br>Location: 3, Woods Row, Carmarthen, Dyfed, SA31 1BU<br>Classification: Cash Registers & Check-Out Equipment<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                      | A12SE (W)                              | 321                          | -       | 241302 220150 |
| 167    | <b>Contemporary Trade Directory Entries</b><br>Name: Streamline Leisure Ltd<br>Location: 4-5 King Street, Carmarthen, Dyfed, SA31 1BD<br>Classification: Commercial Cleaning Services<br><b>Status: Active</b><br>Positional Accuracy: Manually positioned to the address or location           | A13SW (SW)                             | 344                          | -       | 241319 220063 |
| 167    | <b>Contemporary Trade Directory Entries</b><br>Name: Swift Property Services<br>Location: 1, King Street, Carmarthen, SA31 1BA<br>Classification: Prop Shaft Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                           | A12SE (SW)                             | 385                          | -       | 241292 220029 |
| 167    | <b>Contemporary Trade Directory Entries</b><br>Name: Klick<br>Location: 18, Nott Square, Carmarthen, Dyfed, SA31 1PQ<br>Classification: Photographic Processors<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                      | A12SE (SW)                             | 391                          | -       | 241288 220024 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
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| 168    | <b>Contemporary Trade Directory Entries</b><br>Name: Ken Williams Motors<br>Location: Riverside Yard, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Car Breakdown & Recovery Services<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address        | A8NE (S)                               | 420                          | -       | 241681 219782 |
| 168    | <b>Contemporary Trade Directory Entries</b><br>Name: G-Tec<br>Location: Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A8NE (S)                               | 420                          | -       | 241707 219784 |
| 168    | <b>Contemporary Trade Directory Entries</b><br>Name: G M J Body Repairs Ltd<br>Location: Old Llangunnor Road, Carmarthen, SA31 2BD<br>Classification: Car Body Repairs<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8NE (S)                               | 425                          | -       | 241704 219779 |
| 169    | <b>Contemporary Trade Directory Entries</b><br>Name: Set Office Supplies Ltd<br>Location: Regent House, Nott Square, Carmarthen, Dyfed, SA31 1PG<br>Classification: Office Furniture & Equipment<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                 | A12SE (SW)                             | 434                          | -       | 241251 220002 |
| 169    | <b>Contemporary Trade Directory Entries</b><br>Name: Cafe On Square<br>Location: 5, St. Marys Street, Carmarthen, Dyfed, SA31 1TN<br>Classification: Confectionery Manufacturers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                 | A12SE (SW)                             | 457                          | -       | 241243 219974 |
| 169    | <b>Contemporary Trade Directory Entries</b><br>Name: Fleetwheel Ltd<br>Location: St. Marys Street, Carmarthen, Dyfed, SA31 1TN<br>Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address     | A12SE (SW)                             | 461                          | -       | 241214 220008 |
| 170    | <b>Contemporary Trade Directory Entries</b><br>Name: Brighthouse<br>Location: 10, Red Street, Carmarthen, SA31 1QL<br>Classification: Electrical Goods Sales, Manufacturers & Wholesalers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                        | A12SE (W)                              | 447                          | -       | 241172 220140 |
| 171    | <b>Contemporary Trade Directory Entries</b><br>Name: Comfort Zone<br>Location: Cambrian Way, John Street, Carmarthen, Dyfed, SA31 1QN<br>Classification: Disability Equipment - Manufacturers & Suppliers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address        | A12SE (W)                              | 448                          | -       | 241156 220219 |
| 172    | <b>Contemporary Trade Directory Entries</b><br>Name: Towy Works Ltd<br>Location: The Quay, Carmarthen, Dyfed, SA31 3JR<br>Classification: Builders' Merchants<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address  | A8NW (SW)                              | 454                          | -       | 241320 219893 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Carmarthenshire Tyre Services Ltd<br>Location: Old Llangunnor Rd, Carmarthen, Dyfed, SA31 2BD<br>Classification: Tyre Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location        | A8NW (SW)                              | 460                          | -       | 241436 219796 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Ken Williams Motors<br>Location: Old Llangunnor Rd, Carmarthen, Dyfed, SA31 2BD<br>Classification: Car Breakdown & Recovery Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location | A8NW (SW)                              | 462                          | -       | 241430 219797 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Bmw Parts Uk<br>Location: 7, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Car Breakers & Dismantlers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                 | A8NW (SW)                              | 474                          | -       | 241441 219777 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
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| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: R S Respray'S<br>Location: 7, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Car Painters & Sprayers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                              | A8NW (SW)                              | 474                          | -       | 241441 219777 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: D R J Motors<br>Location: 7, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location                              | A8NW (SW)                              | 474                          | -       | 241441 219777 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Sos Car Fix<br>Location: 7, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                      | A8NW (SW)                              | 476                          | -       | 241430 219781 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Towy Garage Ltd<br>Location: The Bridge, Carmarthen, Dyfed, SA31 2BN<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A8NW (SW)                              | 498                          | -       | 241429 219757 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Rapid Fit<br>Location: The Bridge, Carmarthen, Dyfed, SA31 2BN<br>Classification: Exhaust & Shock Absorber Centres<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                   | A8NW (SW)                              | 498                          | -       | 241429 219757 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Texaco<br>Location: The Bridge, Carmarthen, SA31 3JS<br>Classification: Petrol Filling Stations<br><b>Status: Active</b><br>Positional Accuracy: Manually positioned to the address or location   | A8NW (SW)                              | 504                          | -       | 241420 219754 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Towy Service Station<br>Location: The Bridge, Carmarthen, Dyfed, SA31 2BN<br>Classification: Petrol Filling Stations<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                   | A8NW (SW)                              | 504                          | -       | 241419 219754 |
| 173    | <b>Contemporary Trade Directory Entries</b><br>Name: Currys Pc World<br>Location: Unit 1 Towy Ford Retail Park, Carmarthen, SA31 2BR<br>Classification: Electrical Goods Sales, Manufacturers & Wholesalers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address | A8NW (S)                               | 515                          | -       | 241459 219724 |
| 174    | <b>Contemporary Trade Directory Entries</b><br>Name: Pat Van Brann<br>Location: The Market, Carmarthen, Dyfed, SA31 1QY<br>Classification: Printers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned within the geographical locality  | A12SE (W)                              | 486                          | -       | 241124 220174 |
| 175    | <b>Contemporary Trade Directory Entries</b><br>Name: Plastic Foam Supplies<br>Location: The Market, Carmarthen, Dyfed, SA31 1QY<br>Classification: Foam Products - Rubber & Plastics<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                      | A12SE (W)                              | 509                          | -       | 241095 220215 |
| 175    | <b>Contemporary Trade Directory Entries</b><br>Name: Treseder Wholesale Oils Ltd<br>Location: The Mart, Carmarthen, Dyfed, SA31 1QY<br>Classification: Oil Fuel Distributors<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location                       | A12SE (W)                              | 518                          | -       | 241090 220184 |
| 175    | <b>Contemporary Trade Directory Entries</b><br>Name: Betta Blinds Wales Ltd<br>Location: The Market, Carmarthen, Dyfed, SA31 1QY<br>Classification: Blinds, Awnings & Canopies<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                            | A12SE (W)                              | 525                          | -       | 241080 220199 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
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| 175    | <b>Contemporary Trade Directory Entries</b><br>Name: Wayne Evans Domestic Appliances<br>Location: 21, Mansel Street, Carmarthen, Dyfed, SA31 1QX<br>Classification: Domestic Appliances - Servicing, Repairs & Parts<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address | A12SE (W)                              | 561                          | -       | 241048 220171 |
| 176    | <b>Contemporary Trade Directory Entries</b><br>Name: G & N Motors<br>Location: The Quay, Carmarthen, Dyfed, SA31 3LN<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location                                     | A7NE (SW)                              | 514                          | -       | 241263 219867 |
| 177    | <b>Contemporary Trade Directory Entries</b><br>Name: Auto Clean<br>Location: 65 Priory St, Carmarthen, Dyfed, SA31 1NN<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location                                   | A19SW (NE)                             | 526                          | -       | 242028 220655 |
| 177    | <b>Contemporary Trade Directory Entries</b><br>Name: S & J Garage<br>Location: Furnace Bank, Carmarthen, Dyfed, SA31 1NT<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the road within the address or location                                 | A19SW (NE)                             | 532                          | -       | 242060 220634 |
| 178    | <b>Contemporary Trade Directory Entries</b><br>Name: L T C Mobility<br>Location: 28, Blue Street, Carmarthen, Dyfed, SA31 3LE<br>Classification: Disability Equipment - Manufacturers & Suppliers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                    | A12SE (SW)                             | 533                          | -       | 241152 219972 |
| 179    | <b>Contemporary Trade Directory Entries</b><br>Name: Howards Of Carmarthen Ltd<br>Location: Station Approach, Carmarthen, Dyfed, SA31 2BE<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A7NE (SW)                              | 548                          | -       | 241304 219780 |
| 179    | <b>Contemporary Trade Directory Entries</b><br>Name: Howards Of Carmarthen Ltd<br>Location: Station Approach, Carmarthen, Dyfed, SA31 2BE<br>Classification: Car Dealers - Used<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                      | A7NE (SW)                              | 548                          | -       | 241304 219780 |
| 179    | <b>Contemporary Trade Directory Entries</b><br>Name: Brian Thomas<br>Location: Station Approach, Carmarthen, Dyfed, SA31 2BE<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A7NE (SW)                              | 589                          | -       | 241262 219762 |
| 180    | <b>Contemporary Trade Directory Entries</b><br>Name: Jewson<br>Location: Jewson, The Old Tin Works, Priory Street, Carmarthen, SA31 1NR<br>Classification: Builders' Merchants<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                       | A19SW (NE)                             | 565                          | -       | 242121 220616 |
| 181    | <b>Contemporary Trade Directory Entries</b><br>Name: On Reflection<br>Location: 10, Morley Street, Carmarthen, Dyfed, SA31 1RB<br>Classification: Candle Manufacturers & Suppliers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                 | A12SE (W)                              | 589                          | -       | 241012 220246 |
| 182    | <b>Contemporary Trade Directory Entries</b><br>Name: Mansel Street Dental Laboratory<br>Location: 12a, Mansel Street, Carmarthen, Dyfed, SA31 1PX<br>Classification: Medical & Dental Laboratories<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                 | A12SE (W)                              | 589                          | -       | 241032 220110 |
| 183    | <b>Contemporary Trade Directory Entries</b><br>Name: Health Care (Wales) Ltd<br>Location: 12, Lammas Street, Carmarthen, Dyfed, SA31 3AD<br>Classification: Chemists' & Pharmacists' Suppliers & Wholesalers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address       | A12SE (W)                              | 594                          | -       | 241037 220082 |



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| 183    | <b>Contemporary Trade Directory Entries</b><br>Name: Sheffield House<br>Location: 115-116, Lammas Street, Carmarthen, Dyfed, SA31 3AE<br>Classification: Hardware<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A12SE (W)                              | 631                          | -       | 241012 220041 |
| 184    | <b>Contemporary Trade Directory Entries</b><br>Name: Andrews Auto'S<br>Location: Pentrefelin Street, Carmarthen, Dyfed, SA31 1SB<br>Classification: Car Body Repairs<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A12NE (W)                              | 595                          | -       | 241051 220492 |
| 185    | <b>Contemporary Trade Directory Entries</b><br>Name: Carmarthen Shopmobility Caerffyrddin<br>Location: St. Catherines Walk, Carmarthen, Dyfed, SA31 1GA<br>Classification: Disability Equipment - Manufacturers & Suppliers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address | A12NE (W)                              | 609                          | -       | 240999 220358 |
| 186    | <b>Contemporary Trade Directory Entries</b><br>Name: Gwyn Jones Car Sales<br>Location: The Old Creamery, Pensarn Road, CARMARTHEN, Dyfed, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A8NW (SW)                              | 611                          | -       | 241348 219672 |
| 186    | <b>Contemporary Trade Directory Entries</b><br>Name: Steve Jones<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A8NW (SW)                              | 611                          | -       | 241348 219672 |
| 186    | <b>Contemporary Trade Directory Entries</b><br>Name: Cymru Garages<br>Location: The Old Creamery, Pensarn Road, Carmarthen, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8NW (SW)                              | 612                          | -       | 241348 219671 |
| 187    | <b>Contemporary Trade Directory Entries</b><br>Name: Carmarthen Decorating Centre Ltd<br>Location: Llangunnor Road, Carmarthen, Dyfed, SA31 2NS<br>Classification: Painting & Decorating Supplies<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                           | A9NW (SE)                              | 622                          | -       | 242039 219714 |
| 188    | <b>Contemporary Trade Directory Entries</b><br>Name: Myrddin Garden Machinery<br>Location: Station Approach, Carmarthen, Dyfed, SA31 2BE<br>Classification: Lawnmowers & Garden Machinery - Sales & Service<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                   | A7NE (SW)                              | 643                          | -       | 241231 219717 |
| 189    | <b>Contemporary Trade Directory Entries</b><br>Name: East To West Dental Ceramics Ltd<br>Location: 10, Water Street, Carmarthen, Dyfed, SA31 1PY<br>Classification: Medical & Dental Laboratories<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location                    | A12SW (W)                              | 690                          | -       | 240919 220165 |
| 189    | <b>Contemporary Trade Directory Entries</b><br>Name: Eastgate Dental Laboratory<br>Location: 78, Water Street, Carmarthen, Dyfed, SA31 1PZ<br>Classification: Medical & Dental Laboratories<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                 | A12SW (W)                              | 691                          | -       | 240923 220132 |
| 189    | <b>Contemporary Trade Directory Entries</b><br>Name: West Wales Stove Supplies<br>Location: 23, Lammas Street, Carmarthen, SA31 3AL<br>Classification: Woodburning Stoves<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A12SW (W)                              | 701                          | -       | 240923 220088 |
| 190    | <b>Contemporary Trade Directory Entries</b><br>Name: Ats Euromaster Ltd<br>Location: Pensarn Road, CARMARTHEN, Dyfed, SA31 2BS<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address  | A8SW (S)                               | 692                          | -       | 241402 219557 |

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| 190    | <b>Contemporary Trade Directory Entries</b><br>Name: Cymru Garages<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Manually positioned to the road within the address or location                                 | A8SW (SW)                              | 711                          | -       | 241354<br>219557 |
| 190    | <b>Contemporary Trade Directory Entries</b><br>Name: Jewson<br>Location: Pensarn Road, Off Stephens Way, Carmarthen, Dyfed, SA31 2BS<br>Classification: Builders' Merchants<br><b>Status: Active</b><br>Positional Accuracy: Manually positioned within the geographical locality                         | A8SW (S)                               | 721                          | -       | 241378<br>219535 |
| 190    | <b>Contemporary Trade Directory Entries</b><br>Name: Kwik Fit<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8SW (S)                               | 752                          | -       | 241375<br>219503 |
| 191    | <b>Contemporary Trade Directory Entries</b><br>Name: Dyfed Tyres<br>Location: 8, Brewery Buildings, Brewery Road, Carmarthen, Dyfed, SA31 1TF<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                    | A17SE (NW)                             | 719                          | -       | 240988<br>220639 |
| 191    | <b>Contemporary Trade Directory Entries</b><br>Name: Thomas Pet Foods<br>Location: Brewery Buildings, Brewery Road, Carmarthen, Dyfed, SA31 1TF<br>Classification: Pet Foods & Animal Feeds<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                    | A17SE (NW)                             | 719                          | -       | 240988<br>220639 |
| 191    | <b>Contemporary Trade Directory Entries</b><br>Name: Lewis T Davies<br>Location: Brewery Buildings, Brewery Road, Carmarthen, Dyfed, SA31 1TF<br>Classification: Packaging Materials Manufacturers & Suppliers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address | A17SE (NW)                             | 719                          | -       | 240988<br>220639 |
| 191    | <b>Contemporary Trade Directory Entries</b><br>Name: Dyfed Auto Services<br>Location: 8, Brewery Buildings, Brewery Road, Carmarthen, Dyfed, SA31 1TF<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                       | A17SE (NW)                             | 719                          | -       | 240988<br>220639 |
| 192    | <b>Contemporary Trade Directory Entries</b><br>Name: Motorway Tyres & Accessories Ltd<br>Location: Bridge Wharf, Station Approach, Carmarthen, Dyfed, SA31 2BE<br>Classification: Tyre Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location          | A7NE (SW)                              | 733                          | -       | 241191<br>219633 |
| 193    | <b>Contemporary Trade Directory Entries</b><br>Name: Merlins Mobiles<br>Location: 29, Lammas Street, Carmarthen, Dyfed, SA31 3AL<br>Classification: Telecommunications Equipment & Systems<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                     | A12SW (W)                              | 736                          | -       | 240889<br>220081 |
| 193    | <b>Contemporary Trade Directory Entries</b><br>Name: Coinwash Laundrette<br>Location: 31, Lammas Street, Carmarthen, Dyfed, SA31 3AL<br>Classification: Laundries & Launderettes<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                               | A12SW (W)                              | 748                          | -       | 240877<br>220080 |
| 193    | <b>Contemporary Trade Directory Entries</b><br>Name: Gomer Press<br>Location: 33-35, Lammas Street, Carmarthen, Dyfed, SA31 3AL<br>Classification: Printers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A12SW (W)                              | 757                          | -       | 240868<br>220080 |
| 193    | <b>Contemporary Trade Directory Entries</b><br>Name: West Wales Marble & Granite<br>Location: 32, Lammas Street, Carmarthen, Dyfed, SA31 3AL<br>Classification: Fireplaces & Mantelpieces<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                      | A12SW (W)                              | 757                          | -       | 240868<br>220080 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 194    | <b>Contemporary Trade Directory Entries</b><br>Name: Travis Perkins Trading Co Ltd<br>Location: Pensarn Road, CARMARTHEN, Dyfed, SA31 2BS<br>Classification: Builders' Merchants<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                                  | A8SW (S)                               | 758                          | -       | 241413<br>219482 |
| 194    | <b>Contemporary Trade Directory Entries</b><br>Name: Peter Johnson<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A8SW (S)                               | 758                          | -       | 241413<br>219482 |
| 194    | <b>Contemporary Trade Directory Entries</b><br>Name: Travis Perkins Plc<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Builders' Merchants<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8SW (S)                               | 758                          | -       | 241413<br>219482 |
| 195    | <b>Contemporary Trade Directory Entries</b><br>Name: Elite Angling Products<br>Location: 20, Ross Avenue, Carmarthen, Dyfed, SA31 1HX<br>Classification: Fishing & Angling Equipment - Manufacturers & Distributors<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address | A19NW (NE)                             | 760                          | -       | 242032<br>220950 |
| 196    | <b>Contemporary Trade Directory Entries</b><br>Name: National Tyres & Autocare<br>Location: Pensarn Road, CARMARTHEN, Dyfed, SA31 2BS<br>Classification: Tyre Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8SW (SW)                              | 775                          | -       | 241309<br>219507 |
| 197    | <b>Contemporary Trade Directory Entries</b><br>Name: Ceir Cawdor Cars<br>Location: Square Court, St. Catherine Street, Carmarthen, Dyfed, SA31 3DZ<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                             | A12SW (W)                              | 777                          | -       | 240841<br>220105 |
| 197    | <b>Contemporary Trade Directory Entries</b><br>Name: Cawdor Cars<br>Location: Square Court, St. Catherine Street, Carmarthen, SA31 3DZ<br>Classification: Car Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A12SW (W)                              | 789                          | -       | 240825<br>220121 |
| 197    | <b>Contemporary Trade Directory Entries</b><br>Name: Ceir Cawdor Cars<br>Location: Square Court, St. Catherine Street, Carmarthen, SA31 3DZ<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A12SW (W)                              | 790                          | -       | 240825<br>220121 |
| 197    | <b>Contemporary Trade Directory Entries</b><br>Name: Dyfed Cleaning Services Ltd<br>Location: 69, St. Catherine Street, Carmarthen, Dyfed, SA31 3DU<br>Classification: Dry Cleaners<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                               | A12SW (W)                              | 817                          | -       | 240799<br>220111 |
| 198    | <b>Contemporary Trade Directory Entries</b><br>Name: Bassetts - Carmarthen<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address   | A8SW (S)                               | 806                          | -       | 241372<br>219445 |
| 198    | <b>Contemporary Trade Directory Entries</b><br>Name: Arthur Bassett Ltd<br>Location: Pensarn Road, Carmarthen, Dyfed, SA31 2BS<br>Classification: Car Dealers<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A8SW (S)                               | 825                          | -       | 241371<br>219426 |
| 199    | <b>Contemporary Trade Directory Entries</b><br>Name: Autotune<br>Location: 1, Glannant Road, Carmarthen, Dyfed, SA31 3JD<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address   | A12NW (W)                              | 834                          | -       | 240768<br>220304 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
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| 199    | <b>Contemporary Trade Directory Entries</b><br>Name: Old Oak Damp Proofing<br>Location: 6, Glannant Road, Carmarthen, Dyfed, SA31 3JD<br>Classification: Damp & Dry Rot Control<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address      | A12NW (W)                              | 857                          | -       | 240746 220307 |
| 200    | <b>Contemporary Trade Directory Entries</b><br>Name: Quarry Garage<br>Location: Carmarthen, SA31 2ER<br>Classification: Garage Services<br><b>Status:</b> Active<br>Positional Accuracy: Automatically positioned to the address  | A19NW (NE)                             | 845                          | -       | 242174 220952 |
| 201    | <b>Contemporary Trade Directory Entries</b><br>Name: Tanerdy Garage<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, SA31 2EY<br>Classification: Petrol Filling Stations<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address            | A19NW (NE)                             | 885                          | -       | 242245 220943 |
| 201    | <b>Contemporary Trade Directory Entries</b><br>Name: Evans & Jones<br>Location: Tanerdy Garage, Tanerdy, CARMARTHEN, Dyfed, SA31 2EY<br>Classification: Petrol Filling Stations<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address      | A19NW (NE)                             | 885                          | -       | 242237 220950 |
| 201    | <b>Contemporary Trade Directory Entries</b><br>Name: M A C<br>Location: Tanerdy, Carmarthen, Dyfed, SA31 2EY<br>Classification: Garage Services<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                                      | A19NW (NE)                             | 885                          | -       | 242237 220950 |
| 201    | <b>Contemporary Trade Directory Entries</b><br>Name: Gulf Petrol Station<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, Dyfed, SA31 2EY<br>Classification: Petrol Filling Stations<br><b>Status:</b> Active<br>Positional Accuracy: Automatically positioned to the address  | A19NW (NE)                             | 889                          | -       | 242224 220967 |
| 202    | <b>Contemporary Trade Directory Entries</b><br>Name: Inter-Trade Cars (Uk) Ltd<br>Location: 13, Morfa Lane, Carmarthen, Dyfed, SA31 3AX<br>Classification: Car Dealers - Used<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address        | A12SW (W)                              | 897                          | -       | 240771 219923 |
| 202    | <b>Contemporary Trade Directory Entries</b><br>Name: Tesco Petrol Station<br>Location: Morfa Lane, Carmarthen, Dyfed, SA31 3AX<br>Classification: Petrol Filling Stations<br><b>Status:</b> Active<br>Positional Accuracy: Manually positioned within the geographical locality | A12SW (W)                              | 898                          | -       | 240759 219952 |
| 202    | <b>Contemporary Trade Directory Entries</b><br>Name: F R F Toyota<br>Location: Morfa Lane, Carmarthen, Dyfed, SA31 3AX<br>Classification: Car Dealers<br><b>Status:</b> Active<br>Positional Accuracy: Manually positioned to the road within the address or location           | A7NW (SW)                              | 920                          | -       | 240763 219883 |
| 203    | <b>Contemporary Trade Directory Entries</b><br>Name: J H Morse<br>Location: Morfa Lane, Carmarthen, Dyfed, SA31 3AX<br>Classification: Agricultural Machinery - Sales & Service<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address      | A12SW (W)                              | 920                          | -       | 240711 220036 |
| 204    | <b>Contemporary Trade Directory Entries</b><br>Name: Toyota Dealership<br>Location: Morfa Lane, Carmarthen, SA31 3AX<br>Classification: Car Dealers - Used<br><b>Status:</b> Active<br>Positional Accuracy: Automatically positioned to the address                             | A7NW (SW)                              | 949                          | -       | 240763 219816 |
| 204    | <b>Contemporary Trade Directory Entries</b><br>Name: Tovali Ltd<br>Location: Tovali Works, Glanyrafon Road, Carmarthen, Dyfed, SA31 3AR<br>Classification: Soft Drinks - Manufacturers<br><b>Status:</b> Active<br>Positional Accuracy: Automatically positioned to the address | A7NW (SW)                              | 994                          | -       | 240719 219804 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 205    | <b>Contemporary Trade Directory Entries</b><br>Name: Damp Armour Ltd<br>Location: Hill Crest, Babel Road, Pensarn, Carmarthen, Dyfed, SA31 2JY<br>Classification: Damp & Dry Rot Control<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                   | A8SW (S)                               | 960                          | -       | 241554<br>219246 |
| 206    | <b>Contemporary Trade Directory Entries</b><br>Name: Comet Group Plc<br>Location: Unit 1, Stephens Way, Carmarthen, Dyfed, SA31 2BG<br>Classification: Electrical Goods Sales, Manufacturers & Wholesalers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address | A7SE (SW)                              | 973                          | -       | 241128<br>219382 |
| 206    | <b>Contemporary Trade Directory Entries</b><br>Name: Comet<br>Location: Unit 1, Stephens Way, Carmarthen, Dyfed, SA31 2BG<br>Classification: Electrical Goods Sales, Manufacturers & Wholesalers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address           | A7SE (SW)                              | 973                          | -       | 241128<br>219382 |
| 207    | <b>Fuel Station Entries</b><br>Name: Towy Service Station<br>Location: The Bridge , , Carmarthen, Carmarthenshire, SA31 2BN<br>Brand: Texaco<br>Premises Type: Petrol Station<br><b>Status:</b> Open<br>Positional Accuracy: Manually positioned to the address or location                           | A8NW (SW)                              | 504                          | -       | 241420<br>219755 |
| 208    | <b>Fuel Station Entries</b><br>Name: Central Service Station<br>Location: St Catherines Street , , Carmarthen, Carmarthenshire, SA31 1RD<br>Brand: Obsolete<br>Premises Type: Not Applicable<br><b>Status:</b> Obsolete<br>Positional Accuracy: Manually positioned to the address or location        | A12NE (W)                              | 598                          | -       | 241003<br>220273 |
| 209    | <b>Fuel Station Entries</b><br>Name: Pensarn Service Station<br>Location: Pensarn Road , Pensarn , Carmarthen, Carmarthenshire, SA31 2BY<br>Brand: OBSOLETE<br>Premises Type: Not Applicable<br><b>Status:</b> Obsolete<br>Positional Accuracy: Approximate location provided by supplier             | A8SW (S)                               | 766                          | -       | 241489<br>219453 |
| 210    | <b>Fuel Station Entries</b><br>Name: Glannant Service Station<br>Location: Glannant Road , , Carmarthen, Carmarthenshire, SA31 3XX<br>Brand: Obsolete<br>Premises Type: Not Applicable<br><b>Status:</b> Obsolete<br>Positional Accuracy: Manually positioned to the address or location              | A12NW (W)                              | 821                          | -       | 240781<br>220305 |
| 211    | <b>Fuel Station Entries</b><br>Name: Tanerdy Garage<br>Location: Priory Street , Tanerdy , Carmarthen, Carmarthenshire, SA31 2EY<br>Brand: Gulf<br>Premises Type: Petrol Station<br><b>Status:</b> Open<br>Positional Accuracy: Automatically positioned to the address                               | A19NW (NE)                             | 889                          | -       | 242224<br>220967 |
| 212    | <b>Points of Interest - Commercial Services</b><br>Name: Peter Jones<br>Location: Old Station Road, Carmarthen, SA31 1JN<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                             | A13SW (SW)                             | 345                          | 9       | 241431<br>219937 |
| 212    | <b>Points of Interest - Commercial Services</b><br>Name: Rink Garage<br>Location: Old Station Road, Carmarthen, SA31 1JN<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                             | A13SW (SW)                             | 345                          | 9       | 241431<br>219937 |
| 212    | <b>Points of Interest - Commercial Services</b><br>Name: Rink Garage<br>Location: 8 Old Station Road, Carmarthen, SA31 1JN<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                           | A13SW (SW)                             | 345                          | 9       | 241431<br>219937 |

| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 213    | <b>Points of Interest - Commercial Services</b><br>Name: G-tec Garage Services<br>Location: Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location      | A8NE (S)                               | 420                          | 9       | 241707<br>219784 |
| 214    | <b>Points of Interest - Commercial Services</b><br>Name: The Body Shop<br>Location: 4 Red Street, Carmarthen, SA31 1RA<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                     | A12SE (W)                              | 448                          | 9       | 241178<br>220118 |
| 215    | <b>Points of Interest - Commercial Services</b><br>Name: Fleetwheel Ltd<br>Location: St. Marys Street, Carmarthen, SA31 1TN<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                | A12SE (SW)                             | 461                          | 9       | 241214<br>220008 |
| 215    | <b>Points of Interest - Commercial Services</b><br>Name: Fleetwheel Plc<br>Location: 3 St. Marys Street, Carmarthen, SA31 1TN<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location              | A12SE (SW)                             | 462                          | 9       | 241234<br>219978 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: R S Respray's<br>Location: 7 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location            | A8NW (SW)                              | 471                          | 9       | 241438<br>219782 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: R S Respray's<br>Location: 7 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location            | A8NW (SW)                              | 474                          | 9       | 241441<br>219777 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: D R J Motors<br>Location: 7 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location             | A8NW (SW)                              | 474                          | 9       | 241441<br>219777 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: D R J Motors<br>Location: 7 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location             | A8NW (SW)                              | 474                          | 9       | 241441<br>219777 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: Sos Car Fix<br>Location: 7 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location              | A8NW (SW)                              | 476                          | 9       | 241430<br>219781 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: Kinzuru<br>Location: Unit 3, Old Llangunnor Road, Carmarthen, Dyfed, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location     | A8NW (SW)                              | 477                          | 9       | 241413<br>219789 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: Spick & Span Valeting<br>Location: Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Personal, Consumer and other Services<br>Class Code: Vehicle Cleaning Services<br>Positional Accuracy: Positioned to address or location | A8NW (SW)                              | 532                          | 9       | 241373<br>219749 |
| 216    | <b>Points of Interest - Commercial Services</b><br>Name: Spick & Span Valeting<br>Location: Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Personal, Consumer and other Services<br>Class Code: Vehicle Cleaning Services<br>Positional Accuracy: Positioned to address or location | A8NW (SW)                              | 532                          | 9       | 241373<br>219749 |



| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
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| 217    | <b>Points of Interest - Commercial Services</b><br>Name: D A Hughes<br>Location: 65 Belvedere Avenue, Carmarthen, SA31 1JA<br>Category: Transport, Storage and Delivery<br>Class Code: Distribution and Haulage<br>Positional Accuracy: Positioned to address or location                        | A18SE (N)                              | 480                          | 9       | 241746<br>220769 |
| 218    | <b>Points of Interest - Commercial Services</b><br>Name: S & J Garage<br>Location: Furnace Bank, Carmarthen, SA31 1NT<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                           | A19SW (NE)                             | 523                          | 9       | 242069<br>220612 |
| 219    | <b>Points of Interest - Commercial Services</b><br>Name: Dyfed Auto Services<br>Location: Brewery Road, Carmarthen, SA31 1TF<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                    | A17SE (NW)                             | 719                          | 9       | 240988<br>220639 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: Moduron G W D Motors<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                   | A8SW (S)                               | 720                          | 9       | 241389<br>219532 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: G M J Body Repairs<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                     | A8SW (S)                               | 733                          | 9       | 241388<br>219518 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: G M J Body Repairs Ltd<br>Location: Unit 1 Old Llangunnor Road, Carmarthen, SA31 2BD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location   | A8SW (S)                               | 733                          | 9       | 241388<br>219518 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: Kwik-Fit (GB) Limited<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                  | A8SW (S)                               | 755                          | 9       | 241378<br>219498 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: Kwik-Fit (GB) Limited<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                  | A8SW (S)                               | 760                          | 9       | 241377<br>219493 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: National Tyres and Autocare<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location            | A8SW (SW)                              | 780                          | 9       | 241308<br>219502 |
| 220    | <b>Points of Interest - Commercial Services</b><br>Name: National Tyres and Autocare<br>Location: Pensarn Road, Carmarthen, SA31 2BS<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location            | A8SW (SW)                              | 783                          | 9       | 241309<br>219499 |
| 221    | <b>Points of Interest - Commercial Services</b><br>Name: Ceir Cawdor Cars<br>Location: Square Court, St. Catherine Street, Carmarthen, SA31 3DZ<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location | A12SW (W)                              | 777                          | 9       | 240841<br>220105 |
| 222    | <b>Points of Interest - Commercial Services</b><br>Name: Autotune<br>Location: 1 Glannant Road, Carmarthen, SA31 3JD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                            | A12NW (W)                              | 834                          | 9       | 240768<br>220304 |

