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Geotechnical & Geoenvironmental Specialists

Geotechnical and Geoenvironmental Report

Site: Tenby Road, St Clears

Prepared For: Draycott Group

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info@terrafirmawales.co.uk

www.terrafirmawales.co.uk

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	Name	Signature
Prepared	**Jamie Alderman** BSc (Hons), FGS	
Checked	Alan Beattie MSci, FGS	
Approved	**Gwyn Lake** BSc (Hons). PhD, CGeol, FGS	

Executive Summary

Site Location and Proposed Development	*Draycott Group (the Client) is proposing a residential development off Tenby Road, St Clears. The development comprises 188 residential dwellings with associated car parking, gardens and areas of soft landscaping.* *The development site is irregular in shape and locates off Tenby Road, St Clears. The site centres on an approximate National Grid Reference of 227440, 216340, occupying a plan area of approximately 4.74 Hectares.*
Site History	*The earliest historic map, circa 1889, shows the site is made of three separate grassed agricultural fields with trees along the field boundaries. By 1971 the two southern fields have been formed into one and now the site is made up of two agricultural fields. An aerial photo in 2000 shows the site to be two grassed agricultural fields with trees along the field boundaries. In 2024 a road in the southwest corner of the site leading to a McDonalds and Greggs has been constructed.*
Geology	*The 1:50,000 scale British Geological Map of the area (Sheet 229) was consulted for geology underlying the site. The northern boundary of the site is shown to be underlain by mudstone rock of the Tetragraptus Beds which is Ordovician in age. The majority of the site is shown to be underlain by mudstone rock of the Didymograptus Bifidus Beds which are also Ordovician in age.* *In the northeastern corner and the southwest of the site superficial deposits are recorded as Devensian Till, the rest of the site is not shown to have superficial deposits, however residual soils are likely to be present.* *Made ground is anticipated at the southwest of the site associated with the construction of the road.*
Radon	*The Envirocheck Report (**Annex A**) details that basic radon protective measures are required for new developments on the investigation site.*
Ground Conditions	***Depth (m)*** | ***Stratum*** *0.00 - 0.20 - 0.60* | *Soft to firm friable slightly sandy slightly gravelly **CLAY**.* *0.00 - 0.40* | ***MADE GROUND**: Soft to firm friable slightly sandy slightly gravelly **CLAY**.* *0.20 - 0.60 - 0.50 - 2.20* | *Firm becoming stiff orangish brown mottled grey / brown slightly sandy slightly gravelly **CLAY** with low cobble content.* *0.50 - 2.10 - 1.90 - >3.00* | *Stiff brown mottled grey slightly sandy slightly gravelly **CLAY** with low cobble content.* *0.80 - 1.90 - >1.65 - >2.50* | *Medium dense becoming dense grey slightly sandy **GRAVEL**.*
Contamination of Concern	*Dibenzo(ah)anthracene was found above its trigger level in TP02 at 0.10m.* *Made ground was seen in three locations across the site in trial pits TP02, TP06 and TP24 varying in depths from ground level to 0.25-0.40m. An exceedance of Dibenzo(ah)anthracene was found in TP02 within made ground from 0.00-0.40m. It is likely that this will be removed during the topsoil strip. Made ground soils should then be removed from site and disposed of at a suitably licenced landfill site.*
Foundation Solution	*It is recommended that mass concrete strip or trench fill foundations be used; founded within the firm becoming stiff orangish brown mottled grey / brown slightly sandy slightly gravelly CLAY with low cobble content / Stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content encountered at an approximate depth of 0.20-0.60m below the existing ground level. An allowable bearing pressure of 100kN/m^2 may be used for strips up to 900mm wide.* *Foundations must sit at least 200mm within the founding horizon.* *Floor slabs may be designed as suspended.* *During the investigation four 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.*

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SECTION 1 Introduction and Proposed Development

1.1 Introduction

Draycott Group (the Client) is proposing a residential development off Tenby Road, St Clears. The development comprises 188 residential dwellings with associated car parking, gardens and areas of soft landscaping. The proposed layout is presented below in **Figure 1.1**.

Figure 1.1 Proposed Site Layout (Red Boundary)

TFW Group 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, TFW Group Limited carried out an assessment programme including 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 TFW Group 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. TFW Group 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.

1.3 Quality Assurance

The quality and environmental aspects of the assessment comply with TFW Group Limited 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 irregular in shape and locates off Tenby Road, St Clears. The site centres on an approximate National Grid Reference of 227440, 216340, occupying a plan area of approximately 4.74 Hectares.

The site is made up by two grassed, agricultural fields.

Site boundaries are defined by Old Tenby Road to the south and agricultural fields to the north, west and east.

The site elevation is approximately 42m AOD in the northwest gently sloping down to the 22m AOD in the southwest.

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

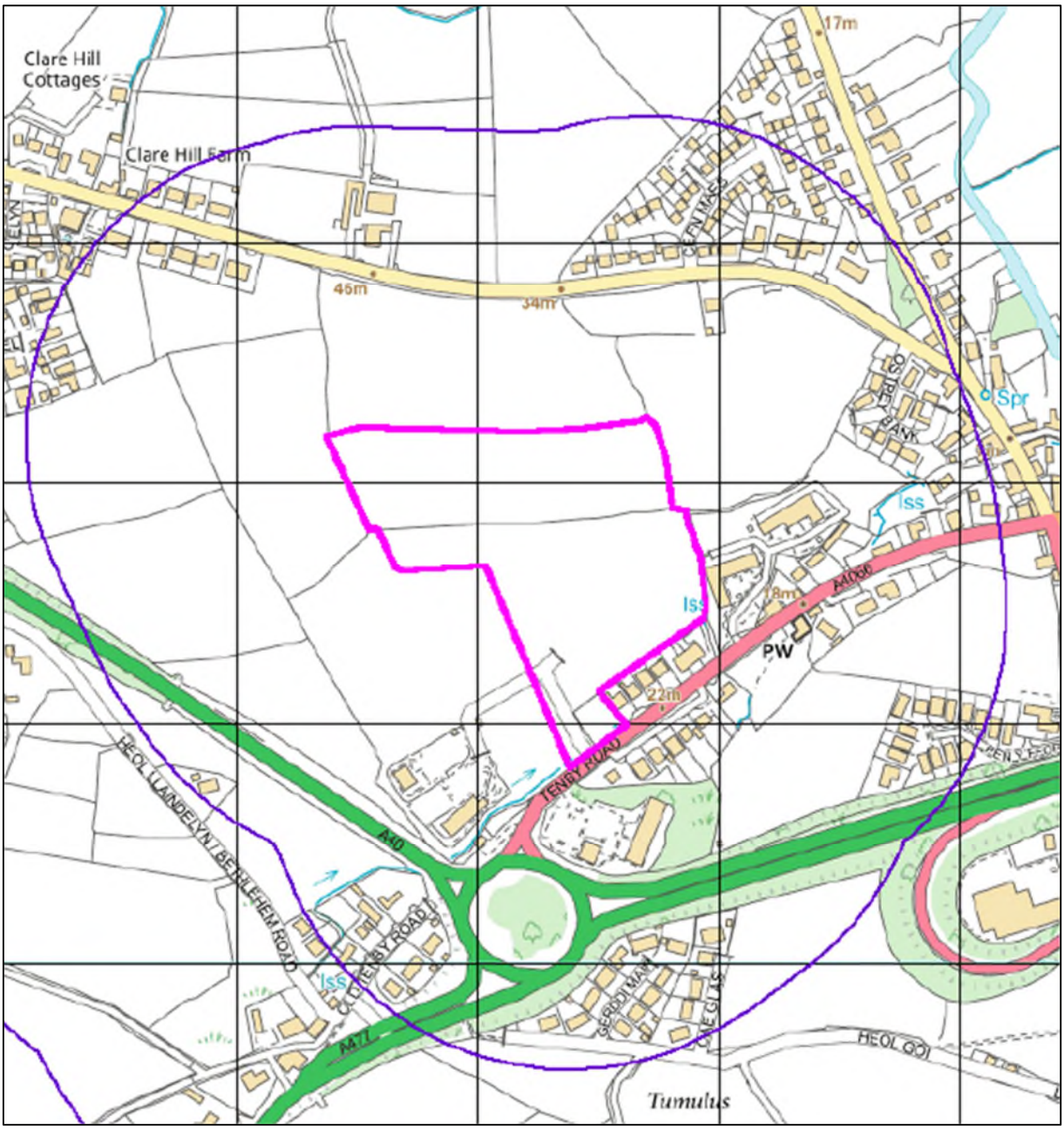

Figure 2.1 Site Location

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
1889 1:2500	The site is made of three separate grassed agricultural fields with trees along the field boundaries. A small stream or ditch is present along the southern boundary of the site.	The surrounding area is dominated by agricultural fields with the occasional residential dwelling. Tenby road runs south of the site with a section running along the boundary.
1906 1:2500	The trees on the field boundaries have been removed.	No significant changes.
1953 1:10560	No significant changes.	No significant changes.
1964 1:10000	No significant changes.	No significant changes.
1971 1:2500	The two southern fields have been formed into one and now the site is made up of two agricultural fields.	A County Council Depot has been built to the immediate east of the site. There has been a small amount of residential development south of Tenby Road.
1981 1:2500	No significant changes.	Additional buildings have been built in the County Council Depot. The A40 has been built just over 100m south of the site.
1995 1:2500	No significant changes.	Residential development has occurred along the southern boundary.
2000 Aerial Photo	The site is shown to be two grassed agricultural fields with trees along the field boundaries.	No significant changes.
2006 1:10000	No significant changes.	No significant changes.
2024 1:10000	There is a road in the southwest corner of the site leading to a McDonalds and Greggs.	A McDonalds and Greggs has been built 50m southwest of the site.

Although not shown on the most recent historic map, a petrol station has recently been built to the immediate southwest of the site.

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 northern boundary of the site is shown to be underlain by mudstone rocks of the Tetragraptus Beds which are Ordovician in age. The majority of the site is shown to be underlain by mudstone rocks of the Didymograptus Bifidus Beds which are also Ordovician in age.

In the northeastern corner and the southwest of the site superficial deposits are recorded as Devensian Till, the rest of the site is not shown to have superficial deposits, however residual soils are likely to be present.

Made ground is anticipated at the southwest of the site associated with the construction of the road.

Detailed stratigraphical information is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Age	Formation	Description
Holocene	Residual Soils	Clay, Silt, Sand and Gravel.
Holocene	Devensian Till	Glacially organized diamicton (till), composed of isolated boulders, gravel and pebbles in a matrix of sandy silty clay
Ordovician	Didymograptus Bifidus Beds	Grey silty graptolitic mudstones with thin tuffaceous horizons.
Ordovician	Tetragraptus Beds	Mudstone

There is a fault, trending east-west, running across the south of the site, with the downthrow to the north.

Strata are typically dipping 70º to the northwest in the local area.

2.3.2 Radon

The Envirocheck Report (**Annex A**) details that **basic** radon protective measures are required for new developments on the investigation site.

2.3.3 Mining

The site situates outside the Pembrokeshire Coal Field.

There are no relevant BGS mineral sites as recorded in the Envirocheck Report datasheets within 500m of the site boundary.

2.3.4 Natural Hazards

Shallow superficial soils have the potential for the following:

Ground Dissolution:	No Hazard
Collapsible Ground:	Very Low Potential
Compressible Ground:	No Hazard
Landslide:	Very Low to Low Potential
Running Sand:	Very Low Potential
Shrinking and Swelling Clays:	No Hazard

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 – Undifferentiated.

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.

The nearest groundwater abstraction point is located 396m west, operated by Mr and Mrs W and T Lewis and W Williams. The water is abstracted for general farming and domestic uses.

2.4.2 Hydrology

The nearest surface water feature locates on site along the southern boundary and comprises an inland river.

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.

The southwestern tip of the site is at high risk of surface water flooding the rest of the site is not at risk from surface water flooding.

The south of the site has a risk of groundwater flooding occurring at the surface. The western centre of the site is at risk of groundwater flooding to property situated below ground level. The northeastern corner is at limited risk of for groundwater flooding to occur.

2.4.4 Waste

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

There are no discharge consents within 400m of the site.

2.4.5 Pollution

4 No pollution incidents are recorded to have occurred within 250m radius of the site. The details of incidents are provided in **Table 2.2**.

Table 2.3 Pollution Incidents to Controlled Waters

Date	Distance/Direction	Pollutant	Incident Severity
28/03/1995	36m East	Farm effluent/slurry	Category 2 – Significant Incident
24/04/1996	222m East	Farm effluent/slurry	Category 3 – Minor Incident
21/02/1996	223m East	Mud/clay/soil	Category 3 – Minor Incident
21/02/1996	227m East	Mud/clay/soil	Category 3 – Minor Incident

There has been one substantiated pollution incident within 250m of the site. The incident occurred on 23/04/2009, 63m to the south. The pollutant was specific waste material – containers. The impact to the water and land was Category 4 – no impact and to water Category 2 – significant impact.

2.4.6 Sensitive Land Use

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

A Site of Special Scientific Interest (SSSI) locates 741m south of the site and is identified as Taf Estuary and is designated based on its biological characteristics. This is also a Special Area of Conservation identified as Carmarthen Bay and Estuaries.

2.4.7 Estimated Urban Soil Chemistry

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

2.4.8 Industrial Land Use

There are relevant contemporary trade directory entries recorded within proximity of the site.

2.4.9 Infilled Land

There are no potentially infilled land features within 250m of the site.

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 / potentially contaminated soils	Metals, Metalloids, Organics and Inorganics Asbestos, Hydrocarbons, TPH and PAH
S2	Bedrock	Radon

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 & Justification
Human Health					
Contaminated Soils S1	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4	Construction and maintenance workers R1	**Medium**	**Low Likelihood**	**Low Risk:** COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended for due diligence.
		Passers-by or neighbouring site users R3	**Medium**	**Unlikely**	**Near Zero Risk**: Dust suppression measures if required.
		Future site users (residents) R2	**Medium**	**Low Likelihood**	**Low Risk:** Suitably designed site investigation recommended for due diligence.
Radon Gas S2	Horizontal and vertical migration of ground gasses and vapours P10	Future site users (residents) R2	**Medium**	**Likely**	**Medium Risk**: Basic radon protection measures required.
Impacted Groundwaters S1	Horizontal and vertical migration of contaminants (saturated zone) P6 Dermal contact P3	Construction and maintenance workers R1	**Medium**	**Unlikely**	**Near Zero Risk:** No potential source identified.
Contaminated Soils S1	Plant uptake P9 Consumption of home grown produce P2	Future site users (residents) R2	**Medium**	**Unlikely**	**Near Zero Risk:** No potential source identified. Suitably designed site investigation recommended for due diligence.
Contaminated Soils S1	Direct Contact P11	Construction materials (water pipes) R7	**Mild**	**Low Likelihood**	**Low Risk:** An appropriate water supply pipe material should be chosen after the potable water supplier has completed an assessment in accordance with UK Water Industry Research guidance; Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UKWIR Report Ref: 10/WM/03/21.
Aggressive ground conditions – Sulphates S1		Construction materials (concrete) R7	**Mild**	**Low Likelihood**	**Low Risk:** Chemical analysis of the soils should be undertaken and the appropriate classification of concrete should be specified as per BRE Special Digest 1: Concrete in Aggressive Ground.

Aquatic Environment					
Contaminated Soils S1	Vertical migration of leachates (unsaturated zone) P5	Groundwater (aquifer) R4 Surface waters (river/lake) R5	**Mild**	**Unlikely**	**Near Zero Risk:** No potential source identified.
	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 10 Dynamic Cone Penetrometer tests, 25 trail pits with 5 soakaway tests was undertaken between the 2nd and 4th July 2024.

The fieldwork was supervised by TFW Group 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 TFW Group Limited in general accordance with BS 10175:2011+A2:2017 in order to assess the findings of the preliminary conceptual site model.

Trial pits referenced TP01 to TP25, were formed using a tracked excavator with a 0.60m wide bucket.

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

On completion all trial pits were backfilled with materials arisings compacted in layers using the excavator bucket. The ground surface was left proud to accommodate future settlement of backfilled materials.

The trial pit logs are presented in **Annex C**.

Soakaway tests were carried out in trial pits TP10, TP11, TP12, TP13 and TP14 in general accordance with BRE DG 365:2016. The excavation sides were squared using the excavator bucket and dimensions recorded within the test section. The trial pit was partially filled with clean water using a dedicated bowser with a 75mm diameter outlet and the fall in level recorded against time. The results are presented in **Annex D**.

Dynamic Cone Penetrometer tests, referenced DCP01 to DCP10, were carried out 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 E**.

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

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	-	0.20 - 0.60	0.20 - 0.60	Soft to firm friable slightly sandy slightly gravelly **CLAY**.
0.00	-	0.40	0.40	**MADE GROUND**: Soft to firm friable slightly sandy slightly gravelly **CLAY**.
0.20 - 0.60	-	0.50 - 2.20	0.20 - 1.90	Firm becoming stiff orangish brown mottled grey / brown slightly sandy slightly gravelly **CLAY** with low cobble content.
0.50 - 2.10	-	1.90 - >3.00	0.40 - >1.80	Stiff brown mottled grey slightly sandy slightly gravelly **CLAY** with low cobble content.
0.80 - 1.90	-	>1.65 - >2.50	-	Medium dense becoming dense grey slightly sandy **GRAVEL**.

4.3 Miscellaneous Ground Conditions

Made ground was seen three locations across the site in trial pits TP02, TP06 and TP24 varying in depths from ground level to 0.25-0.40m.

4.4 Groundwater

Groundwater was not recorded during the site investigation.

4.5 Stability and Obstructions

Trial pits remained stable and vertical during excavation.

No obstructions were encountered in the trial pits.