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| 222    | <b>Points of Interest - Commercial Services</b><br>Name: Autotune<br>Location: 1 Glannant Road, Carmarthen, SA31 3JD<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                   | A12NW (W)                              | 834                          | 9       | 240768 220304 |
| 223    | <b>Points of Interest - Commercial Services</b><br>Name: Quarry Garage<br>Location: Reservoir Road, Carmarthen, SA31 2ER<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location               | A19NW (NE)                             | 844                          | 9       | 242173 220952 |
| 223    | <b>Points of Interest - Commercial Services</b><br>Name: M A C<br>Location: Tanerdy, Carmarthen, SA31 2EY<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location                              | A19NW (NE)                             | 885                          | 9       | 242237 220950 |
| 223    | <b>Points of Interest - Commercial Services</b><br>Name: Quarry Garage<br>Location: Reservoir Road, Carmarthen, SA31 2ER<br>Category: Repair and Servicing<br>Class Code: Vehicle Repair, Testing and Servicing<br>Positional Accuracy: Positioned to address or location               | A19NW (NE)                             | 885                          | 9       | 242237 220950 |
| 224    | <b>Points of Interest - Commercial Services</b><br>Name: Happy Shammy Ltd<br>Location: 2 Haulfryn, Tregynwr, Carmarthen, SA31 2DS<br>Category: Personal, Consumer and other Services<br>Class Code: Vehicle Cleaning Services<br>Positional Accuracy: Positioned to address or location | A8SE (S)                               | 903                          | 9       | 241721 219301 |
| 225    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tanks<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location   | A13SE (E)                              | 37                           | 9       | 241721 220231 |
| 226    | <b>Points of Interest - Manufacturing and Production</b><br>Name: The Old Workshop<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location                               | A13NE (NE)                             | 168                          | 9       | 241795 220383 |
| 227    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tank<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location  | A14NW (NE)                             | 433                          | 9       | 242016 220537 |
| 228    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Works<br>Location: Not Supplied<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location                                  | A8NW (S)                               | 462                          | 9       | 241459 219782 |
| 229    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tank<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location  | A18NE (N)                              | 699                          | 9       | 241875 220958 |
| 230    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tank<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location  | A8SW (S)                               | 724                          | 9       | 241422 219515 |
| 231    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tank<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location  | A14NE (E)                              | 969                          | 9       | 242650 220368 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--|--|------------------------------|---------|------------------|
| 232    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Tank<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Tanks (Generic)<br>Positional Accuracy: Positioned to an adjacent address or location   | A7NW (SW)                              | 982                          | 9       | 240720<br>219828 |
| 232    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Factory<br>Location: Not Supplied<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to an adjacent address or location   | A7NW (SW)                              | 997                          | 9       | 240718<br>219798 |
| 232    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Factory<br>Location: SA31<br>Category: Industrial Features<br>Class Code: Unspecified Works Or Factories<br>Positional Accuracy: Positioned to address or location   | A7NW (SW)                              | 999                          | 9       | 240718<br>219794 |
| 233    | <b>Points of Interest - Public Infrastructure</b><br>Name: Burial Ground<br>Location: Not Supplied<br>Category: Infrastructure and Facilities<br>Class Code: Cemeteries and Crematoria<br>Positional Accuracy: Positioned to an adjacent address or location                                     | A12NE (W)                              | 430                          | 9       | 241171<br>220273 |
| 233    | <b>Points of Interest - Public Infrastructure</b><br>Name: Burial Ground<br>Location: SA31<br>Category: Infrastructure and Facilities<br>Class Code: Cemeteries and Crematoria<br>Positional Accuracy: Positioned to an adjacent address or location   | A12NE (W)                              | 430                          | 9       | 241171<br>220275 |
| 234    | <b>Points of Interest - Public Infrastructure</b><br>Name: Texaco<br>Location: The Bridge, Carmarthen, SA31 2BN<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location   | A8NW (SW)                              | 503                          | 9       | 241419<br>219756 |
| 234    | <b>Points of Interest - Public Infrastructure</b><br>Name: Towy Service Station<br>Location: The Bridge, Carmarthen, SA31 2BE<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location                                       | A8NW (SW)                              | 503                          | 9       | 241419<br>219756 |
| 234    | <b>Points of Interest - Public Infrastructure</b><br>Name: Towy Service Station<br>Location: The Bridge, Carmarthen, SA31 2BN<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location                                       | A8NW (SW)                              | 504                          | 9       | 241420<br>219755 |
| 234    | <b>Points of Interest - Public Infrastructure</b><br>Name: Towy Service Station<br>Location: The Bridge, Carmarthen, SA31 2BN<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location                                       | A8NW (SW)                              | 505                          | 9       | 241419<br>219754 |
| 235    | <b>Points of Interest - Public Infrastructure</b><br>Name: Bus Depot<br>Location: SA31<br>Category: Public Transport, Stations and Infrastructure<br>Class Code: Bus and Coach Stations, Depots and Companies<br>Positional Accuracy: Positioned to an adjacent address or location              | A12SE (SW)                             | 568                          | 9       | 241114<br>219968 |
| 235    | <b>Points of Interest - Public Infrastructure</b><br>Name: Bus Depot<br>Location: SA31<br>Category: Public Transport, Stations and Infrastructure<br>Class Code: Bus and Coach Stations, Depots and Companies<br>Positional Accuracy: Positioned to an adjacent address or location              | A12SE (SW)                             | 572                          | 9       | 241112<br>219964 |
| 236    | <b>Points of Interest - Public Infrastructure</b><br>Name: Carmarthen Rail Station<br>Location: Station Approach, SA31<br>Category: Public Transport, Stations and Infrastructure<br>Class Code: Railway Stations, Junctions and Halts<br>Positional Accuracy: Positioned to address or location | A7NE (SW)                              | 633                          | 9       | 241271<br>219697 |



| Map ID | Details   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---|--|------------------------------|---------|------------------|
| 236    | <b>Points of Interest - Public Infrastructure</b><br>Name: Carmarthen Station<br>Location: Station Approach, SA31<br>Category: Public Transport, Stations and Infrastructure<br>Class Code: Railway Stations, Junctions and Halts<br>Positional Accuracy: Positioned to address or location                             | A7NE (SW)                              | 633                          | 9       | 241271<br>219697 |
| 237    | <b>Points of Interest - Public Infrastructure</b><br>Name: Outfall<br>Location: SA31<br>Category: Infrastructure and Facilities<br>Class Code: Waste Storage, Processing and Disposal<br>Positional Accuracy: Positioned to an adjacent address or location   | A7NE (SW)                              | 716                          | 9       | 241041<br>219812 |
| 238    | <b>Points of Interest - Public Infrastructure</b><br>Name: Tesco Petrol Filling Station<br>Location: Friars Park, Carmarthen, SA31 3AN<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location   | A12SW (SW)                             | 732                          | 9       | 240938<br>219953 |
| 239    | <b>Points of Interest - Public Infrastructure</b><br>Name: Burial Ground<br>Location: Not Supplied<br>Category: Infrastructure and Facilities<br>Class Code: Cemeteries and Crematoria<br>Positional Accuracy: Positioned to an adjacent address or location  | A12SW (W)                              | 804                          | 9       | 240798<br>220236 |
| 239    | <b>Points of Interest - Public Infrastructure</b><br>Name: Burial Ground<br>Location: SA31<br>Category: Infrastructure and Facilities<br>Class Code: Cemeteries and Crematoria<br>Positional Accuracy: Positioned to an adjacent address or location  | A12SW (W)                              | 815                          | 9       | 240787<br>220235 |
| 240    | <b>Points of Interest - Public Infrastructure</b><br>Name: Dyfed-Powys Constabulary<br>Location: Divisional Police Headquarters, Friars Park, Carmarthen, SA31 3AW<br>Category: Central and Local Government<br>Class Code: Police Stations<br>Positional Accuracy: Positioned to address or location                   | A7NW (SW)                              | 850                          | 9       | 240836<br>219892 |
| 240    | <b>Points of Interest - Public Infrastructure</b><br>Name: Dyfed-Powys Police Headquarters<br>Location: Divisional Police Headquarters, Friars Park, Carmarthen, SA31 2PF<br>Category: Central and Local Government<br>Class Code: Police Stations<br>Positional Accuracy: Positioned to address or location            | A7NW (SW)                              | 850                          | 9       | 240836<br>219892 |
| 240    | <b>Points of Interest - Public Infrastructure</b><br>Name: Carmarthen Police Station (Divisional Headquarters)<br>Location: Carmarthen Police Station, Friars Park, Carmarthen, SA31<br>Category: Central and Local Government<br>Class Code: Police Stations<br>Positional Accuracy: Positioned to address or location | A7NW (SW)                              | 859                          | 9       | 240829<br>219885 |
| 240    | <b>Points of Interest - Public Infrastructure</b><br>Name: Dyfed Powys Police<br>Location: Divisional Police Headquarters, Friars Park, Carmarthen, SA31 3AW<br>Category: Central and Local Government<br>Class Code: Police Stations<br>Positional Accuracy: Positioned to address or location                         | A7NW (SW)                              | 859                          | 9       | 240829<br>219885 |
| 241    | <b>Points of Interest - Public Infrastructure</b><br>Name: Tanerdy Garage<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, SA31 2EY<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location   | A19NW (NE)                             | 884                          | 9       | 242236<br>220950 |
| 241    | <b>Points of Interest - Public Infrastructure</b><br>Name: Tanerdy Garage<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, SA31 2EY<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location   | A19NW (NE)                             | 884                          | 9       | 242236<br>220950 |
| 241    | <b>Points of Interest - Public Infrastructure</b><br>Name: Tanerdy Garage<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, Dyfed, SA31 2EY<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location  | A19NW (NE)                             | 885                          | 9       | 242237<br>220950 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
| 241    | <b>Points of Interest - Public Infrastructure</b><br>Name: Gulf Petrol Station<br>Location: Tanerdy Garage, Tanerdy, Carmarthen, SA31 2EY<br>Category: Road And Rail<br>Class Code: Petrol and Fuel Stations<br>Positional Accuracy: Positioned to address or location | A19NW (NE)                             | 888                          | 9       | 242224 220966 |
| 242    | <b>Points of Interest - Recreational and Environmental</b><br>Name: Playground<br>Location: Not Supplied<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location                                    | A14NW (NE)                             | 418                          | 9       | 241985 220548 |
| 242    | <b>Points of Interest - Recreational and Environmental</b><br>Name: Playground<br>Location: Priory Street (Heol Y Prior), SA31<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to address or location                          | A14NW (NE)                             | 426                          | 9       | 241993 220551 |
| 242    | <b>Points of Interest - Recreational and Environmental</b><br>Name: Playground<br>Location: SA31<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location  | A14NW (NE)                             | 440                          | 9       | 242012 220552 |
| 243    | <b>Points of Interest - Recreational and Environmental</b><br>Name: Playground<br>Location: Not Supplied<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location                                    | A12SW (W)                              | 986                          | 9       | 240649 220010 |
| 243    | <b>Points of Interest - Recreational and Environmental</b><br>Name: Playground<br>Location: Picton Terrace, SA31<br>Category: Recreational<br>Class Code: Playgrounds<br>Positional Accuracy: Positioned to an adjacent address or location                            | A12SW (W)                              | 993                          | 9       | 240642 220010 |

| Map ID | Details  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--|--|------------------------------|---------|---------------|
| 244    | <b>Sites of Special Scientific Interest</b><br>Name: Afon Tywi<br>Multiple Areas: N<br>Total Area (m2): 13138123.26<br>Source: Natural Resources Wales<br>Reference: 144132wpo<br>Designation Details: Biological<br>Designation Date: 17th February 1998<br>Date Type: Notified | A13SE (E)                              | 192                          | 2       | 241873 220201 |
| 245    | <b>Special Areas of Conservation</b><br>Name: Afon Tywi / River Tywi<br>Multiple Areas: N<br>Total Area (m2): 3758569.75<br>Source: Natural Resources Wales<br>Reference: UK0013010<br><b>Status: Designated</b>   | A13SE (E)                              | 192                          | 2       | 241873 220201 |



| Agency & Hydrological  | Version                     | Update Cycle                      |
|--|-----------------------------|-----------------------------------|
| <b>Contaminated Land Register Entries and Notices</b><br>Natural Resources Wales<br>Carmarthenshire County Council - Environmental Health Department | June 2020<br>September 2017 | Annually<br>Annual Rolling Update |
| <b>Discharge Consents</b><br>Natural Resources Wales<br>Environment Agency - Welsh Region  | April 2021<br>August 2014   | Quarterly<br>Quarterly            |
| <b>Enforcement and Prohibition Notices</b><br>Environment Agency - Welsh Region  | March 2013                  |                                   |
| <b>Integrated Pollution Controls</b><br>Environment Agency - Welsh Region  | January 2009                |                                   |
| <b>Integrated Pollution Prevention And Control</b><br>Natural Resources Wales<br>Environment Agency - Welsh Region                                   | April 2021<br>January 2021  | Quarterly<br>Quarterly            |
| <b>Local Authority Integrated Pollution Prevention And Control</b><br>Carmarthenshire County Council - Environmental Health Department               | March 2015                  | Variable                          |
| <b>Local Authority Pollution Prevention and Controls</b><br>Carmarthenshire County Council - Environmental Health Department                         | March 2015                  | Annual Rolling Update             |
| <b>Local Authority Pollution Prevention and Control Enforcements</b><br>Carmarthenshire County Council - Environmental Health Department             | March 2015                  | Variable                          |
| <b>Nearest Surface Water Feature</b><br>Ordnance Survey  | April 2021                  |                                   |
| <b>Pollution Incidents to Controlled Waters</b><br>Environment Agency - Welsh Region   | December 1998               |                                   |
| <b>Prosecutions Relating to Authorised Processes</b><br>Environment Agency - Welsh Region<br>Natural Resources Wales                                 | July 2015<br>July 2015      |                                   |
| <b>Prosecutions Relating to Controlled Waters</b><br>Environment Agency - Welsh Region<br>Natural Resources Wales                                    | March 2013<br>March 2013    |                                   |
| <b>Registered Radioactive Substances</b><br>Natural Resources Wales<br>Environment Agency - Welsh Region   | January 2015<br>June 2016   | Annually<br>Annually              |
| <b>River Quality</b><br>Environment Agency - Head Office   | November 2001               | Not Applicable                    |
| <b>Substantiated Pollution Incident Register</b><br>Natural Resources Wales<br>Environment Agency Wales - South West Area                            | April 2021<br>January 2021  | Quarterly<br>Quarterly            |
| <b>Water Abstractions</b><br>Environment Agency - Welsh Region<br>Natural Resources Wales  | April 2021<br>April 2021    | Quarterly<br>Quarterly            |
| <b>Water Industry Act Referrals</b><br>Natural Resources Wales<br>Environment Agency - Welsh Region  | April 2021<br>October 2017  | Quarterly<br>Quarterly            |
| <b>Groundwater Vulnerability Map</b><br>Natural Resources Wales  | June 2018                   | As notified                       |
| <b>Bedrock Aquifer Designations</b><br>Natural Resources Wales   | January 2018                | Annually                          |
| <b>Superficial Aquifer Designations</b><br>Natural Resources Wales   | January 2018                | Annually                          |
| <b>Source Protection Zones</b><br>Natural Resources Wales  | July 2017                   | Annual Rolling Update             |

| Agency & Hydrological  | Version                      | Update Cycle           |
|--|------------------------------|------------------------|
| <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Natural Resources Wales   | September 2020               | Quarterly              |
| <b>Flooding from Rivers or Sea without Defences</b><br>Natural Resources Wales   | September 2020               | Quarterly              |
| <b>Areas Benefiting from Flood Defences</b><br>Natural Resources Wales   | November 2019                | Quarterly              |
| <b>Flood Water Storage Areas</b><br>Natural Resources Wales  | August 2019                  | Quarterly              |
| <b>Flood Defences</b><br>Natural Resources Wales   | November 2019                | Quarterly              |
| <b>OS Water Network Lines</b><br>Ordnance Survey   | July 2021                    | Quarterly              |
| <b>Surface Water 1 in 30 year Flood Extent</b><br>Natural Resources Wales  | May 2018                     | Annually               |
| <b>Surface Water 1 in 100 year Flood Extent</b><br>Natural Resources Wales   | May 2018                     | Annually               |
| <b>Surface Water 1 in 1000 year Flood Extent</b><br>Natural Resources Wales  | May 2018                     | Annually               |
| <b>Surface Water Suitability</b><br>Natural Resources Wales  | February 2016                | Annually               |
| <b>BGS Groundwater Flooding Susceptibility</b><br>British Geological Survey - National Geoscience Information Service                      | May 2013                     | Annually               |
| Waste  | Version                      | Update Cycle           |
| <b>BGS Recorded Landfill Sites</b><br>British Geological Survey - National Geoscience Information Service                                  | November 2002                | Not Applicable         |
| <b>Historical Landfill Sites</b><br>Natural Resources Wales  | July 2019                    | Quarterly              |
| <b>Integrated Pollution Control Registered Waste Sites</b><br>Environment Agency - Welsh Region  | January 2009                 | Not Applicable         |
| <b>Licensed Waste Management Facilities (Landfill Boundaries)</b><br>Environment Agency Wales - South West Area<br>Natural Resources Wales | January 2021<br>January 2021 | Quarterly<br>Quarterly |
| <b>Licensed Waste Management Facilities (Locations)</b><br>Environment Agency Wales - South West Area<br>Natural Resources Wales           | April 2021<br>April 2021     | Quarterly<br>Quarterly |
| <b>Local Authority Landfill Coverage</b><br>Carmarthenshire County Council   | February 2003                | Not Applicable         |
| <b>Local Authority Recorded Landfill Sites</b><br>Carmarthenshire County Council   | October 2018                 |                        |
| <b>Potentially Infilled Land (Non-Water)</b><br>Landmark Information Group Limited   | December 1999                | Not Applicable         |
| <b>Potentially Infilled Land (Water)</b><br>Landmark Information Group Limited   | December 1999                |                        |
| <b>Registered Landfill Sites</b><br>Environment Agency Wales - South West Area   | March 2006                   | Not Applicable         |
| <b>Registered Waste Transfer Sites</b><br>Environment Agency Wales - South West Area   | April 2018                   |                        |
| <b>Registered Waste Treatment or Disposal Sites</b><br>Environment Agency Wales - South West Area  | June 2015                    |                        |




| Hazardous Substances   | Version   | Update Cycle                     |
|--|---|----------------------------------|
| <b>Control of Major Accident Hazards Sites (COMAH)</b><br>Health and Safety Executive  | April 2018                                      | Bi-Annually                      |
| <b>Explosive Sites</b><br>Health and Safety Executive  | March 2017                                      | Annually                         |
| <b>Notification of Installations Handling Hazardous Substances (NIHHS)</b><br>Health and Safety Executive  | August 2001                                     |                                  |
| <b>Planning Hazardous Substance Enforcements</b><br>Carmarthenshire County Council - Area Planning Office (East Area)<br>Carmarthenshire County Council - Area Planning Office (South Area)<br>Carmarthenshire County Council - Environment Department (West Area) | February 2016<br>February 2016<br>February 2016 | Variable<br>Variable<br>Variable |
| <b>Planning Hazardous Substance Consents</b><br>Carmarthenshire County Council - Area Planning Office (East Area)<br>Carmarthenshire County Council - Area Planning Office (South Area)<br>Carmarthenshire County Council - Environment Department (West Area)     | February 2016<br>February 2016<br>February 2016 | Variable<br>Variable<br>Variable |
| Geological   | Version   | Update Cycle                     |
| <b>BGS 1:625,000 Solid Geology</b><br>British Geological Survey - National Geoscience Information Service  | January 2009                                    | Not Applicable                   |
| <b>BGS Estimated Soil Chemistry</b><br>British Geological Survey - National Geoscience Information Service   | December 2015                                   | Annually                         |
| <b>BGS Recorded Mineral Sites</b><br>British Geological Survey - National Geoscience Information Service   | May 2021  | Bi-Annually                      |
| <b>CBSCB Compensation District</b><br>Cheshire Brine Subsidence Compensation Board (CBSCB)   | August 2011                                     | As notified                      |
| <b>Coal Mining Affected Areas</b><br>The Coal Authority - Property Searches  | March 2014                                      | Annual Rolling Update            |
| <b>Mining Instability</b><br>Ove Arup & Partners   | June 1998                                       | Not Applicable                   |
| <b>Non Coal Mining Areas of Great Britain</b><br>British Geological Survey - National Geoscience Information Service   | May 2015  | Not Applicable                   |
| <b>Potential for Collapsible Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service   | April 2020                                      | Annually                         |
| <b>Potential for Compressible Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service  | January 2019                                    | Annually                         |
| <b>Potential for Ground Dissolution Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service   | January 2019                                    | Annually                         |
| <b>Potential for Landslide Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service   | January 2019                                    | Annually                         |
| <b>Potential for Running Sand Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service  | January 2019                                    | Annually                         |
| <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service  | January 2019                                    | Annually                         |
| <b>Radon Potential - Radon Affected Areas</b><br>British Geological Survey - National Geoscience Information Service   | July 2011                                       | Annually                         |
| <b>Radon Potential - Radon Protection Measures</b><br>British Geological Survey - National Geoscience Information Service  | July 2011                                       | Annually                         |



| Industrial Land Use  | Version    | Update Cycle |
|--|------------|--------------|
| <b>Contemporary Trade Directory Entries</b><br>Thomson Directories   | April 2021 | Quarterly    |
| <b>Fuel Station Entries</b><br>Catalist Ltd - Experian               | June 2021  | Quarterly    |
| <b>Gas Pipelines</b><br>National Grid                                | May 2021   | Annually     |
| <b>Points of Interest - Commercial Services</b><br>PointX            | June 2021  | Quarterly    |
| <b>Points of Interest - Education and Health</b><br>PointX           | June 2021  | Quarterly    |
| <b>Points of Interest - Manufacturing and Production</b><br>PointX   | June 2021  | Quarterly    |
| <b>Points of Interest - Public Infrastructure</b><br>PointX          | June 2021  | Quarterly    |
| <b>Points of Interest - Recreational and Environmental</b><br>PointX | June 2021  | Quarterly    |
| <b>Underground Electrical Cables</b><br>National Grid                | May 2021   | Annually     |

| Sensitive Land Use   | Version                 | Update Cycle   |
|--|-------------------------|----------------|
| <b>Ancient Woodland</b><br>Natural Resources Wales   | September 2018          | Bi-Annually    |
| <b>Areas of Adopted Green Belt</b><br>Carmarthenshire County Council   | October 2020            | Quarterly      |
| <b>Areas of Unadopted Green Belt</b><br>Carmarthenshire County Council   | October 2020            | Quarterly      |
| <b>Areas of Outstanding Natural Beauty</b><br>Natural Resources Wales  | June 2019               | Bi-Annually    |
| <b>Environmentally Sensitive Areas</b><br>The National Assembly for Wales - GI Services (Department of Planning & Countryside)                     | January 2017            |                |
| <b>Forest Parks</b><br>Forestry Commission   | April 1997              | Not Applicable |
| <b>Local Nature Reserves</b><br>Carmarthenshire County Council   | August 2018             | Bi-Annually    |
| <b>Marine Nature Reserves</b><br>Natural Resources Wales   | August 2018             | Bi-Annually    |
| <b>National Nature Reserves</b><br>Natural Resources Wales   | July 2019               | Bi-Annually    |
| <b>National Parks</b><br>Natural Resources Wales   | February 2018           | Annually       |
| <b>Nitrate Vulnerable Zones</b><br>The National Assembly for Wales - GI Services (Department of Planning & Countryside)<br>Natural Resources Wales | April 2016<br>July 2019 | Bi-Annually    |
| <b>Ramsar Sites</b><br>Natural Resources Wales   | July 2019               | Bi-Annually    |
| <b>Sites of Special Scientific Interest</b><br>Natural Resources Wales   | March 2020              | Bi-Annually    |
| <b>Special Areas of Conservation</b><br>Natural Resources Wales  | August 2020             | Bi-Annually    |
| <b>Special Protection Areas</b><br>Natural Resources Wales   | August 2018             | 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              |  <b>British Geological Survey</b><br>NATURAL ENVIRONMENT RESEARCH COUNCIL        |
| Centre for Ecology and Hydrology       |  <b>Centre for Ecology and Hydrology</b><br>NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                |   |
| Scottish Natural Heritage              |    |
| Natural England                        |    |
| Public Health England                  |    |
| Ove Arup                               |    |
| Stantec UK Ltd                         |    |



| Contact | Name and Address  | Contact Details   |
|---------|---|---|
| 1       | <b>British Geological Survey - Enquiry Service</b><br>British Geological Survey, Environmental Science Centre, Keyworth,<br>Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143<br>Fax: 0115 936 3276<br>Email: enquiries@bgs.ac.uk<br>Website: www.bgs.ac.uk                          |
| 2       | <b>Natural Resources Wales</b><br>Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP  | Telephone: 0300 065 3000<br>Email: enquiries@naturalresourceswales.gov.uk   |
| 3       | <b>Carmarthenshire County Council - Environmental Health Department</b><br>3 Spillman Street, Carmarthen, Dyfed, SA31 1LE   | Telephone: 01267 234567<br>Fax: 01267 238326<br>Website: www.carmarthenshire.gov.uk   |
| 4       | <b>Environment Agency - National Customer Contact Centre (NCCC)</b><br>PO Box 544, Templeborough, Rotherham, S60 1BY  | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk  |
| 5       | <b>Ordnance Survey</b><br>Adanac Drive, Southampton, Hampshire, SO16 0AS  | Telephone: 03456 05 05 05<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk                 |
| 6       | <b>Carmarthenshire County Council</b><br>County Hall, Carmarthen, Dyfed, SA31 1JP   | Telephone: 01267 234567<br>Fax: 01267 238326<br>Website: www.carmarthenshire.gov.uk   |
| 7       | <b>Health and Safety Executive</b><br>5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS   | Website: www.hse.gov.uk   |
| 8       | <b>Carmarthenshire County Council - Area Planning Office (East Area)</b><br>Municipal Offices, Crescent Road, Llandeilo, SA19 6HW                                 | Telephone: 01267 234567<br>Website: www.carmarthenshire.gov.uk  |
| 9       | <b>PointX</b><br>7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY   | Website: www.pointx.co.uk   |
| -       | <b>Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b><br>Chilton, Didcot, Oxfordshire, OX11 0RQ                   | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>Website: www.ukradon.org                             |
| -       | <b>Landmark Information Group Limited</b><br>Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9952<br>Fax: 0844 844 9951<br>Email: customerservices@landmarkinfo.co.uk<br>Website: www.landmarkinfo.co.uk |

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

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Types at Location
- Pylon
- Overhead Transmission Line

### Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

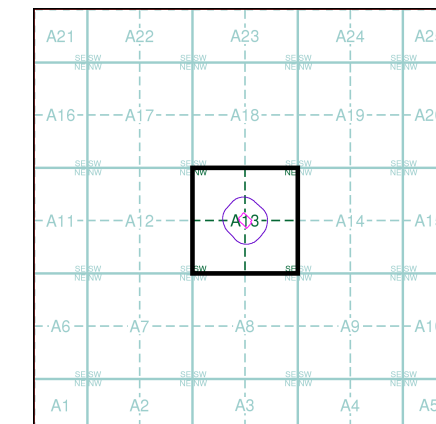
### Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