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 the site. A square regular triangular sampling pattern was adopted.

Sample locations, depths and suspected contamination source targets are summarised in **Table 4.**:

Table 4.2 Sample Locations, Depths and Targets

Location	Depth (m)	Contamination Targets
TP01	0.40	S1
TP02	0.20	S1
TP09	0.10	S1
TP12	0.20	S1
TP15	0.60	S1
TP18	0.20	S1
TP20	0.50	S1
TP21	0.10	S1
TP22	0.60	S1
TP25	0.30	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 determinants listed in **Table 4.**.

Table 4.3 Soil Laboratory Analysis

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

The results are discussed in detail in **SECTION 5** and the laboratory test results certificates may be found in **Annex F**.

4.7 Soil Property Testing

4.7.1 In-situ Permeability Testing

During the site investigation five trial pit soakaway tests were undertaken in trial pits and carried out in general accordance with BRE DG 365:2016. Soakaway test results are summarised in **Table 4.**.

Table 4.4 Summary of Soakaway Results

Trial Pit	Depth Range of Test (m)	Infiltration Rate (ms^{-1})
TP10	1.60 – 2.00	Insufficient infiltration to calculate infiltration rate
TP11	2.33 – 2.80	Insufficient infiltration to calculate infiltration rate
TP12	0.63 – 1.00	Insufficient infiltration to calculate infiltration rate
TP13	1.25 – 1.65	Insufficient infiltration to calculate infiltration rate
TP14	1.56 – 2.00	Insufficient infiltration to calculate infiltration rate

The test results are discussed in **SECTION 8.6** and the calculation sheets may be found in **Annex D**.

4.7.2 Laboratory Geotechnical Testing

A schedule of laboratory tests was prepared by TFW Group Limited and samples were despatched to the accredited laboratories of Apex Testing Solutions. A summary of the testing carried out is presented in **Table 4.**.

Table 4.5 Summary of Geotechnical Testing

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

The test results are presented in **Annex G** and discussed in **SECTION 6** of this report.

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).

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.

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 F**.

5.2.1 Inorganics & Miscellaneous

Ten 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	12	21	0
Cadmium	11	LQM/CIEH	<0.10	<0.10	0
Chromium III	910	LQM/CIEH	16	48	0
Chromium VI	6	LQM/CIEH	<0.50	<0.50	0
Copper	2400	LQM/CIEH	16	49	0
Lead	200	pC4SL	22	83	0
Mercury (inorganic)	40	LQM/CIEH	<0.05	0.23	0
Nickel	180	LQM/CIEH	23	51	0
Selenium	250	LQM/CIEH	<0.25	1.1	0
Zinc	3700	LQM/CIEH	60	130	0
Cyanide	-	-	<0.50	0.50	-
Boron	290	LQM/CIEH	<0.40	1.1	0
Organic Matter (%)	-	-	1.0	4.4	-
pH	-	-	7.2	8.8	-
Phenols	120	LQM/CIEH	<0.010	<0.010	0

Notes:
- No available guideline

5.2.2 Organics

Ten 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 PAH

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2.3	LQM/CIEH	<0.10	<0.10	0
Acenaphthylene	170	LQM/CIEH	<0.10	<0.10	0
Acenaphthene	210	LQM/CIEH	<0.10	<0.10	0
Fluorene	170	LQM/CIEH	<0.10	<0.10	0
Phenanthrene	95	LQM/CIEH	<0.10	0.53	0
Anthracene	2400	LQM/CIEH	<0.10	0.50	0
Fluoranthene	280	LQM/CIEH	<0.10	0.79	0
Pyrene	620	LQM/CIEH	<0.10	0.82	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.10	0.91	0
Chrysene	15	LQM/CIEH	<0.10	1.0	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.10	1.1	0
Benzo(k)fluoranthene	77	LQM/CIEH	<0.10	1.0	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.10	0.88	0
Indeno(123cd)pyrene	27	LQM/CIEH	<0.10	1.1	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.10	0.91	1
Benzo(ghi)perylene	320	LQM/CIEH	<0.10	0.89	0
Total PAH	-	-	<2.0	10	-

Notes:
Thresholds based on 1.0% soil organic matter
- No available guidelines

Ten 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					
VPH C5 – C6 Ali	42	LQM/CIEH	<0.05	<0.05	0
VPH C6 – C7 Ali	100^	LQM/CIEH	<0.05	<0.05	0
VPH C7 – C8 Ali	100^	LQM/CIEH	<0.05	<0.05	0
VPH C8 – C10 Ali	27	LQM/CIEH	<0.05	<0.05	0
EPH C10 – C12 Ali	130	LQM/CIEH	8.2	11	0
EPH C12 – C16 Ali	1100	LQM/CIEH	1.9	6.4	0
EPH C16 – C21 Ali	65000*	LQM/CIEH	<2.0	2.2	0
EPH C21 – C35 Ali	65000*	LQM/CIEH	<3.0	20	0
EPH C35 – C40 Ali	65000	LQM/CIEH	<10	14	0
Aromatic					
VPH C5 – C7 Arom	70	LQM/CIEH	<0.05	<0.05	0
VPH C7 – C8 Arom	130	LQM/CIEH	<0.05	<0.05	0
VPH C8 – C10 Arom	34	LQM/CIEH	<0.05	<0.05	0
EPH C10 – C12 Arom	74	LQM/CIEH	1.1	2.4	0
EPH C12 – C16 Arom	140	LQM/CIEH	<1.0	<1.0	0
EPH C16 – C21 Arom	260	LQM/CIEH	<2.0	3.1	0
EPH C21 – C35 Arom	1100	LQM/CIEH	<2.0	9.6	0
EPH C35 – C40 Arom	1100	LQM/CIEH	<1.0	39	0

Notes:
VPH – Volatile Petroleum Hydrocarbon
EPH – Extractable Petroleum Hydrocarbons
Ali – Aliphatic
Arom – Aromatic
Thresholds based on 1.0% soil organic matter
^ - Ali C6-C7 and C7-C8 based on criteria for Ali EC>C6-C8
* – Ali C16-21 and C21-C35 based on criteria for Ali EC >16-35

5.2.3 Asbestos Testing

All soil samples were scheduled for asbestos screening.

Asbestos was not 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 four samples of the shallow clay material was taken and submitted for plasticity testing. The test results are summarised in **Table 6.**.

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
TP01	0.90	Clay	23.2	31	70	21.7	Medium
TP09	0.60	Clay	20.2	30	68	20.4	Medium
TP15	0.80	Clay	16.7	29	61	17.6	Low
TP23	1.10	Clay	12.2	26	46	11.9	Low

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

Six samples were subject to BRE SD1 testing for concrete classification. The results are summarised in **Table 6.1**.

Table 6.1 BRE SD1 Testing Summary

Location	Depth (m)	2:1 Water / Soil Extract SO_4 (mg/l)	Total Sulphur	Total Potential Sulphate (%)	Acid Soluble Sulphate (%)	Oxidisable Sulphides (%)	pH	Design Sulphate Class for Location	ACEC Class for Location
TP01	0.80	<10	<0.010	<0.030	0.012	0.018	7.4	DS-1	AC-1s
TP05	0.70	<10	0.012	0.036	0.010	0.026	7.4	DS-1	AC-1s
TP07	0.70	12	0.011	0.033	0.011	0.022	7.4	DS-1	AC-1s
TP09	0.90	36	0.022	0.066	0.022	0.044	7.3	DS-1	AC-1s
TP18	0.80	<10	<0.010	<0.030	<0.010	<0.020	7.5	DS-1	AC-1s
TP25	0.70	12	<0.010	<0.030	<0.010	<0.020	7.3	DS-1	AC-1s

The following stoichiometric equation was employed in Table 6.2 for the soils to determine the Total Potential Sulphate (TPS).

TPS (% as SO_4) = 3.0 x Total Sulphur (TS % as S)

The amount of Oxidisable Sulphides (OS as %SO_4) has been conservatively calculated by the following equation;

OS = TPS – Acid Soluble Sulphate (AS)

SECTION 7 Quantitative Risk Assessment

7.1 Contaminants of Concern

Contaminants identified as part of the investigation are summarised in **Table 7.1**, 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 7.1 Contaminants of Concern

Location	Depth (m)	Contaminant	Source
TP02	0.10	Dibenzo(ah)anthracene	S1 – Made Ground

7.2 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 7.2**. Identified pollutant linkages will require detailed risk assessment, appropriate mitigation or remedial measures.

Table 7.2 Refined Conceptual Site Model

Source	Pathway	Receptor
Contaminated Soils S1	Plant uptake P9 Consumption of home grown produce P2	Future site users (residents) R2
Contaminated Soils S1	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4	Construction and maintenance workers R1 Passers-by or neighbouring site users R3 Future site users (residents) R2

7.3 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.

7.3.1 Human Health

7.3.1.1 Contaminated Soils

Made ground was seen in three locations across the site in trial pits TP02, TP06 and TP24 varying in depths from ground level to 0.25-0.40m. An exceedance of Dibenzo(ah)anthracene was found in TP02 within made ground from 0.00-0.40m. It is likely that this will be removed during the topsoil strip. Made ground soils encountered across the in the site strip should then be removed from site and disposed of at a suitably licenced landfill site.

Alternatively to protect future site users from the identified contamination the area around TP02 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. The soils should also be physically suitable and contain no ‘sharps’ as defined in BS8332:2015 Specification for Topsoil and BS8601:2013 Specification for Subsoil and Requirements for Use.

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.

7.3.1.2 Radon

To mitigate against the risk to future site users from radon gas, basic protection measures will be required in all structures. Reference should be made to guidance publication BR 211:2015 for further details on required protection elements. Verification of the installed protection measures is highly recommended. TFW Group Limited offer a comprehensive ground gas protection system verification service.

7.3.2 Aquatic Environment

Site specific mitigation and remedial measures are not required with respect to the aquatic environment.

The CL:AIRE document, Petroleum Hydrocarbons in Groundwater identifies the PAH determinants in exceedance to have a very low potential mobility ranking. Additionally the impact of the contamination is likely to be rendered insignificant with the effects of attenuation and dilution.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconnections, 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 accidently 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 8 Engineering Recommendations

8.1 Preparation of Site

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 for Transport (DfT) 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. TFW Group Limited offer this service if required.

8.2 Foundation and Floor Slab Solution

It is recommended that mass concrete strip and trench fill foundations be used; founded within the firm becoming stiff orangish brown mottled grey / brown slightly sandy slightly gravelly CLAY with low cobble content / stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content encountered at an approximate depth of 0.20-0.60m below the existing ground level. An allowable bearing pressure of 75kN/m^2 may be used for strips up to 900mm wide.

Foundations must sit at least 200mm within the founding horizon.

Floor slabs may be designed as suspended.

For the given foundation solutions and bearing pressure, maximum total settlements of <25mm should result with differential movements of the superstructure not exceeding 1:750.

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 four 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.

Allowances should be made for the removal of any 'soft spots' and their replacement with well-compacted granular materials. Department of Transport (DoT) Type 2 materials or similar could be used and should be compacted in layers to the specification for Highway Works.

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

8.3 Excavations and Formations

Most of the shallow excavations will be possible with normal soil excavating machinery.

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.

8.4 Protection of Buried Concrete

The BRE Special Digest 1 testing has been undertaken with 6 samples submitted for analysis. Levels within the in-situ materials measured between <10mg/l and 36mg/l for water soluble sulphate (WS) and the pH varied between 7.3 and 7.5.

When initially compared to Table C1 the concrete on site should conform to Design Sulphate Class DS-1 and to Aggressive Chemical Environment for Concrete (ACEC) Class AC-1s.

Acid soluble sulphate was recorded at levels between <100mg/kg and 440mg/kg. The following stoichiometric equations were employed to calculate Total Potential Sulphate (TPS) and Oxidisable Sulphides(OS) to determine if the pyrite is present:

TPS (% as SO_4) = 3.0 x Total Sulphur (TS % as S)

OS (%) = TPS – Acid Soluble Sulphate (AS)

Since OS is below 0.30% in the samples pyrite is not considered to be present and the initial classification can be used.

As the water soluble sulphate concentration is below 3000mg/l an additional consideration for the level of magnesium is not required.

8.5 Access Roads and Car Parking Areas

For car parking and road areas, formations within the in-situ natural soils a CBR value of 4% 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.

8.6 Storm Water Drainage

During the site investigation five soakaway tests were undertaken in general accordance with BRE DG 365:2016. The soakaway tests were carried out in trial pits TP10, TP11, TP12, TP13 and TP14 within natural materials.

The soakaway test recorded insufficient infiltration and was subsequently terminated early.

It is considered that soakaway storm water draining is unsuitable at the site.

ANNEX A
Envirocheck Report

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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
351548027_1_1

Customer Reference:
252 St Clears

National Grid Reference:
227440, 216340

Slice:
A

Site Area (Ha):
4.74

Search Buffer (m):
1000

Site Details:

Site at
St Clears/Sancler
Carmarthenshire

Client Details:

Ms R Howells (Liley)
TFW Group Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HB

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Contents

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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Scottish Natural Heritage Copyright

Ove Arup Copyright Notice

Stantec Copyright Notice

Radon Potential dataset Copyright Notice

Natural Resources Wales Copyright Notice

Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2			1	14
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					
Local Authority Pollution Prevention and Controls	pg 6				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 6	Yes			
Pollution Incidents to Controlled Waters	pg 6		4	2	16
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 10			1	1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points	pg 10			2	
Substantiated Pollution Incident Register	pg 11		1		2
Water Abstractions	pg 12			1	2 (*6)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 14	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 15		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences				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 15	3	15	20	133

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
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 35	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 35				3
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 36	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 36	Yes		Yes	Yes
BGS Recorded Mineral Sites	pg 37				1
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 37	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 37	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 37	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 37	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 38	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 38	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 38	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 39		8	7	32
Fuel Station Entries	pg 43			2	1
Points of Interest - Commercial Services	pg 43			3	11
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 44	2	2	1	4
Points of Interest - Public Infrastructure	pg 45			7	6
Points of Interest - Recreational and Environmental	pg 46			1	1
Gas Pipelines					
Underground Electrical Cables					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
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 47				1
Special Areas of Conservation	pg 47				1
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	0	1	227500 216300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	0	1	227442 216300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (W)	0	1	227400 216339
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NW)	0	1	227442 216339
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	0	1	227450 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	0	1	227550 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	4	1	227442 216450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	26	1	227350 216300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	36	1	227600 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	45	1	227300 216300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	51	1	227600 216450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	68	1	227442 216100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	76	1	227350 216200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	80	1	227650 216400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	98	1	227650 216450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	115	1	227650 216500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	146	1	227550 216600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	170	1	227250 216150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	184	1	227700 216550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	191	1	227750 216450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	304	1	227350 216750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	346	1	227442 216800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	346	1	227550 216800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	362	1	227650 216800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	400	1	227600 216850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	421	1	228000 216200
1	**Discharge Consents** Operator: Carmarthenshire County Council Property Type: Livestock Production, Food Production Location: O J Williams Nr Pentre Farm St Cle, Nr Pentre Farm St Clears Authority: Natural Resources Wales Catchment Area: River Taf Reference: Bp0144101 Permit Version: 1 Effective Date: 21st May 1990 Issued Date: 21st May 1990 Revocation Date: 16th February 1996 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Afon Cynin **Status: Consent expired** Positional Accuracy: Located by supplier to within 100m	A14NW (E)	466	2	228040 216440
2	**Discharge Consents** Operator: Mr I Evans Property Type: Domestic Property (Single) Location: Gerlyd Farm St Clears Carmarthen Authority: Natural Resources Wales Catchment Area: Not Given Reference: BH0059201 Permit Version: 1 Effective Date: 11th May 1966 Issued Date: 11th May 1966 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Afon Cynin **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A14SE (E)	767	2	228300 216000
3	**Discharge Consents** Operator: Mr I Evans Property Type: Livestock Production, Food Production Location: Gerlyd Farm St Clears Carmarthen Authority: Natural Resources Wales Catchment Area: River Taf Reference: BH0058901 Permit Version: 1 Effective Date: 3rd May 1966 Issued Date: 3rd May 1966 Revocation Date: 17th April 2007 Discharge Type: Agricultural effluents Discharge Environment: Not Supplied Receiving Water: Open Ditch Nr. River Cynin **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	810	2	228300 215900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Llanboidy Road P.S Emergen Authority: Natural Resources Wales Catchment Area: CYNIN - HEADWATERS TO TIDAL LIMIT Reference: BG0024502 Permit Version: 1 Effective Date: 10th March 1977 Issued Date: 10th March 1977 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Cymin **Status: Effective** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	848	2	227600 217300
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Llanboidy Road P.S Emergen Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bg0024502 Permit Version: Not Supplied Effective Date: 10th March 1977 Issued Date: 10th March 1977 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Cymin **Status: Effective** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	848	2	227600 217300
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Graigwen Tenby Road Ps St Clears, Carmarthen, Carmarthenshire Authority: Natural Resources Wales Catchment Area: River Taf Reference: Bh0053403 Permit Version: 2 Effective Date: 24th March 2005 Issued Date: 24th March 2005 Revocation Date: 22nd March 2007 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Taf **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	948	2	226800 215500
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Graigwen Tenby Road Ps St Clears, Carmarthen, Carmarthenshire Authority: Natural Resources Wales Catchment Area: River Taf Reference: BH0053403 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 23rd March 2005 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Taf **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	948	2	226800 215500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Opp Kirikbass House, Carmarthenshire, Sa33 4jp Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: Not Supplied Effective Date: 6th February 2020 Issued Date: 6th February 2020 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Opp Kirikbass House, Carmarthenshire, Sa33 4jp Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: Not Supplied Effective Date: 6th February 2020 Issued Date: 6th February 2020 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Opp Kirikbass House, Carmarthenshire, Sa33 4jp Authority: Natural Resources Wales Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY Reference: Bh0053403 Permit Version: 4 Effective Date: 6th February 2020 Issued Date: 6th February 2020 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Opp Kirikbass House, Carmarthenshire, Sa33 4jp Authority: Natural Resources Wales Catchment Area: TYWI and TAF and GWENDRAETH - THREE RIVERS ESTUARY Reference: Bh0053403 Permit Version: 4 Effective Date: 6th February 2020 Issued Date: 6th February 2020 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Afon Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Craigwen Ps Cso/Eo, Tenby Road, St Clears, Carmarthenshire Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 23rd March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Craigwen Ps Cso/Eo, Tenby Road, St Clears, Carmarthenshire Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 23rd March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Craigwen Ps Cso/Eo, Tenby Road, St Clears, Carmarthenshire Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 23rd March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Craigwen Ps Tenby Road St Clears, Craigwen Ps Cso/Eo, Tenby Road, St Clears, Carmarthenshire Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bh0053403 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 23rd March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Taf **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	978	2	226763 215494