### Geological

- BGS Recorded Mineral Site

### Site Sensitivity Map - Segment A13

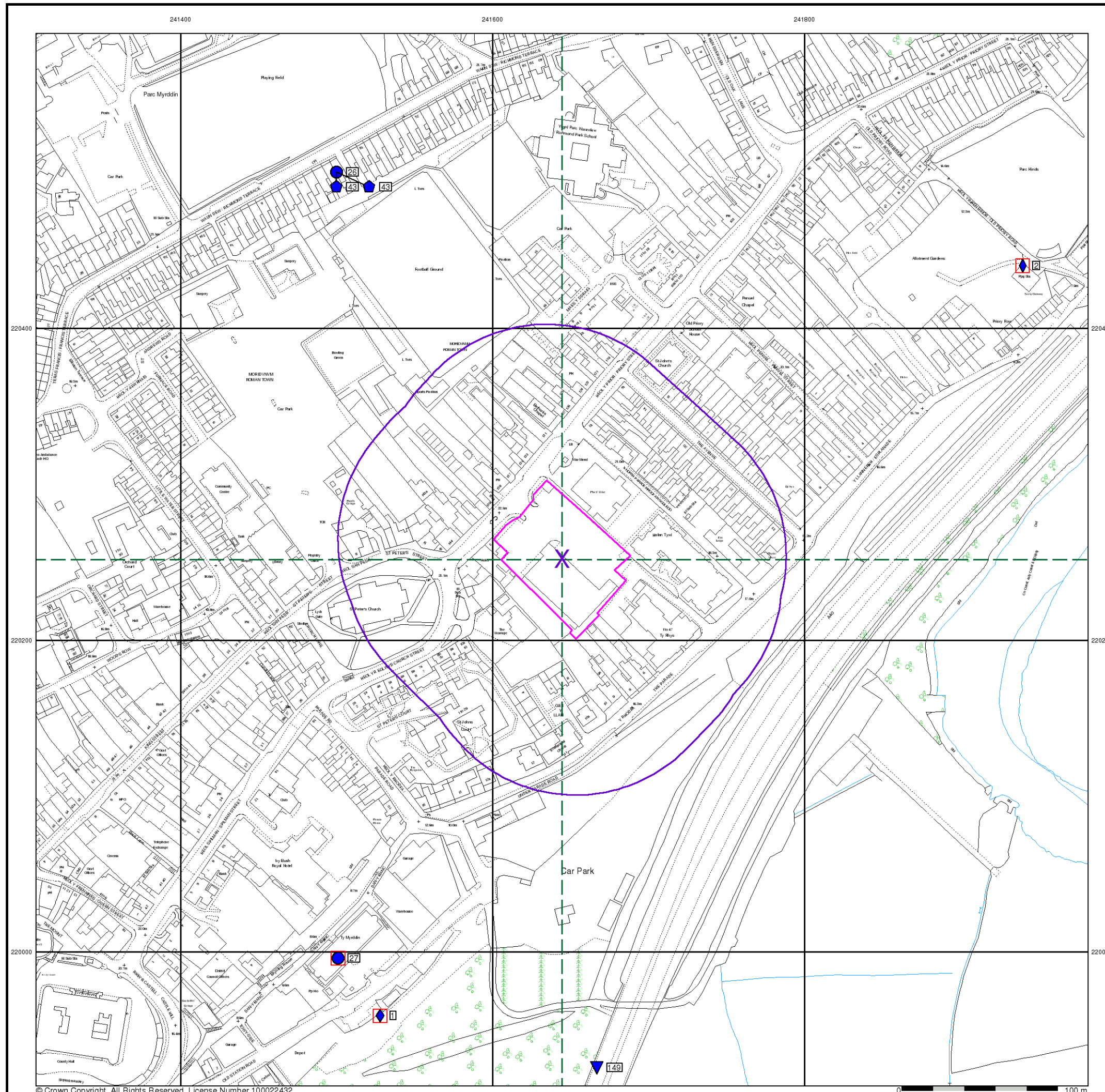


### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Plot Buffer (m): 100

### Site Details

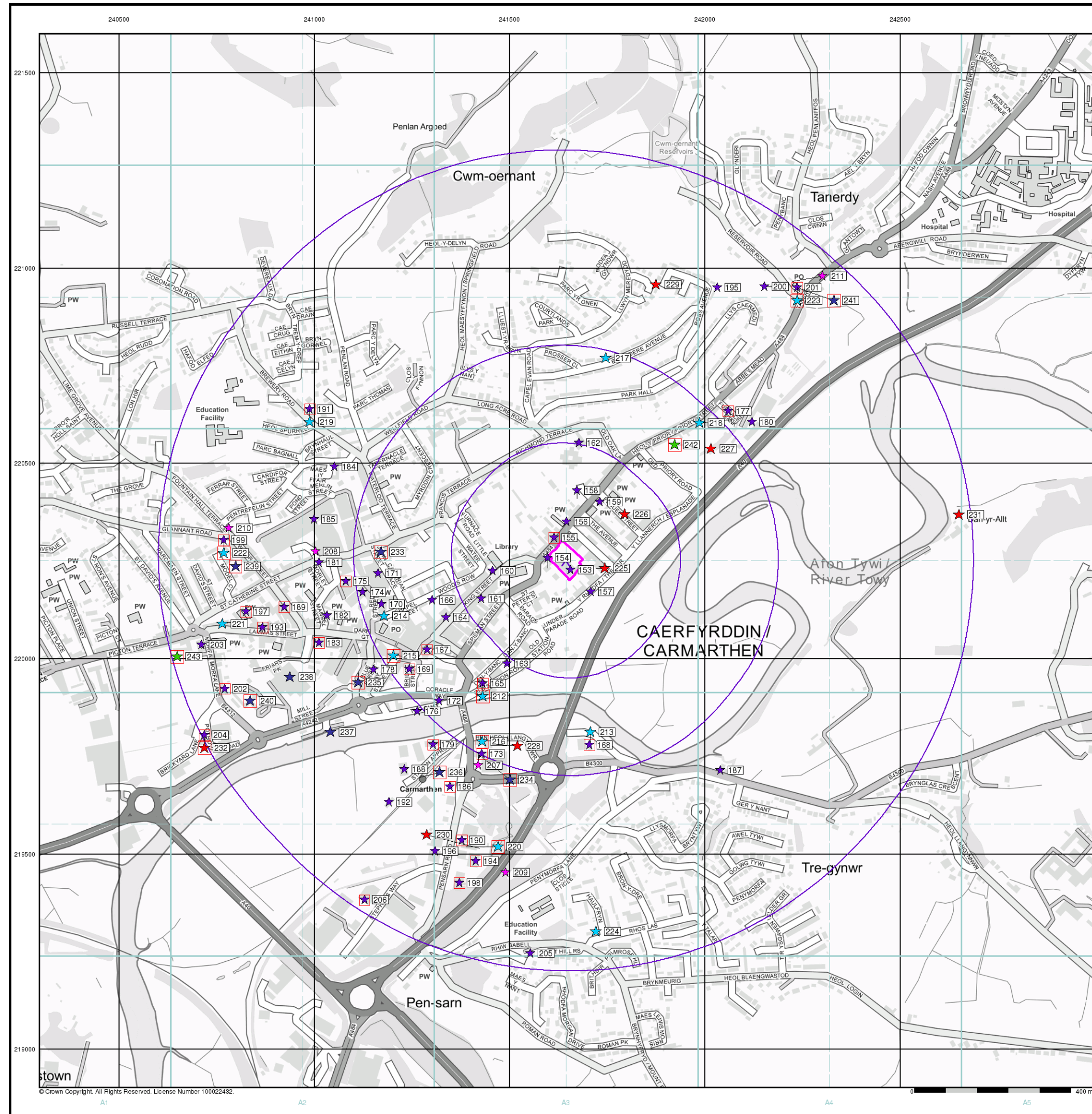
Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS











Geotechnical & Geoenvironmental Specialists  
**Industrial Land Use Map**

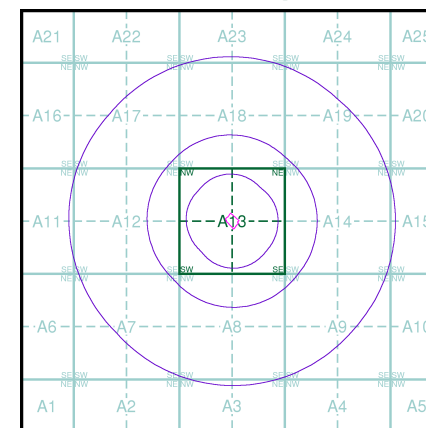
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

### Industrial Land Use Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

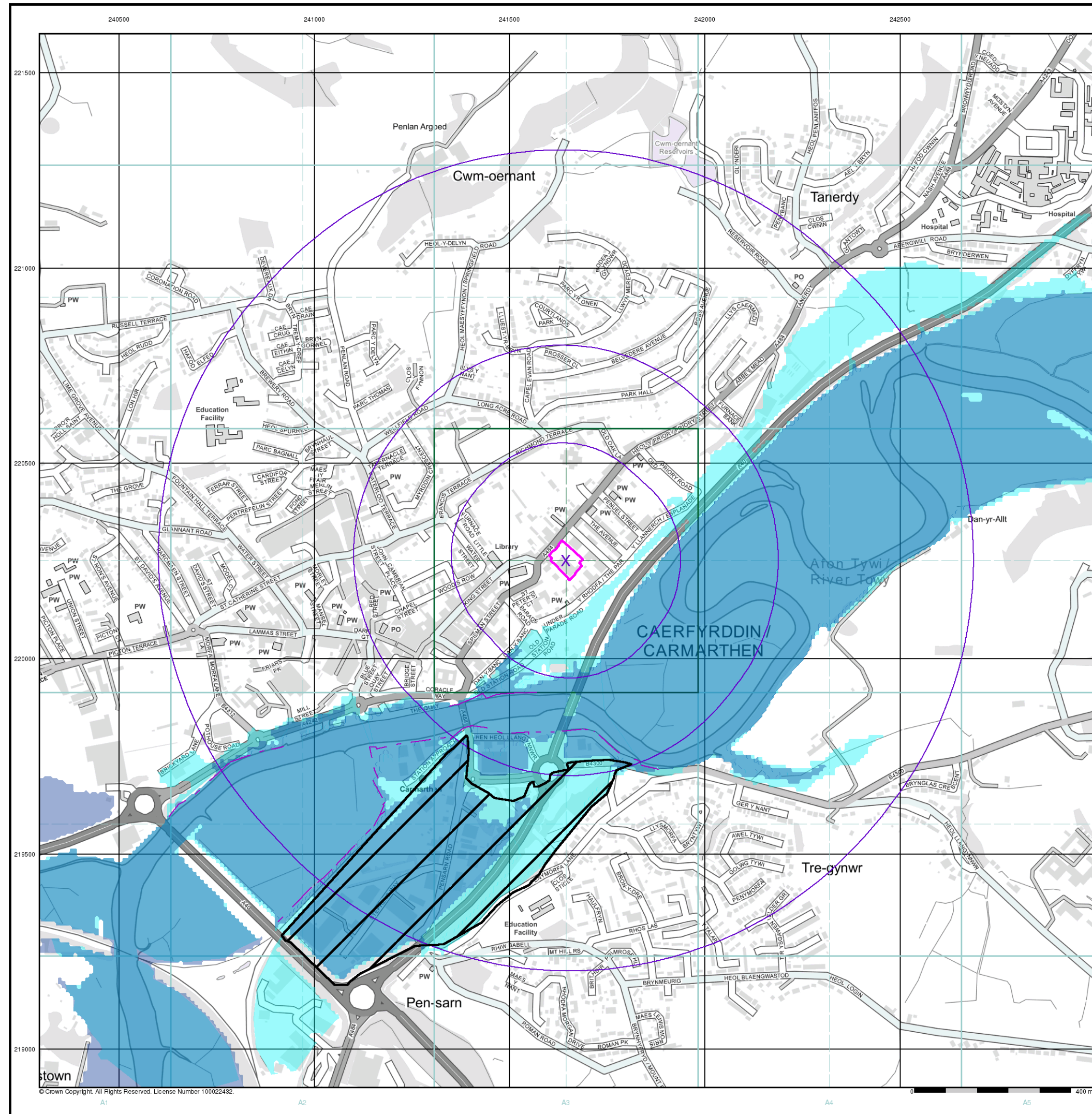
### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)





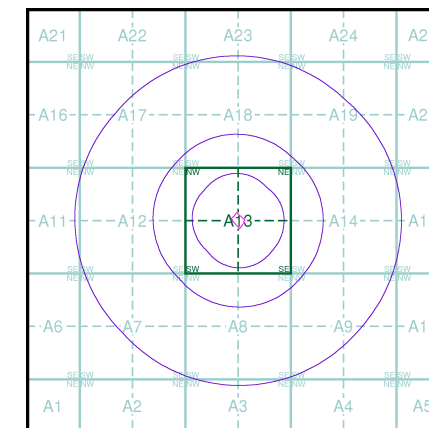
**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

**Agency and Hydrological (Flood)**

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

**Flood Map - Slice A**



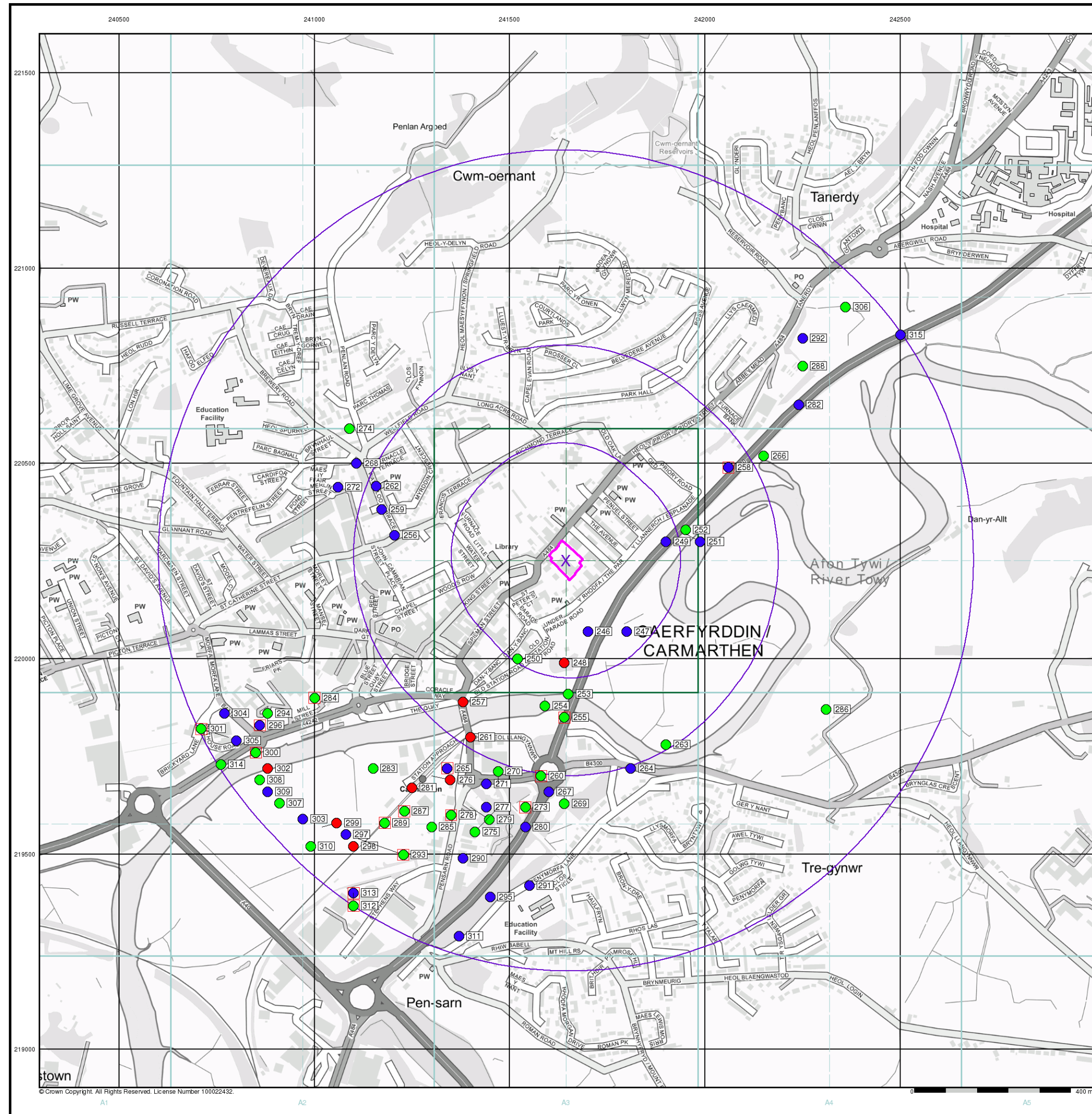
**Order Details**

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

**Site Details**

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS





**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

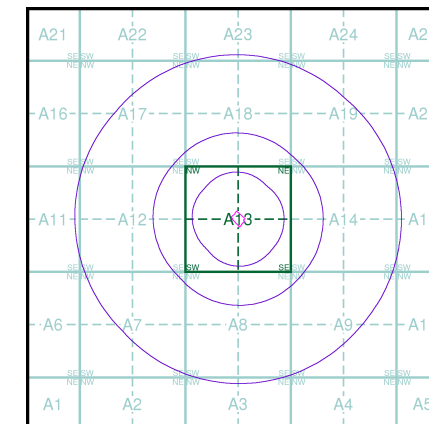
**Agency and Hydrological (Boreholes)**

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of [www.envirocheck.co.uk](http://www.envirocheck.co.uk).

**Borehole Map - Slice A**



**Order Details**




Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

**Site Details**

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



### General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point

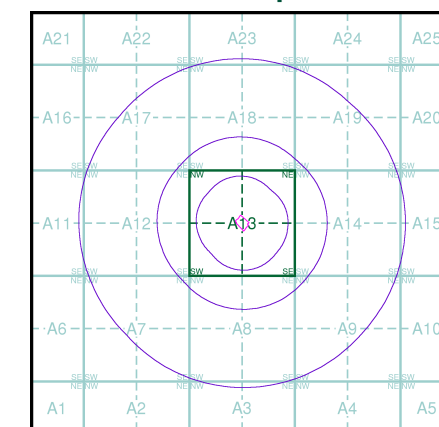
### OS Water Network Data

- |  |   |
|--|---|
|  Canal        |  Drain                   |
|  Reservoir    |  Other                   |
|  Foreshore    |  Lake                    |
|  Marsh        |  Transfer                |
|  Tidal River  |  Lock Or Flight Of Locks |
|  Inland River |  Sea                     |

### Contours (height in meters)

- Standard Contour   Mean Low Water
- Master Contour   Mean High Water
- Spot Height  167.3

### OS Water Network Map - Slice A

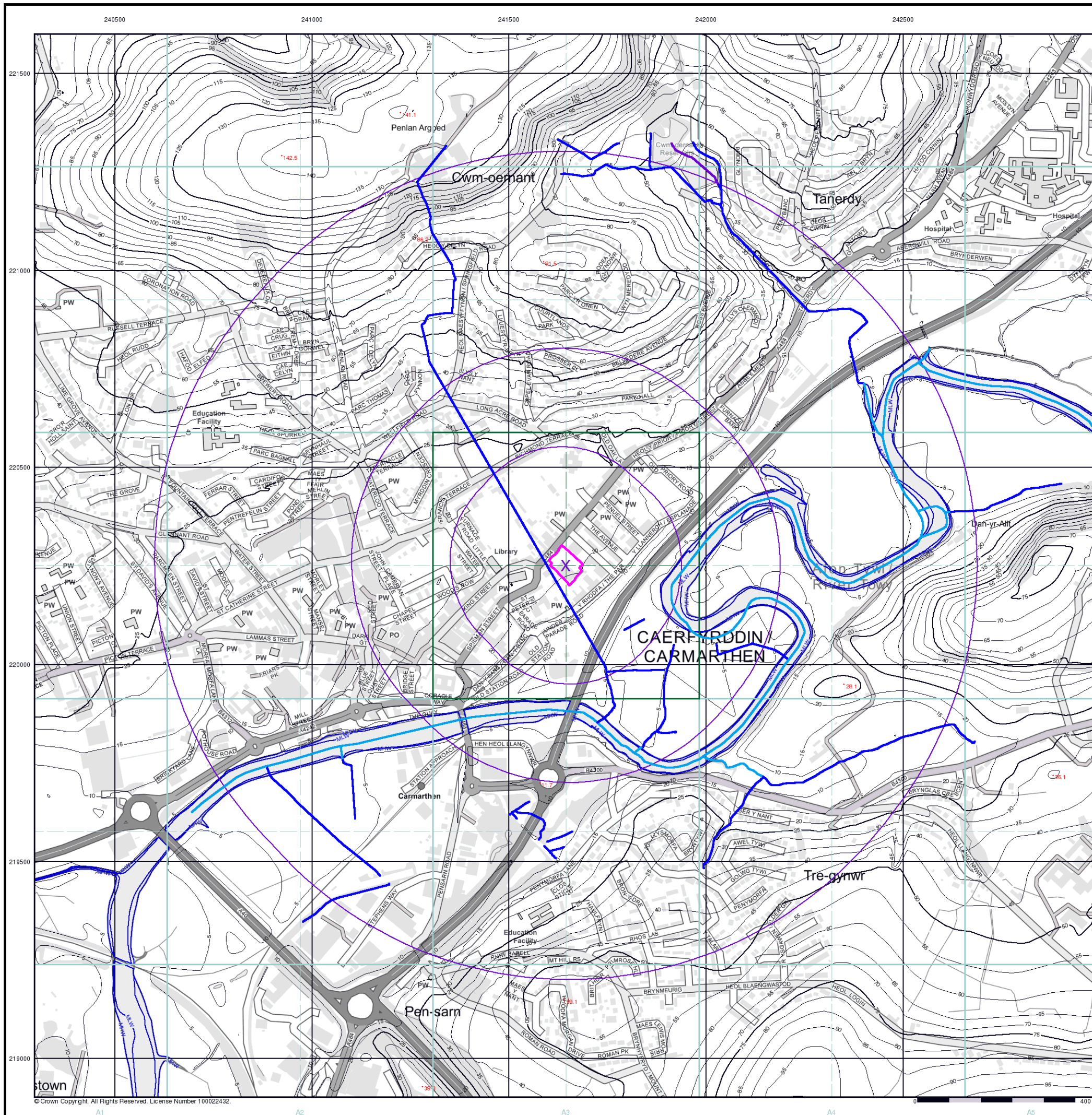


### Order Details

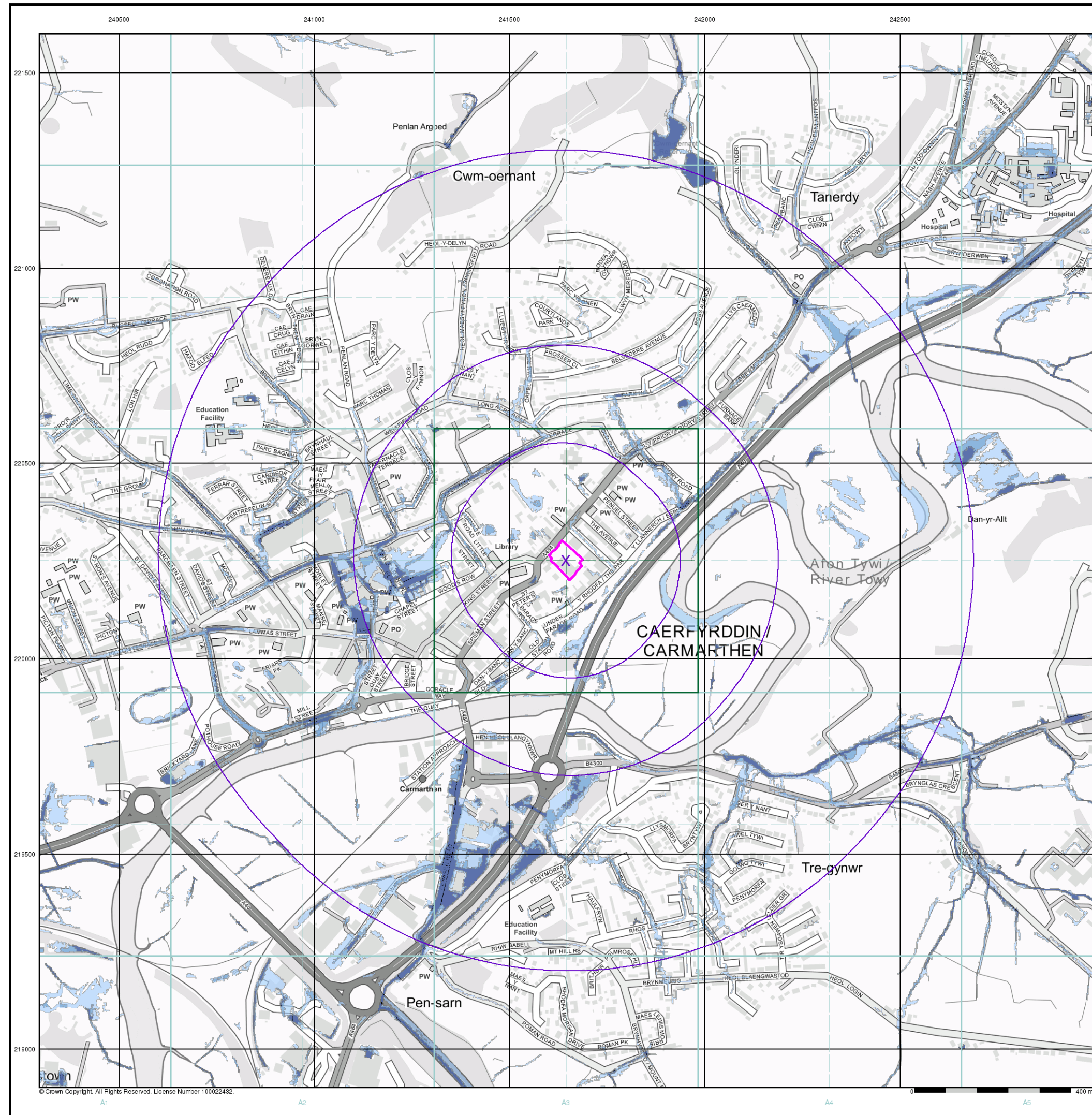
Order Number: 282224393\_1\_1  
 Customer Ref: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS







### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

### Risk of Flooding from Surface Water

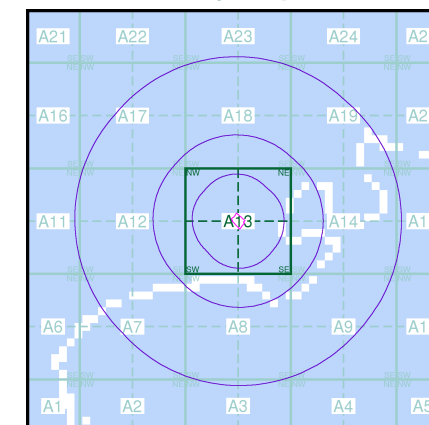
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

### Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

### E/NRW Suitability Map - Slice A



### Order Details

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

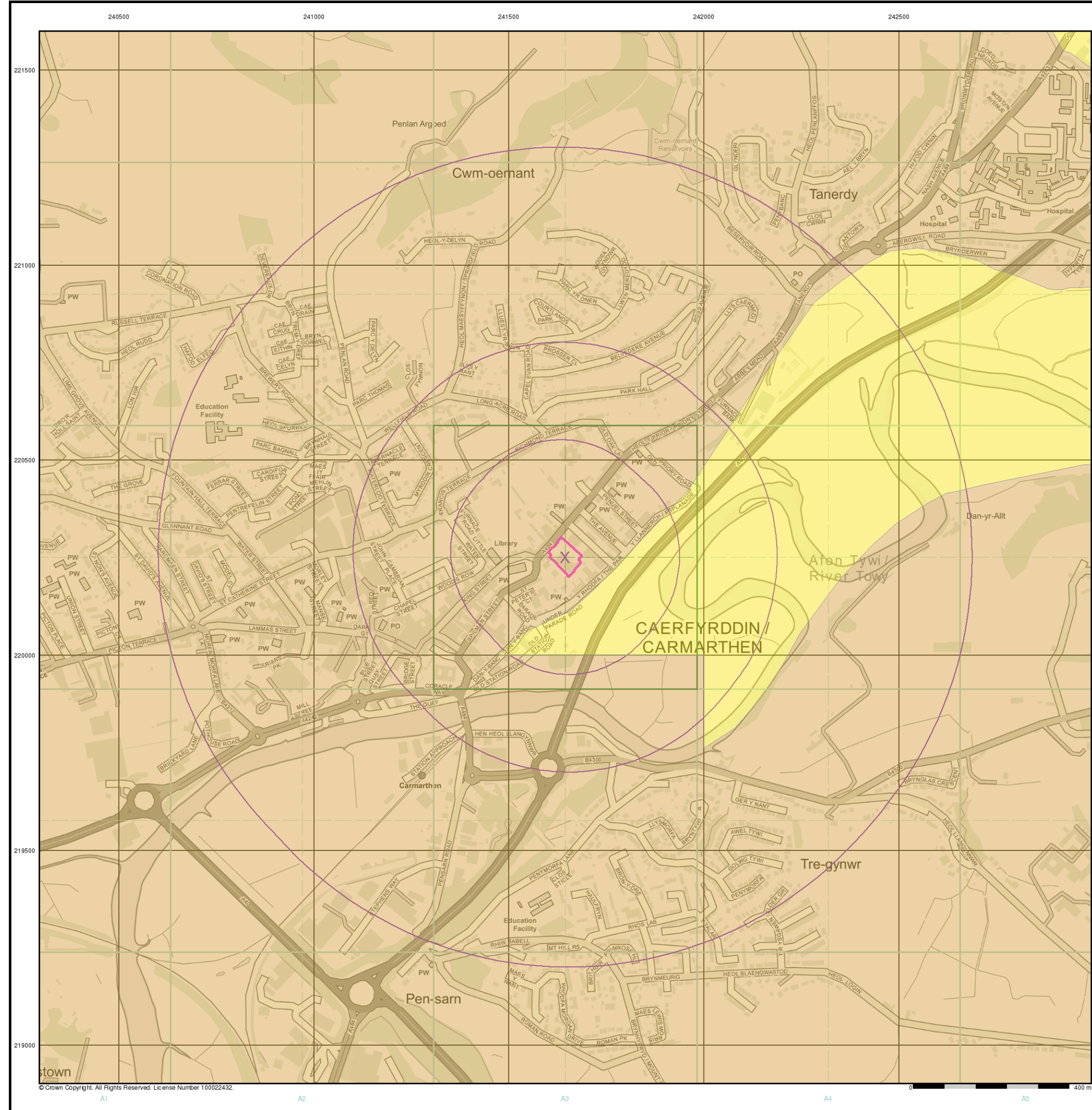
### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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





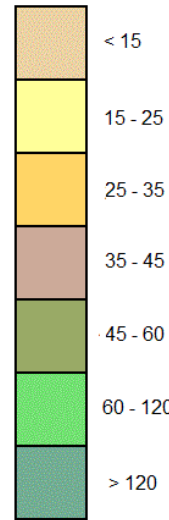
Geotechnical & Geoenvironmental Specialists

### General

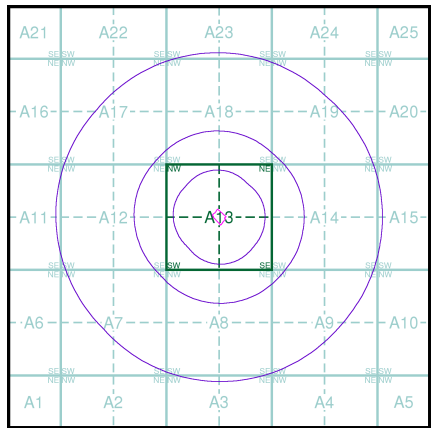
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



### Estimated Soil Chemistry Arsenic - Slice A



### Order Details

Order Details: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

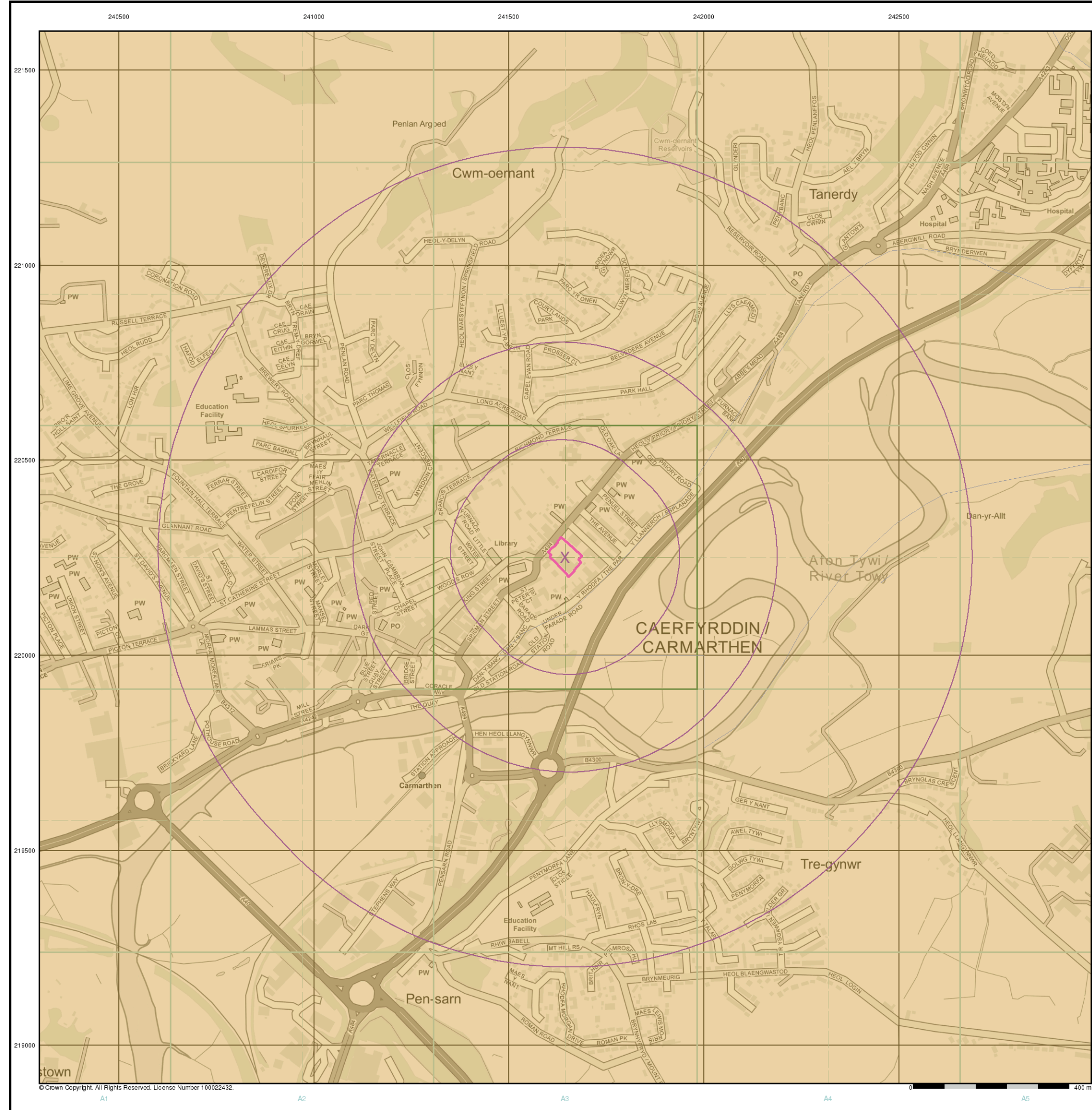
### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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





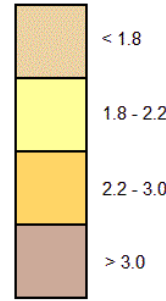
Geotechnical & Geoenvironmental Specialists

### General

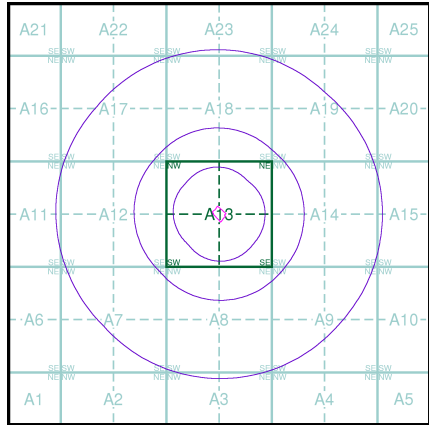
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



### Estimated Soil Chemistry Cadmium - Slice A



### Order Details

Order Details: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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





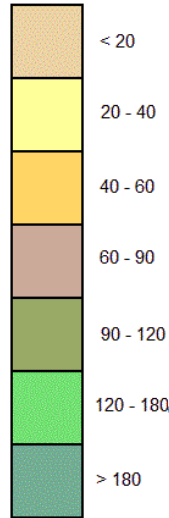
Geotechnical & Geoenvironmental Specialists

General

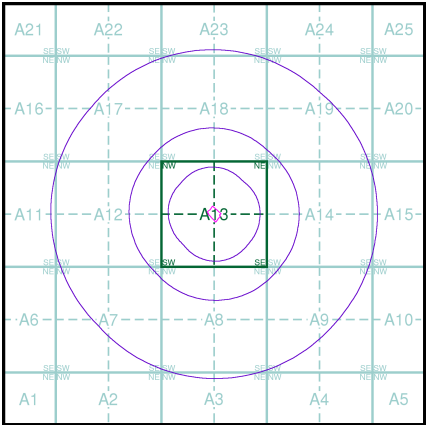
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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





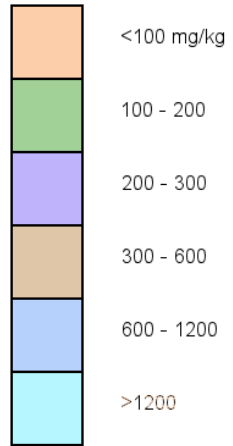
Geotechnical & Geoenvironmental Specialists

General

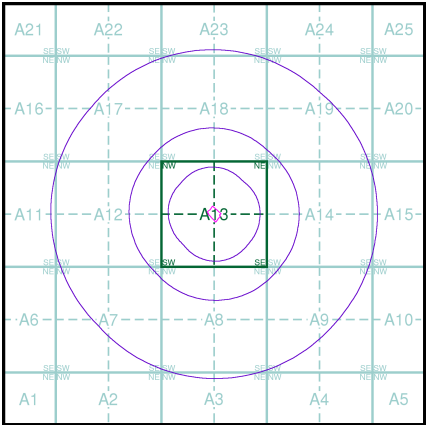
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

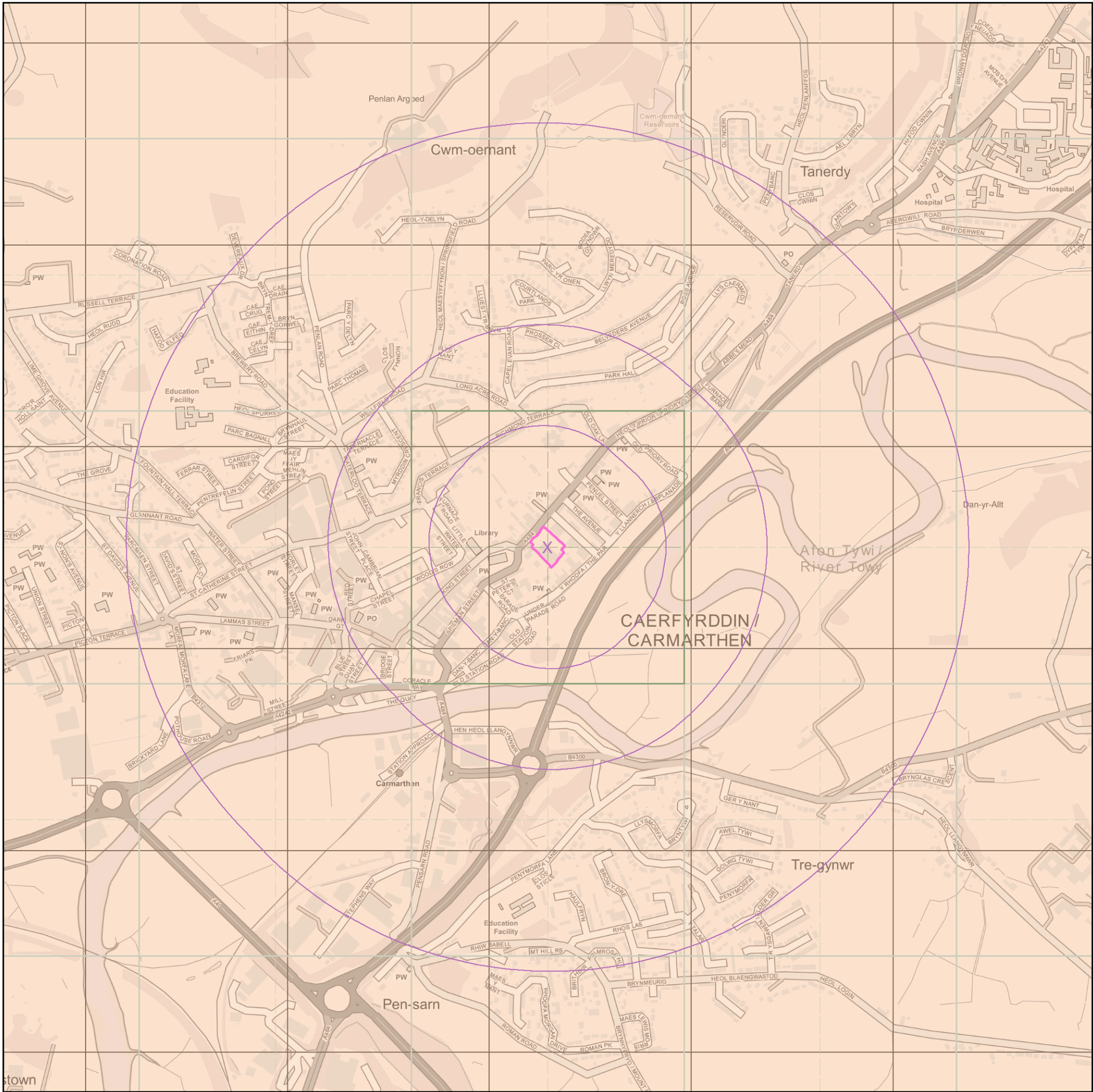
Order Details: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

Site Details

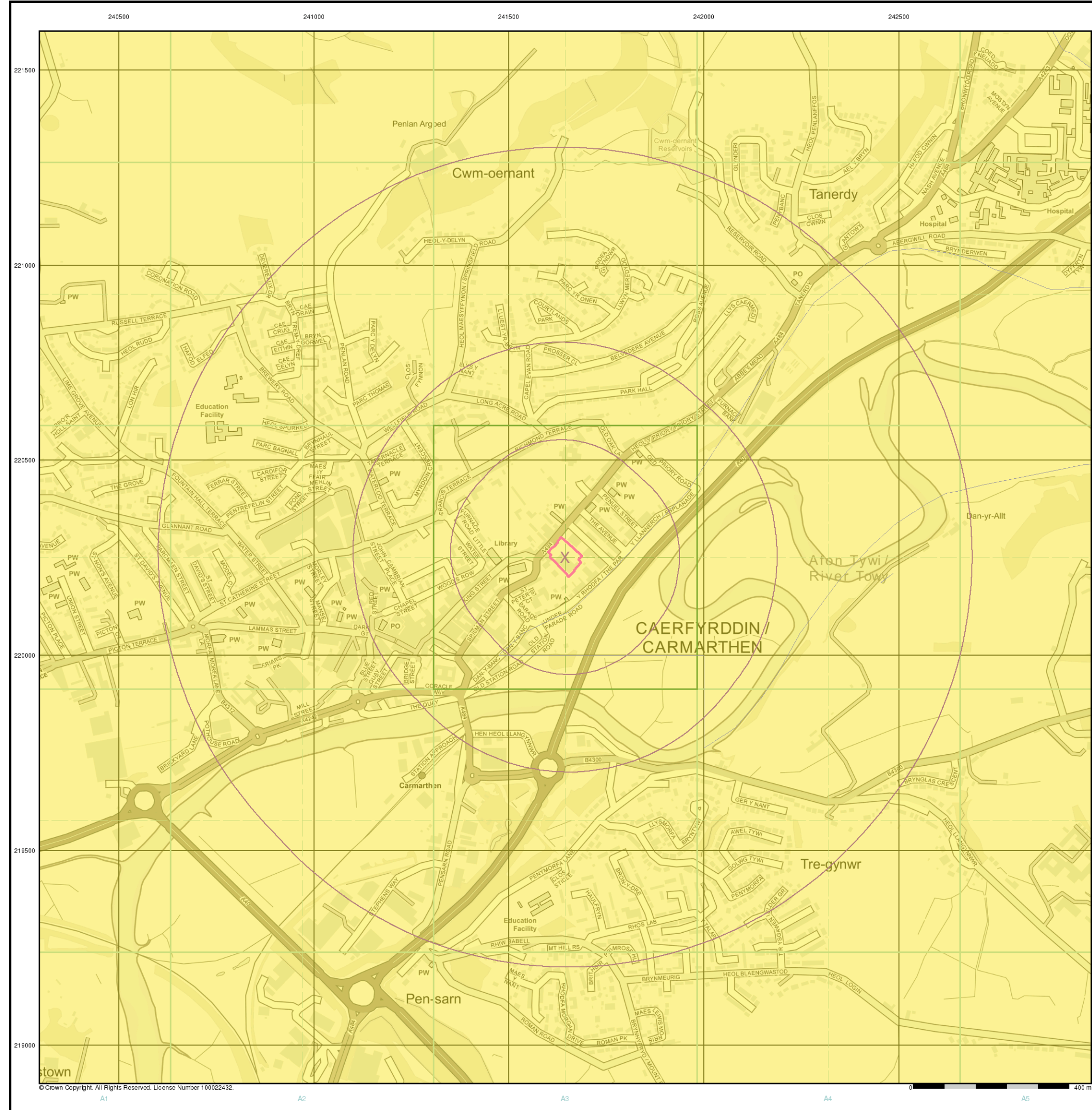
Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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







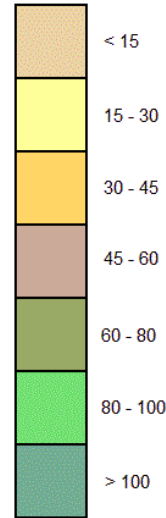
Geotechnical & Geoenvironmental Specialists

### General

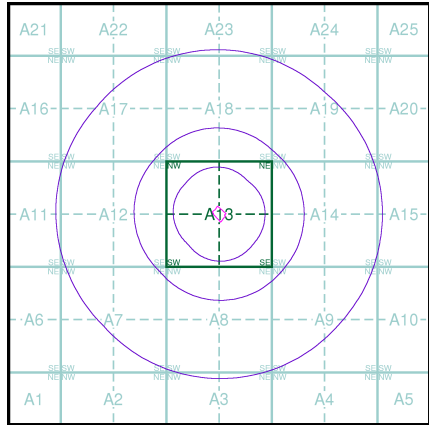
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



### Estimated Soil Chemistry Nickel - Slice A



### Order Details

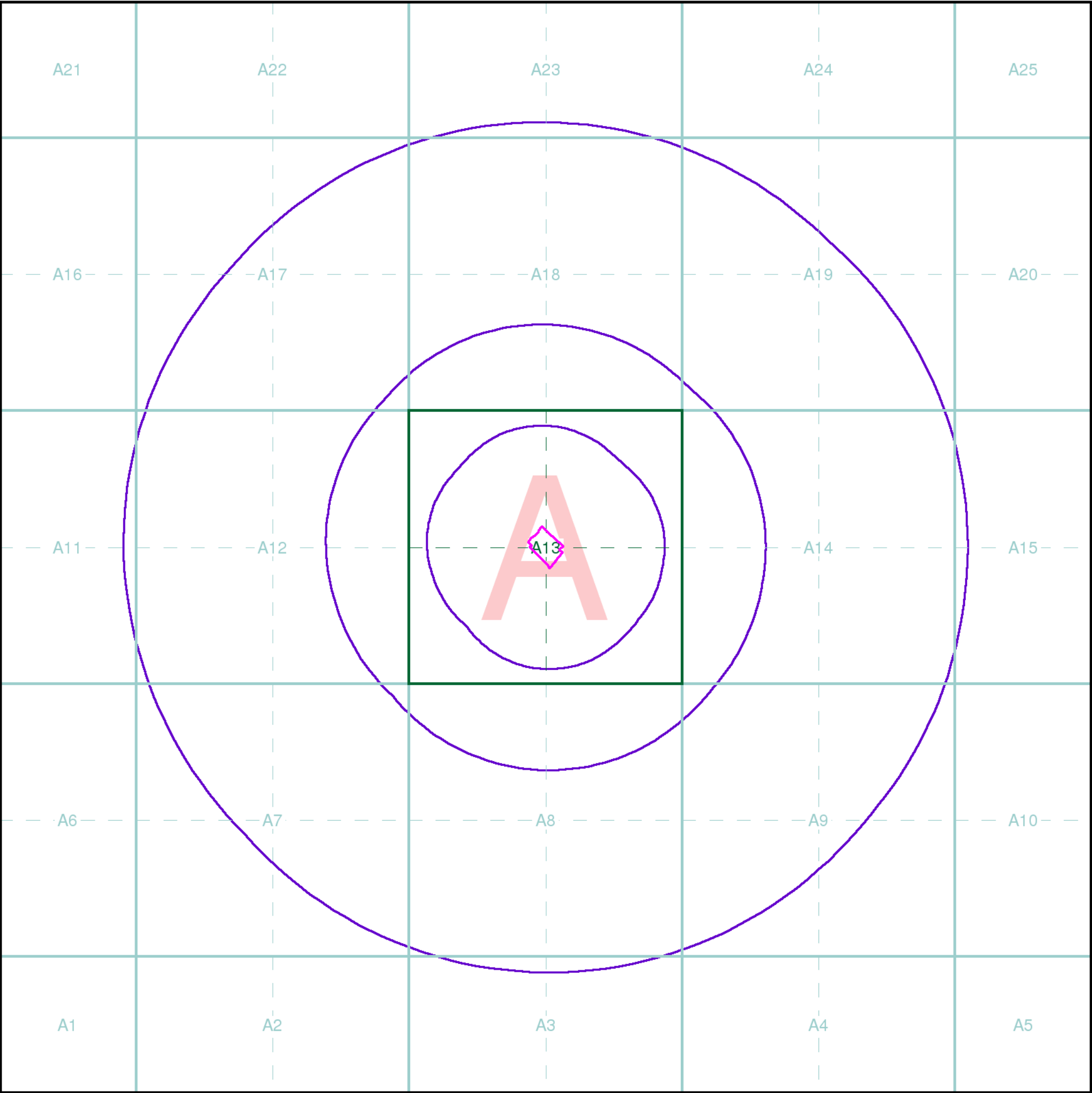
Order Details: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

### Site Details

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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



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**Index Map**

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

**Slice**

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

**Segment**

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

**Quadrant**

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

**Client Details**

Mr M Watkins, Terra Firma (Wales) Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

**Order Details**

Order Number: 282224393\_1\_1  
Customer Ref: 16761-MW  
National Grid Reference: 241650, 220250  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

**Site Details**

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS

Full Terms and Conditions can be found on the following link:  
<http://www.landmarkinfo.co.uk/Terms/Show/515>



Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)

## Geology 1:50,000 Maps Legends

### Artificial Ground and Landslip

| Map Colour | Lex Code | Rock Name         | Rock Type                  | Min and Max Age           |
|------------|----------|-------------------|----------------------------|---------------------------|
|            | SLIP     | Landslide Deposit | Unknown/Unclassified Entry | Not Supplied - Quaternary |

### Superficial Geology

| Map Colour | Lex Code | Rock Name   | Rock Type                   | Min and Max Age           |
|------------|----------|---|-----------------------------|---------------------------|
|            | ALV      | Alluvium  | Clay, Silt, Sand and Gravel | Not Supplied - Holocene   |
|            | TFD      | Tidal Flat Deposits                                       | Sand, Silt and Clay         | Not Supplied - Holocene   |
|            | ALV      | Alluvium  | Gravel, Sand, Silt and Clay | Not Supplied - Holocene   |
|            | GFDUD    | Glaciofluvial Deposits, Devensian                         | Sand and Gravel             | Not Supplied - Devensian  |
|            | GFDUD    | Glaciofluvial Deposits, Devensian                         | Sand and Gravel             | Not Supplied - Devensian  |
|            | TILLD    | Till, Devensian   | Diamicton                   | Not Supplied - Devensian  |
|            | TILDW    | Till, Devensian (Welsh Ice)                               | Diamicton                   | Not Supplied - Devensian  |
|            | GFUDW    | Glaciofluvial Deposits, Devensian (Welsh Ice)             | Sand and Gravel             | Not Supplied - Devensian  |
|            | GFUDW    | Glaciofluvial Deposits, Devensian (Welsh Ice)             | Sand and Gravel             | Not Supplied - Devensian  |
|            | HGDDW    | Hummocky (Moundy) Glacial Deposits, Devensian (Welsh Ice) | Diamicton, Sand and Gravel  | Not Supplied - Devensian  |
|            | RTDU     | River Terrace Deposits (Undifferentiated)                 | Sand and Gravel             | Not Supplied - Quaternary |
|            | PEAT     | Peat  | Peat                        | Not Supplied - Quaternary |
|            | HEAD     | Head  | Diamicton                   | Not Supplied - Quaternary |
|            | RTD3     | River Terrace Deposits, 3                                 | Sand and Gravel             | Not Supplied - Quaternary |
|            | ALF      | Alluvial Fan Deposits                                     | Sand and Gravel             | Not Supplied - Quaternary |

### Bedrock and Faults

| Map Colour | Lex Code | Rock Name                  | Rock Type | Min and Max Age           |
|------------|----------|----------------------------|-----------|---------------------------|
|            | MYSH     | Mydrim Shales Formation    | Mudstone  | Not Supplied - Caradoc    |
|            | DBB      | Didymograptus Bifidus Beds | Mudstone  | Not Supplied - Aberiddian |

| Map Colour | Lex Code | Rock Name                  | Rock Type                 | Min and Max Age           |
|------------|----------|----------------------------|---------------------------|---------------------------|
|            | DBB      | Didymograptus Bifidus Beds | Tuffaceous-sandstone      | Not Supplied - Aberiddian |
|            | ASA      | Asaphus Ash Formation      | Felsic Tuff and Limestone | Not Supplied - Aberiddian |
|            | ASA      | Asaphus Ash Formation      | Felsic Tuff and Limestone | Not Supplied - Aberiddian |
|            | HESH     | Hendre Shales Formation    | Mudstone                  | Not Supplied - Aberiddian |
|            | ABGW     | Abergwilli Formation       | Mudstone                  | Not Supplied - Llanvirn   |
|            | ABGW     | Abergwilli Formation       | Tuff, Felsic              | Not Supplied - Llanvirn   |
|            | FW       | Felin-wen Formation        | Mudstone                  | Not Supplied - Llanvirn   |
|            | TTRA     | Tetragraptus Beds          | Mudstone                  | Not Supplied - Arenig     |
|            | TTRA     | Tetragraptus Beds          | Sandstone                 | Not Supplied - Arenig     |
|            |          | Faults                     |                           |                           |



Geotechnical & Geoenvironmental Specialists

### Geology 1:50,000 Maps

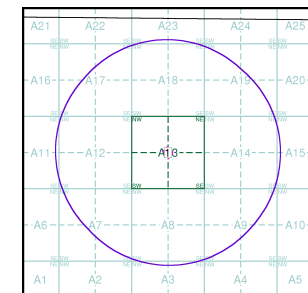
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published 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 Sheet No: 229  
Map Name: Carmarthen  
Map Date: 1967  
Bedrock Geology: Available  
Superficial Geology: Available  
Artificial Geology: Available  
Faults: Not Supplied  
Landslip: Available  
Rock Segments: Not Supplied

### Geology 1:50,000 Maps - Slice A



### Order Details:

Order Number: 282224393\_1\_1  
Customer Reference: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

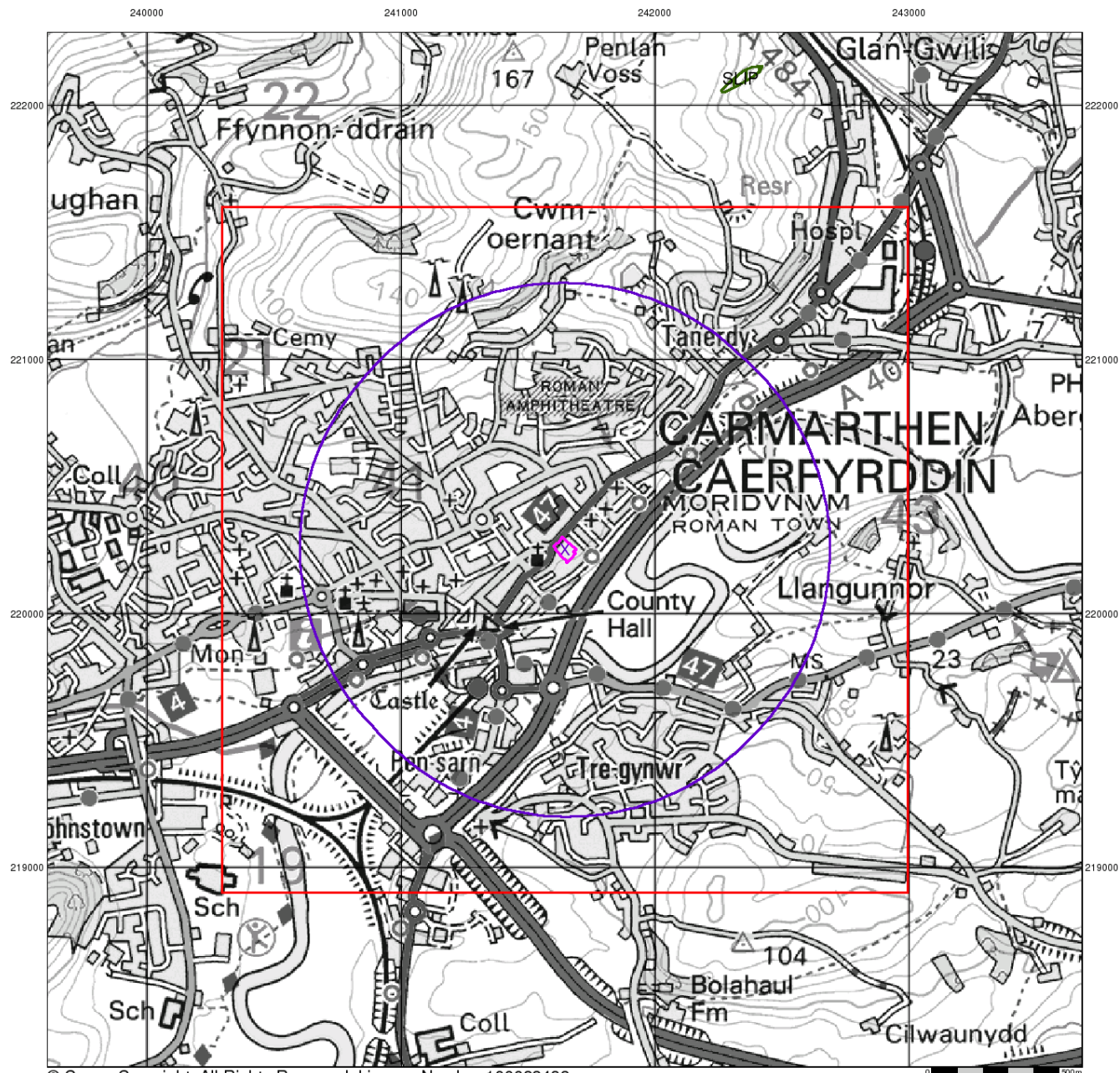
### Site Details:

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS

**Landmark**  
INFORMATION GROUP

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





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## Artificial Ground and Landslip

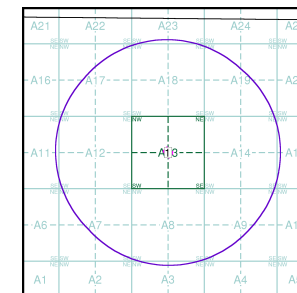
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

## Artificial Ground and Landslip Map - Slice A



## Order Details:

Order Number: 282224393\_1\_1  
 Customer Reference: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

## Site Details:

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS

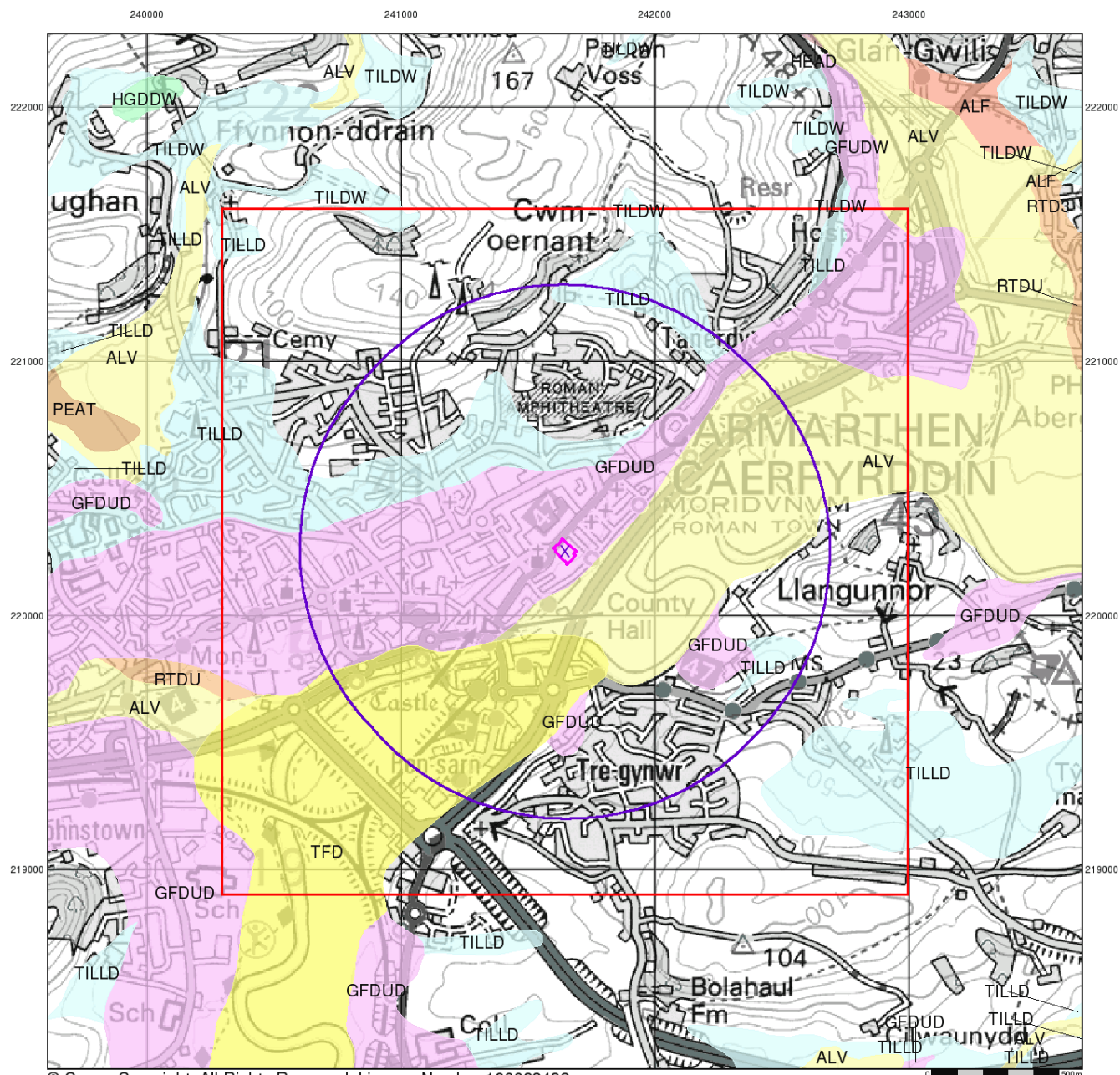
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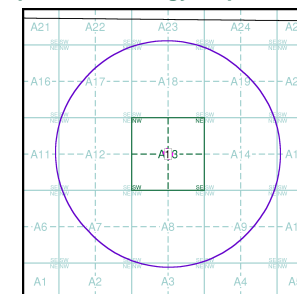
### Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

### Superficial Geology Map - Slice A



### Order Details:

Order Number: 282224393\_1\_1  
 Customer Reference: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

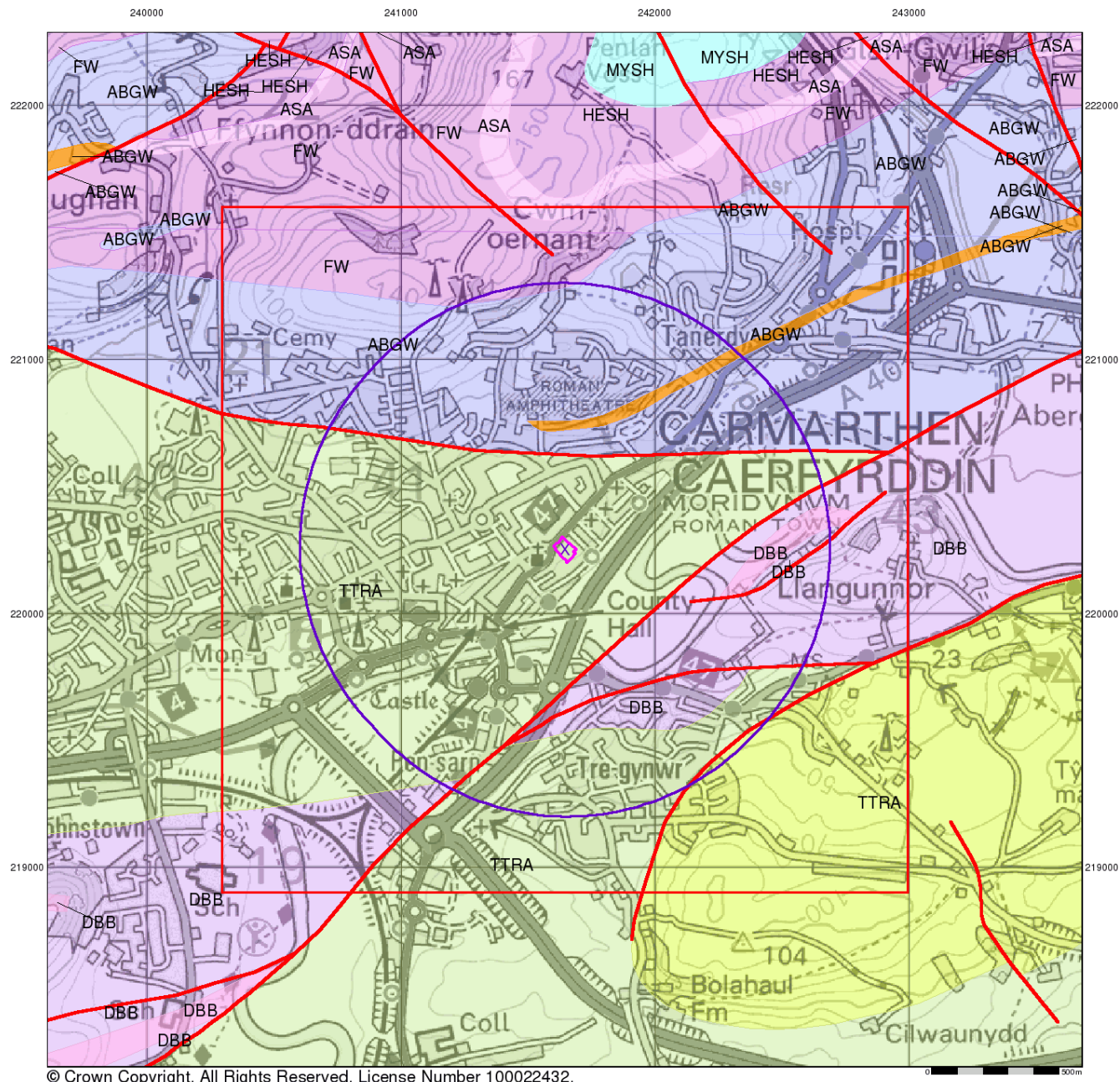
### Site Details:

Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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### Bedrock and Faults

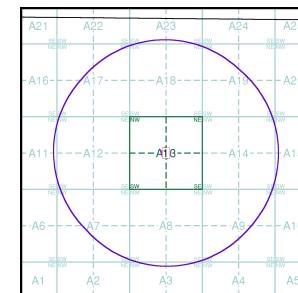
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

### Bedrock and Faults Map - Slice A



### Order Details:

Order Number: 282224393\_1\_1  
 Customer Reference: 16761-MW  
 National Grid Reference: 241640, 220250  
 Slice: A  
 Site Area (Ha): 0.46  
 Search Buffer (m): 1000

### Site Details:

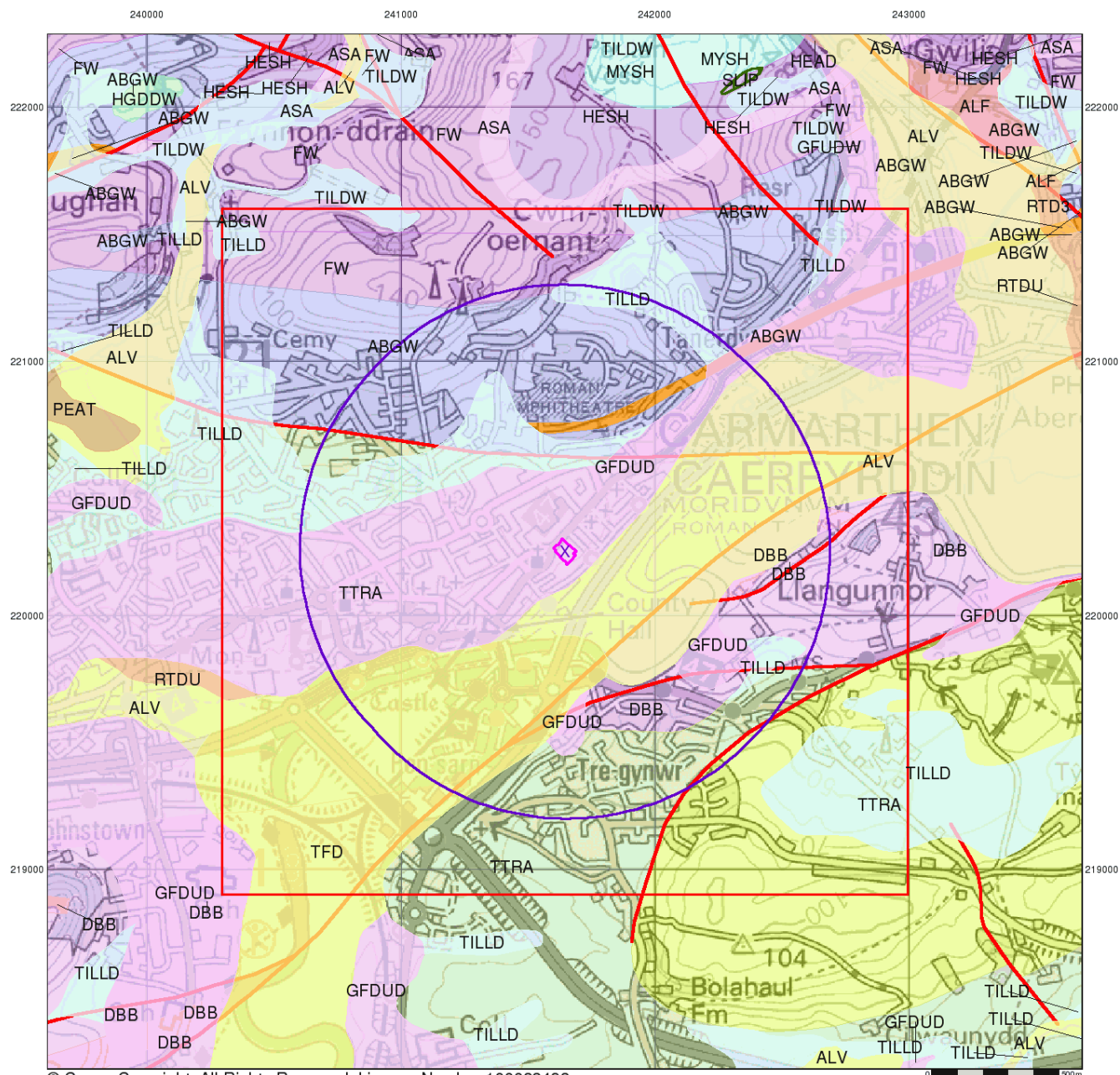
Lidl Supermarket, Priory Street, CARMARTHEN, SA31 1LS



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

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### Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

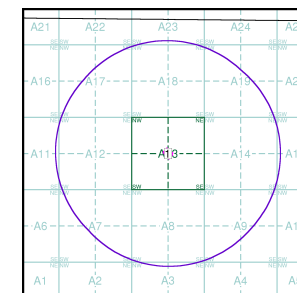
### Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

### Contact

British Geological Survey  
Kingsley Dunham Centre  
Keyworth  
Nottingham  
NG12 5GG  
Telephone: 0115 936 3143  
Fax: 0115 936 3276  
email: enquiries@bgs.ac.uk  
website: www.bgs.ac.uk

### Combined Geology Map - Slice A



### Order Details:

Order Number: 282224393\_1\_1  
Customer Reference: 16761-MW  
National Grid Reference: 241640, 220250  
Slice: A  
Site Area (Ha): 0.46  
Search Buffer (m): 1000

### Site Details:

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**ANNEX B**  
**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 1<sup>st</sup> April 2000 in England and 1<sup>st</sup> July 2001 in Wales. A similar regime was introduced in Scotland on 14<sup>th</sup> 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 '**Pollutant Linkage**'. A pollutant 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.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

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

Model Procedures for the Management of Land Contamination – Contamination Land Report 11 (2004) defines a 'Hazard' as

*'a property or situation that in particular circumstances could lead to harm'.*

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

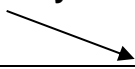
| Table A Classification of Consequence |  |
|---------------------------------------|--|
| Classification                        | Definition   |
| Severe                                | <ul style="list-style-type: none"> <li>• Short term (acute) risk to human health likely to result in significant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

## Classification of Probability

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

## Risk Assessment Matrix

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

| Table C Risk Assessment Matrix   |                 |             |                |                |                |
|--|-----------------|-------------|----------------|----------------|----------------|
| Increasing<br>acceptability<br> |                 | 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.

**ANNEX C**  
**Exploratory Hole Logs**



# Borehole Log

Borehole No.

**WS01**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                       | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|-----------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results               |           |           |      |        |   |    |
|               |                            |      |                       | 0.11      |           |      |        | ASPHALT   |    |
|               |                            |      |                       |           |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=5 (1,1/1,1,1,2)     | 0.60      |           |      |        | MADE GROUND. Soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|               | 2.00                       | SPT  | N=11 (2,1/2,1,4,4)    | 1.80      |           |      |        | Firm light brown and grey slightly sandy slightly gravelly CLAY. Gravel is angular mudstone. Occasional lenses of clayey sandy GRAVEL.      | 2  |
|               | 3.00                       | SPT  | N=30 (6,6/8,7,7,8)    |           |           |      |        | <i>Becoming stiff to very stiff from 3.0m.</i>  | 3  |
|               | 4.00                       | SPT  | 50 (8,8/50 for 275mm) | 4.00      |           |      |        | End of Borehole at 4.000m   | 4  |
|               |                            |      |                       |           |           |      |        |   | 5  |
|               |                            |      |                       |           |           |      |        |   | 6  |
|               |                            |      |                       |           |           |      |        |   | 7  |
|               |                            |      |                       |           |           |      |        |   | 8  |
|               |                            |      |                       |           |           |      |        |   | 9  |
|               |                            |      |                       |           |           |      |        |   | 10 |

Remarks: 1] On completion a 50mm standpipe (50mm) was installed to 4.0m depth. Slotted pipe with granular response zone from 1.0m-4.0m, solid standpipe with bentonite seal GL-1.0m, and a flush cover.

# Borehole Log

Borehole No.

**WS02**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 28/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                        | Depth (m)    | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|------------------------|--------------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results                |              |           |      |        |  |    |
|               |                            |      |                        | 0.12         |           |      |        | ASPHALT  |    |
|               |                            |      |                        |              |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               |                            |      |                        | 0.55         |           |      |        | MADE GROUND. Firm brown mottled multicoloured slightly sandy slightly gravelly CLAY. Gravel is angular mudstone and brick. |    |
|               | 1.00                       | SPT  | N=16 (2,2/2,3,5,6)     | 0.90         |           |      |        | Stiff brown mottled grey and brown slightly sandy slightly gravelly CLAY. Gravel is angular and tabular mudstone.          | 1  |
|               | 2.00                       | SPT  | N=25 (6,6/6,6,7,6)     |              |           |      |        |  | 2  |
|               | 3.00                       | SPT  | N=18 (4,4/4,4,5,5)     |              |           |      |        |  | 3  |
|               | 4.00                       | SPT  | N=37 (7,8/10,10,9,8)   | 3.90         |           |      |        | Dense grey and brown slightly clayey very gravelly silty SAND. Gravel is angular and tabular mudstone.                     | 4  |
|               | 5.00                       | SPT  | N=53 (7,8/12,16,13,12) | 4.90<br>5.00 |           |      |        | Very dense brown and grey clayey very sandy GRAVEL of angular and tabular mudstone.<br>End of Borehole at 5.000m           | 5  |
|               |                            |      |                        |              |           |      |        |  | 6  |
|               |                            |      |                        |              |           |      |        |  | 7  |
|               |                            |      |                        |              |           |      |        |  | 8  |
|               |                            |      |                        |              |           |      |        |  | 9  |
|               |                            |      |                        |              |           |      |        |  | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS03**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 28/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                                | Depth (m) | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|--------------------------------|-----------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results                        |           |           |      |        |  |    |
|               |                            |      |                                | 0.09      |           |      |        | ASPHALT  |    |
|               |                            |      |                                |           |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               |                            |      |                                | 0.55      |           |      |        | MADE GROUND. Soft grey and brown sandy slightly gravelly CLAY. Gravel is angular mudstone, sandstone concrete and brick.                               |    |
|               | 1.00                       | SPT  | N=7 (3,2/2,1,2,2)              | 1.00      |           |      |        | Soft brown mottled grey and brownish orange slightly sandy gravelly CLAY with low cobble content. Gravel and cobbles are angular and tabular mudstone. | 1  |
|               | 2.00                       | SPT  | N=44 (5,7/10,8,11,15)          |           |           |      |        | <u>Becoming very stiff from 2.0m.</u>  | 2  |
|               | 2.90                       | SPT  | 50 (25 for 105mm/50 for 290mm) | 2.90      |           |      |        | End of Borehole at 2.900m  | 3  |
|               |                            |      |                                |           |           |      |        |  | 4  |
|               |                            |      |                                |           |           |      |        |  | 5  |
|               |                            |      |                                |           |           |      |        |  | 6  |
|               |                            |      |                                |           |           |      |        |  | 7  |
|               |                            |      |                                |           |           |      |        |  | 8  |
|               |                            |      |                                |           |           |      |        |  | 9  |
|               |                            |      |                                |           |           |      |        |  | 10 |

Remarks: 1) Soakaway test performed in borehole following termination of drilling.



# Borehole Log

Borehole No.

**WS04**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 28/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                        | Depth (m) | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|------------------------|-----------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results                |           |           |      |        |  |    |
|               |                            |      |                        | 0.12      |           |      |        | ASPHALT  |    |
|               |                            |      |                        | 0.55      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               | 1.00                       | SPT  | N=13 (2,2/1,2,5,5)     |           |           |      |        | MADE GROUND. Firm brown mottled multicoloured slightly sandy slightly gravelly CLAY. Gravel is angular mudstone and brick.             | 1  |
|               | 1.60                       | SPT  | N=50 (7,7/9,13,13,15)  | 1.60      |           |      |        | Very stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel and cobbles are angular mudstone . | 2  |
|               | 2.60                       | SPT  | 50 (8,12/50 for 235mm) | 2.60      |           |      |        | End of Borehole at 2.600m  | 3  |
|               |                            |      |                        |           |           |      |        |  | 4  |
|               |                            |      |                        |           |           |      |        |  | 5  |
|               |                            |      |                        |           |           |      |        |  | 6  |
|               |                            |      |                        |           |           |      |        |  | 7  |
|               |                            |      |                        |           |           |      |        |  | 8  |
|               |                            |      |                        |           |           |      |        |  | 9  |
|               |                            |      |                        |           |           |      |        |  | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS05**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 28/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                   | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|-------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results           |           |           |      |        |   |    |
|               |                            |      |                   | 0.23      |           |      |        | ASPHALT   |    |
|               |                            |      |                   | 0.60      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=4 (1,1/1,1,1,1) |           |           |      |        | MADE GROUND. Very soft to soft brown mottled multicoloured slightly sandy slightly gravelly CLAY. Gravel is angular mudstone and brick. | 1  |
|               | 2.00                       | SPT  | N=9 (1,1/2,2,2,3) |           |           |      |        | <u>Becoming soft to firm from 2.0m.</u>   | 2  |
|               |                            |      |                   | 2.30      |           |      |        | Firm brown mottled grey and orangish brown CLAY. Gravel is fine to medium angular and tabular mudstone.                                 |    |
|               | 3.00                       | SPT  | N=4 (2,0/1,1,1,1) |           |           |      |        | <u>Becoming very soft to soft from 3.0m.</u>  | 3  |
|               | 4.00                       | SPT  | N=5 (0,1/2,1,1,1) |           |           |      |        | <u>Becoming soft from 4.0m.</u>   | 4  |
|               | 5.00                       | SPT  | N=5 (0,1/1,2,1,1) | 5.00      |           |      |        | End of Borehole at 5.000m   | 5  |
|               |                            |      |                   |           |           |      |        |   | 6  |
|               |                            |      |                   |           |           |      |        |   | 7  |
|               |                            |      |                   |           |           |      |        |   | 8  |
|               |                            |      |                   |           |           |      |        |   | 9  |
|               |                            |      |                   |           |           |      |        |   | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS06**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                      | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|----------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results              |           |           |      |        |   |    |
|               |                            |      |                      | 0.12      |           |      |        | ASPHALT   |    |
|               |                            |      |                      | 0.40      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=7 (2,1/2,2,1,2)    |           |           |      |        | MADE GROUND. Soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|               |                            |      |                      | 1.50      |           |      |        | Firm brown sandy slightly gravelly CLAY. Gravel is angular mudstone.  |    |
|               | 2.00                       | SPT  | N=9 (2,2/2,2,2,3)    |           |           |      |        | <u>Becoming firm from 2.0m.</u>   | 2  |
|               |                            |      |                      | 2.30      |           |      |        | Dense brown clayey gravelly SAND. Gravel is angular mudstone.   |    |
|               | 3.00                       | SPT  | N=26 (5,5/5,6,7,8)   |           |           |      |        |   | 3  |
|               |                            |      |                      | 3.70      |           |      |        | Very stiff brown mottled grey slightly sandy gravelly CLAY. Gravel is angular mudstone. Occasional lenses of clayey sandy GRAVEL.           | 4  |
|               | 4.00                       | SPT  | N=36 (8,8/7,10,11,8) |           |           |      |        |   |    |
|               | 5.00                       | SPT  | N=31 (11,7/7,8,8,8)  | 5.00      |           |      |        | End of Borehole at 5.000m   | 5  |
|               |                            |      |                      |           |           |      |        |   | 6  |
|               |                            |      |                      |           |           |      |        |   | 7  |
|               |                            |      |                      |           |           |      |        |   | 8  |
|               |                            |      |                      |           |           |      |        |   | 9  |
|               |                            |      |                      |           |           |      |        |   | 10 |

Remarks: 1] On completion a 50mm standpipe (50mm) was installed to 5.0m depth. Slotted pipe with granular response zone from 1.0m-5.0m, solid standpipe with bentonite seal GL-1.0m, and a flush cover.



# Borehole Log

Borehole No.

**WS07**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 28/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                     | Depth (m) | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|---------------------|-----------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results             |           |           |      |        |  |    |
|               |                            |      |                     | 0.12      |           |      |        | ASPHALT  |    |
|               |                            |      |                     |           |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               | 0.75                       | SPT  | N=12 (2,10/6,2,2,2) | 0.60      |           |      |        | Medium dense grey and dark brown clayey very sandy GRAVEL of angular concrete.   | 1  |
|               |                            |      |                     | 1.50      |           |      |        | Soft to firm brown mottled multicoloured slightly sandy slightly gravelly silty CLAY. Gravel is angular mudstone.              | 2  |
|               | 2.00                       | SPT  | N=8 (1,1/1,2,2,3)   |           |           |      |        |  |    |
|               |                            |      |                     | 2.70      |           |      |        | Medium dense brown silty SAND.   | 3  |
|               | 3.00                       | SPT  | N=21 (4,5/5,4,6,6)  | 3.20      |           |      |        | Medium dense light brown mottled sandy slightly gravelly silty CLAY. Gravel is angular mudstone.                               |    |
|               |                            |      |                     | 3.70      |           |      |        | Dense brownish grey and orangish brown clayey very gravelly silty SAND. Gravel is fine to medium angular and tabular mudstone. | 4  |
|               | 4.00                       | SPT  | N=31 (6,6/5,6,8,12) |           |           |      |        |  |    |
|               |                            |      |                     | 5.00      |           |      |        | End of Borehole at 5.000m  | 5  |
|               | 5.00                       | SPT  | N=28 (5,5/6,6,7,9)  |           |           |      |        |  | 6  |
|               |                            |      |                     |           |           |      |        |  | 7  |
|               |                            |      |                     |           |           |      |        |  | 8  |
|               |                            |      |                     |           |           |      |        |  | 9  |
|               |                            |      |                     |           |           |      |        |  | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS08**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 30/09/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                    | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|--------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results            |           |           |      |        |   |    |
|               |                            |      |                    | 0.11      |           |      |        | ASPHALT   |    |
|               |                            |      |                    | 0.35      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=8 (2,2/2,3,1,2)  | 1.00      |           |      |        | MADE GROUND. grey mottled ashy clayey very gravelly SAND. Gravel is angular brick, concrete and mudstone.                         | 1  |
|               | 2.00                       | SPT  | N=6 (1,1/1,1,2,2)  | 2.00      |           |      |        | MADE GROUND. Soft to firm brown mottled grey slightly sandy gravelly CLAY. Gravel is angular brick, sandstone, mudstone and coal. | 2  |
|               |                            |      |                    | 2.50      |           |      |        | Soft brownish orange silty slightly sandy slightly gravelly CLAY. Gravel is angular mudstone.                                     |    |
|               | 3.00                       | SPT  | N=23 (5,5/5,5,7,6) | 3.00      |           |      |        | Light brown clayey gravelly SAND. Gravel is angular mudstone.   | 3  |
|               | 4.00                       | SPT  | N=27 (4,4/5,7,8,7) |           |           |      |        | Medium dense light brown clayey sandy GRAVEL of angular mudstone  | 4  |
|               | 5.00                       | SPT  | N=32 (6,6/8,7,8,9) | 5.00      |           |      |        | End of Borehole at 5.000m   | 5  |
|               |                            |      |                    |           |           |      |        |   | 6  |
|               |                            |      |                    |           |           |      |        |   | 7  |
|               |                            |      |                    |           |           |      |        |   | 8  |
|               |                            |      |                    |           |           |      |        |   | 9  |
|               |                            |      |                    |           |           |      |        |   | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS09**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 28/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                               | Depth (m) | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|-------------------------------|-----------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results                       |           |           |      |        |  |    |
|               |                            |      |                               | 0.08      |           |      |        | ASPHALT  |    |
|               |                            |      |                               | 0.40      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               | 1.00                       | SPT  | N=7 (1,2/1,2,1,3)             | 1.20      |           |      |        | MADE GROUND. Soft brown and grey mottled brownish red sandy slightly gravelly CLAY with medium cobble content. Gravel and cobbles are angular concrete, brick and mudstone.            | 1  |
|               | 1.50                       | SPT  | 50 (25 for 85mm/50 for 265mm) | 1.50      |           |      |        | MADE GROUND. Firm brown and grey slightly sandy gravelly CLAY with medium cobble content. Gravel and cobbles are angular mudstone, concrete and mudstone.<br>End of Borehole at 1.500m | 2  |
|               |                            |      |                               |           |           |      |        |  | 3  |
|               |                            |      |                               |           |           |      |        |  | 4  |
|               |                            |      |                               |           |           |      |        |  | 5  |
|               |                            |      |                               |           |           |      |        |  | 6  |
|               |                            |      |                               |           |           |      |        |  | 7  |
|               |                            |      |                               |           |           |      |        |  | 8  |
|               |                            |      |                               |           |           |      |        |  | 9  |
|               |                            |      |                               |           |           |      |        |  | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.



# Borehole Log

Borehole No.

**WS09A**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 28/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                                | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|--------------------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results                        |           |           |      |        |   |    |
|               |                            |      |                                | 0.06      |           |      |        | ASPHALT   |    |
|               |                            |      |                                | 0.30      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               |                            |      |                                | 0.70      |           |      |        | MADE GROUND. Soft grey and brown sandy slightly gravelly CLAY. Gravel is angular mudstone, sandstone concrete and brick.    |    |
|               | 1.00                       | SPT  | N=5 (1,2/1,1,2,1)              |           |           |      |        | MADE GROUND. Soft brown mottled multicoloured sandy slightly gravelly CLAY. Gravel is angular concrete, brick and mudstone. | 1  |
|               | 1.50                       | SPT  | 50 (25 for 115mm/50 for 285mm) | 1.50      |           |      |        | End of Borehole at 1.500m   | 2  |
|               |                            |      |                                |           |           |      |        |   | 3  |
|               |                            |      |                                |           |           |      |        |   | 4  |
|               |                            |      |                                |           |           |      |        |   | 5  |
|               |                            |      |                                |           |           |      |        |   | 6  |
|               |                            |      |                                |           |           |      |        |   | 7  |
|               |                            |      |                                |           |           |      |        |   | 8  |
|               |                            |      |                                |           |           |      |        |   | 9  |
|               |                            |      |                                |           |           |      |        |   | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.

# Borehole Log

Borehole No.

**WS10**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water<br>Strikes | Sample and In Situ Testing |      |                    | Depth<br>(m) | Level<br>(m) | Well | Legend | Stratum Description   |    |
|------------------|----------------------------|------|--------------------|--------------|--------------|------|--------|---|----|
|                  | Depth (m)                  | Type | Results            |              |              |      |        |   |    |
|                  |                            |      |                    | 0.10         |              |      |        | ASPHALT   |    |
|                  |                            |      |                    | 0.40         |              |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|                  | 1.00                       | SPT  | N=5 (1,1/1,1,2,1)  | 1.00         |              |      |        | MADE GROUND. Firm brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|                  |                            |      |                    |              |              |      |        | MADE GROUND. Soft brown slightly sandy slightly gravelly CLAY. Gravel is angular mudstone and brick.  |    |
|                  | 2.00                       | SPT  | N=11 (2,2/4,2,3,2) | 2.00         |              |      |        | Firm brown slightly sandy gravelly CLAY. Gravel is angular mudstone.  | 2  |
|                  |                            |      |                    | 2.25         |              |      |        | Firm brownish orange silty slightly sandy CLAY.   |    |
|                  |                            |      |                    | 2.60         |              |      |        | End of Borehole at 2.600m   |    |
|                  |                            |      |                    |              |              |      |        |   | 3  |
|                  |                            |      |                    |              |              |      |        |   | 4  |
|                  |                            |      |                    |              |              |      |        |   | 5  |
|                  |                            |      |                    |              |              |      |        |   | 6  |
|                  |                            |      |                    |              |              |      |        |   | 7  |
|                  |                            |      |                    |              |              |      |        |   | 8  |
|                  |                            |      |                    |              |              |      |        |   | 9  |
|                  |                            |      |                    |              |              |      |        |   | 10 |

Remarks: 1] Borehole terminated at 2.6m to perform soakaway test.

# Borehole Log

Borehole No.

**WS11**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                         | Depth (m)    | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|-------------------------|--------------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results                 |              |           |      |        |   |    |
|               |                            |      |                         | 0.10         |           |      |        | ASPHALT   |    |
|               |                            |      |                         | 0.50         |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=4 (1,1/1,1,1,1)       |              |           |      |        | MADE GROUND. Very soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone.                              | 1  |
|               | 2.00                       | SPT  | N=6 (1,1/1,2,1,2)       |              |           |      |        | <u>Becoming soft from 2.0m.</u>   | 2  |
|               | 2.50                       | SPT  | 50 (20,22/50 for 275mm) | 2.30<br>2.50 |           |      |        | Very stiff grey and brownish orange slightly sandy gravelly CLAY with low cobble content. Gravel and cobbles are angular mudstone and quartzite.<br>End of Borehole at 2.500m | 3  |
|               |                            |      |                         |              |           |      |        |   | 4  |
|               |                            |      |                         |              |           |      |        |   | 5  |
|               |                            |      |                         |              |           |      |        |   | 6  |
|               |                            |      |                         |              |           |      |        |   | 7  |
|               |                            |      |                         |              |           |      |        |   | 8  |
|               |                            |      |                         |              |           |      |        |   | 9  |
|               |                            |      |                         |              |           |      |        |   | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with cold lay asphalt.



# Borehole Log

Borehole No.

**WS12**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water Strikes | Sample and In Situ Testing |      |                         | Depth (m)    | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|-------------------------|--------------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results                 |              |           |      |        |   |    |
|               |                            |      |                         | 0.10         |           |      |        | ASPHALT   |    |
|               |                            |      |                         |              |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=5 (1,1/1,1,1,2)       | 0.60         |           |      |        | MADE GROUND. Soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|               | 2.00                       | SPT  | N=5 (1,1/1,1,1,2)       | 2.30         |           |      |        | Firm brownish orange silty slightly sandy slightly gravelly CLAY. Gravel is angular mudstone.   | 2  |
|               | 3.00                       | SPT  | N=11 (2,3/3,3,2,3)      | 2.80         |           |      |        | Firm grey and brown sandy slightly gravelly CLAY. Gravel is fine angular mudstone.  | 3  |
|               | 4.00                       | SPT  | N=24 (6,6/6,6,6,6)      |              |           |      |        | <u>Becoming stiff from 4.0m.</u>  | 4  |
|               | 4.80                       | SPT  | 50 (19,22/50 for 285mm) | 4.70<br>4.80 |           |      |        | Very dense grey and brown slightly clayey sandy GRAVEL of angular and tabular mudstone.<br>End of Borehole at 4.800m                        | 5  |
|               |                            |      |                         |              |           |      |        |   | 6  |
|               |                            |      |                         |              |           |      |        |   | 7  |
|               |                            |      |                         |              |           |      |        |   | 8  |
|               |                            |      |                         |              |           |      |        |   | 9  |
|               |                            |      |                         |              |           |      |        |   | 10 |

Remarks: 1] On completion a 50mm standpipe (50mm) was installed to 4.8m depth. Slotted pipe with granular response zone from 1.0m-4.8m, solid standpipe with bentonite seal GL-1.0m, and a flush cover.

# Borehole Log

Borehole No.

**WS13**

Sheet 1 of 1

Project Name: Former Lidl

Project No:  
16761

Co-ords:

Hole Type  
WLS

Location: Priory Street, Carmarthen

Level:

Scale  
1:50

Client: Wales & West Housing Association

Dates: 29/07/2021 -

Logged By  
MW

| Water<br>Strikes | Sample and In Situ Testing |      |                   | Depth<br>(m) | Level<br>(m) | Well | Legend | Stratum Description   |    |
|------------------|----------------------------|------|-------------------|--------------|--------------|------|--------|---|----|
|                  | Depth (m)                  | Type | Results           |              |              |      |        |   |    |
|                  |                            |      |                   | 0.09         |              |      |        | ASPHALT   |    |
|                  |                            |      |                   |              |              |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|                  | 1.00                       | SPT  | N=9 (1,2/1,2,3,3) | 0.50         |              |      |        | MADE GROUND. Soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|                  |                            |      |                   | 1.20         |              |      |        | MADE GROUND. Medium dense brown and grey clayey very gravelly SAND. Gravel is angular limestone.  |    |
|                  | 2.00                       | SPT  | N=7 (2,1/1,1,3,2) | 2.00         |              |      |        | Loose light brown clayey SAND with occasional lenses of sandy CLAY.   | 2  |
|                  |                            |      |                   | 2.50         |              |      |        | End of Borehole at 2.500m   |    |
|                  |                            |      |                   |              |              |      |        |   | 3  |
|                  |                            |      |                   |              |              |      |        |   | 4  |
|                  |                            |      |                   |              |              |      |        |   | 5  |
|                  |                            |      |                   |              |              |      |        |   | 6  |
|                  |                            |      |                   |              |              |      |        |   | 7  |
|                  |                            |      |                   |              |              |      |        |   | 8  |
|                  |                            |      |                   |              |              |      |        |   | 9  |
|                  |                            |      |                   |              |              |      |        |   | 10 |

Remarks: 1) Borehole terminated at 2.5m to perform soakaway test.

# Borehole Log

Borehole No.

**WS14**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 30/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                       | Depth (m) | Level (m) | Well | Legend | Stratum Description   |    |
|---------------|----------------------------|------|-----------------------|-----------|-----------|------|--------|---|----|
|               | Depth (m)                  | Type | Results               |           |           |      |        |   |    |
|               |                            |      |                       | 0.23      |           |      |        | CONCRETE  |    |
|               |                            |      |                       | 0.50      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.  |    |
|               | 1.00                       | SPT  | N=8 (1,0/1,0,4,3)     | 1.10      |           |      |        | MADE GROUND. Soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|               |                            |      |                       | 1.70      |           |      |        | MADE GROUND. Soft to firm brown mottled grey slightly sandy gravelly CLAY. Gravel is angular brick, sandstone, mudstone and coal.           |    |
|               | 2.00                       | SPT  | N=2 (1,2/1,0,1,0)     | 2.50      |           |      |        | MADE GROUND. Very loose brownish grey clayey very sandy GRAVEL of angular mudstone, limestone and brick.                                    | 2  |
|               |                            |      |                       | 3.30      |           |      |        | Firm brownish orange silty sandy CLAY.  | 3  |
|               | 3.00                       | SPT  | N=10 (2,2/2,2,3,3)    | 4.60      |           |      |        | Firm brown mottled grey and orangish brown sandy slightly gravelly CLAY. Gravel is angular mudstone.  | 4  |
|               | 4.00                       | SPT  | N=24 (4,4/5,6,7,6)    | 5.00      |           |      |        | Dense grey and brown clayey very sandy GRAVEL of angular mudstone.  | 5  |
|               | 5.00                       | SPT  | N=41 (8,8/7,10,12,12) |           |           |      |        | End of Borehole at 5.000m   |    |
|               |                            |      |                       |           |           |      |        |   | 6  |
|               |                            |      |                       |           |           |      |        |   | 7  |
|               |                            |      |                       |           |           |      |        |   | 8  |
|               |                            |      |                       |           |           |      |        |   | 9  |
|               |                            |      |                       |           |           |      |        |   | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with concrete.