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Local Authority Pollution Prevention and Controls** Name: Bocm Ltd Location: Dyfed Mill, Cillefwr Industrial Estate, Johnstone, CARMARTHEN, Dyfed, SA33 4BP Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: B3/AF/2/94 Dated: 30th June 1994 Process Type: Local Authority Pollution Prevention and Control Description: PG6/26 Animal feed compounding **Status: Authorisation certificate surrendered by operator** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	809	3	228292 216765
	Nearest Surface Water Feature	A13SE (S)	0	-	227480 216169
7	**Pollution Incidents to Controlled Waters** Property Type: Building Sites Location: ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Poor Operational Practise Incident Date: 28th March 1995 Incident Reference: 23085 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NE (E)	36	4	227600 216400
8	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Behind Council Yard, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 24th April 1996 Incident Reference: 28091 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	222	4	227800 216395
8	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Council Yards, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Inadequate Design/Capacity Incident Date: 21st February 1996 Incident Reference: 27491 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	223	4	227800 216400
8	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: St Clears Council Yards Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Inadequate Design/Capacity Incident Date: 21st February 1996 Incident Reference: 27491 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	227	4	227805 216395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Parc Yr Abbot, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: River Taf Tributary Cywin Incident Date: 30th April 1998 Incident Reference: 35548 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	432	4	227800 216800
10	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: River Taf Incident Date: 22nd December 1997 Incident Reference: 34313 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	492	4	228050 216500
11	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Where Afon Cynon Joins, Aerodrome Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Not Supplied Incident Date: 22nd July 1996 Incident Reference: 29370 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	511	4	228100 216295
11	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Surface Water Outfall Location: ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 10th March 1995 Incident Reference: 22868 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	511	4	228100 216300
12	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Pipe 100Yds Upstream, Bridge Main Street, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: River Taf Tributary Cynin; Natural Occurrence Incident Date: 13th February 1998 Incident Reference: 34800 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	518	4	228100 216395
12	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: 1 Metre Upstream, St Clears Road Bridge Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Taf; Direct Introduction Incident Date: 19th February 1998 Incident Reference: 34854 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Inadequate Design/Capacity Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	519	4	228100 216400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Down Stream Of, Road Bridge (Left Hand Bank), ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 24th February 1997 Incident Reference: 31380 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	636	4	228200 216500
14	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Inorganic Note: Poor Management Control Incident Date: 2nd February 1996 Incident Reference: 27274 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	682	4	228200 216645
14	**Pollution Incidents to Controlled Waters** Property Type: Warehouses Location: 1/2 Mile River, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Inorganic Note: Poor Operational Practise Incident Date: 2nd February 1996 Incident Reference: 27274 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (E)	683	4	228200 216650
15	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 23rd October 1996 Incident Reference: 30349 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	760	4	228300 216600
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Above Bridge Towards Pumping Station , Lower St Clears Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Accident; River Taf Treib Cynin Incident Date: 3rd September 1998 Incident Reference: 36876 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	792	4	228300 216695
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Runs Past House, ST CLEARS Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Accident; River Taf Treib Cynin Incident Date: 3rd September 1998 Incident Reference: 36876 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	794	4	228300 216700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Lower St Clears Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Accident; River Taf Treib Cynin Incident Date: 3rd September 1998 Incident Reference: 36876 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (E)	797	4	228305 216695
17	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Other Location: The Savoy Restaurant Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Emergency Overflow Incident Date: 13th December 1995 Incident Reference: 26902 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	877	4	226850 215550
18	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Craig Wen Ps Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Mechanical/Electrical Plant Failure Incident Date: 8th February 1996 Incident Reference: 27489 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	947	4	226805 215495
18	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Other Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Inadequate Design/Capacity Incident Date: 14th June 1995 Incident Reference: 24689 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	951	4	226800 215495
19	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Other Location: Immediately Below, Tenby Road Bridge Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Weather Incident Date: 25th January 1995 Incident Reference: 22284 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	960	4	226700 215600
20	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Milk/Creamery Wastes Note: Not Supplied Incident Date: 9th September 1996 Incident Reference: 29975 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NE (NE)	996	4	228300 217100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Cynin GQA Grade: River Quality A Reach: Conf.Taf-Conf.Below Castell Gorfod Estimated Distance (km): 6.7 Flow Rate: Flow less than 2.5 cumecs Flow Type: River Year: 2000	A14NW (NE)	299	4	227851 216524
	River Quality Name: Dewi Fawr GQA Grade: River Quality A Reach: Conf.Afon Cynin - Conf.Trib.Neuadd Fm. Estimated Distance (km): 10.7 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A14SE (SE)	738	4	228257 215974
21	**River Quality Chemistry Sampling Points** Name: Cynin Reach: Confluence Taf To Confluence Below Castell Gorfod Estimated Distance: 6.70 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A14NW (E)	470	4	228048 216419

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	**River Quality Chemistry Sampling Points** Name: Cynin Reach: Confluence Below Castell Gorfod To Confluence A.Sien Estimated Distance: 3.80 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A14NW (E)	470	4	228048 216419
22	**Substantiated Pollution Incident Register** Authority: Natural Resources Wales Incident Date: 23rd April 2009 Incident Reference: 673208 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Specific Waste Materials: Containers	A13SE (S)	63	2	227519 216116
23	**Substantiated Pollution Incident Register** Authority: Natural Resources Wales Incident Date: 24th April 2013 Incident Reference: 1105897 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Unknown	A14NE (E)	736	2	228282 216575

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**Substantiated Pollution Incident Register** Authority: Natural Resources Wales Incident Date: 27th May 2002 Incident Reference: 88602 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A7SE (SW)	944	2	226789 215517
25	**Water Abstractions** Operator: Messrs W & T Lewis & W Williams Licence Number: 22/60/4/0049 Permit Version: 100 Location: Well In Field No. 572 At Llysmeurig , Pwll Trap Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Well In Field No. 572 At Llysmeurig ; Pwll Trap Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (W)	396	4	226880 216430
26	**Water Abstractions** Operator: Mr I Evans Licence Number: 22/60/6/0015 Permit Version: 100 Location: Well B At Geryld Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SE (E)	846	4	228380 215990
27	**Water Abstractions** Operator: Mr & Mrs C Jones Licence Number: 22/60/4/0016 Permit Version: 100 Location: Spring 'A'lin Enclosure 116 At Gorse Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring 'A' In Enclosure 116 At Gorse Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st February 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A17SW (W)	861	4	226450 216680
	Water Abstractions Operator: Mr I Evans Licence Number: 22/60/6/0015 Permit Version: 100 Location: Well A At Gerlyd Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1044	4	228600 216030

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr H Lodwig Licence Number: 22/60/6/0007 Permit Version: 100 Location: Spring At Gwaefi Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Gwaefi Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9SE (SE)	1120	4	228400 215500
	Water Abstractions Operator: Mr & Mrs C Jones Licence Number: 22/60/4/0016 Permit Version: 100 Location: Spring 'B' At Gorse Farm Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring 'B' At Gorse Farm Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st February 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A16SW (W)	1407	4	225900 216730
	Water Abstractions Operator: Mr M Fletcher Licence Number: 22/60/6/0031 Permit Version: 100 Location: Springs And Drainage Ditch In Field Os 5071 Authority: Environment Agency, Welsh Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Springs And Drainage Ditch In Field Os 5071 Authorised Start: 01 February Authorised End: 30 April Permit Start Date: 10th October 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SE (S)	1413	4	227470 214750
	Water Abstractions Operator: Messrs D Davies & Co Licence Number: 22/60/6/0022 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Spring Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Spring At Plasygwern Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10NE (E)	1475	4	229000 215860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Messrs D Davies & Co Licence Number: 22/60/6/0022 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Well At Bronheulog Farm Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1951	4	229500 215900
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: Low	A13NE (S)	0	2	227441 216327
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: Low	A13NE (N)	0	2	227461 216395
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: Low	A13NE (NW)	0	2	227442 216339
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - B	A13NE (NW)	0	2	227442 216339
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (S)	0	2	227441 216327
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (N)	0	2	227461 216395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A14NW (E)	220	2	227796 216403
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14NW (E)	244	2	227811 216432
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A14NW (E)	246	2	227818 216417
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (S)	0	5	227480 216169
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (SE)	0	5	227515 216194
30	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 102.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (SE)	0	5	227537 216210
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 34.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (E)	2	5	227585 216282
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (S)	4	5	227473 216164
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 121.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (S)	8	5	227469 216161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 160.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (SE)	32	5	227598 216254
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (SE)	33	5	227598 216254
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 32.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SE (SE)	75	5	227626 216223
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SW (S)	125	5	227378 216086
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 29.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	144	5	227729 216348
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	148	5	227729 216373
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 49.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	152	5	227732 216377
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 181.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13SW (S)	152	5	227345 216078
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	185	5	227757 216408

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	194	5	227770 216399
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	194	5	227770 216399
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 137.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A13NE (E)	195	5	227770 216401
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 174.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18SW (NW)	284	5	227100 216662
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 248.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (NE)	323	5	227873 216522
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 41.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14NW (NE)	324	5	227806 216642
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 471.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (NE)	324	5	227806 216642
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14NW (E)	326	5	227898 216431
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14NW (E)	331	5	227903 216430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 457.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A18SW (N)	338	5	227374 216782
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A19SW (NE)	364	5	227843 216658
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 180.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A19SW (NE)	369	5	227848 216661
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (E)	375	5	227946 216439
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18SW (NW)	411	5	227132 216824
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 135.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18SW (NW)	411	5	227203 216847
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 82.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 2	A14NW (E)	421	5	227999 216414
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 39.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (E)	425	5	227999 216434
60	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 218.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18SW (N)	436	5	227251 216879

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 75.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (E)	451	5	228035 216364
62	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 376.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14NW (E)	451	5	228035 216364
63	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 63.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14NW (E)	464	5	228039 216433
64	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 223.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14NW (E)	476	5	228034 216497
65	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 74.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A18SE (N)	476	5	227618 216924
66	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A18SE (N)	536	5	227672 216974
67	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A19SW (NE)	542	5	228016 216720
68	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 123.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A18SE (N)	550	5	227699 216981
69	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 119.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A19SW (NE)	553	5	228021 216733

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NW (N)	568	5	227393 217012
71	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 286.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NW (N)	575	5	227400 217018
72	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 26.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	605	5	227625 217053
73	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 234.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	622	5	227648 217067
74	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 364.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A19NW (NE)	637	5	227819 217027
75	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 34.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14SE (E)	676	5	228216 216038
76	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 72.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NE (SE)	690	5	228197 215961
77	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12SW (W)	690	5	226660 216118
78	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12SW (W)	700	5	226614 216210

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 66.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A14SE (E)	703	5	228247 216041
80	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 170.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12SW (W)	703	5	226611 216212
81	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A14SE (SE)	705	5	228234 216005
82	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A14SE (SE)	706	5	228237 216009
83	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A14SE (SE)	706	5	228238 216010
84	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A14SE (E)	707	5	228240 216013
85	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 36.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14SE (E)	708	5	228242 216015
86	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 117.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NW (SE)	708	5	228087 215768
87	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	721	5	227570 217174

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	723	5	227578 217176
89	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 171.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A14SE (E)	727	5	228279 216062
90	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	727	5	227589 217180
91	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 36.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	727	5	227589 217180
92	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 150.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14SE (SE)	742	5	228267 215989
93	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 163.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A14SE (SE)	742	5	228267 215989
94	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 599.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A8SE (S)	748	5	227523 215417
95	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	763	5	227588 217216
96	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	779	5	227590 217232

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 354.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	782	5	227589 217234
98	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 217.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A18NE (N)	782	5	227589 217234
99	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NE (SE)	786	5	228199 215793
100	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 61.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NE (SE)	789	5	228203 215792
101	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 390.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A14SE (E)	794	5	228369 216143
102	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 277.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A14SE (E)	809	5	228376 216104
103	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12SW (W)	815	5	226483 216253
104	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 54.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9NE (SE)	828	5	228290 215848
105	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9NE (SE)	828	5	228290 215848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
106	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NE (SE)	837	5	228264 215794
107	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9NE (SE)	839	5	228267 215794
108	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 102.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A17NW (NW)	839	5	226727 217072
109	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9NE (SE)	842	5	228272 215795
110	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 3.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9NE (SE)	844	5	228274 215795
111	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 86.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9NE (SE)	846	5	228277 215796
112	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 115.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9NE (SE)	847	5	228315 215852
113	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	847	5	228315 215852
114	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 33.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A8SW (S)	850	5	227298 215332

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
115	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 370.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12NW (W)	851	5	226434 216561
116	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 61.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A12SW (W)	852	5	226439 216281
117	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 406.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A19NW (N)	857	5	227798 217272
118	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 734.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A9SW (S)	859	5	227799 215366
119	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 149.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A9SW (S)	859	5	227799 215366
120	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 131.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9NE (SE)	861	5	228331 215851
121	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 310.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	861	5	228331 215851
122	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 87.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A8SW (S)	876	5	227200 215331
123	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 40.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A8SW (S)	877	5	227194 215332

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A8SW (S)	877	5	227200 215331
125	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 99.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A8SW (S)	881	5	227282 215304
126	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 61.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9SE (SE)	884	5	228203 215630
127	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 100.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9NE (SE)	884	5	228263 215711
128	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	884	5	228263 215711
129	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 23.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	887	5	228208 215633
130	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9NE (SE)	892	5	228293 215741
131	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11SE (W)	900	5	226409 216201
132	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	900	5	228276 215703

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
133	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 170.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A15NW (E)	901	5	228456 216570
134	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 84.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11NE (W)	903	5	226373 216423
135	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	905	5	228229 215631
136	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 111.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	905	5	228229 215631
137	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9NE (SE)	905	5	228279 215699
138	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	905	5	228279 215699
139	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 120.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9NE (SE)	908	5	228280 215696
140	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11SE (W)	909	5	226388 216248
141	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 35.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9SE (SE)	910	5	228191 215578

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 2	A9SE (SE)	910	5	228191 215578
143	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 89.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11SE (W)	911	5	226386 216247
144	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 36.6 Watercourse Level: Underground Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A15NW (E)	913	5	228487 216484
145	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	914	5	228318 215737
146	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 3.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 2	A9SE (SE)	914	5	228196 215579
147	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9SE (SE)	915	5	228199 215580
148	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 89.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9NE (SE)	920	5	228292 215691
149	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 20.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	929	5	228226 215589
150	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 94.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	929	5	228226 215589

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A15NW (E)	933	5	228522 216332
152	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A15NW (E)	933	5	228522 216332
153	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 40.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SE (SW)	934	5	226795 215525
154	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 61.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9SE (SE)	936	5	228192 215543
155	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	936	5	228192 215543
156	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A17NW (NW)	938	5	226676 217159
157	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 2.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	939	5	228197 215542
158	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 21.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	941	5	228201 215544
159	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A15NW (E)	942	5	228530 216345

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 100.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A17NW (NW)	943	5	226673 217163
161	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 94.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 2	A9SW (SE)	944	5	227945 215343
162	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 237.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A9SW (SE)	944	5	227945 215343
163	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 46.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A23SW (N)	946	5	227283 217392
164	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 109.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A23SW (N)	946	5	227283 217392
165	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 70.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A7SW (SW)	946	5	226748 215558
166	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 86.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	951	5	228217 215546
167	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 73.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A9SE (SE)	953	5	228215 215542
168	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 434.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A23SW (N)	954	5	227329 217399

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
169	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 133.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A4NW (S)	955	5	227873 215293
170	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SW (SW)	955	5	226713 215590
171	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SW (SW)	955	5	226710 215593
172	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 138.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SW (SW)	956	5	226698 215608
173	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A15NW (E)	958	5	228545 216348
174	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 2.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SW (SW)	958	5	226727 215566
175	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 4.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SW (SW)	958	5	226729 215564
176	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A3NW (S)	959	5	227326 215216
177	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 207.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A7SW (SW)	959	5	226732 215560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 89.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Cynin Catchment Name: Taf East Primacy: 1	A9SE (SE)	960	5	228160 215479
179	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11NE (W)	962	5	226317 216363
180	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 4.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	964	5	228174 215487
181	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A7SE (SW)	964	5	226768 215509
182	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 357.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A15NW (E)	965	5	228553 216347
183	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 391.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A7SE (SW)	967	5	226764 215510
184	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	968	5	228178 215485
185	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 3.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	968	5	228178 215485
186	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 2.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	969	5	228176 215481

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
187	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 37.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11NE (W)	969	5	226311 216359
188	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	970	5	228175 215479
189	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 160.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Dewi Fawr Catchment Name: Taf East Primacy: 1	A15NW (E)	971	5	228519 216605
190	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A15NW (E)	971	5	228519 216605
191	**OS Water Network Lines** Watercourse Form: Foreshore Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SE (SE)	971	5	228181 215484
192	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 75.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 1	A9SE (SE)	972	5	228182 215483
193	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 270.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A3NW (S)	991	5	227295 215189
194	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 168.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Taf Catchment Name: Taf West Primacy: 1	A3NW (S)	991	5	227295 215189
195	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 67.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11SE (W)	991	5	226312 216214