# Borehole Log

Borehole No.

**WS15**

Sheet 1 of 1

|  |                     |            |               |
|--|---------------------|------------|---------------|
| Project Name: Former Lidl                | Project No: 16761   | Co-ords:   | Hole Type WLS |
| Location: Priory Street, Carmarthen      | Level:              | Scale 1:50 | Logged By MW  |
| Client: Wales & West Housing Association | Dates: 30/07/2021 - |            |               |

| Water Strikes | Sample and In Situ Testing |      |                    | Depth (m) | Level (m) | Well | Legend | Stratum Description  |    |
|---------------|----------------------------|------|--------------------|-----------|-----------|------|--------|--|----|
|               | Depth (m)                  | Type | Results            |           |           |      |        |  |    |
|               |                            |      |                    | 0.16      |           |      |        | CONCRETE   |    |
|               |                            |      |                    | 0.30      |           |      |        | MADE GROUND. Grey coarse sandy GRAVEL of angular mudstone.   |    |
|               |                            |      |                    |           |           |      |        | MADE GROUND. Very soft to soft brown mottled multi-coloured slightly sandy slightly gravelly CLAY. Gravel is angular coal, concrete, brick and mudstone. | 1  |
|               | 1.00                       | SPT  | N=4 (1,1/1,1,1,1)  |           |           |      |        |  |    |
|               |                            |      |                    | 1.40      |           |      |        | MADE GROUND. Loose brownish grey clayey very sandy GRAVEL of angular mudstone, limestone and brick.  |    |
|               | 2.00                       | SPT  | N=9 (1,1/3,3,2,1)  |           |           |      |        |  | 2  |
|               |                            |      |                    | 2.40      |           |      |        | Soft brownish orange silty sandy CLAY.   |    |
|               |                            |      |                    | 2.90      |           |      |        | Medium dense light brown clayey silty SAND.  | 3  |
|               | 3.00                       | SPT  | N=24 (3,3/5,5,7,7) |           |           |      |        |  |    |
|               |                            |      |                    | 3.50      |           |      |        | Medium dense grey and brown clayey very sandy GRAVEL of angular mudstone.  | 4  |
|               | 4.00                       | SPT  | N=24 (5,5/5,5,8,6) |           |           |      |        |  |    |
|               |                            |      |                    | 5.00      |           |      |        | End of Borehole at 5.000m  | 5  |
|               | 5.00                       | SPT  | N=23 (3,4/4,6,6,7) |           |           |      |        |  |    |
|               |                            |      |                    |           |           |      |        |  | 6  |
|               |                            |      |                    |           |           |      |        |  | 7  |
|               |                            |      |                    |           |           |      |        |  | 8  |
|               |                            |      |                    |           |           |      |        |  | 9  |
|               |                            |      |                    |           |           |      |        |  | 10 |

Remarks: 1] On completion borehole backfilled with arisings and capped with concrete.

**ANNEX D  
Photographs**

**Plate 1:** Possible oil interceptor tank located at the south of the site.



**Plate 2:** Another photograph of possible oil interceptor tank located at the south of the site.






**ANNEX E**  
**Laboratory Soil Chemical Test Results**



# Amended Report

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|                               |  |                          |             |
|-------------------------------|--|--------------------------|-------------|
| <b>Report No.:</b>            | 21-26861-8   |                          |             |
| <b>Initial Date of Issue:</b> | 11-Aug-2021  | <b>Date of Re-Issue:</b> | 18-Aug-2021 |
| <b>Client</b>                 | Terra Firma (Wales) Ltd  |                          |             |
| <b>Client Address:</b>        | 5 Deryn Court<br>Wharfedale Road<br>Pentwyn<br>Cardiff<br>CF23 7HA                 |                          |             |
| <b>Contact(s):</b>            | Michael Watkins  |                          |             |
| <b>Project</b>                | Former Lidl  |                          |             |
| <b>Quotation No.:</b>         |  | <b>Date Received:</b>    | 04-Aug-2021 |
| <b>Order No.:</b>             |  | <b>Date Instructed:</b>  | 04-Aug-2021 |
| <b>No. of Samples:</b>        | 8  |                          |             |
| <b>Turnaround (Wkdays):</b>   | 12   | <b>Results Due:</b>      | 19-Aug-2021 |
| <b>Date Approved:</b>         | 18-Aug-2021  |                          |             |
| <b>Approved By:</b>           |  |                          |             |
| <b>Details:</b>               | Glynn Harvey, Technical Manager  |                          |             |

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## Results - Soil

### Project: Former Lidl

|  |                             |            |              |            |                      |                      |                      |                      |                      |                      |                      |                      |
|--|-----------------------------|------------|--------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Client: Terra Firma (Wales) Ltd</b> | <b>Chemtest Job No.:</b>    |            |              |            | 21-26861             | 21-26861             | 21-26861             | 21-26861             | 21-26861             | 21-26861             | 21-26861             | 21-26861             |
| <b>Quotation No.:</b>                  | <b>Chemtest Sample ID.:</b> |            |              |            | 1253730              | 1253731              | 1253732              | 1253733              | 1253734              | 1253735              | 1253736              | 1253737              |
|  | Sample Location:            |            |              |            | WS01                 | WS02                 | WS05                 | WS06                 | WS09                 | WS12                 | WS14                 | WS11                 |
|  | Sample Type:                |            |              |            | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 | SOIL                 |
|  | Top Depth (m):              |            |              |            | 0.6                  | 0.3                  | 0.7                  | 0.6                  | 0.7                  | 1.2                  | 0.6                  | 0.8                  |
|  | Date Sampled:               |            |              |            | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          | 30-Jul-2021          |
|  | Asbestos Lab:               |            |              |            | DURHAM               | DURHAM               | DURHAM               | DURHAM               | DURHAM               | DURHAM               | DURHAM               | DURHAM               |
| <b>Determinand</b>                     | <b>Accred.</b>              | <b>SOP</b> | <b>Units</b> | <b>LOD</b> |                      |                      |                      |                      |                      |                      |                      |                      |
| ACM Type                               | U                           | 2192       |              | N/A        | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    |
| Asbestos Identification                | U                           | 2192       |              | N/A        | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected | No Asbestos Detected |
| Moisture                               | N                           | 2030       | %            | 0.020      | 16                   | 2.8                  | 18                   | 18                   | 13                   | 17                   | 15                   | 20                   |
| Soil Colour                            | N                           | 2040       |              | N/A        | Brown                | Grey                 | Brown                | Brown                | Brown                | Brown                | Brown                | Brown                |
| Other Material                         | N                           | 2040       |              | N/A        | Stones               | Stones               | Stones               | None                 | Stones               | Stones               | Stones               | Stones               |
| Soil Texture                           | N                           | 2040       |              | N/A        | Sand                 | Clay                 | Sand                 | Sand                 | Sand                 | Sand                 | Sand                 | Clay                 |
| Chromatogram (TPH)                     | N                           |            |              | N/A        | See Attached         | See Attached         | See Attached         | See Attached         | See Attached         | See Attached         | See Attached         | See Attached         |
| pH                                     | M                           | 2010       |              | 4.0        | 8.5                  | 9.0                  | 8.4                  | 8.3                  | 8.0                  | 8.1                  | 8.4                  | 8.3                  |
| Boron (Hot Water Soluble)              | M                           | 2120       | mg/kg        | 0.40       | 1.1                  | < 0.40               | 0.89                 | 1.5                  | 1.6                  | 1.1                  | 2.0                  | 0.93                 |
| Sulphate (2:1 Water Soluble) as SO4    | M                           | 2120       | g/l          | 0.010      |                      | < 0.010              | < 0.010              | 0.053                | 0.21                 | < 0.010              |                      | < 0.010              |
| Total Sulphur                          | M                           | 2175       | %            | 0.010      |                      | 0.045                | 0.074                | 0.17                 | 0.43                 | 0.13                 |                      | 0.065                |
| Cyanide (Complex)                      | M                           | 2300       | mg/kg        | 0.50       | < 0.50               | < 0.50               | < 0.50               | < 0.50               | 0.70                 | 0.60                 | 0.70                 | 0.50                 |
| Cyanide (Free)                         | M                           | 2300       | mg/kg        | 0.50       | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               | 0.70                 | < 0.50               |
| Cyanide (Total)                        | M                           | 2300       | mg/kg        | 0.50       | < 0.50               | < 0.50               | < 0.50               | < 0.50               | 0.70                 | 0.60                 | 1.4                  | 0.50                 |
| Sulphate (Acid Soluble)                | M                           | 2430       | %            | 0.010      | 0.12                 | 0.071                | 0.060                | 0.15                 | 0.18                 | 0.064                | 0.19                 | 0.085                |
| Arsenic                                | M                           | 2450       | mg/kg        | 1.0        | 16                   | 18                   | 11                   | 15                   | 19                   | 12                   | 20                   | 14                   |
| Beryllium                              | U                           | 2450       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Cadmium                                | M                           | 2450       | mg/kg        | 0.10       | 0.32                 | 0.28                 | 0.12                 | < 0.10               | 0.72                 | 0.12                 | 0.53                 | 0.20                 |
| Chromium                               | M                           | 2450       | mg/kg        | 1.0        | 15                   | 4.6                  | 17                   | 12                   | 14                   | 17                   | 20                   | 25                   |
| Mercury Low Level                      | M                           | 2450       | mg/kg        | 0.05       | 0.50                 | 0.07                 | 0.39                 | 0.72                 | 0.89                 | 0.39                 | 1.2                  | 0.53                 |
| Manganese                              | M                           | 2450       | mg/kg        | 5.0        | 710                  | 150                  | 1000                 | 640                  | 760                  | 1200                 | 810                  | 1800                 |
| Molybdenum                             | M                           | 2450       | mg/kg        | 2.0        | < 2.0                | 2.6                  | 2.4                  | < 2.0                | < 2.0                | < 2.0                | 2.2                  | 3.0                  |
| Antimony                               | N                           | 2450       | mg/kg        | 2.0        | < 2.0                | 4.4                  | 2.5                  | 3.3                  | 7.7                  | 2.4                  | 3.8                  | < 2.0                |
| Copper                                 | M                           | 2450       | mg/kg        | 0.50       | 61                   | 3.7                  | 81                   | 66                   | 52                   | 71                   | 82                   | 130                  |
| Nickel                                 | M                           | 2450       | mg/kg        | 0.50       | 22                   | 4.6                  | 27                   | 20                   | 22                   | 26                   | 28                   | 38                   |
| Lead                                   | M                           | 2450       | mg/kg        | 0.50       | 260                  | 9.3                  | 220                  | 340                  | 1900                 | 1000                 | 630                  | 840                  |
| Selenium                               | M                           | 2450       | mg/kg        | 0.20       | < 0.20               | < 0.20               | < 0.20               | 0.22                 | 0.23                 | 0.29                 | 0.56                 | 0.46                 |
| Zinc                                   | M                           | 2450       | mg/kg        | 0.50       | 120                  | 7.8                  | 100                  | 84                   | 150                  | 110                  | 210                  | 160                  |
| Chromium (Trivalent)                   | N                           | 2490       | mg/kg        | 1.0        | 15                   | 4.6                  | 17                   | 12                   | 14                   | 17                   | 20                   | 25                   |
| Chromium (Hexavalent)                  | N                           | 2490       | mg/kg        | 0.50       | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               | < 0.50               |
| Diesel Present                         | N                           | 2670       |              | N/A        | False                | False                | False                | False                | False                | False                | False                | False                |
| Aliphatic TPH >C5-C6                   | N                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C6-C8                   | N                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C8-C10                  | M                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C10-C12                 | M                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C12-C16                 | M                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C16-C21                 | M                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |
| Aliphatic TPH >C21-C35                 | M                           | 2680       | mg/kg        | 1.0        | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                | < 1.0                |



## Results - Soil

### Project: Former Lidl

|  |                             |            |              |            |             |             |             |             |             |             |             |             |
|--|-----------------------------|------------|--------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Client: Terra Firma (Wales) Ltd</b> | <b>Chemtest Job No.:</b>    |            |              |            | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    |
| <b>Quotation No.:</b>                  | <b>Chemtest Sample ID.:</b> |            |              |            | 1253730     | 1253731     | 1253732     | 1253733     | 1253734     | 1253735     | 1253736     | 1253737     |
|  | Sample Location:            |            |              |            | WS01        | WS02        | WS05        | WS06        | WS09        | WS12        | WS14        | WS11        |
|  | Sample Type:                |            |              |            | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
|  | Top Depth (m):              |            |              |            | 0.6         | 0.3         | 0.7         | 0.6         | 0.7         | 1.2         | 0.6         | 0.8         |
|  | Date Sampled:               |            |              |            | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 |
|  | Asbestos Lab:               |            |              |            | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      |
| <b>Determinand</b>                     | <b>Accred.</b>              | <b>SOP</b> | <b>Units</b> | <b>LOD</b> |             |             |             |             |             |             |             |             |
| Aliphatic TPH >C35-C44                 | N                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Total Aliphatic Hydrocarbons           | N                           | 2680       | mg/kg        | 5.0        | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       |
| Aromatic TPH >C5-C7                    | N                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C7-C8                    | N                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C8-C10                   | M                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C10-C12                  | M                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C12-C16                  | M                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C16-C21                  | U                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | 290         | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C21-C35                  | M                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | 1400        | < 1.0       | < 1.0       | < 1.0       |
| Aromatic TPH >C35-C44                  | N                           | 2680       | mg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Total Aromatic Hydrocarbons            | N                           | 2680       | mg/kg        | 5.0        | < 5.0       | < 5.0       | < 5.0       | < 5.0       | 1700        | < 5.0       | < 5.0       | < 5.0       |
| Total Petroleum Hydrocarbons           | N                           | 2680       | mg/kg        | 10.0       | < 10        | < 10        | < 10        | < 10        | 1700        | < 10        | < 10        | < 10        |
| Naphthalene                            | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 1.9         | < 0.10      | < 0.10      | < 0.10      |
| Acenaphthylene                         | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 8.0         | < 0.10      | < 0.10      | < 0.10      |
| Acenaphthene                           | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 0.55        | < 0.10      | < 0.10      | < 0.10      |
| Fluorene                               | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 3.0         | < 0.10      | < 0.10      | < 0.10      |
| Phenanthrene                           | M                           | 2700       | mg/kg        | 0.10       | 1.7         | < 0.10      | < 0.10      | < 0.10      | 32          | < 0.10      | < 0.10      | < 0.10      |
| Anthracene                             | M                           | 2700       | mg/kg        | 0.10       | 0.51        | < 0.10      | < 0.10      | < 0.10      | 28          | < 0.10      | < 0.10      | < 0.10      |
| Fluoranthene                           | M                           | 2700       | mg/kg        | 0.10       | 4.4         | 0.71        | < 0.10      | < 0.10      | 80          | < 0.10      | 0.76        | < 0.10      |
| Pyrene                                 | M                           | 2700       | mg/kg        | 0.10       | 3.9         | 0.52        | < 0.10      | < 0.10      | 73          | < 0.10      | 0.95        | < 0.10      |
| Benzo[a]anthracene                     | M                           | 2700       | mg/kg        | 0.10       | 3.0         | < 0.10      | < 0.10      | < 0.10      | 51          | < 0.10      | 0.63        | < 0.10      |
| Chrysene                               | M                           | 2700       | mg/kg        | 0.10       | 2.5         | < 0.10      | < 0.10      | < 0.10      | 38          | < 0.10      | 1.1         | < 0.10      |
| Benzo[b]fluoranthene                   | M                           | 2700       | mg/kg        | 0.10       | 2.9         | < 0.10      | < 0.10      | < 0.10      | 59          | < 0.10      | 0.96        | < 0.10      |
| Benzo[k]fluoranthene                   | M                           | 2700       | mg/kg        | 0.10       | 1.7         | < 0.10      | < 0.10      | < 0.10      | 24          | < 0.10      | 0.68        | < 0.10      |
| Benzo[a]pyrene                         | M                           | 2700       | mg/kg        | 0.10       | 1.7         | < 0.10      | < 0.10      | < 0.10      | 45          | < 0.10      | 0.73        | < 0.10      |
| Indeno(1,2,3-c,d)Pyrene                | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 30          | < 0.10      | < 0.10      | < 0.10      |
| Dibenz(a,h)Anthracene                  | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 8.5         | < 0.10      | < 0.10      | < 0.10      |
| Benzo[g,h,i]perylene                   | M                           | 2700       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | 25          | < 0.10      | < 0.10      | < 0.10      |
| Total Of 16 PAH's                      | M                           | 2700       | mg/kg        | 2.0        | 22          | < 2.0       | < 2.0       | < 2.0       | 510         | < 2.0       | 5.8         | < 2.0       |
| Dichlorodifluoromethane                | U                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Chloromethane                          | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Vinyl Chloride                         | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Bromomethane                           | M                           | 2760       | µg/kg        | 20         | < 20        | < 20        | < 20        | < 20        | < 20        | < 20        | < 20        | < 20        |
| Chloroethane                           | U                           | 2760       | µg/kg        | 2.0        | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       |
| Trichlorofluoromethane                 | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,1-Dichloroethene                     | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Trans 1,2-Dichloroethene               | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,1-Dichloroethane                     | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| cis 1,2-Dichloroethene                 | M                           | 2760       | µg/kg        | 1.0        | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |

## Results - Soil

### Project: Former Lidl

| <b>Client: Terra Firma (Wales) Ltd</b> | <b>Chemtest Job No.:</b>    |      |       |     | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    |
|--|-----------------------------|------|-------|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Quotation No.:</b>                  | <b>Chemtest Sample ID.:</b> |      |       |     | 1253730     | 1253731     | 1253732     | 1253733     | 1253734     | 1253735     | 1253736     | 1253737     |
|  | Sample Location:            |      |       |     | WS01        | WS02        | WS05        | WS06        | WS09        | WS12        | WS14        | WS11        |
|  | Sample Type:                |      |       |     | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
|  | Top Depth (m):              |      |       |     | 0.6         | 0.3         | 0.7         | 0.6         | 0.7         | 1.2         | 0.6         | 0.8         |
|  | Date Sampled:               |      |       |     | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 |
|  | Asbestos Lab:               |      |       |     | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      |
| Determinand                            | Accred.                     | SOP  | Units | LOD |             |             |             |             |             |             |             |             |
| Bromochloromethane                     | U                           | 2760 | µg/kg | 5.0 | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       |
| Trichloromethane                       | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,1,1-Trichloroethane                  | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Tetrachloromethane                     | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,1-Dichloropropene                    | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Benzene                                | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2-Dichloroethane                     | M                           | 2760 | µg/kg | 2.0 | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       |
| Trichloroethene                        | N                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2-Dichloropropane                    | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Dibromomethane                         | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Bromodichloromethane                   | M                           | 2760 | µg/kg | 5.0 | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       |
| cis-1,3-Dichloropropene                | N                           | 2760 | µg/kg | 10  | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        |
| Toluene                                | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Trans-1,3-Dichloropropene              | N                           | 2760 | µg/kg | 10  | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        |
| 1,1,2-Trichloroethane                  | M                           | 2760 | µg/kg | 10  | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        |
| Tetrachloroethene                      | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,3-Dichloropropane                    | U                           | 2760 | µg/kg | 2.0 | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       |
| Dibromochloromethane                   | U                           | 2760 | µg/kg | 10  | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        | < 10        |
| 1,2-Dibromoethane                      | M                           | 2760 | µg/kg | 5.0 | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       | < 5.0       |
| Chlorobenzene                          | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,1,1,2-Tetrachloroethane              | M                           | 2760 | µg/kg | 2.0 | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       |
| Ethylbenzene                           | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| m & p-Xylene                           | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| o-Xylene                               | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Styrene                                | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Tribromomethane                        | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Isopropylbenzene                       | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Bromobenzene                           | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2,3-Trichloropropane                 | N                           | 2760 | µg/kg | 50  | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        |
| N-Propylbenzene                        | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 2-Chlorotoluene                        | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,3,5-Trimethylbenzene                 | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 4-Chlorotoluene                        | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Tert-Butylbenzene                      | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2,4-Trimethylbenzene                 | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Sec-Butylbenzene                       | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,3-Dichlorobenzene                    | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 4-Isopropyltoluene                     | U                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,4-Dichlorobenzene                    | M                           | 2760 | µg/kg | 1.0 | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |

## Results - Soil

### Project: Former Lidl

| <b>Client: Terra Firma (Wales) Ltd</b> | <b>Chemtest Job No.:</b>    |      |       |      | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    |
|--|-----------------------------|------|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Quotation No.:</b>                  | <b>Chemtest Sample ID.:</b> |      |       |      | 1253730     | 1253731     | 1253732     | 1253733     | 1253734     | 1253735     | 1253736     | 1253737     |
|  | Sample Location:            |      |       |      | WS01        | WS02        | WS05        | WS06        | WS09        | WS12        | WS14        | WS11        |
|  | Sample Type:                |      |       |      | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
|  | Top Depth (m):              |      |       |      | 0.6         | 0.3         | 0.7         | 0.6         | 0.7         | 1.2         | 0.6         | 0.8         |
|  | Date Sampled:               |      |       |      | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 |
|  | Asbestos Lab:               |      |       |      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      |
| Determinand                            | Accred.                     | SOP  | Units | LOD  |             |             |             |             |             |             |             |             |
| N-Butylbenzene                         | U                           | 2760 | µg/kg | 1.0  | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2-Dichlorobenzene                    | M                           | 2760 | µg/kg | 1.0  | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2-Dibromo-3-Chloropropane            | U                           | 2760 | µg/kg | 50   | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        | < 50        |
| 1,2,4-Trichlorobenzene                 | M                           | 2760 | µg/kg | 1.0  | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Hexachlorobutadiene                    | U                           | 2760 | µg/kg | 1.0  | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| 1,2,3-Trichlorobenzene                 | U                           | 2760 | µg/kg | 2.0  | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       | < 2.0       |
| Methyl Tert-Butyl Ether                | M                           | 2760 | µg/kg | 1.0  | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       | < 1.0       |
| Ethylene Glycol                        | N                           | 2780 | mg/kg | 0.10 | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      |
| N-Nitrosodimethylamine                 | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Phenol                                 | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Chlorophenol                         | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Bis-(2-Chloroethyl)Ether               | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 1,3-Dichlorobenzene                    | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 1,4-Dichlorobenzene                    | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 1,2-Dichlorobenzene                    | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Methylphenol                         | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Bis(2-Chloroisopropyl)Ether            | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Hexachloroethane                       | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| N-Nitrosodi-n-propylamine              | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Methylphenol                         | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Nitrobenzene                           | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Isophorone                             | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Nitrophenol                          | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,4-Dimethylphenol                     | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Bis(2-Chloroethoxy)Methane             | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,4-Dichlorophenol                     | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 1,2,4-Trichlorobenzene                 | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Naphthalene                            | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Chloroaniline                        | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Hexachlorobutadiene                    | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Chloro-3-Methylphenol                | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Methylnaphthalene                    | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Nitrophenol                          | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Hexachlorocyclopentadiene              | N                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,4,6-Trichlorophenol                  | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,4,5-Trichlorophenol                  | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Chloronaphthalene                    | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Nitroaniline                         | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Acenaphthylene                         | M                           | 2790 | mg/kg | 0.50 | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |

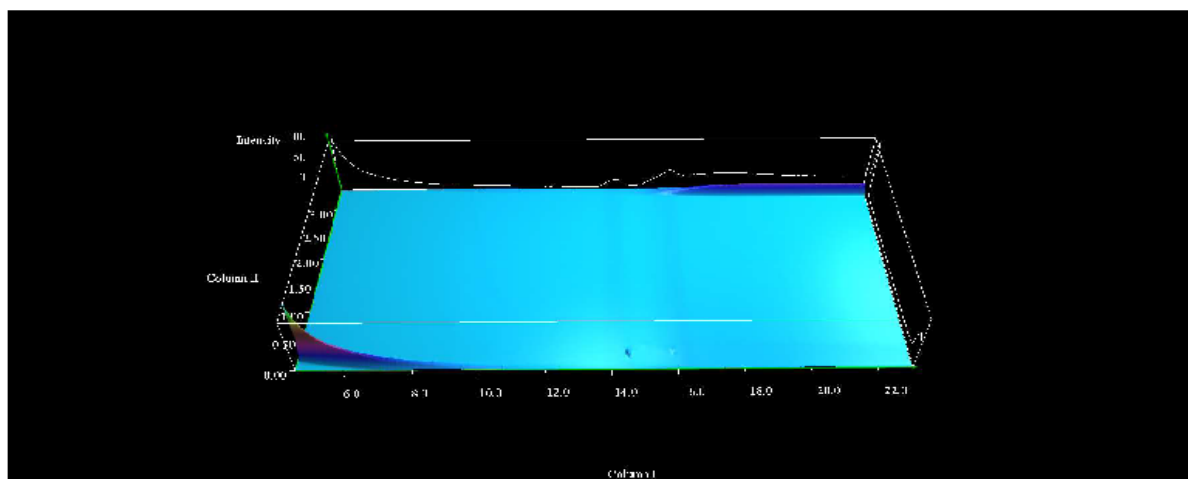


## Results - Soil

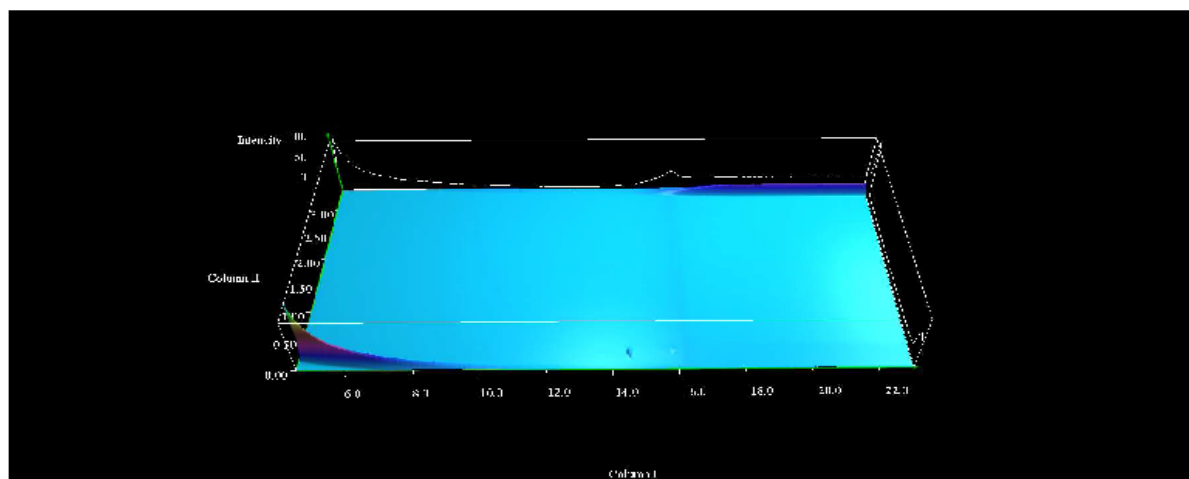
### Project: Former Lidl

|  |                             |            |              |            |             |             |             |             |             |             |             |             |
|--|-----------------------------|------------|--------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Client: Terra Firma (Wales) Ltd</b> | <b>Chemtest Job No.:</b>    |            |              |            | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    | 21-26861    |
| <b>Quotation No.:</b>                  | <b>Chemtest Sample ID.:</b> |            |              |            | 1253730     | 1253731     | 1253732     | 1253733     | 1253734     | 1253735     | 1253736     | 1253737     |
|  | Sample Location:            |            |              |            | WS01        | WS02        | WS05        | WS06        | WS09        | WS12        | WS14        | WS11        |
|  | Sample Type:                |            |              |            | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        | SOIL        |
|  | Top Depth (m):              |            |              |            | 0.6         | 0.3         | 0.7         | 0.6         | 0.7         | 1.2         | 0.6         | 0.8         |
|  | Date Sampled:               |            |              |            | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 | 30-Jul-2021 |
|  | Asbestos Lab:               |            |              |            | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      | DURHAM      |
| <b>Determinand</b>                     | <b>Accred.</b>              | <b>SOP</b> | <b>Units</b> | <b>LOD</b> |             |             |             |             |             |             |             |             |
| Dimethylphthalate                      | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,6-Dinitrotoluene                     | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Acenaphthene                           | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 2.2         | < 0.50      | < 0.50      | < 0.50      |
| 3-Nitroaniline                         | N                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Dibenzofuran                           | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Chlorophenylphenylether              | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2,4-Dinitrotoluene                     | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Fluorene                               | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Diethyl Phthalate                      | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Nitroaniline                         | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 2-Methyl-4,6-Dinitrophenol             | N                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Azobenzene                             | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| 4-Bromophenylphenyl Ether              | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Hexachlorobenzene                      | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Pentachlorophenol                      | N                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Phenanthrene                           | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 4.2         | < 0.50      | < 0.50      | < 0.50      |
| Anthracene                             | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 6.6         | < 0.50      | < 0.50      | < 0.50      |
| Carbazole                              | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 5.4         | < 0.50      | < 0.50      | < 0.50      |
| Di-N-Butyl Phthalate                   | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Fluoranthene                           | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 15          | < 0.50      | < 0.50      | < 0.50      |
| Pyrene                                 | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 14          | < 0.50      | < 0.50      | < 0.50      |
| Butylbenzyl Phthalate                  | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Benzo[a]anthracene                     | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 11          | < 0.50      | 1.4         | < 0.50      |
| Chrysene                               | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 9.6         | < 0.50      | 1.7         | < 0.50      |
| Bis(2-Ethylhexyl)Phthalate             | N                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 1.2         | < 0.50      |
| Di-N-Octyl Phthalate                   | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      |
| Benzo[b]fluoranthene                   | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 14          | < 0.50      | 2.5         | < 0.50      |
| Benzo[k]fluoranthene                   | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 9.6         | < 0.50      | 0.82        | < 0.50      |
| Benzo[a]pyrene                         | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 11          | < 0.50      | 1.6         | < 0.50      |
| Indeno(1,2,3-c,d)Pyrene                | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 6.3         | < 0.50      | 1.1         | < 0.50      |
| Dibenz(a,h)Anthracene                  | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 3.0         | < 0.50      | < 0.50      | < 0.50      |
| Benzo[g,h,i]perylene                   | M                           | 2790       | mg/kg        | 0.50       | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | < 0.50      | 0.93        | < 0.50      |
| Total Phenols                          | M                           | 2920       | mg/kg        | 0.10       | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      | < 0.10      |
| Organic Matter BS1377                  | N                           | 2930       | %            | 0.10       | 2.9         | 0.30        | 3.5         | 4.0         | 3.3         | 3.8         | 4.6         | 3.7         |