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
196	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf West Primacy: 1	A11SE (W)	991	5	226312 216214
197	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A23SW (N)	998	5	227184 217437
198	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 233.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Taf East Primacy: 2	A23SW (N)	999	5	227180 217437

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Carmarthenshire County Council - Has no landfill data to supply		0	6	227442 216339
199	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	A9NE (SE)	753	-	228151 215780
200	**Potentially Infilled Land (Non-Water)** Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	A14NE (E)	845	-	228426 216418
201	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	A9SW (SE)	989	-	227971 215307

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Arenig Rocks (Undifferentiated)	A13NW (N)	0	1	227428 216411
	BGS 1:625,000 Solid Geology Description: Llanvirn Rocks (Undifferentiated)	A13NE (NW)	0	1	227442 216339
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	1	227441 216327
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	0	1	227461 216395
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (NW)	0	1	227442 216339
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	323	1	227346 216775
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (SE)	518	1	228059 216072

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	571	1	228074 216669
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	763	1	228310 216040
202	**BGS Recorded Mineral Sites** Site Name: Pont Clyfon Location: St Clears, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 100014 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Alluvium Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A14NE (E)	844	1	228425 216422
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	227461 216395
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	227441 216327
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	227441 216327
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	227461 216395
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	227441 216327
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Radon Potential - Radon Affected Areas 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). Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	227442 216300
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (5 to 10% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	227450 216425
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	227442 216300
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	1	227442 216339
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	227450 216425

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
203	**Contemporary Trade Directory Entries** Name: Rosewood Joinery Ltd Location: Unit 5 St Clears Business Park,Tenby Rd, St Clears, Carmarthen, Dyfed, SA33 4JW Classification: Joinery Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NE (E)	28	-	227614 216330
203	**Contemporary Trade Directory Entries** Name: Tideydavies Ltd Location: Unit 6, St. Clears Business Park, Tenby Road, St. Clears, Carmarthen, SA33 4JW Classification: Leather Garments & Products **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	35	-	227620 216334
203	**Contemporary Trade Directory Entries** Name: Belt Designs Location: Unit 7, St. Clears Business Park, Tenby Road, St. Clears, Carmarthen, SA33 4JW Classification: Leather Garments & Products **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	44	-	227629 216335
203	**Contemporary Trade Directory Entries** Name: West Wales Windscreens Location: Unit 8, St. Clears Business Park, Tenby Road, St. Clears, Carmarthen, Dyfed, SA33 4JW Classification: Window Frames - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	58	-	227638 216364
203	**Contemporary Trade Directory Entries** Name: West Wales Appliance Services Location: Unit 9,St. Clears Business Pk,Tenby Rd, St. Clears, Carmarthen, Dyfed, SA33 4JW Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NE (E)	68	-	227646 216369
203	**Contemporary Trade Directory Entries** Name: West Wales Location: Unit 9 St Clears Business Park Tenby rd, St Clears, Carmarthen, Dyfed, SA33 4JW Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NE (E)	68	-	227646 216369
204	**Contemporary Trade Directory Entries** Name: D R J Motors Location: Tenby Rd, St. Clears, Carmarthen, Dyfed, SA33 4JW Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (E)	43	-	227626 216267
205	**Contemporary Trade Directory Entries** Name: Cambrian Ice Cream Location: Gorllwyn, Heol Llaindelyn, St. Clears, Carmarthen, Dyfed, SA33 4BB Classification: Ice Cream Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	244	-	227177 216143
206	**Contemporary Trade Directory Entries** Name: Wynnstay Location: HIGH STREET, ST CLEARS, CARMARTHEN, SA33 4DY Classification: Agricultural Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	296	-	227871 216198
207	**Contemporary Trade Directory Entries** Name: Esso Location: St. Clears, Carmarthen, Dyfed, SA33 4JP Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SW)	340	-	227237 215922
207	**Contemporary Trade Directory Entries** Name: Esso Location: St. Clears, Carmarthen, Dyfed, SA33 4JP Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (SW)	340	-	227237 215922

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
208	**Contemporary Trade Directory Entries** Name: Wynnstay Location: The Stores, High Street, St. Clears, Carmarthen, Dyfed, SA33 4DY Classification: Agricultural Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	353	-	227841 216041
209	**Contemporary Trade Directory Entries** Name: H I Bowen Location: Llwynbedw, Bethlehem Road, St. Clears, Carmarthen, Dyfed, SA33 4AN Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NE (W)	355	-	226924 216395
210	**Contemporary Trade Directory Entries** Name: Judd Fabrications Location: Unit 5 Wembley Garage,Pentre Rd, St. Clears, Carmarthen, Dyfed, SA33 4LR Classification: Metal Products - Fabricated **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A14NW (E)	473	-	228049 216430
210	**Contemporary Trade Directory Entries** Name: Ben Evans Location: Pentre Road, St. Clears, Carmarthen, Dyfed, SA33 4AA Classification: Electrical Goods Sales, Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (E)	506	-	228085 216417
211	**Contemporary Trade Directory Entries** Name: Phoenix Conservation.Com Location: Selwyn Forge, St. Clears, Carmarthen, Dyfed, SA33 4JP Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SW)	488	-	227179 215776
212	**Contemporary Trade Directory Entries** Name: Vermagon Location: Dolau, St. Clears, Carmarthen, Dyfed, SA33 4JR Classification: Pest & Vermin Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (N)	512	-	227646 216956
212	**Contemporary Trade Directory Entries** Name: Sancler Organic Location: Glancynin, St Clears, Carmarthen, Dyfed, SA33 4JR Classification: Cheese Makers & Suppliers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18SE (N)	520	-	227602 216971
213	**Contemporary Trade Directory Entries** Name: Mellangth Stained Glass Location: Pentre Rd, St. Clears, Carmarthen, Dyfed, SA33 4AA Classification: Stained Glass Designers & Producers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A14NE (E)	574	-	228150 216437
213	**Contemporary Trade Directory Entries** Name: St Clears Business Solution Location: Mermaid Buildings, Pentre Road, St. Clears, Carmarthen, Dyfed, SA33 4LR Classification: Cash Registers & Check-Out Equipment **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	603	-	228182 216421
214	**Contemporary Trade Directory Entries** Name: Tooby & Williams Ltd Location: The Market, Pentre Road, St. Clears, Carmarthen, Dyfed, SA33 4LR Classification: Lawnmowers & Garden Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	652	-	228211 216520
215	**Contemporary Trade Directory Entries** Name: Printing Services Location: Minyfford,2 Corvus Terrace, St Clears, Carmarthen, Dyfed, SA33 4LT Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	666	-	228243 216444
216	**Contemporary Trade Directory Entries** Name: Wilsons Of Laucharne Ltd Location: Whispering Oaks, St. Clears, Carmarthen, Dyfed, SA33 4JP Classification: Agricultural Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (SW)	671	-	227110 215601

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
217	**Contemporary Trade Directory Entries** Name: O J Williams Location: Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BN Classification: Fuel Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	728	-	228254 216634
217	**Contemporary Trade Directory Entries** Name: O J Williams & Son (Transport) Ltd Location: Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BN Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	728	-	228254 216634
217	**Contemporary Trade Directory Entries** Name: C P L Petroleum Location: Station rd, St. Clears, Carmarthen, Dyfed, SA33 4BN Classification: Oil Fuel Distributors **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A14NE (E)	728	-	228254 216634
217	**Contemporary Trade Directory Entries** Name: Travis Perkins Plc Location: Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BN Classification: Builders' Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	728	-	228254 216634
217	**Contemporary Trade Directory Entries** Name: Cambrian Auto Location: Halfren Hall, Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BQ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	742	-	228283 216593
218	**Contemporary Trade Directory Entries** Name: Wyn'S Car Sales Location: Unit 1, Wembley Place, Pentre Road, St. Clears, Carmarthen, SA33 4LR Classification: Car Dealers - Used **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NE (E)	755	-	228328 216473
218	**Contemporary Trade Directory Entries** Name: Wyns Tyres & Exhaust Centre Location: Wyns Tyre and Exhaust Centre, Wembley Garage, Pentre Road, Carmarthen, SA33 4LR Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	773	-	228345 216480
218	**Contemporary Trade Directory Entries** Name: A C W Cleaning Services Location: Carmarthen, SA33 4LR Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	789	-	228361 216478
218	**Contemporary Trade Directory Entries** Name: C K Recycling Location: Unit 5, Wembley Place, Pentre Road, St. Clears, Carmarthen, SA33 4LR Classification: Recycling Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	789	-	228361 216478
218	**Contemporary Trade Directory Entries** Name: A C E Tuning Location: Wembley Place, Pentre Road, St. Clears, Carmarthen, Dyfed, SA33 4LR Classification: Car Engine Tuning & Diagnostic Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	789	-	228362 216478
218	**Contemporary Trade Directory Entries** Name: Ace Tuning Location: Wembley Place, Pentre Road, St. Clears, Carmarthen, Dyfed, SA33 4LR Classification: Car Engine Tuning & Diagnostic Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	789	-	228362 216478

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
218	**Contemporary Trade Directory Entries** Name: Castree Kilns Location: Unit 5, Wembley Place, Pentre Road, St. Clears, Carmarthen, SA33 4LR Classification: Ceramic Manufacturers, Supplies & Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NE (E)	789	-	228361 216478
219	**Contemporary Trade Directory Entries** Name: Willow Joinery Location: 7 Tir Owen Industrial Estate, Station Road, St Clears, Carmarthen, Dyfed, SA33 4BN Classification: Joinery Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	772	-	228235 216799
219	**Contemporary Trade Directory Entries** Name: R & R Fabrications Location: Unit 2, Tir Owen Industrial Estate, Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BP Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	783	-	228245 216803
219	**Contemporary Trade Directory Entries** Name: Spray Can Location: Station Road, St. Clears, Carmarthen, Dyfed, SA33 4BP Classification: Commercial Vehicle Bodybuilders & Repairers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	791	-	228258 216797
220	**Contemporary Trade Directory Entries** Name: Lyndon George Land Rover Specialist Location: Blaenwaun Garage,Station Road, St Clears, Carmarthen, Dyfed, SA33 4BP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	778	-	228273 216727
220	**Contemporary Trade Directory Entries** Name: Blaenwaun Garage Ltd Location: Station Road, St Clears, Carmarthen, Dyfed, SA33 4BP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	778	-	228273 216728
220	**Contemporary Trade Directory Entries** Name: Lyndon George Land Rover Specialist Location: Blaenwaun Garage, St Clears, Carmarthen, Dyfed, SA33 4BP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	778	-	228273 216727
220	**Contemporary Trade Directory Entries** Name: Blaenwaun Garage Location: Station Road, St Clears, Carmarthen, Dyfed, SA33 4BP Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A19SE (NE)	800	-	228300 216717
221	**Contemporary Trade Directory Entries** Name: R R Racing & Development Location: Unit 2, Tir Owen Industrial Estate, Station Road, St. Clears, Carmarthen, SA33 4BP Classification: Sheet Metal Work **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (E)	847	-	228351 216715
222	**Contemporary Trade Directory Entries** Name: D G James Location: Graigwen Villa, St. Clears, Carmarthen, Dyfed, SA33 4JP Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7SE (SW)	861	-	226852 215571
223	**Contemporary Trade Directory Entries** Name: Steelrite Engineering Ltd Location: Riverside Terrace, St. Clears, Carmarthen, Dyfed, SA33 4EL Classification: Engineering Materials **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SE (SE)	931	-	228141 215501

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
224	**Contemporary Trade Directory Entries** Name: Wembley Services Ltd Location: Cleifion Mill, St. Clears, Carmarthen, Dyfed, SA33 4LX Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	976	-	228561 216390
224	**Contemporary Trade Directory Entries** Name: L S Design Location: Cleifion Mill, St. Clears, Carmarthen, Dyfed, SA33 4LX Classification: Electronic Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	976	-	228561 216390
225	**Fuel Station Entries** Name: Mfg St Clears Location: A40 A477, St Clears , Carmarthen, Carmarthenshire, SA33 4FD Brand: Esso Premises Type: Petrol Station **Status: Open** Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	338	-	227240 215922
225	**Fuel Station Entries** Name: Ivy Service Station Location: A477 , St Clears , Carmarthen, Carmarthenshire, SA33 4JP Brand: Texaco Premises Type: Petrol Station **Status: Open** Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	340	-	227237 215922
226	**Fuel Station Entries** Name: North Garage Location: Station Road , St Clears , Carmarthen, Carmarthenshire, SA33 4BP Brand: Texaco Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	778	-	228273 216727
227	**Points of Interest - Commercial Services** Name: Ivy Service Station Location: St Clears, Carmarthen, SA33 4JP Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
227	**Points of Interest - Commercial Services** Name: Car Wash Location: St. Clears, Carmarthen, SA33 4JP Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
228	**Points of Interest - Commercial Services** Name: Vermagon Location: Dolau, St Clears, Carmarthen, SA33 4JR Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A18SE (N)	480	7	227630 216926
229	**Points of Interest - Commercial Services** Name: D R J Motors Location: Whispering Oaks, Tenby Road, St. Clears, Carmarthen, SA33 4JW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (SW)	671	7	227110 215601
230	**Points of Interest - Commercial Services** Name: R & R Development Location: Station Road, St. Clears, Carmarthen, SA33 4BN Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A14NE (E)	728	7	228254 216634
230	**Points of Interest - Commercial Services** Name: Cambrian Auto Location: Halfren Hall, Station Road, St. Clears, Carmarthen, SA33 4BQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	742	7	228283 216593

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	**Points of Interest - Commercial Services** Name: Cambrian Auto Location: Hafren Hall, Station Road, St. Clears, Carmarthen, SA33 4BQ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	742	7	228283 216593
231	**Points of Interest - Commercial Services** Name: Wyns Tyres & Exhaust Centre Location: Wembley Garage, Pentre Road, St Clears, Carmarthen, SA33 4LR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	773	7	228345 216479
231	**Points of Interest - Commercial Services** Name: C K Recycling Location: Unit 5 Wembley Place, Pentre Road, St. Clears, Carmarthen, SA33 4LR Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NE (E)	778	7	228350 216482
232	**Points of Interest - Commercial Services** Name: Lyndon George Land Rover Specialist Location: Blaenwaun Garage, Station Road, St Clears, Carmarthen, SA33 4BP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SE (NE)	778	7	228273 216727
233	**Points of Interest - Commercial Services** Name: R & R Fabrications Location: Unit 2 Tir Owen Industrial Estate, Station Road, St. Clears, Carmarthen, SA33 4BP Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A19SE (NE)	783	7	228245 216803
233	**Points of Interest - Commercial Services** Name: R R Racing & Development Location: 2 Tir Owen Industrial Estate, Station Road, St Clears, Carmarthen, SA33 4BP Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A19SE (NE)	794	7	228251 216815
233	**Points of Interest - Commercial Services** Name: Blaenwaun Garage Location: Hafren Stores, Station Road, St Clears, Carmarthen, SA33 4BP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SE (NE)	809	7	228291 216765
234	**Points of Interest - Commercial Services** Name: Wembley Services Ltd Location: Cleifion Mill, St. Clears, Carmarthen, SA33 4LX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15NW (E)	976	7	228561 216390
235	**Points of Interest - Manufacturing and Production** Name: St Clears Business Park Location: SA33 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	0	7	227516 216353
235	**Points of Interest - Manufacturing and Production** Name: St Clears Business Park Location: SA33 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	0	7	227542 216335
235	**Points of Interest - Manufacturing and Production** Name: Business Park Location: SA33 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	6	7	227585 216356
236	**Points of Interest - Manufacturing and Production** Name: H K P & A J Rooney Location: 10 Gerddi Mair, St. Clears, Carmarthen, SA33 4ET Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A8NE (S)	209	7	227479 215954

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
237	**Points of Interest - Manufacturing and Production** Name: Works Location: SA33 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	437	7	228023 216352
238	**Points of Interest - Manufacturing and Production** Name: I L Morgan Location: Pentre Farm, Pentre Road, St. Clears, Carmarthen, SA33 4AA Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14NE (E)	548	7	228120 216461
239	**Points of Interest - Manufacturing and Production** Name: Alta Cymru Location: Unit 4-5 Wembley Place, Pentre Road, St. Clears, Carmarthen, SA33 4LR Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14NE (E)	807	7	228380 216477
240	**Points of Interest - Manufacturing and Production** Name: D G Husband Location: Panpeg, Llangynin, St Clears, Carmarthen, Dyfed, SA33 4BA Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A23SW (N)	884	7	227310 217330
241	**Points of Interest - Manufacturing and Production** Name: Works Location: SA33 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9SE (SE)	930	7	228147 215507
242	**Points of Interest - Public Infrastructure** Name: Esso Location: St Clears, Carmarthen, SA33 4JP Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
242	**Points of Interest - Public Infrastructure** Name: Esso Location: St. Clears, Carmarthen, SA33 4JP Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
242	**Points of Interest - Public Infrastructure** Name: Ivy Service Station Location: St. Clears, Carmarthen, SA33 4JP Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
242	**Points of Interest - Public Infrastructure** Name: Ivy Service Station Location: St. Clears, Carmarthen, SA33 4JP Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	340	7	227237 215922
243	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A14NW (E)	429	7	228013 216367
243	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	433	7	228017 216367
244	**Points of Interest - Public Infrastructure** Name: Slurry Bed Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	491	7	228043 216519

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
245	**Points of Interest - Public Infrastructure** Name: Slurry Bed Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	547	7	227584 217000
245	**Points of Interest - Public Infrastructure** Name: Slurry Bed Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	566	7	227572 217020
246	**Points of Interest - Public Infrastructure** Name: St. Clears Police Station Location: 5 Station Road, St. Clears, Carmarthen, SA33 4BL Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A14NE (E)	666	7	228223 216530
246	**Points of Interest - Public Infrastructure** Name: Dyfed-Powys Constabulary Location: 5 Station Road, St. Clears, Carmarthen, SA33 4BL Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A14NE (E)	667	7	228224 216532
247	**Points of Interest - Public Infrastructure** Name: Slurry Pit Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	760	7	226713 216948
248	**Points of Interest - Public Infrastructure** Name: Slurry Pit Location: SA33 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	770	7	226825 215751
249	**Points of Interest - Recreational and Environmental** Name: Skateboard Park Location: Nr (Clos Pentre), SA33 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SW (E)	456	7	228045 216274
250	**Points of Interest - Recreational and Environmental** Name: Play Area Location: SA33 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	778	7	228321 216591

Sensitive Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
251	**Sites of Special Scientific Interest** Name: Aber Taf / Taf Estuary Multiple Areas: N Total Area (m2): 15002347.53 Source: Natural Resources Wales Reference: 262333wpv Designation Details: Biological Designation Date: 6th August 2002 Date Type: Notified	A8SE (S)	741	2	227530 215424
252	**Special Areas of Conservation** Name: Carmarthen Bay And Estuaries / Bae Caerfyrddin Ac Aberoedd Multiple Areas: N Total Area (m2): 661083957.79 Source: Natural Resources Wales Reference: Uk0020020 **Status: Designated**	A8SE (S)	741	2	227530 215424

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Natural Resources Wales	November 2023	Annually
Carmarthenshire County Council - Environmental Health Department	September 2017	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	May 2024	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls		
Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control		
Environment Agency - Welsh Region	January 2021	Quarterly
Natural Resources Wales	May 2024	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Carmarthenshire County Council - Environmental Health Department	March 2015	Variable
Local Authority Pollution Prevention and Controls		
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Carmarthenshire County Council - Environmental Health Department	March 2015	Variable
Nearest Surface Water Feature		
Ordnance Survey	April 2024	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes		
Environment Agency - Welsh Region	July 2015	
Natural Resources Wales	July 2015	
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	
Natural Resources Wales	March 2013	
Registered Radioactive Substances		
Natural Resources Wales	January 2015	
Environment Agency - Welsh Region	June 2016	As notified
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register		
Natural Resources Wales	February 2024	Quarterly
Environment Agency Wales - South West Area	January 2021	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	April 2024	Quarterly
Natural Resources Wales	May 2024	Quarterly
Water Industry Act Referrals		
Environment Agency - Welsh Region	October 2017	
Natural Resources Wales	October 2022	
Groundwater Vulnerability Map		
Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations		
Natural Resources Wales	January 2018	As notified
Superficial Aquifer Designations		
Natural Resources Wales	January 2018	As notified

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

Data Currency

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites		
Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South West Area	January 2023	Quarterly
Natural Resources Wales	October 2021	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency Wales - South West Area	July 2021	Quarterly
Natural Resources Wales	May 2024	Quarterly
Local Authority Landfill Coverage		
Carmarthenshire County Council	February 2003	Not Applicable
Local Authority Recorded Landfill Sites		
Carmarthenshire County Council	October 2018	
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	
Registered Landfill Sites		
Environment Agency Wales - South West Area	March 2006	Not Applicable
Registered Waste Transfer Sites		
Environment Agency Wales - South West Area	April 2018	
Registered Waste Treatment or Disposal Sites		
Environment Agency Wales - South West Area	June 2015	
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	January 2024	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements		
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Variable
Carmarthenshire County Council - Area Planning Office (South Area)	February 2016	Variable
Carmarthenshire County Council - Environment Department (West Area)	February 2016	Variable
Planning Hazardous Substance Consents		
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Variable
Carmarthenshire County Council - Area Planning Office (South Area)	February 2016	Variable
Carmarthenshire County Council - Environment Department (West Area)	February 2016	Variable

Data Currency

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

Data Currency

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2024	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2024	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	June 2024	Quarterly
Points of Interest - Education and Health PointX	June 2024	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2024	Quarterly
Points of Interest - Public Infrastructure PointX	June 2024	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2024	Quarterly
Underground Electrical Cables National Grid	January 2024	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	April 2024	Bi-Annually
Areas of Adopted Green Belt Carmarthenshire County Council	February 2024	Quarterly
Areas of Unadopted Green Belt Carmarthenshire County Council	February 2024	Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	May 2024	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Carmarthenshire County Council	February 2024	Bi-Annually
Marine Nature Reserves Natural Resources Wales	February 2024	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2024	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 April 2024	Bi-Annually
Ramsar Sites Natural Resources Wales	February 2024	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	October 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	April 2024	Bi-Annually
Special Protection Areas Natural Resources Wales	April 2024	Bi-Annually

Data Suppliers

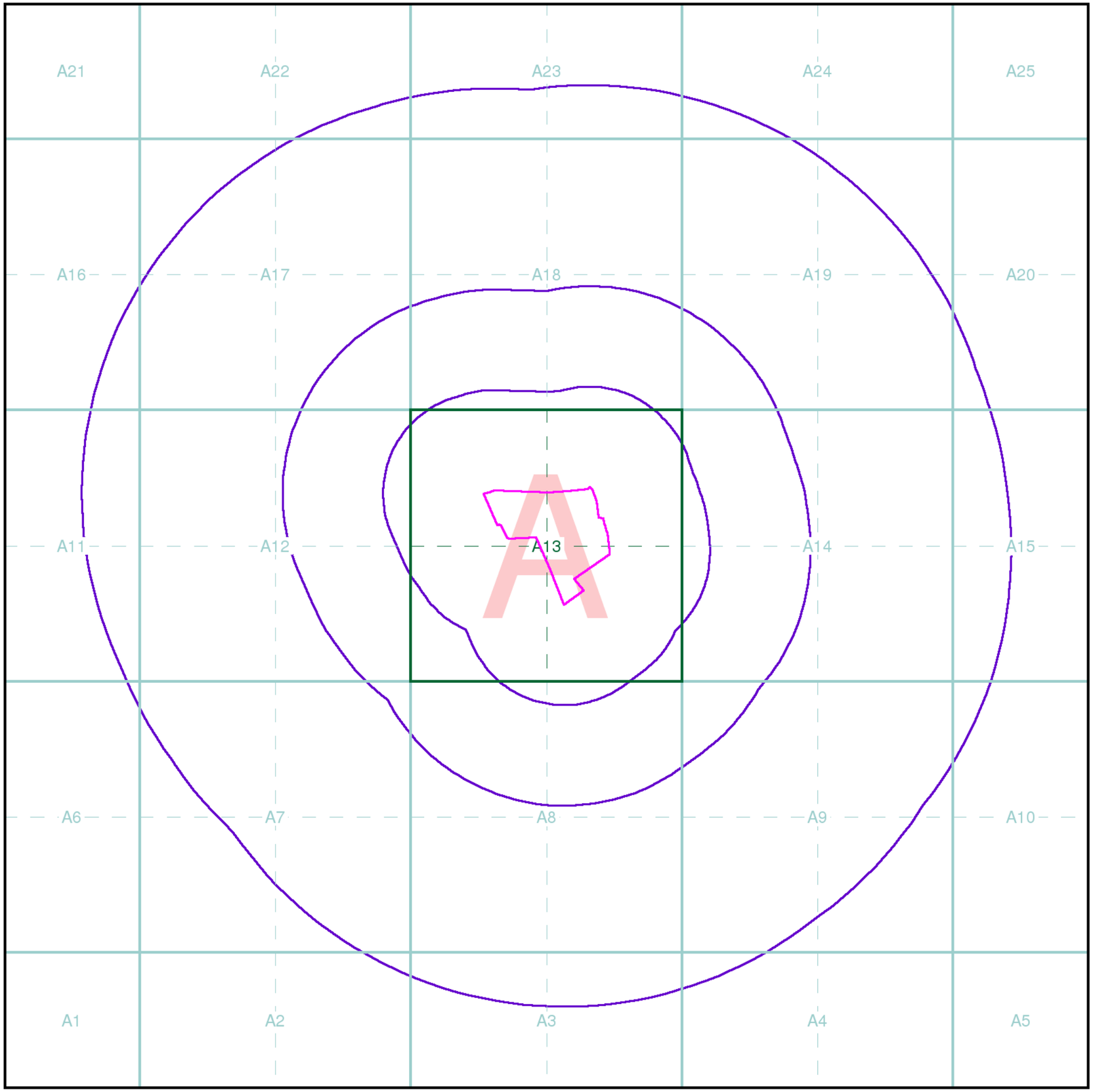
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Useful Contacts

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

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



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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:

Map data

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Cyfoeth Naturiol Cymru
Natural Resources Wales

Envirocheck reports are compiled from 136 different sources of data.

Client Details
Ms R Howells (Liley), TFW Group Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227460, 216350
Site Area (Ha):	4.74
Search Buffer (m):	1000

Site Details
Site at, St Clears/Sancler, Carmarthenshire

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

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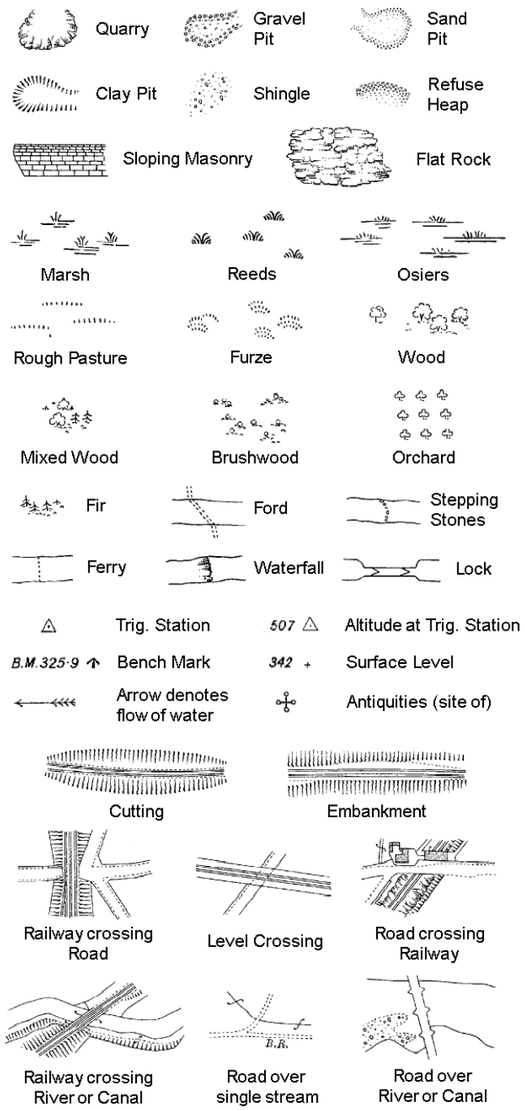
Historical Mapping Legends

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



County Boundary (Geographical)

County & Civil Parish Boundary

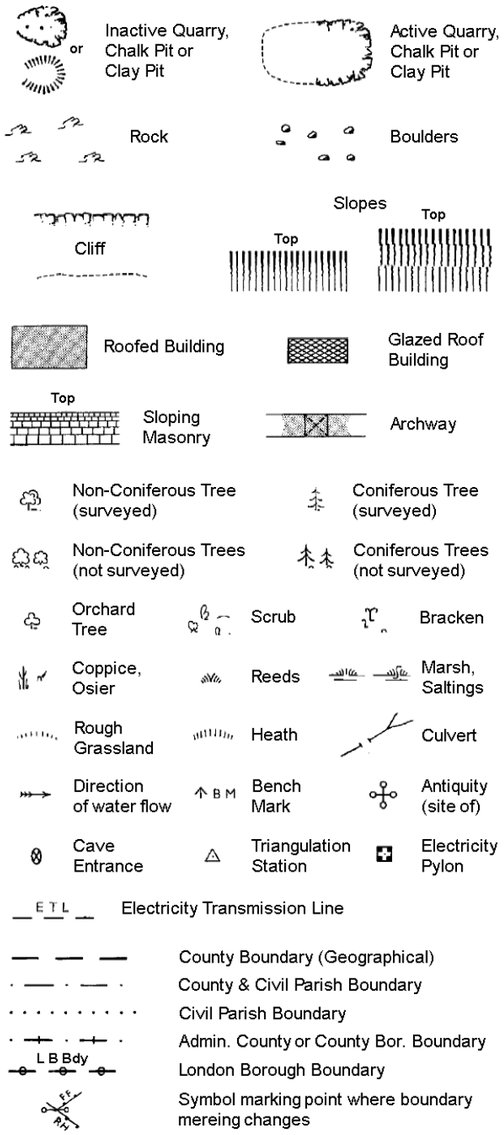
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

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



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

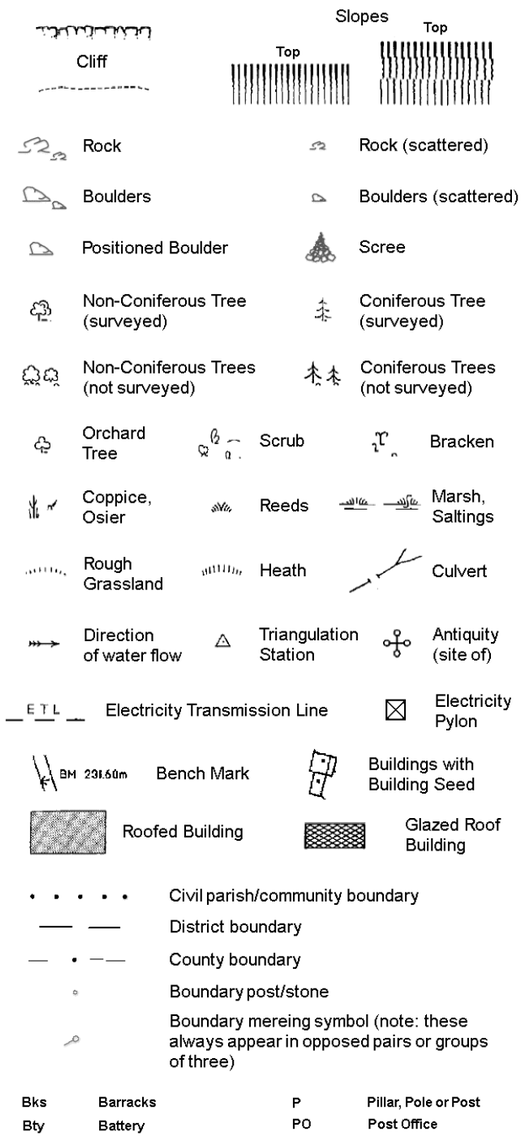
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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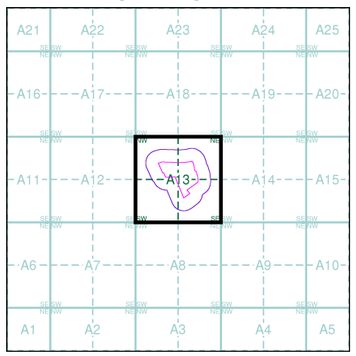
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Carmarthenshire	1:2,500	1889	2
Carmarthenshire	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1971	4
Additional SIMs	1:2,500	1981	5
Additional SIMs	1:2,500	1993	6
Large-Scale National Grid Data	1:2,500	1995	7
Large-Scale National Grid Data	1:2,500	1996	8
Historical Aerial Photography	1:2,500	2000	9

Historical Map - Segment A13



Order Details

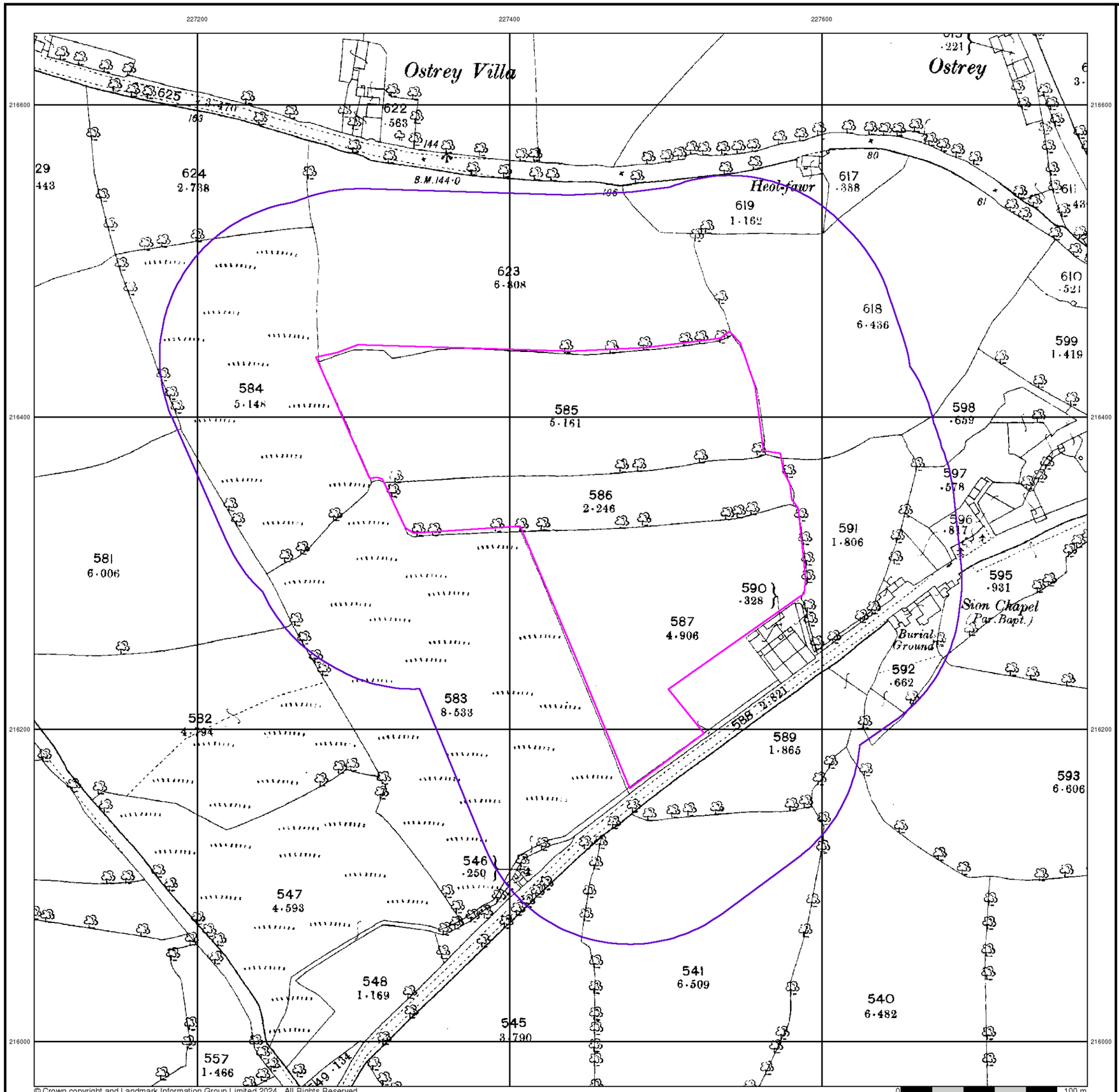
Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