## TPH Chromatogram on Soil Sample: 1253730

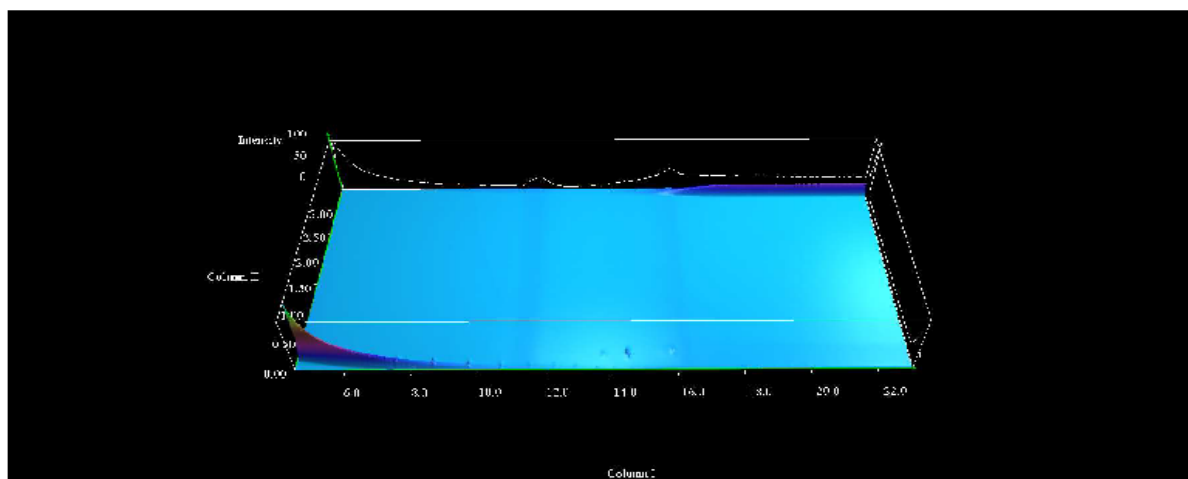


## TPH Chromatogram on Soil Sample: 1253731

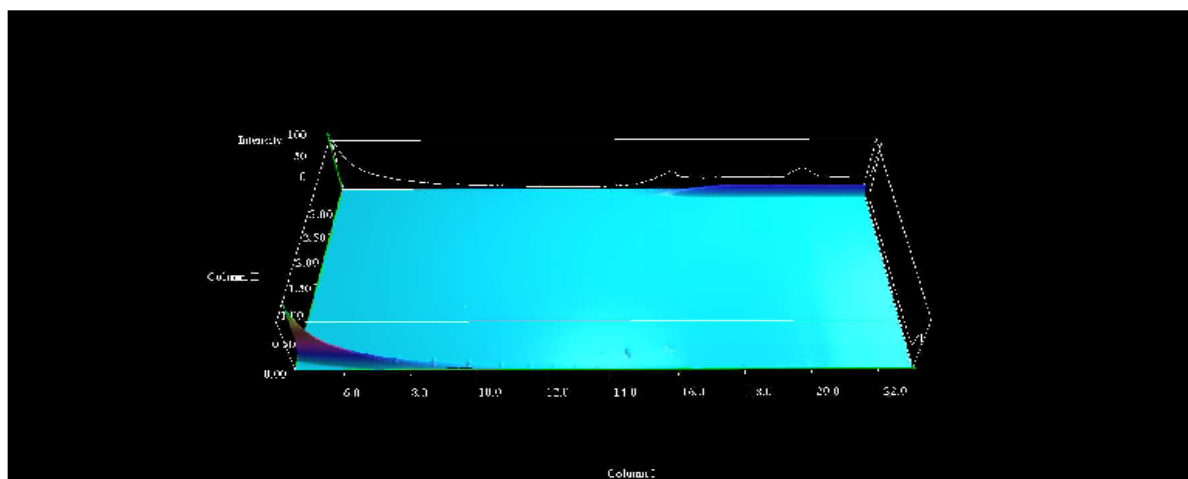




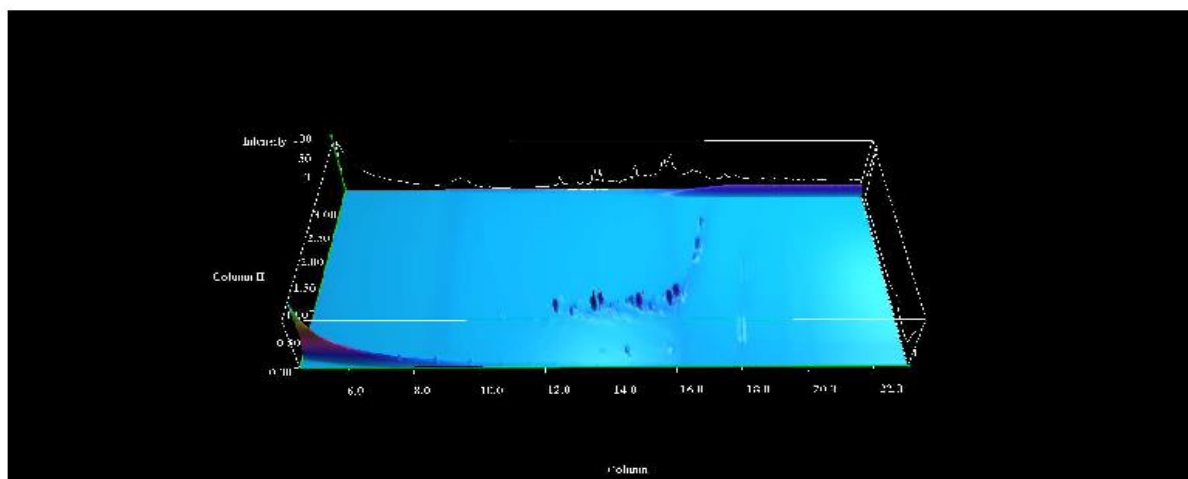
## TPH Chromatogram on Soil Sample: 1253732



## TPH Chromatogram on Soil Sample: 1253733



## TPH Chromatogram on Soil Sample: 1253734





# TPH Chromatogram on Soil Sample: 1253735

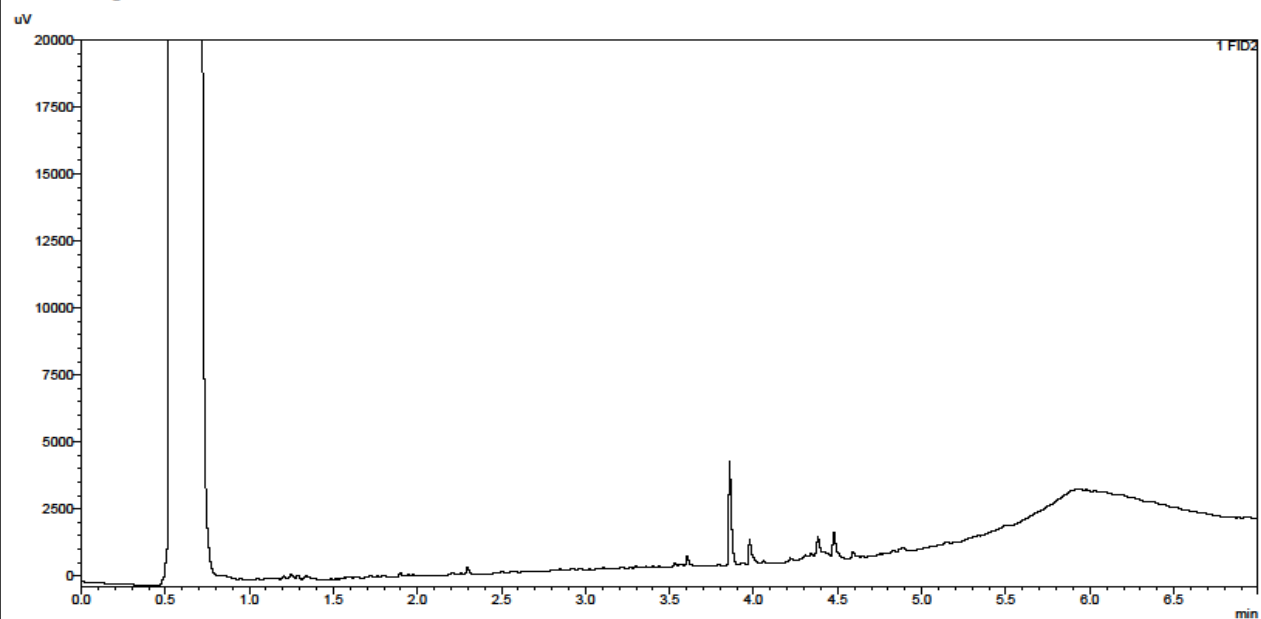
## <Sample Information>

Sample Name : 1253735 21-26861  
Data Filename : 06 August 2021\_08082021\_1253735 21-26861\_030.gcd  
Method Filename : TPH 12m Fast OSv2.gcm  
Sample # : 90  
Date Acquired : 08/08/2021 15:34:33  
Date Processed : 08/08/2021



Chemtest

## <Chromatogram>



# TPH Chromatogram on Soil Sample: 1253736

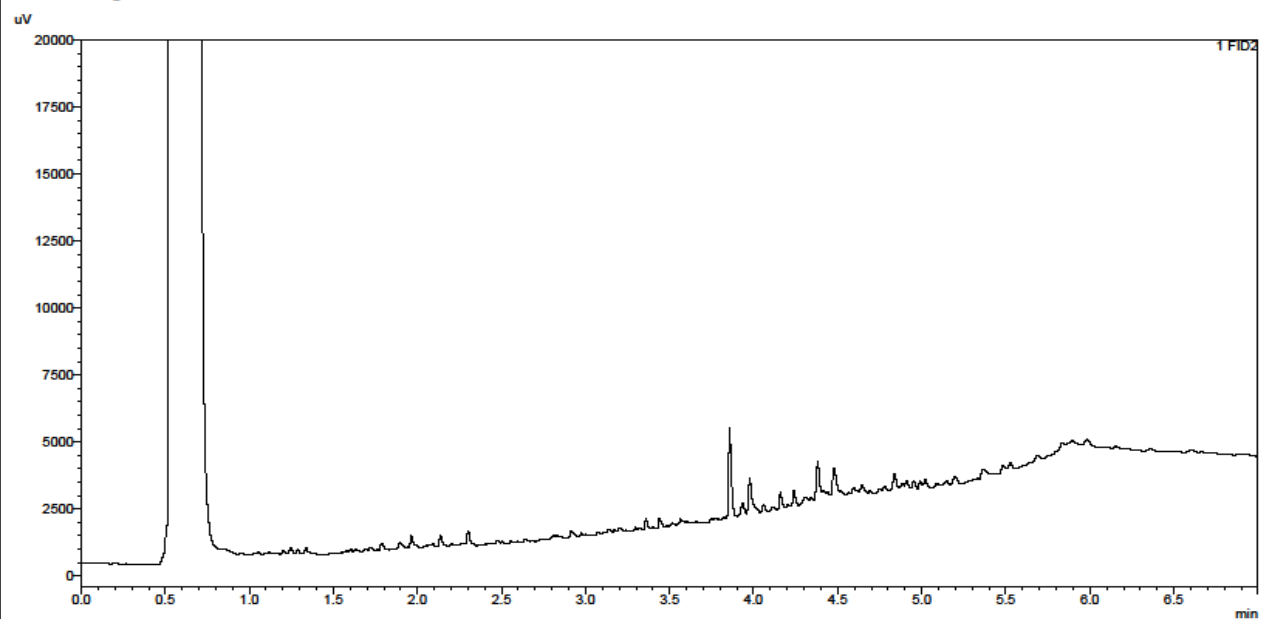
## <Sample Information>

Sample Name : 1253736 21-26861  
Data Filename : 06 August 2021\_08082021\_1253736 21-26861\_032.gcd  
Method Filename : TPH 12m Fast OSv2.gcm  
Sample # : 91  
Date Acquired : 08/08/2021 15:47:16  
Date Processed : 08/08/2021



Chemtest

## <Chromatogram>



# TPH Chromatogram on Soil Sample: 1253737

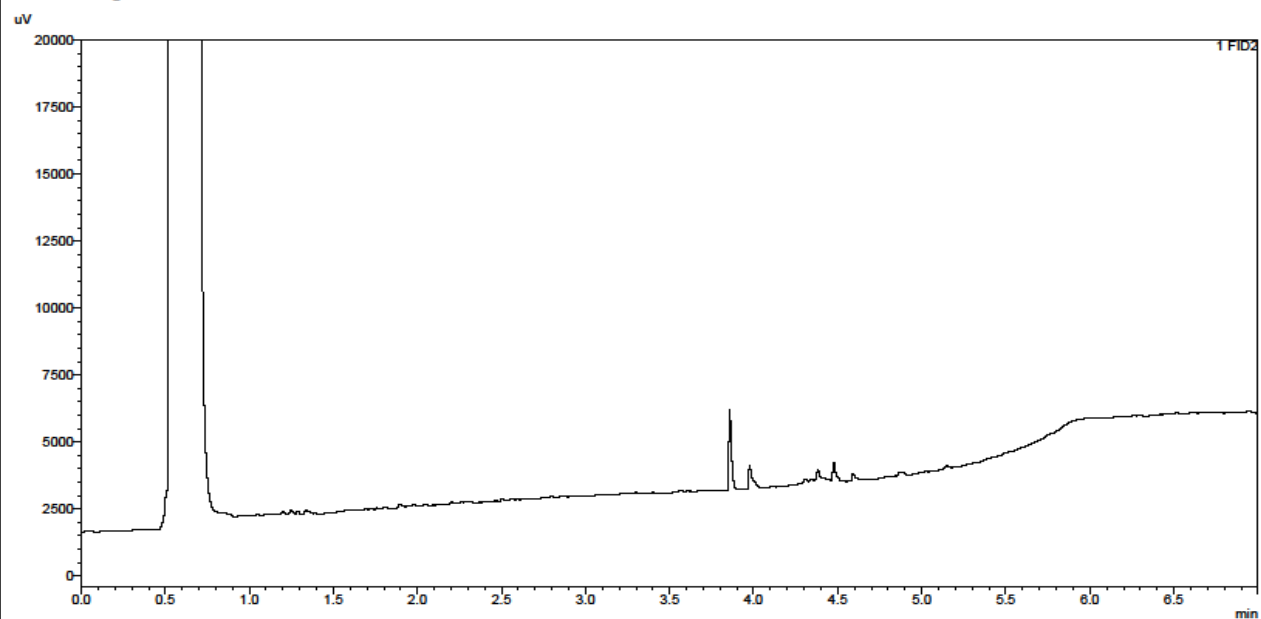
## <Sample Information>

Sample Name : 1253737 21-26861  
Data Filename : 06 August 2021\_08082021\_1253737 21-26861\_034.gcd  
Method Filename : TPH 12m Fast OSv2.gcm  
Sample # : 92  
Date Acquired : 08/08/2021 16:00:04  
Date Processed : 08/08/2021



Chemtest

## <Chromatogram>





### TPH Interpretation

| Job      | Sample  | Matrix | Location | Sample Ref | Sample ID | Sample Depth (m) | Gasoline / Diesel Present | TPH Interpretation |
|----------|---------|--------|----------|------------|-----------|------------------|---------------------------|--------------------|
| 21-26861 | 1253730 | S      | WS01     |            |           | 0.6              | No                        | N/A                |
| 21-26861 | 1253731 | S      | WS02     |            |           | 0.3              | No                        | N/A                |
| 21-26861 | 1253732 | S      | WS05     |            |           | 0.7              | No                        | N/A                |
| 21-26861 | 1253733 | S      | WS06     |            |           | 0.6              | No                        | N/A                |
| 21-26861 | 1253734 | S      | WS09     |            |           | 0.7              | No                        | PAH                |
| 21-26861 | 1253735 | S      | WS12     |            |           | 1.2              | No                        | N/A                |
| 21-26861 | 1253736 | S      | WS14     |            |           | 0.6              | No                        | N/A                |
| 21-26861 | 1253737 | S      | WS11     |            |           | 0.8              | No                        | N/A                |

## Test Methods

| SOP  | Title   | Parameters included   | Method summary   |
|------|---|---|--|
| 2010 | pH Value of Soils   | pH  | pH Meter   |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS)          | Moisture content  | Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.   |
| 2040 | Soil Description(Requirement of MCERTS)                             | Soil description  | As received soil is described based upon BS5930  |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium                 | Boron; Sulphate; Magnesium; Chromium  | Aqueous extraction / ICP-OES   |
| 2175 | Total Sulphur in Soils  | Total Sulphur   | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.   |
| 2192 | Asbestos  | Asbestos  | Polarised light microscopy / Gravimetry  |
| 2300 | Cyanides & Thiocyanate in Soils                                     | Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate   | Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.  |
| 2430 | Total Sulphate in soils   | Total Sulphate  | Acid digestion followed by determination of sulphate in extract by ICP-OES.  |
| 2450 | Acid Soluble Metals in Soils  | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc  | Acid digestion followed by determination of metals in extract by ICP-MS.   |
| 2490 | Hexavalent Chromium in Soils  | Chromium [VI]   | Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |
| 2670 | Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID               | TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40  | Dichloromethane extraction / GC-FID  |
| 2680 | TPH A/A Split   | Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44   | Dichloromethane extraction / GCxGC FID detection   |
| 2700 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID | Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene | Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)   |
| 2760 | Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS       | Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule  | Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.                             |
| 2780 | Glycols, Aldehydes, Amines, Ethers and Ketones                      | Glycols, Aldehydes, Amines, Ethers and Ketones  | GCMS detection   |
| 2790 | Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS           | Semi-volatile organic compounds(cf. USEPA Method 8270)  | Acetone/Hexane extraction / GC-MS  |
| 2920 | Phenols in Soils by HPLC  | Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.   | 60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.   |
| 2930 | Organic Matter  | Organic Matter  | Acid Dichromate digestion/Titration  |

## **Report Information**

---

### **Key**

|     |   |
|-----|---|
| U   | UKAS accredited   |
| M   | MCERTS and UKAS accredited  |
| N   | Unaccredited  |
| S   | This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis     |
| SN  | This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis |
| T   | This analysis has been subcontracted to an unaccredited laboratory  |
| I/S | Insufficient Sample   |
| U/S | Unsuitable Sample   |
| N/E | not evaluated   |
| <   | "less than"   |
| >   | "greater than"  |
| SOP | Standard operating procedure  |
| LOD | Limit of detection  |

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

---

### **Sample Deviation Codes**

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

---

### **Sample Retention and Disposal**

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

[customerservices@chemtest.com](mailto:customerservices@chemtest.com)



**ANNEX F**  
**Soakaway Test Results**

TERRAFIRMA (WALES) LIMITED

Site Name: Former Lidl, Carmarthen

Position: WS03

Date Undertaken: 28/07/2021

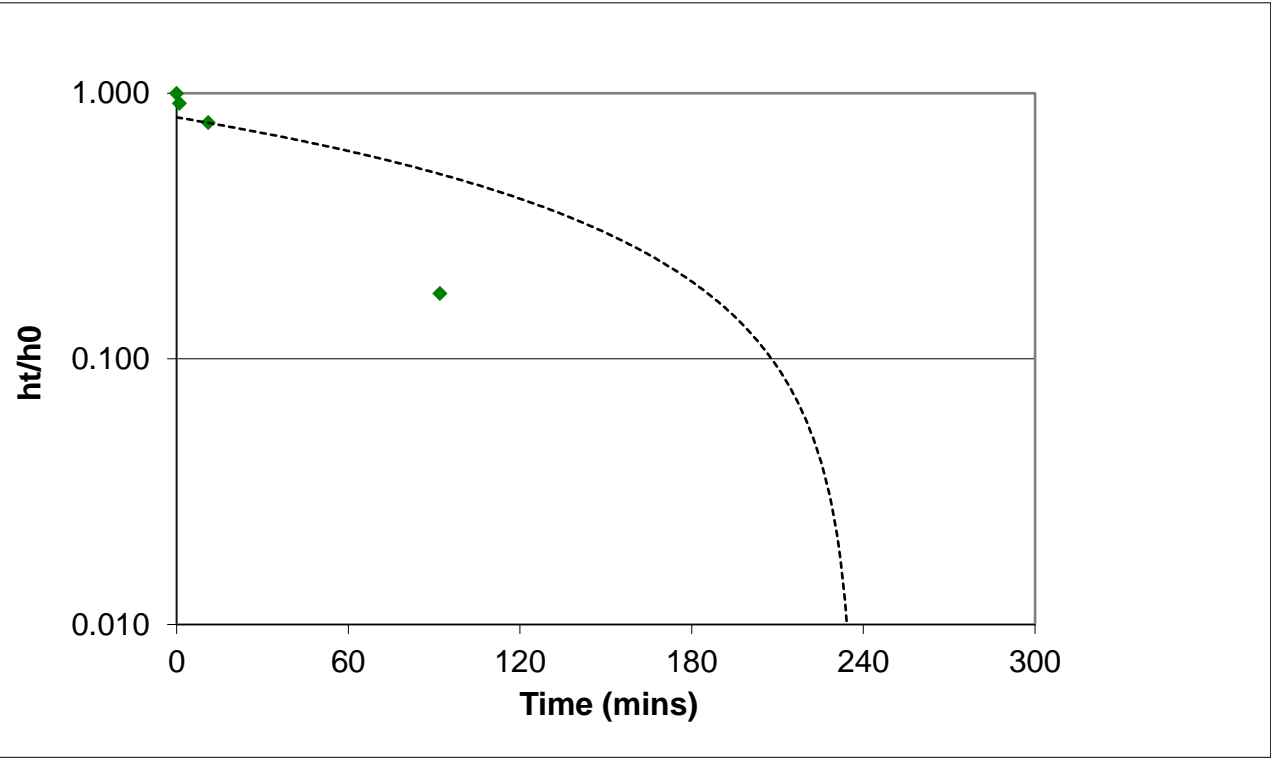
|                         | Time Elapsed (mins) | dt | Depth of Water bgl (m) |
|-------------------------|---------------------|----|------------------------|
| Initial Measurement (m) | 0                   |    | 0.25                   |
|                         | 1                   |    | 0.32                   |
|                         | 11                  |    | 0.44                   |
|                         | 92                  |    | 0.95                   |
|                         | 180                 |    | 1.1                    |
| Last Measurement (m)    | 300                 |    | 1.1                    |

|  |       |
|--|-------|
| Depth of Borehole (m)                                  | 2.90  |
| Depth of Casing (m)                                    | 0.00  |
| L Testing depth - casing depth (m)                     | 2.9   |
| D Diameter of Borehole (m)                             | 0.101 |
| Ground Water Level (m) at end of test                  | 1.10  |
| h0 Depth of water at end - depth of water at start (m) | 0.850 |

|                               |        |
|-------------------------------|--------|
| F Intake Factor **            |        |
| 2 π L                         | 18.212 |
| L/D                           | 28.71  |
| √(1+ L / D)²                  | 29.71  |
| logₑ [ (L/D) + √(1+ L / D)² ] | 4.068  |
| F                             | 4.477  |

|                                  |        |
|----------------------------------|--------|
| K Soil Infiltration Rate **      |        |
| A Cross-sectional Area (m2)      | 0.0080 |
| F                                | 4.48   |
| T (read off graph at 0.37 ht/h0) |        |

|                                |         |
|--------------------------------|---------|
| Soil infiltration rate (m/min) | #DIV/0! |
| Soil infiltration rate (m/sec) | #DIV/0! |



**Soil Infiltration Worksheet:** This worksheet has been produced in combination with the document 'BS 5930:1999+A2:2010, Section 25.4'

This worksheet can be used to determine soil infiltration rates from borehole field measurements

Worksheet options are identified by a green background

\*Insufficient fall in depth of water to calculate infiltration rate

\*\* F =  $\frac{2 \pi L}{\log_e [ (L/D) + \sqrt{1+ (L / D)^2 } ]}$

\*\* K =  $\frac{A}{FT}$

\*\* ht = Level of water at end of test - dt

TERRAFIRMA (WALES) LIMITED

Site Name: Former Lidl, Carmarthen

Position: WS10

Date Undertaken: 28/07/2021

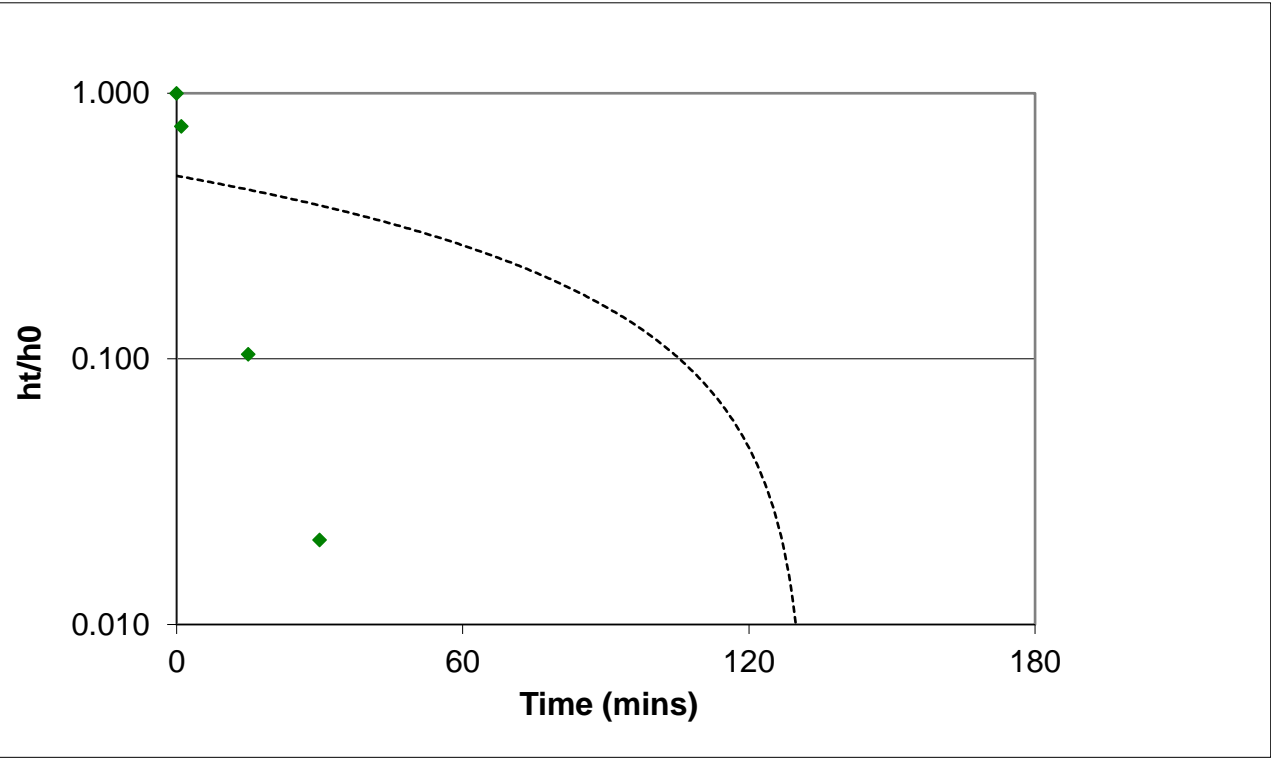
|                         | Time Elapsed (mins) | dt | Depth of Water bgl (m) | ht ** | ht/h0 |
|-------------------------|---------------------|----|------------------------|-------|-------|
| Initial Measurement (m) | 0                   |    | 0.64                   |       |       |
|                         | 1                   |    | 0.76                   |       |       |
|                         | 15                  |    | 1.07                   |       |       |
|                         | 30                  |    | 1.11                   |       |       |
|                         | 61                  |    | 1.12                   |       |       |
| Last Measurement (m)    | 180                 |    | 1.12                   |       |       |

|  |       |
|--|-------|
| Depth of Borehole (m)                                  | 2.60  |
| Depth of Casing (m)                                    | 0.00  |
| L Testing depth - casing depth (m)                     | 2.6   |
| D Diameter of Borehole (m)                             | 0.101 |
| Ground Water Level (m) at end of test                  | 1.12  |
| h0 Depth of water at end - depth of water at start (m) | 0.480 |

|                               |        |
|-------------------------------|--------|
| F Intake Factor **            |        |
| 2 π L                         | 16.328 |
| L/D                           | 25.74  |
| √(1+ L / D)²                  | 26.74  |
| logₑ [ (L/D) + √(1+ L / D)² ] | 3.961  |
| F                             | 4.123  |

|                                  |        |
|----------------------------------|--------|
| K Soil Infiltration Rate **      |        |
| A Cross-sectional Area (m2)      | 0.0080 |
| F                                | 4.12   |
| T (read off graph at 0.37 ht/h0) |        |

|                                |         |
|--------------------------------|---------|
| Soil infiltration rate (m/min) | #DIV/0! |
| Soil infiltration rate (m/sec) | #DIV/0! |



**Soil Infiltration Worksheet:** This worksheet has been produced in combination with the document 'BS 5930:1999+A2:2010, Section 25.4'

This worksheet can be used to determine soil infiltration rates from borehole field measurements

Worksheet options are identified by a green background

\*Insufficient fall in depth of water to calculate infiltration rate

\*\* F =  $\frac{2 \pi L}{\log_e [ (L/D) + \sqrt{1+ (L /D)^2 } ]}$

\*\* K =  $\frac{A}{FT}$

\*\* ht = Level of water at end of test - dt



TERRAFIRMA (WALES) LIMITED

Site Name: Former Lidl, Carmarthen

Position: WS13

Date Undertaken: 28/07/2021

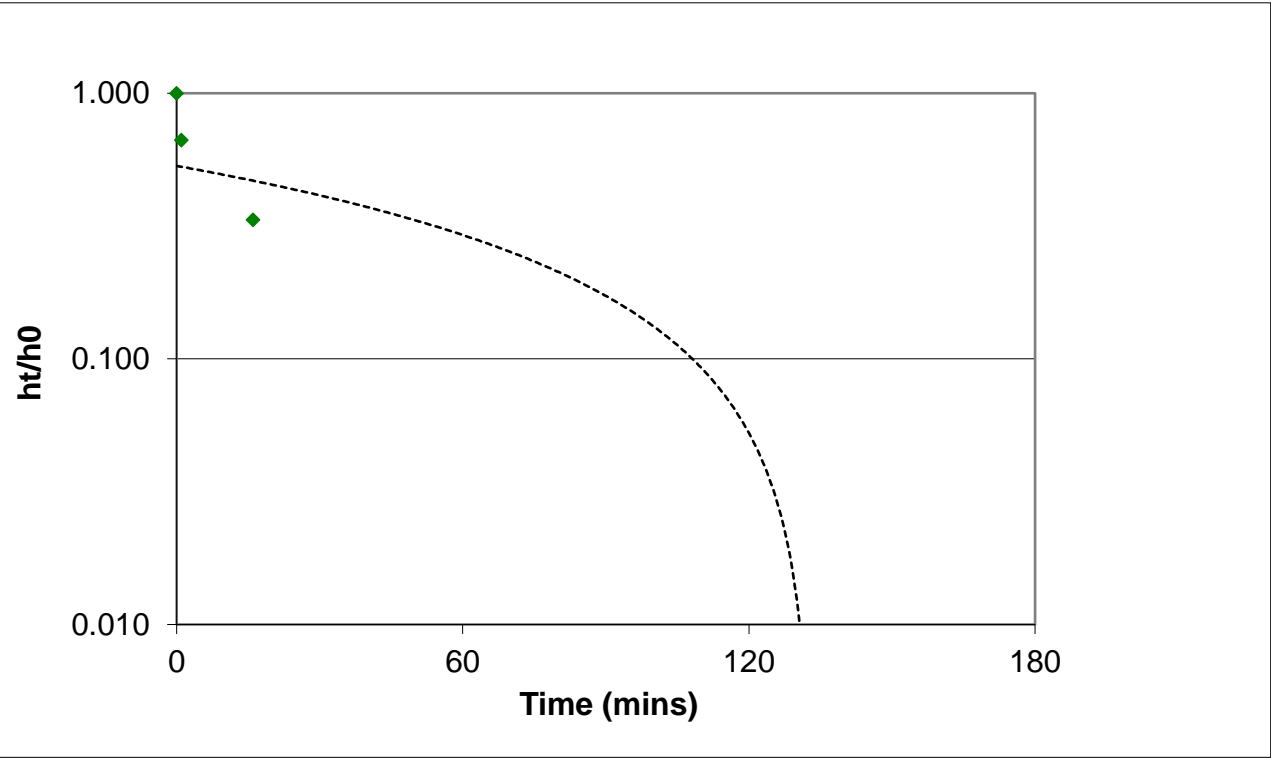
|                         | Time Elapsed (mins) | dt | Depth of Water bgl (m) | ht ** | ht/h0 |
|-------------------------|---------------------|----|------------------------|-------|-------|
| Initial Measurement (m) | 0                   |    | 1.49                   |       |       |
|                         | 1                   |    | 1.5                    |       |       |
|                         | 16                  |    | 1.51                   |       |       |
|                         | 36                  |    | 1.52                   |       |       |
|                         | 66                  |    | 1.52                   |       |       |
| Last Measurement (m)    | 180                 |    | 1.52                   |       |       |

|  |       |
|--|-------|
| Depth of Borehole (m)                                  | 2.50  |
| Depth of Casing (m)                                    | 0.00  |
| L Testing depth - casing depth (m)                     | 2.5   |
| D Diameter of Borehole (m)                             | 0.101 |
| Ground Water Level (m) at end of test                  | 1.52  |
| h0 Depth of water at end - depth of water at start (m) | 0.030 |

|                               |        |
|-------------------------------|--------|
| F Intake Factor **            |        |
| 2 π L                         | 15.700 |
| L/D                           | 24.75  |
| √(1+ L / D)²                  | 25.75  |
| logₑ [ (L/D) + √(1+ L / D)² ] | 3.922  |
| F                             | 4.003  |

|                                  |        |
|----------------------------------|--------|
| K Soil Infiltration Rate **      |        |
| A Cross-sectional Area (m2)      | 0.0080 |
| F                                | 4.00   |
| T (read off graph at 0.37 ht/h0) |        |

|                                |         |
|--------------------------------|---------|
| Soil infiltration rate (m/min) | #DIV/0! |
| Soil infiltration rate (m/sec) | #DIV/0! |