Landmark INFORMATION GROUP

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



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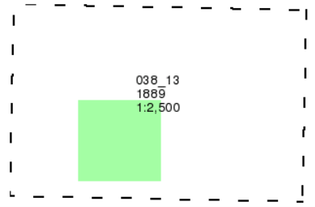
Carmarthenshire

Published 1889

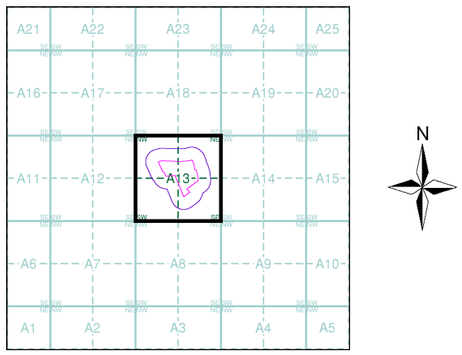
Source map scale - 1:2,500

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)



Historical Map - Segment A13



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Slice:	A
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Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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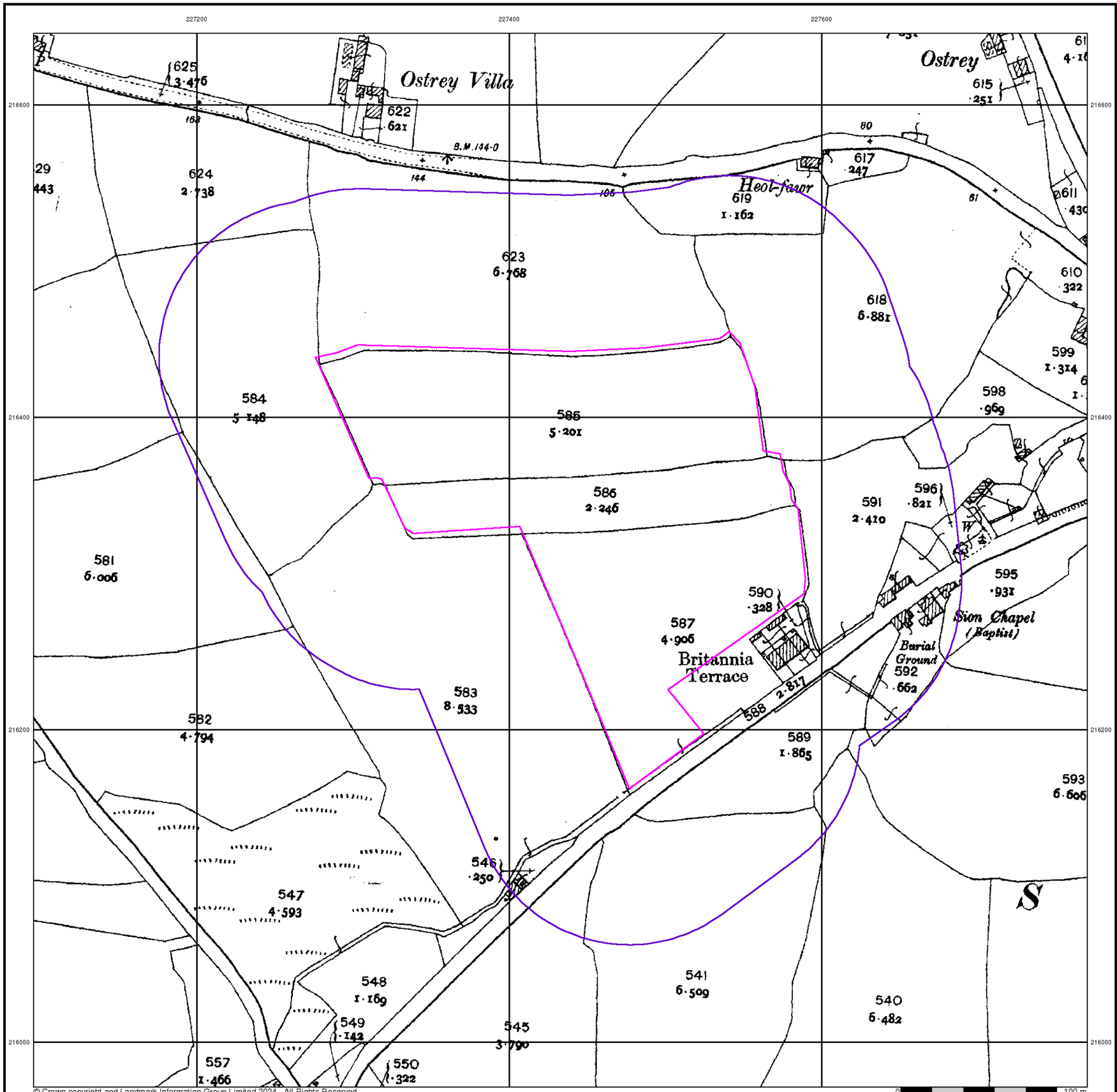

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Carmarthenshire

Published 1906

Source map scale - 1:2,500

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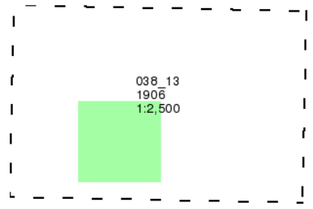
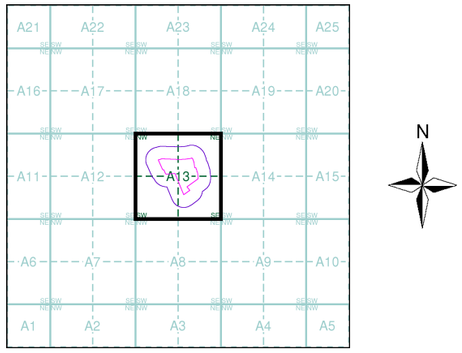
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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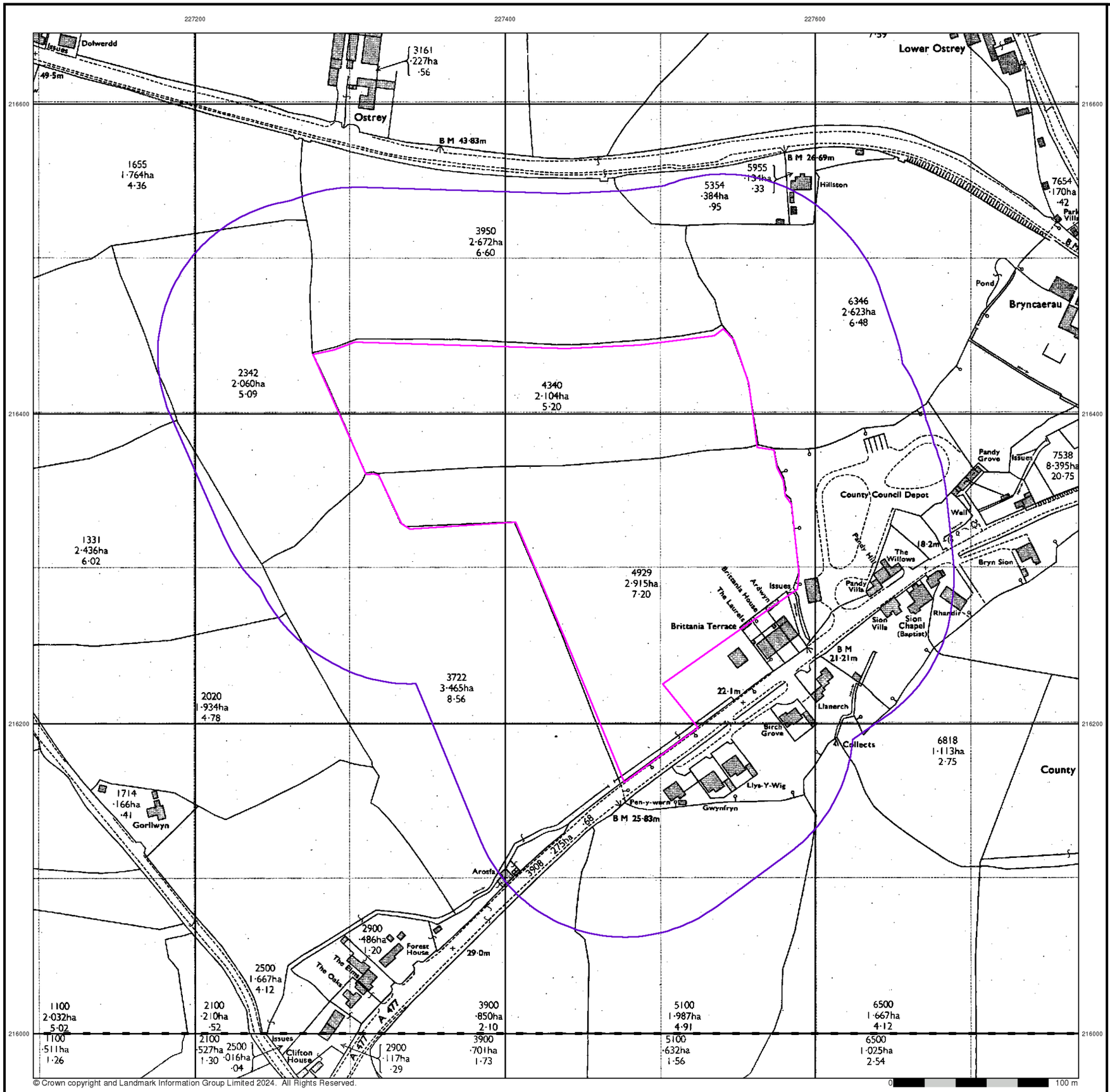

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Ordnance Survey Plan

Published 1971

Source map scale - 1:2,500

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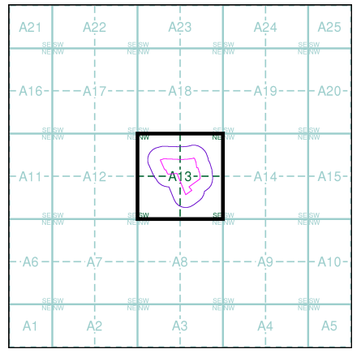
Map Name(s) and Date(s)

SN2716
1971
1:2,500

SN2715
1971
1:2,500

Historical Map - Segment A13



Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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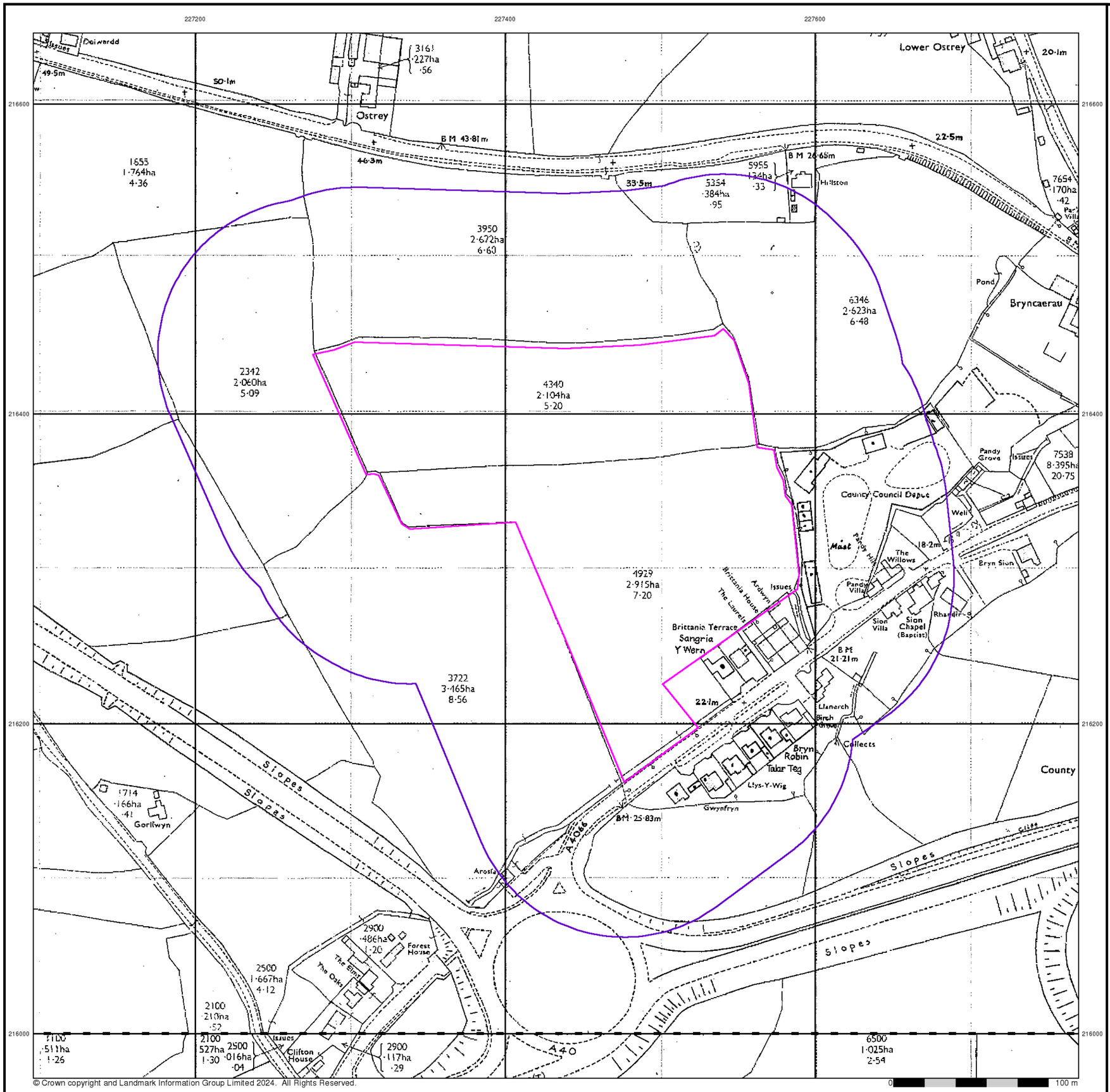

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Additional SIMs

Published 1981

Source map scale - 1:2,500

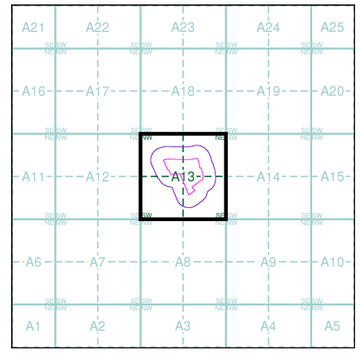
The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps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

Map Name(s) and Date(s)

SN2716
1981
1:2,500

SN2715
1981
1:2,500

Historical Map - Segment A13



Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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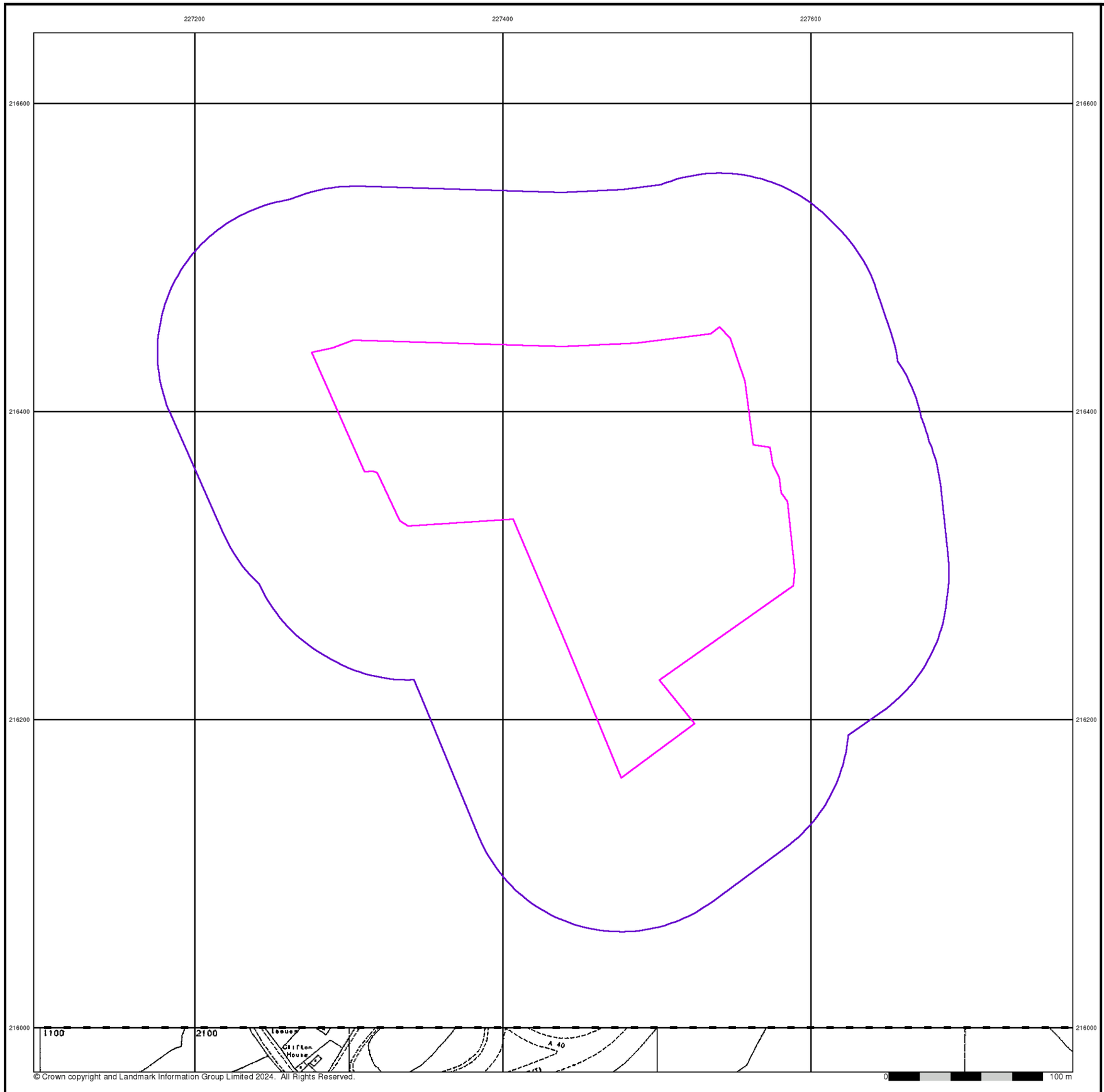

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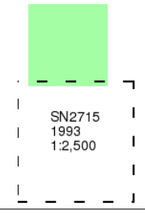
Additional SIMs

Published 1993

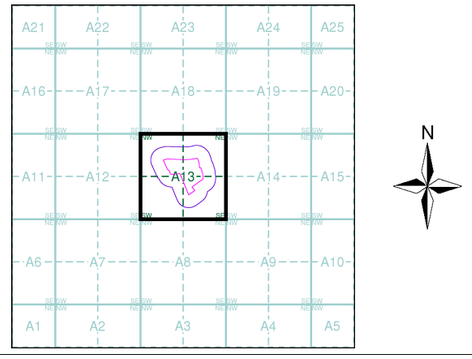
Source map scale - 1:2,500

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



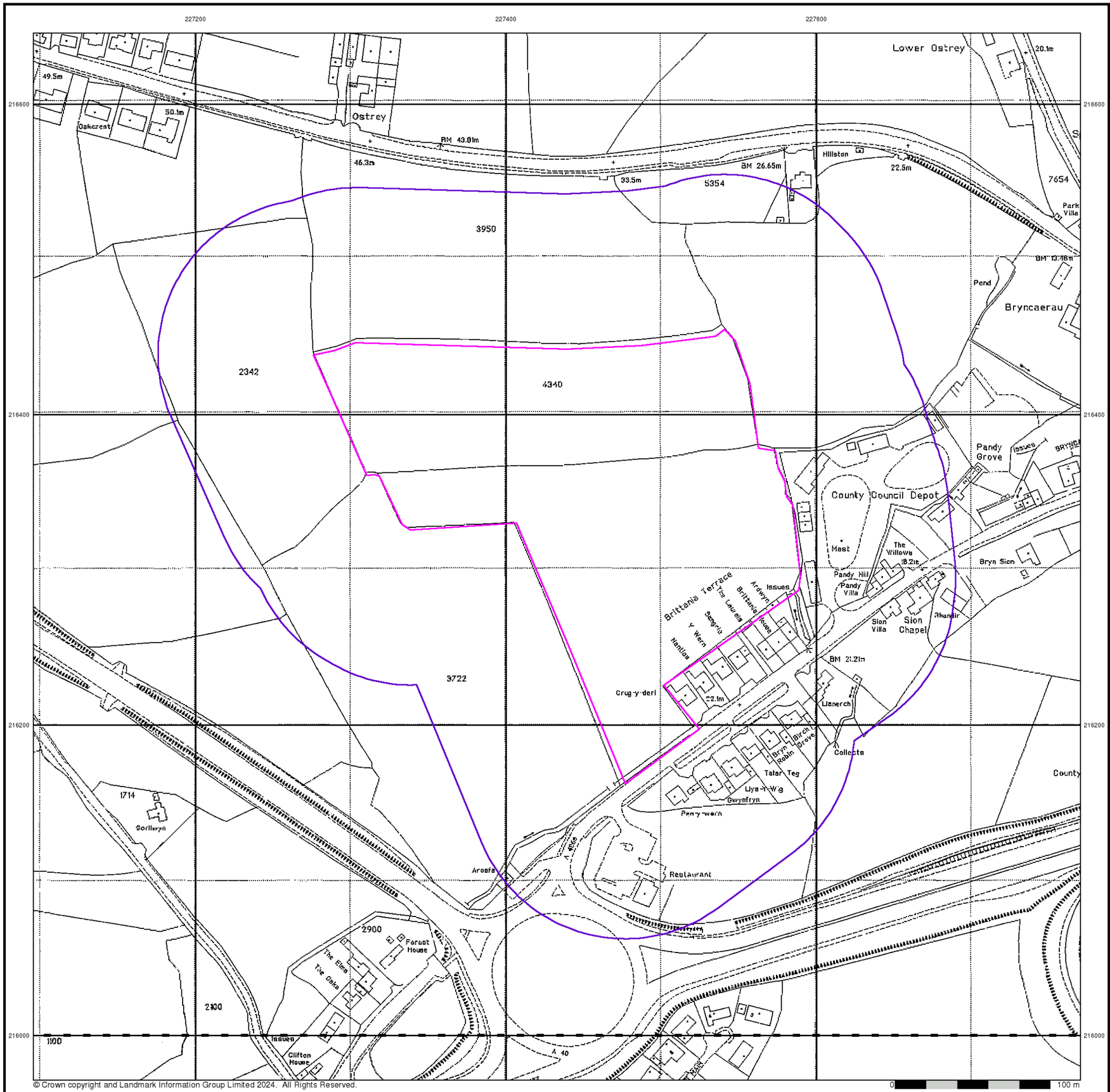
Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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



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Large-Scale National Grid Data

Published 1995

Source map scale - 1:2,500

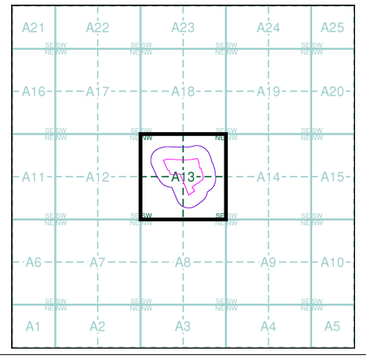
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic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

Map Name(s) and Date(s)

SN2716
1995
1:2,500

SN2715
1995
1:2,500

Historical Map - Segment A13



Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

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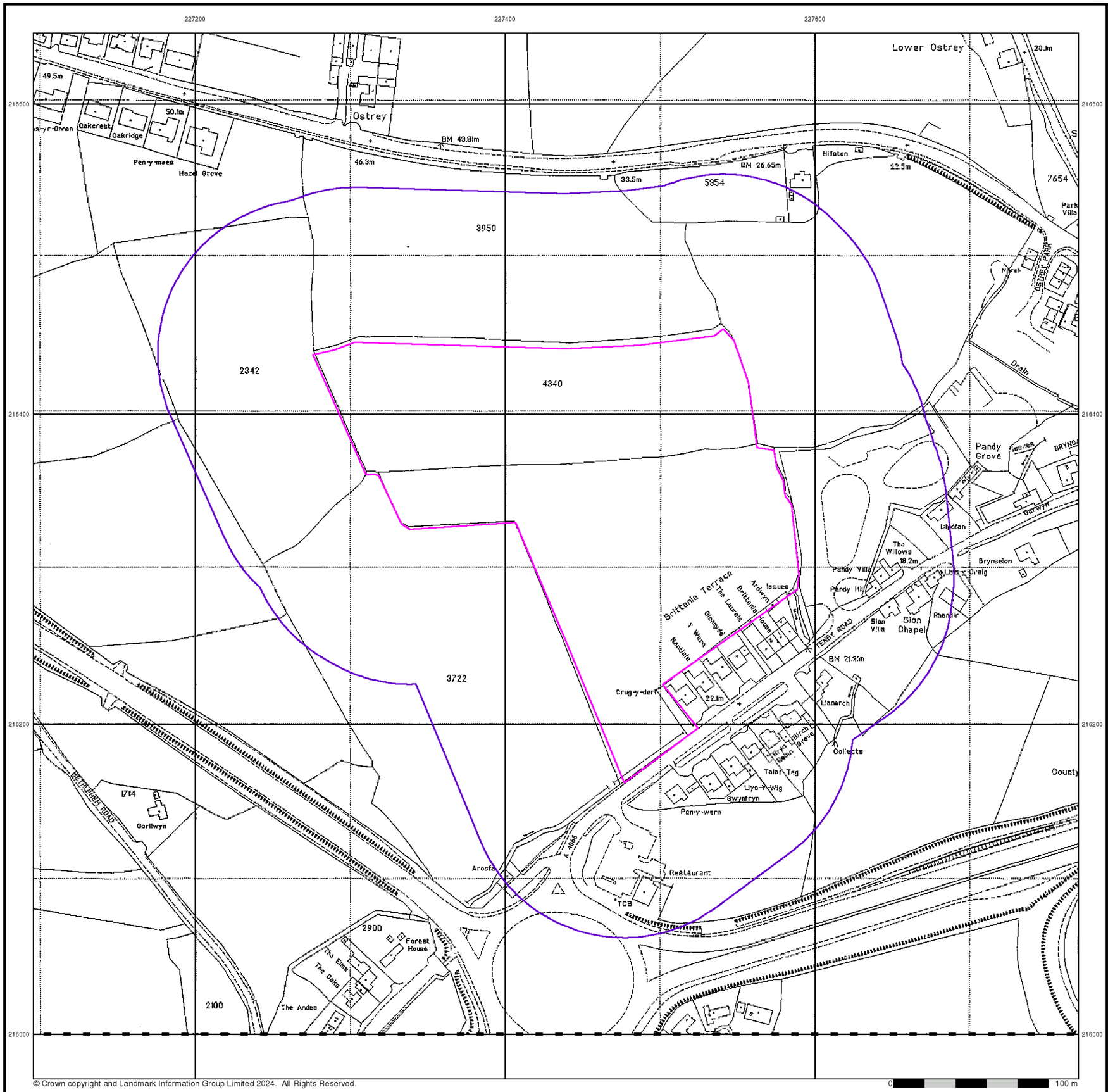

0 100 m

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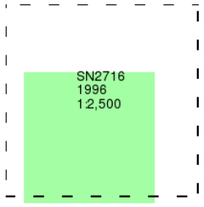
Large-Scale National Grid Data

Published 1996

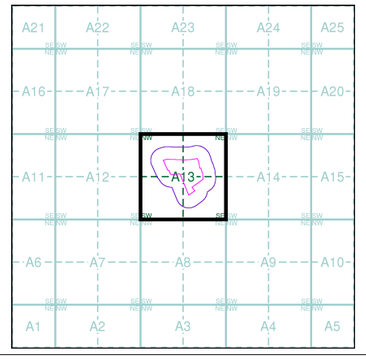
Source map scale - 1:2,500

'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)



Historical Map - Segment A13



Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	100

Site Details

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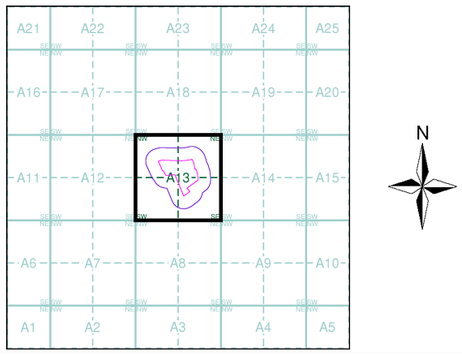
Historical Aerial Photography

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

Historical Aerial Photography - Segment A13



Order Details

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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
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
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
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. 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
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
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
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
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
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m 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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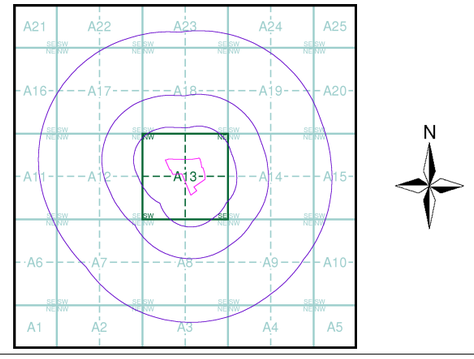
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Carmarthenshire	1:10,560	1888	2
Carmarthenshire	1:10,560	1907	3
Carmarthenshire	1:10,560	1953	4
Ordnance Survey Plan	1:10,000	1964	5
Ordnance Survey Plan	1:10,000	1973 - 1974	6
Ordnance Survey Plan	1:10,000	1991	7
10K Raster Mapping	1:10,000	2000	8
10K Raster Mapping	1:10,000	2006	9
VectorMap Local	1:10,000	2024	10

Historical Map - Slice A



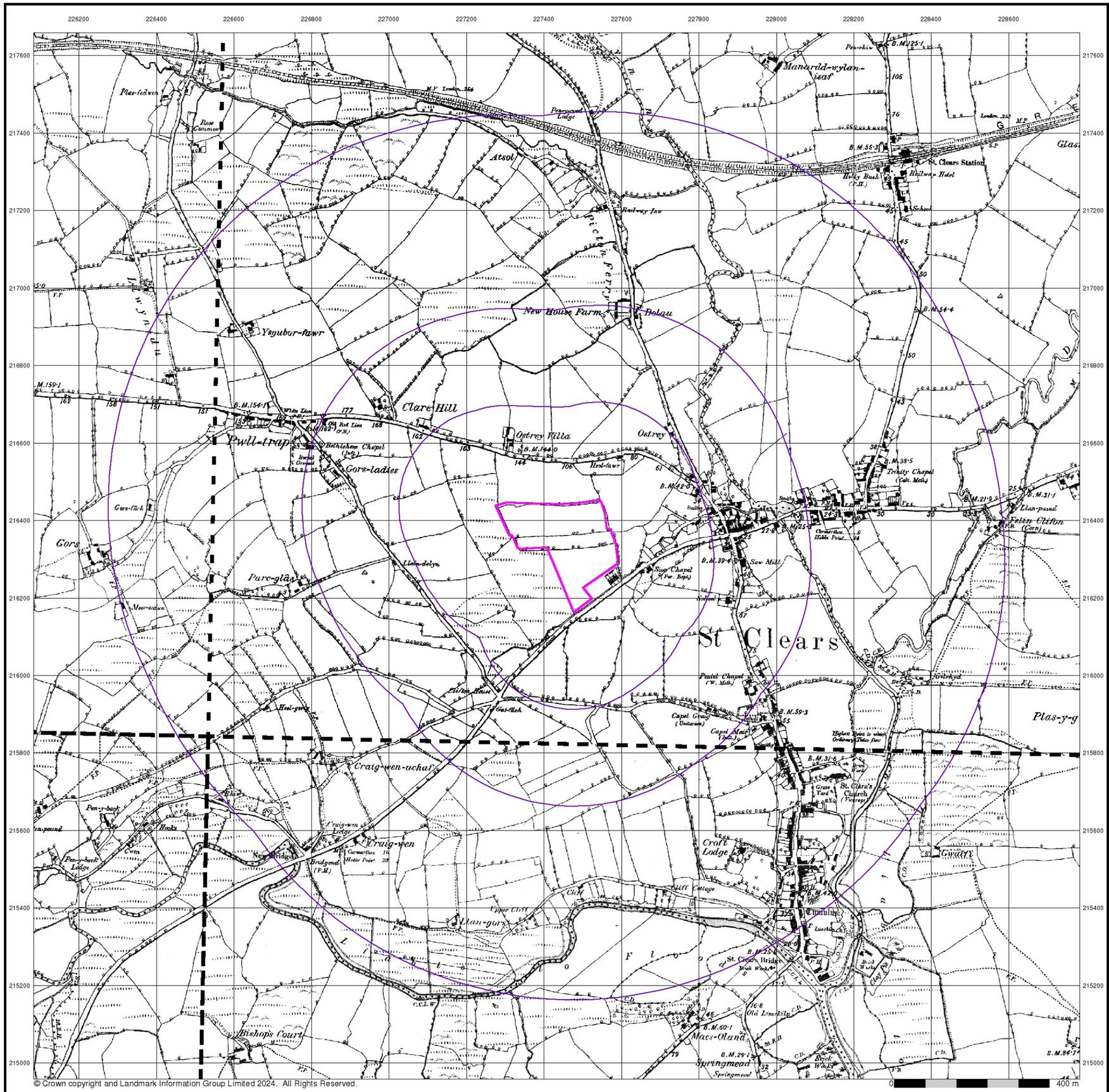
Order Details

Order Number:	351548027_1_1
Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	1000