**Soil Infiltration Worksheet:** This worksheet has been produced in combination with the document 'BS 5930:1999+A2:2010, Section 25.4'

This worksheet can be used to determine soil infiltration rates from borehole field measurements

Worksheet options are identified by a green background

\*Insufficient fall in depth of water to calculate infiltration rate

\*\* F =  $\frac{2 \pi L}{\log_e [ (L/D) + \sqrt{1+ (L / D)^2 } ]}$

\*\* K =  $\frac{A}{FT}$

\*\* ht = Level of water at end of test - dt

**ANNEX G**  
**Geotechnical Test Results**



## Contract Number: 55339

Client Ref:

Report Date: **24-08-2021**

Client PO:

Client **Terrafirma Wales Ltd**  
**5 Deryn Court**  
**Wharfedale Road**  
**Pentwyn**  
**Cardiff**  
**CF23 7HB**

Contract Title: **Former Lidl, Carmarthen**  
For the attention of: **Michael Watkins**

Date Received: **12-08-2021**

Date Completed: **24-08-2021**

| Test Description   | Qty |
|--|-----|
| <b>Moisture Content</b><br>BS 1377:1990 - Part 2 : 3.2 - * UKAS  | 7   |
| <b>4 Point Liquid &amp; Plastic Limit</b><br>BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS  | 7   |
| <b>BRE Reduced Suite</b><br><b>includes pH, water &amp; acid soluble sulphate and total sulphur</b><br>Sub-contracted Test - @ Non Accredited Test | 7   |
| <b>Samples Received</b><br>- @ Non Accredited Test   | 10  |
| <b>Disposal of samples for job</b>   | 1   |

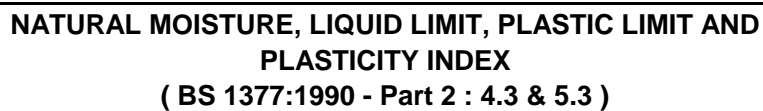
Notes: Observations and Interpretations are outside the UKAS Accreditation  
\* - denotes test included in laboratory scope of accreditation  
# - denotes test carried out by approved contractor  
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

#### Approved Signatories:

Emma Sharp (Business Support Manager) - Paul Evans (Director) - Richard John (Quality/Technical Manager)  
Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Wayne Honey (Quality Assistant / Administrator / Health and Safety Coordinator)





|                 |                         |  |
|-----------------|-------------------------|--|
| Contract Number | 55339                   |  |
| Site Name       | Former Lidl, Carmarthen |  |
| Date Tested     | 18/08/2021              |  |
|                 | <b>DESCRIPTIONS</b>     |  |

[illegible]

|                 |          |            |   |
|-----------------|----------|------------|---|
| Operators       | Checked  | 24/08/2021 | Richard John (Advanced Testing Manager) |
| Clayton Jenkins | Approved | 24/08/2021 | Paul Evans (Quality/Technical Manager)  |







## Certificate of Analysis

**Certificate Number** 21-17319

**Issued:** 24-Aug-21

**Client** GEO Site and Testing Services Ltd  
Unit 4  
Heol Aur  
Dafen Ind Est  
Dafen  
Carmarthenshire  
SA14 8QN

**Our Reference** 21-17319

**Client Reference** (not supplied)

**Order No** (not supplied)

**Contract Title** Former Cidl, Carmarthen

**Description** 7 Soil samples.

**Date Received** 17-Aug-21

**Date Started** 17-Aug-21

**Date Completed** 24-Aug-21

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

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

**Approved By**

Kirk Bridgewood  
General Manager





# Summary of Chemical Analysis

## Soil Samples

Our Ref 21-17319

Client Ref

Contract Title Former Cidl, Carmarthen

| Lab No        | 1891092 | 1891093 | 1891094 | 1891095   | 1891096 | 1891097 |
|---------------|---------|---------|---------|-----------|---------|---------|
| Sample ID     | WS01    | WS02    | WS03    | WS04      | WS06    | WS12    |
| Depth         | 2.50    | 1.80    | 1.50    | 1.80-2.40 | 2.80    | 2.50    |
| Other ID      |         |         |         |           |         |         |
| Sample Type   | SOIL    | SOIL    | SOIL    | SOIL      | SOIL    | SOIL    |
| Sampling Date | n/s     | n/s     | n/s     | n/s       | n/s     | n/s     |
| Sampling Time | n/s     | n/s     | n/s     | n/s       | n/s     | n/s     |

| Test                            | Method      | LOD  | Units |      |        |      |        |        |        |
|---------------------------------|-------------|------|-------|------|--------|------|--------|--------|--------|
| <b>Inorganics</b>               |             |      |       |      |        |      |        |        |        |
| pH                              | DETSC 2008# |      | pH    | 7.2  | 7.6    | 6.7  | 7.8    | 8.0    | 7.4    |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l  | 26   | 14     | 65   | 37     | 18     | 20     |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %     | 0.04 | < 0.01 | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %     | 0.04 | 0.02   | 0.03 | 0.02   | 0.02   | 0.02   |

## Summary of Chemical Analysis

### Soil Samples

*Our Ref* 21-17319

*Client Ref*

*Contract Title* Former Cidl, Carmarthen

|                      |         |
|----------------------|---------|
| <b>Lab No</b>        | 1891098 |
| <b>Sample ID</b>     | WS13    |
| <b>Depth</b>         | 2.80    |
| <b>Other ID</b>      |         |
| <b>Sample Type</b>   | SOIL    |
| <b>Sampling Date</b> | n/s     |
| <b>Sampling Time</b> | n/s     |

| Test  | Method      | LOD  | Units    |
|---|-------------|------|----------|
| <b>Inorganics</b>                           |             |      |          |
| pH  | DETSC 2008# |      | pH 7.6   |
| Sulphate Aqueous Extract as SO <sub>4</sub> | DETSC 2076# | 10   | mg/l 15  |
| Sulphur as S, Total                         | DETSC 2320  | 0.01 | % < 0.01 |
| Sulphate as SO <sub>4</sub> , Total         | DETSC 2321# | 0.01 | % 0.02   |

## Information in Support of the Analytical Results

Our Ref 21-17319  
 Client Ref  
 Contract Former Cidl, Carmarthen

### Containers Received & Deviating Samples

| Lab No  | Sample ID           | Date Sampled | Containers Received | Holding time exceeded for tests  | Inappropriate container for tests |
|---------|---------------------|--------------|---------------------|--|-----------------------------------|
| 1891092 | WS01 2.50 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891093 | WS02 1.80 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891094 | WS03 1.50 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891095 | WS04 1.80-2.40 SOIL |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891096 | WS06 2.80 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891097 | WS12 2.50 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |
| 1891098 | WS13 2.80 SOIL      |              | PT 1L               | Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days) |                                   |

Key: P-Plastic T-Tub

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

### Soil Analysis Notes

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

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

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

### Disposal

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

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

End of Report



**ANNEX H  
CBR Correlations**

# Dynamic Cone Penetrometer Testing

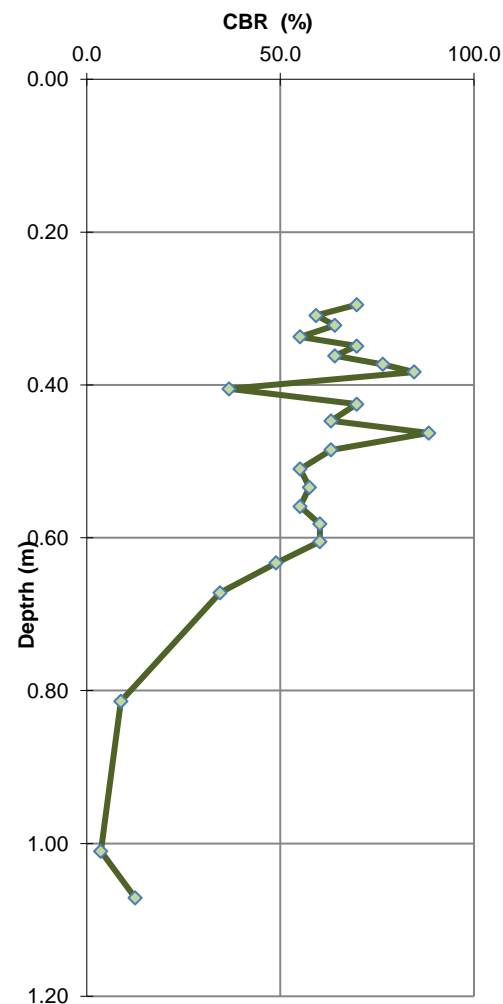


**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS02**

Initial Scale Reading (mm) **163** Datum bgl (mm) **120**

| no. of blows | scale reading (mm) | penetration increment (mm) | depth bgl (m) | DCP (mm/blow) | CBR (%) |
|--------------|--------------------|----------------------------|---------------|---------------|---------|
| 3            | 175                | 12                         | 0.30          | 4             | 69.8    |
| 3            | 189                | 14                         | 0.31          | 5             | 59.3    |
| 3            | 202                | 13                         | 0.32          | 4             | 64.1    |
| 3            | 217                | 15                         | 0.34          | 5             | 55.1    |
| 3            | 229                | 12                         | 0.35          | 4             | 69.8    |
| 3            | 242                | 13                         | 0.36          | 4             | 64.1    |
| 3            | 253                | 11                         | 0.37          | 4             | 76.5    |
| 3            | 263                | 10                         | 0.38          | 3             | 84.6    |
| 3            | 285                | 22                         | 0.41          | 7             | 36.8    |
| 5            | 305                | 20                         | 0.43          | 4             | 69.8    |
| 5            | 327                | 22                         | 0.45          | 4             | 63.1    |
| 5            | 343                | 16                         | 0.46          | 3             | 88.3    |
| 5            | 365                | 22                         | 0.49          | 4             | 63.1    |
| 5            | 390                | 25                         | 0.51          | 5             | 55.1    |
| 5            | 414                | 24                         | 0.53          | 5             | 57.5    |
| 5            | 439                | 25                         | 0.56          | 5             | 55.1    |
| 5            | 462                | 23                         | 0.58          | 5             | 60.2    |
| 5            | 485                | 23                         | 0.61          | 5             | 60.2    |
| 5            | 513                | 28                         | 0.63          | 6             | 48.9    |
| 5            | 552                | 39                         | 0.67          | 8             | 34.4    |
| 5            | 694                | 142                        | 0.81          | 28            | 8.8     |
| 3            | 890                | 196                        | 1.01          | 65            | 3.6     |
| 3            | 951                | 61                         | 1.07          | 20            | 12.5    |



## REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

# Dynamic Cone Penetrometer Testing

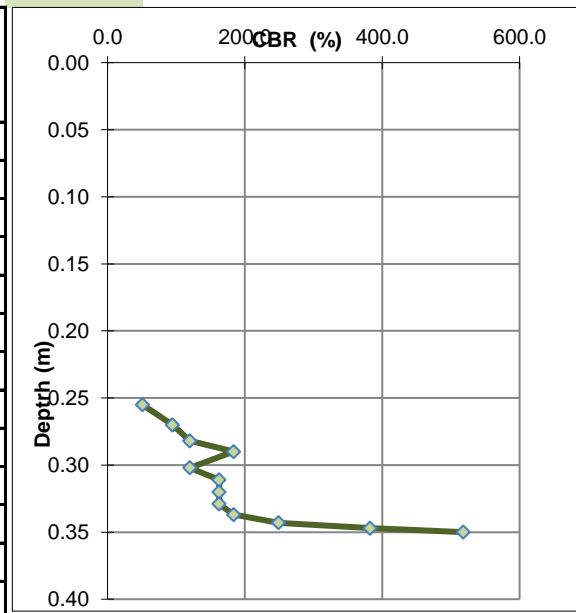


**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS03**

Initial Scale Reading (mm) **138** Datum bgl (mm) **90**

| no. of blows | scale reading (mm) | penetration increment (mm) | depth bgl (m) | DCP (mm/blow) | CBR (%) |
|--------------|--------------------|----------------------------|---------------|---------------|---------|
| 5            | 165                | 27                         | 0.26          | 5             | 50.8    |
| 5            | 180                | 15                         | 0.27          | 3             | 94.6    |
| 5            | 192                | 12                         | 0.28          | 2             | 119.7   |
| 5            | 200                | 8                          | 0.29          | 2             | 183.8   |
| 5            | 212                | 12                         | 0.30          | 2             | 119.7   |
| 5            | 221                | 9                          | 0.31          | 2             | 162.2   |
| 5            | 230                | 9                          | 0.32          | 2             | 162.2   |
| 5            | 239                | 9                          | 0.33          | 2             | 162.2   |
| 5            | 247                | 8                          | 0.34          | 2             | 183.8   |
| 5            | 253                | 6                          | 0.34          | 1             | 249.1   |
| 5            | 257                | 4                          | 0.35          | 1             | 382.3   |
| 5            | 260                | 3                          | 0.35          | 1             | 518.2   |



## REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.  
 CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)



# Dynamic Cone Penetrometer Testing

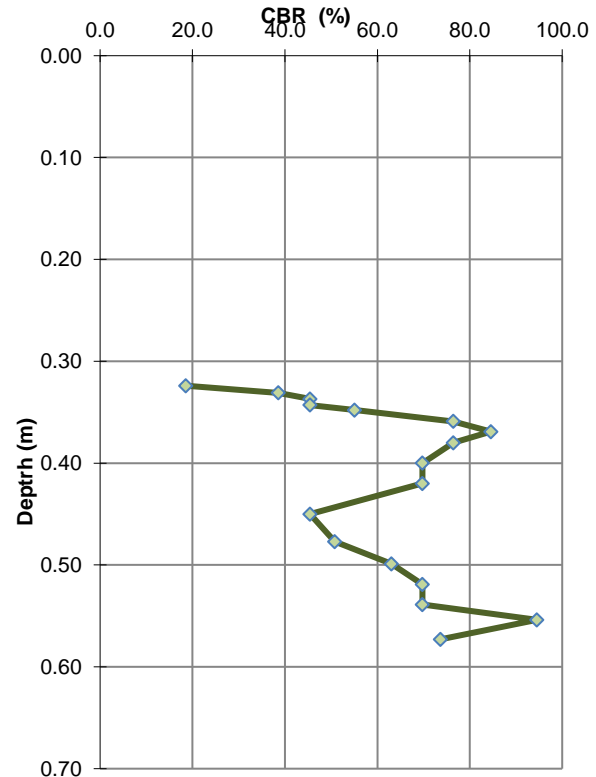


**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS04**

Initial Scale Reading (mm) **190** Datum bgl (mm) **120**

| no. of blows | scale reading (mm) | penetration increment (mm) | depth bgl (m) | DCP (mm/blow) | CBR (%) |
|--------------|--------------------|----------------------------|---------------|---------------|---------|
| 1            | 204                | 14                         | 0.32          | 14            | 18.6    |
| 1            | 211                | 7                          | 0.33          | 7             | 38.6    |
| 1            | 217                | 6                          | 0.34          | 6             | 45.4    |
| 1            | 223                | 6                          | 0.34          | 6             | 45.4    |
| 1            | 228                | 5                          | 0.35          | 5             | 55.1    |
| 3            | 239                | 11                         | 0.36          | 4             | 76.5    |
| 3            | 249                | 10                         | 0.37          | 3             | 84.6    |
| 3            | 260                | 11                         | 0.38          | 4             | 76.5    |
| 5            | 280                | 20                         | 0.40          | 4             | 69.8    |
| 5            | 300                | 20                         | 0.42          | 4             | 69.8    |
| 5            | 330                | 30                         | 0.45          | 6             | 45.4    |
| 5            | 357                | 27                         | 0.48          | 5             | 50.8    |
| 5            | 379                | 22                         | 0.50          | 4             | 63.1    |
| 5            | 399                | 20                         | 0.52          | 4             | 69.8    |
| 5            | 419                | 20                         | 0.54          | 4             | 69.8    |
| 5            | 434                | 15                         | 0.55          | 3             | 94.6    |
| 5            | 453                | 19                         | 0.57          | 4             | 73.6    |



## REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

# Dynamic Cone Penetrometer Testing

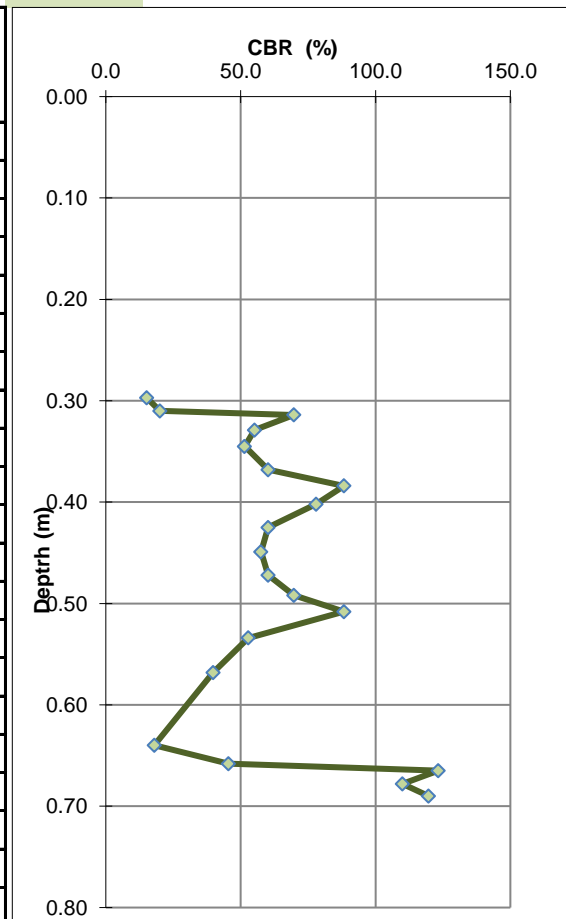


**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS07**

Initial Scale Reading (mm) **170** Datum bgl (mm) **110**

| no. of blows | scale reading (mm) | penetration increment (mm) | depth bgl (m) | DCP (mm/blow) | CBR (%) |
|--------------|--------------------|----------------------------|---------------|---------------|---------|
| 1            | 187                | 17                         | 0.30          | 17            | 15.1    |
| 1            | 200                | 13                         | 0.31          | 13            | 20.1    |
| 1            | 204                | 4                          | 0.31          | 4             | 69.8    |
| 3            | 219                | 15                         | 0.33          | 5             | 55.1    |
| 3            | 235                | 16                         | 0.35          | 5             | 51.5    |
| 5            | 258                | 23                         | 0.37          | 5             | 60.2    |
| 5            | 274                | 16                         | 0.38          | 3             | 88.3    |
| 5            | 292                | 18                         | 0.40          | 4             | 78.0    |
| 5            | 315                | 23                         | 0.43          | 5             | 60.2    |
| 5            | 339                | 24                         | 0.45          | 5             | 57.5    |
| 5            | 362                | 23                         | 0.47          | 5             | 60.2    |
| 5            | 382                | 20                         | 0.49          | 4             | 69.8    |
| 5            | 398                | 16                         | 0.51          | 3             | 88.3    |
| 5            | 424                | 26                         | 0.53          | 5             | 52.9    |
| 5            | 458                | 34                         | 0.57          | 7             | 39.8    |
| 5            | 530                | 72                         | 0.64          | 14            | 18.0    |
| 3            | 548                | 18                         | 0.66          | 6             | 45.4    |
| 3            | 555                | 7                          | 0.67          | 2             | 123.3   |
| 5            | 568                | 13                         | 0.68          | 3             | 110.0   |
| 5            | 580                | 12                         | 0.69          | 2             | 119.7   |



## REMARKS:

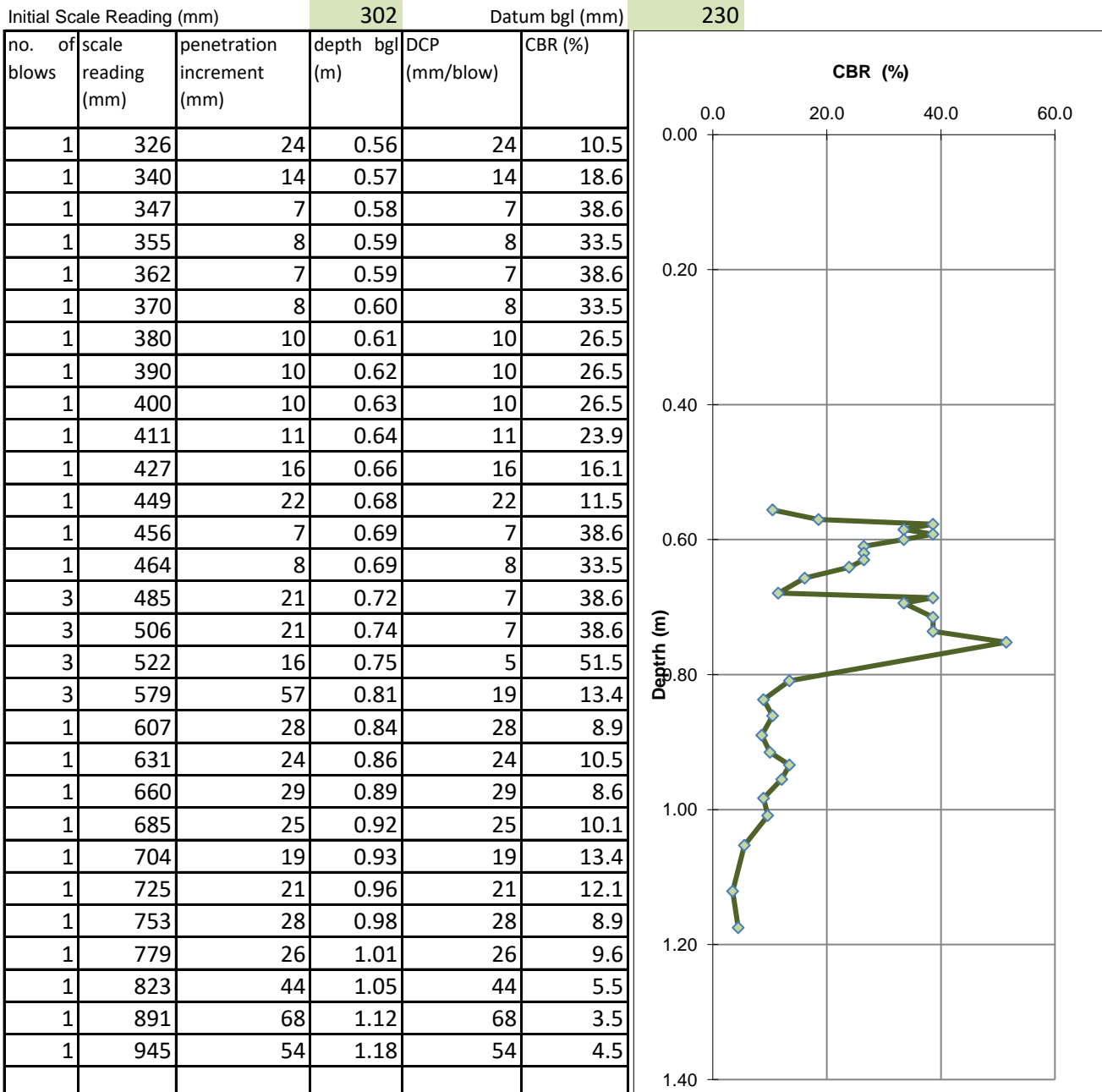
Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.  
 CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

# Dynamic Cone Penetrometer Testing



**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS14**



## REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.  
 CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The  
 Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

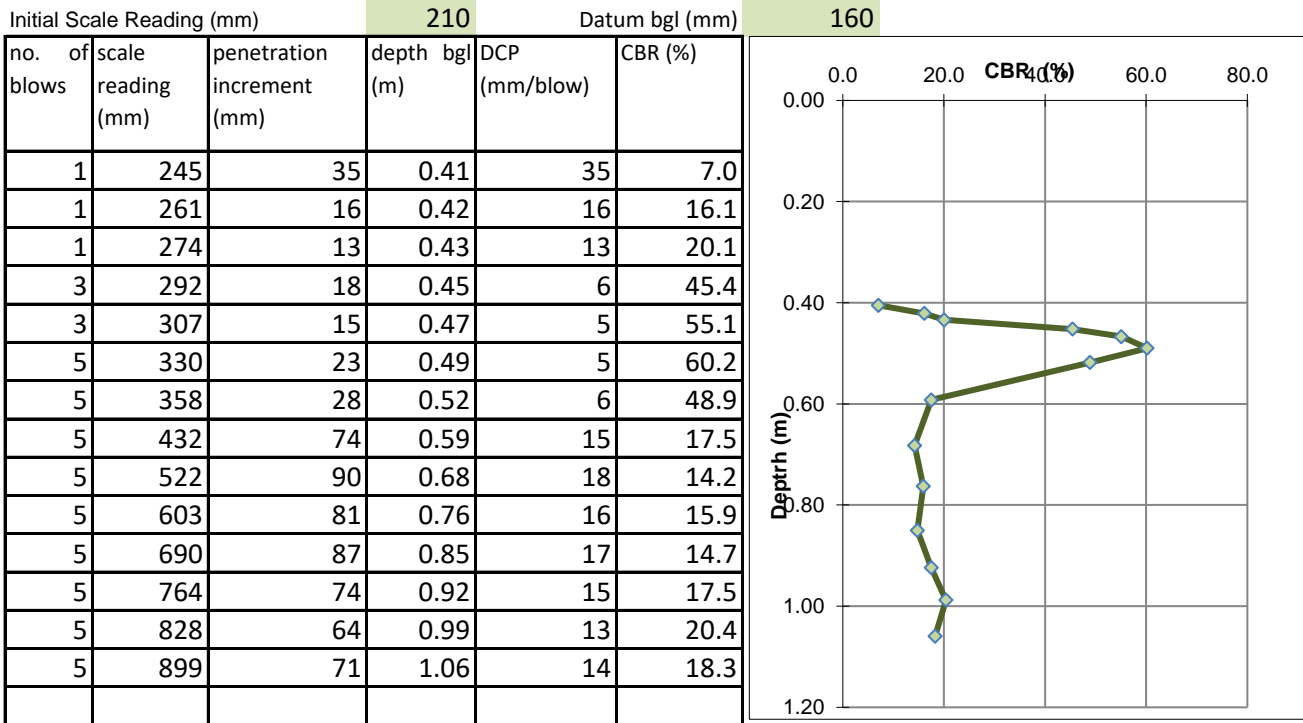


# Dynamic Cone Penetrometer Testing



**Client:** Wales & West Housing Association  
**Site Name:** Former Lidl, Priory Street, Carmarthen  
**Project Number:** 16761  
**Date:** 27/07/2021

**WS15**



## REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.  
 CBR correlation based on the relationship  $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$  developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

**ANNEX I**  
**Gas Monitoring Results**

### In-situ Gas Monitoring Results – Former Lidl, Priory Street, Carmarthen

| Gas monitoring round 1 13/08/2021 Barometric Pressure: 1019mb |      |      |      |
|---|------|------|------|
| Weather: Sunny and warm                                       |      |      |      |
| Gas   | WS01 | WS06 | WS12 |
| CH <sub>4</sub> (%)   | 0.0  | 0.0  | 0.0  |
| CO <sub>2</sub> (%)   | 3.6  | 4.4  | 7.7  |
| O <sub>2</sub> (%)  | 16.4 | 12.6 | 10.1 |
| CO (ppm)  | 0ppm | 0ppm | 0ppm |
| H <sub>2</sub> S (ppm)  | 0ppm | 0ppm | 0ppm |
| Flow (l/hr)   | 0.0  | 0.0  | 0.0  |
| Depth to Groundwater  | Dry  | Dry  | Dry  |
| Borehole Depth  | 3.95 | 4.90 | 4.80 |

### In-situ Gas Monitoring Results – Former Lidl, Priory Street, Carmarthen

| Gas monitoring round 2 27/08/2021 Barometric Pressure: 1022mb |      |      |      |
|---|------|------|------|
| Weather: Sunny and warm                                       |      |      |      |
| Gas   | WS01 | WS06 | WS12 |
| CH <sub>4</sub> (%)   | 0.0  | 0.0  | 0.0  |
| CO <sub>2</sub> (%)   | 3.7  | 4.6  | 8.3  |
| O <sub>2</sub> (%)  | 16.9 | 12.5 | 9.3  |
| CO (ppm)  | 0ppm | 0ppm | 0ppm |
| H <sub>2</sub> S (ppm)  | 0ppm | 0ppm | 0ppm |
| Flow (l/hr)   | 0.0  | 0.0  | 0.0  |
| Depth to Groundwater  | Dry  | Dry  | Dry  |
| Borehole Depth  | 3.95 | 4.90 | 4.80 |

### In-situ Gas Monitoring Results – Former Lidl, Priory Street, Carmarthen

| Gas monitoring round 2 04/10/2021 Barometric Pressure: 1003mb |      |      |      |
|---|------|------|------|
| Weather: Mild, overcast with intermittent heavy rain          |      |      |      |
| Gas   | WS01 | WS06 | WS12 |
| CH <sub>4</sub> (%)   | 0.0  | 0.0  | 0.0  |
| CO <sub>2</sub> (%)   | 3.4  | 5.0  | 9.1  |
| O <sub>2</sub> (%)  | 16.0 | 11.7 | 7.7  |
| CO (ppm)  | 0ppm | 0ppm | 0ppm |
| H <sub>2</sub> S (ppm)  | 0ppm | 0ppm | 0ppm |
| Flow (l/hr)   | 0.0  | 0.0  | 0.0  |
| Depth to Groundwater  | Dry  | Dry  | Dry  |
| Borehole Depth  | 3.95 | 4.90 | 4.80 |



**DRAWINGS**



Job Number:

16761

Job Title:

Former Lidl, Carmarthen

Drawing Title:

Exploratory Hole Layout

Drawing Number:

01

Scale:

Not To Scale

Legend:



Windowless Sampler Borehole Location



Approximate Location of Possible Oil Interceptor Tank

North





**Terra Firma (Wales) Ltd.** 5 Deryn Court, Wharfedale Road, Pentwyn, Cardiff CF23 7HA  
**Tel:** 029 2073 5354 **Fax:** 029 2073 5433 **Email:** [info@terrafirmawales.co.uk](mailto:info@terrafirmawales.co.uk) [www.terrafirmawales.co.uk](http://www.terrafirmawales.co.uk)