Site Details

Site at, St Clears/Sancler, Carmarthenshire

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



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Carmarthenshire

Published 1888

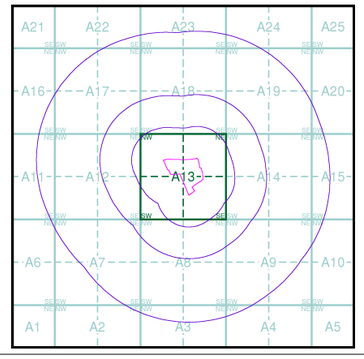
Source map scale - 1:10,560

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)

037SE 1888 1:10,560	038SW 1888 1:10,560
044NE 1888 1:10,560	045NW 1888 1:10,560

Historical Map - Slice A



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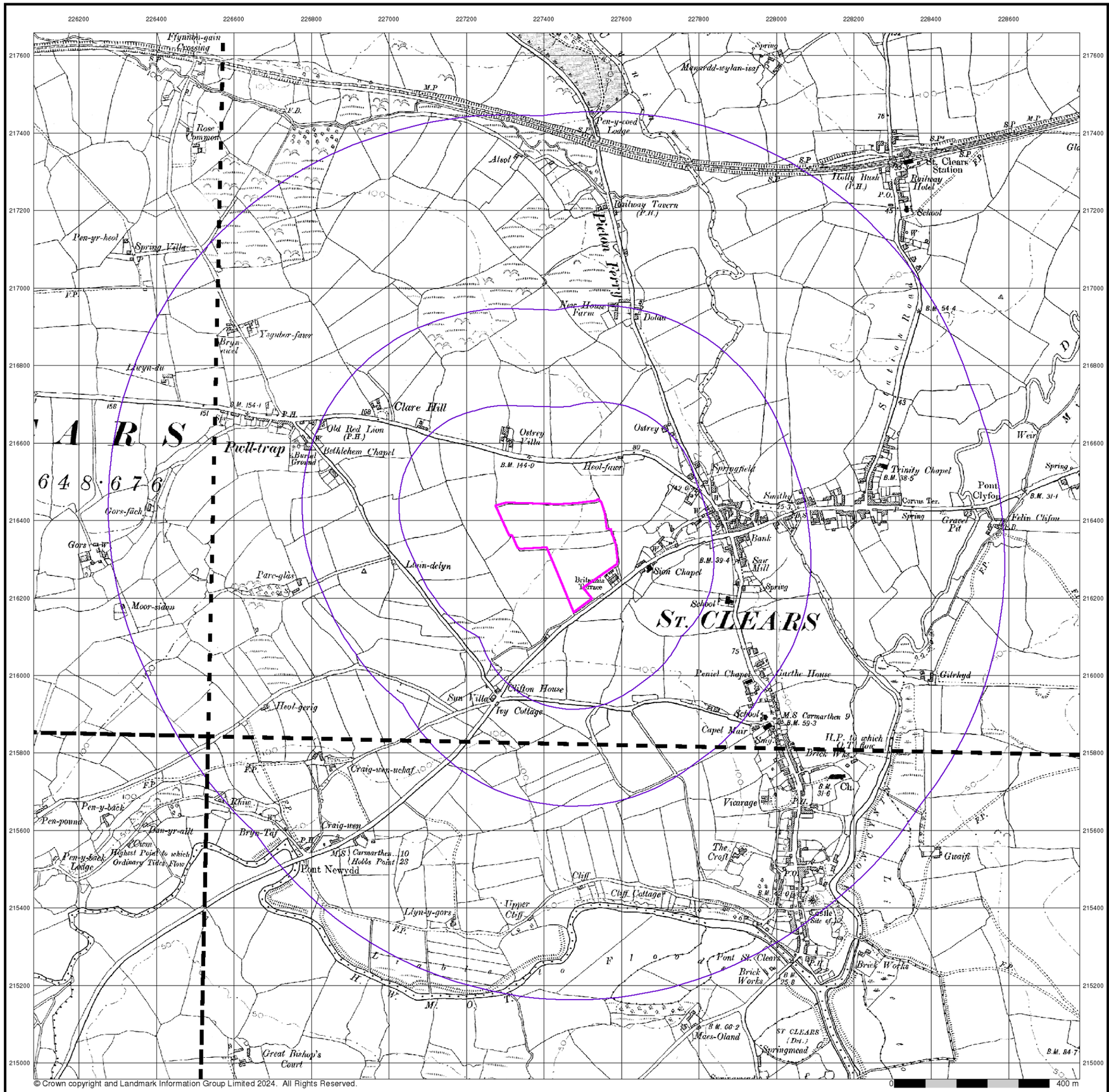

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Carmarthenshire

Published 1907

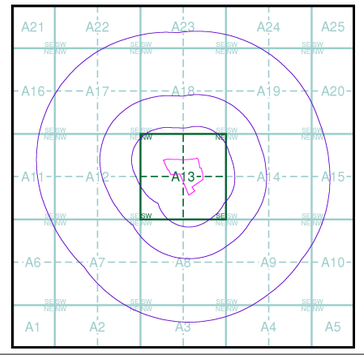
Source map scale - 1:10,560

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)

037SE 1907 1:10,560	038SW 1907 1:10,560
044NE 1907 1:10,560	045NW 1907 1:10,560

Historical Map - Slice A



Order Details

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Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	1000

Site Details

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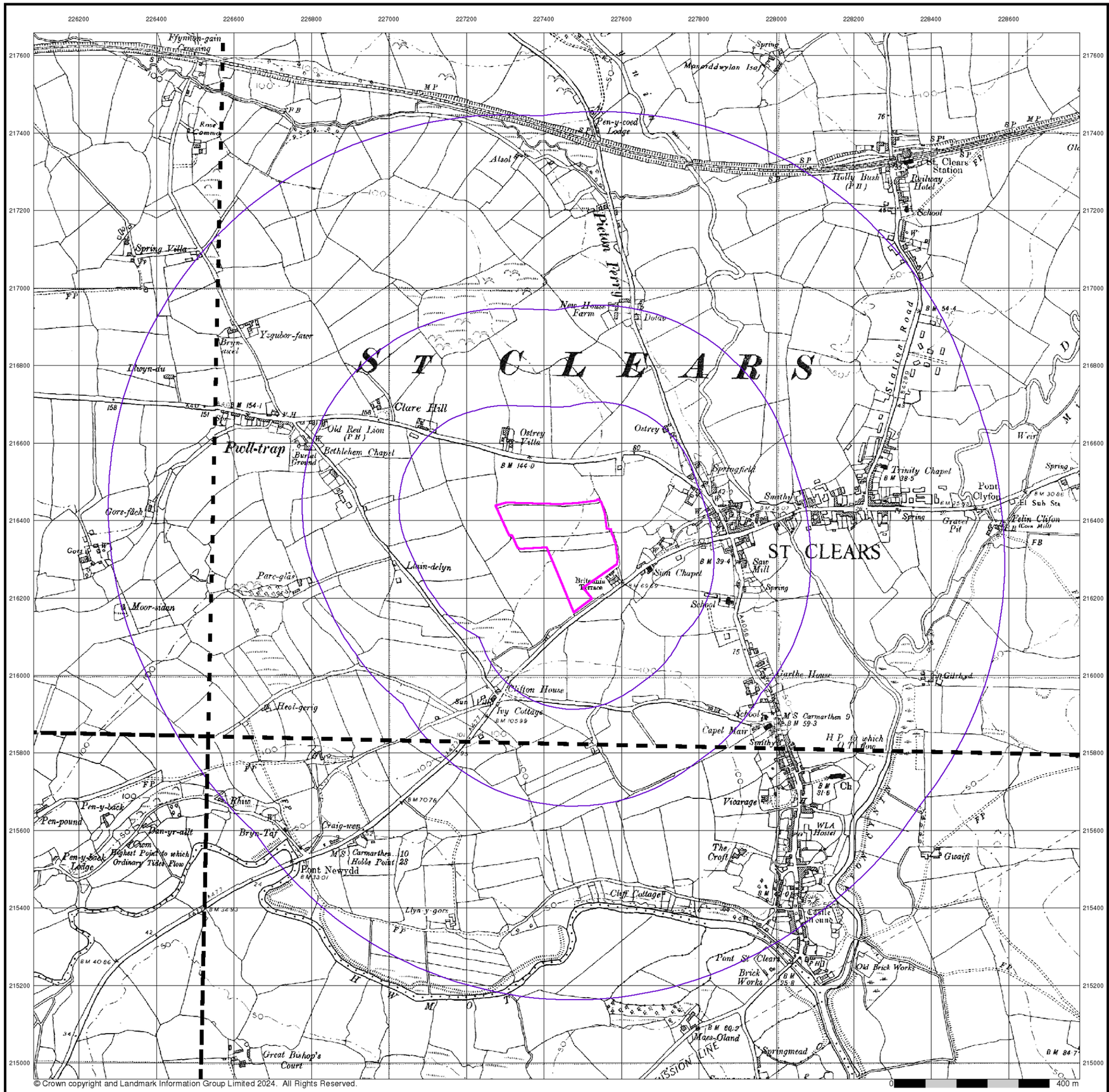

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Carmarthenshire

Published 1953

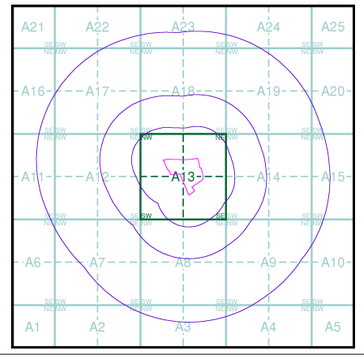
Source map scale - 1:10,560

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)

037SE 1953 1:10,560	038SW 1953 1:10,560
044NE 1953 1:10,560	045NW 1953 1:10,560

Historical Map - Slice A



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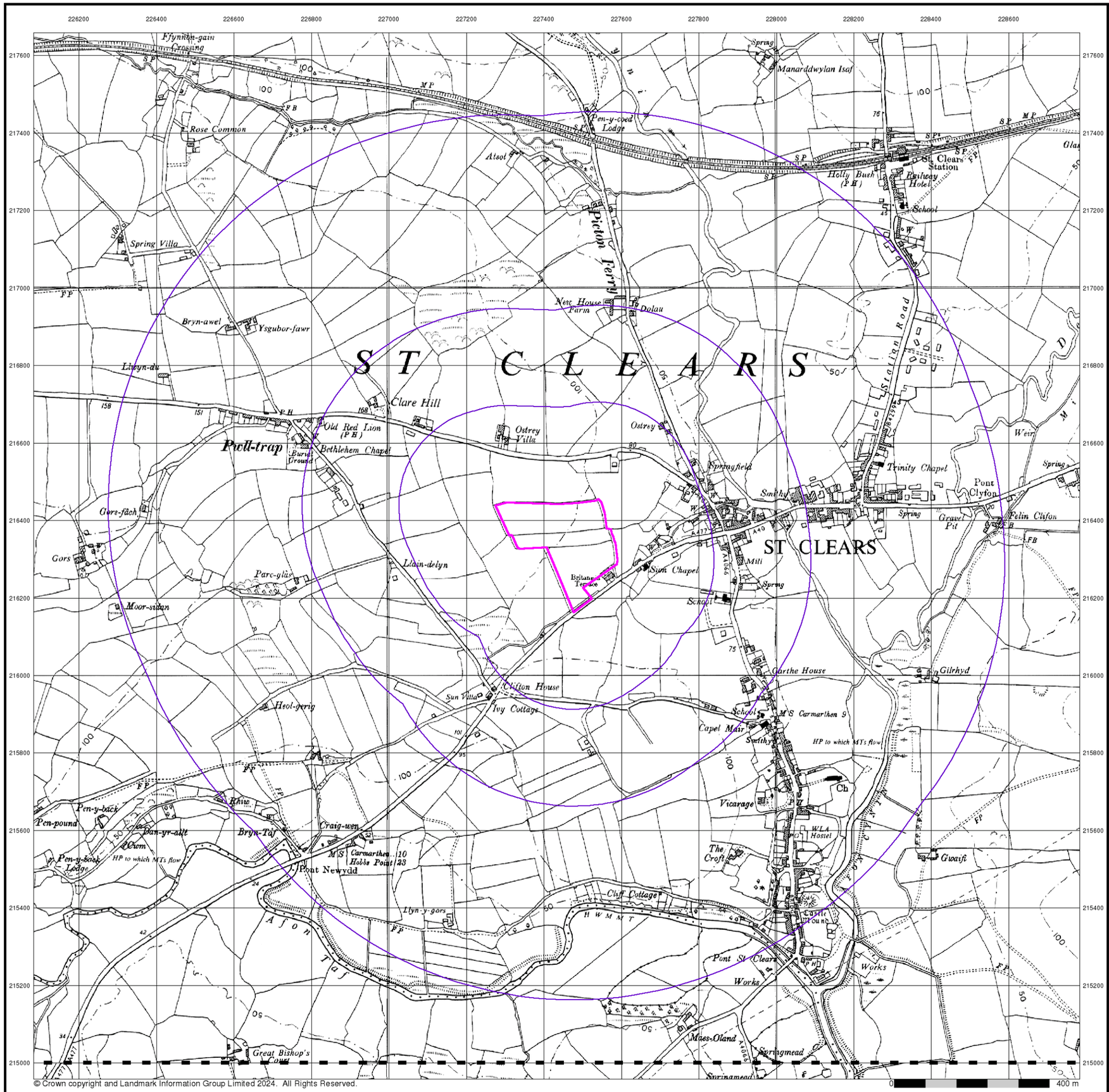

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Ordnance Survey Plan

Published 1964

Source map scale - 1:10,000

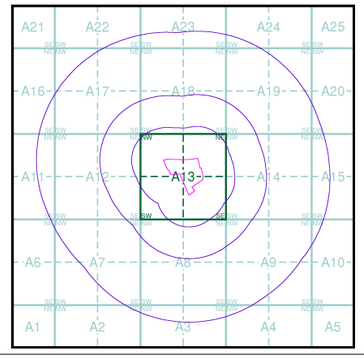
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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)

SN21NE
1964
1:10,560

SN21SE
1964
1:10,560

Historical Map - Slice A



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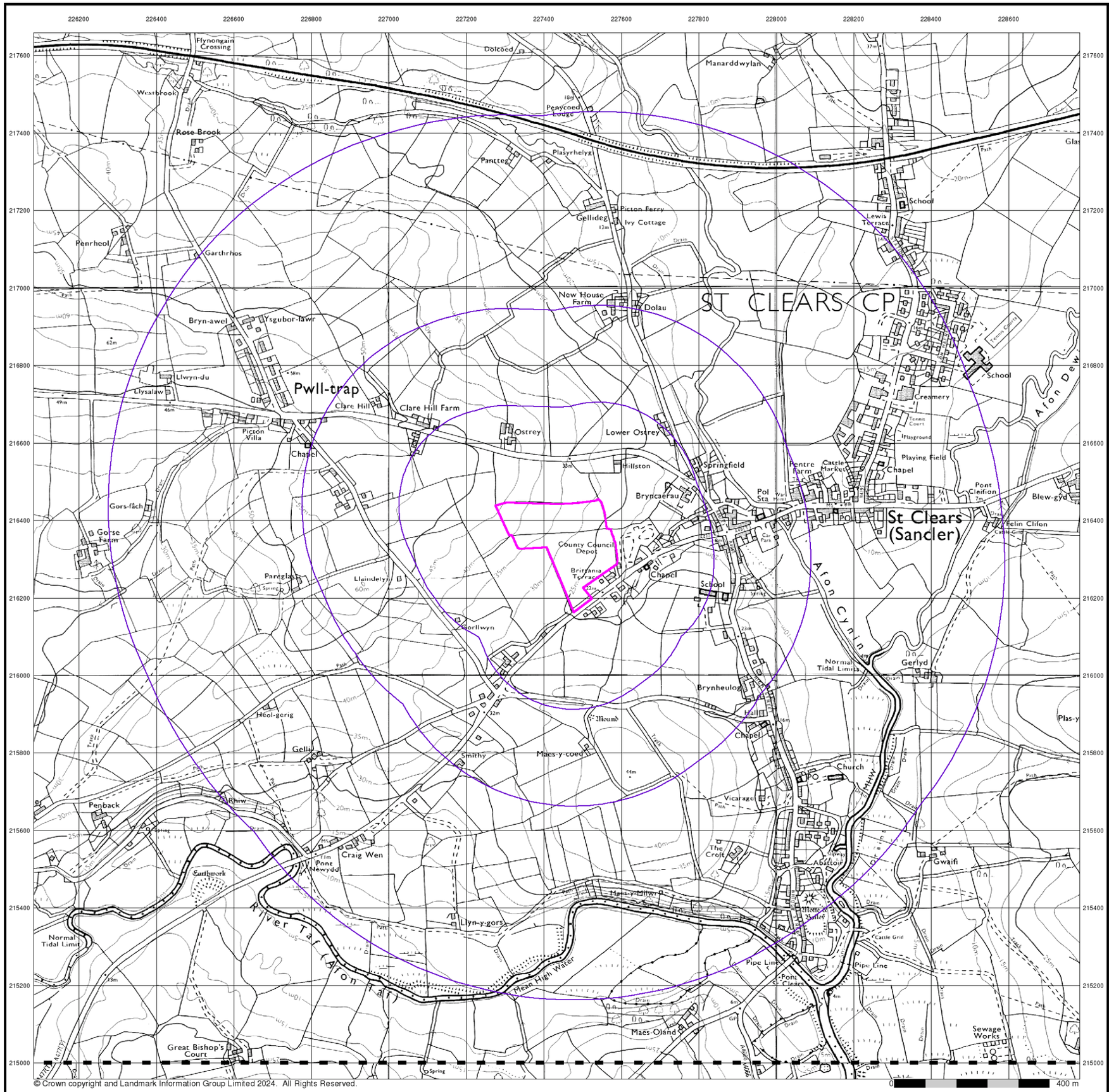

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Ordnance Survey Plan

Published 1973 - 1974

Source map scale - 1:10,000

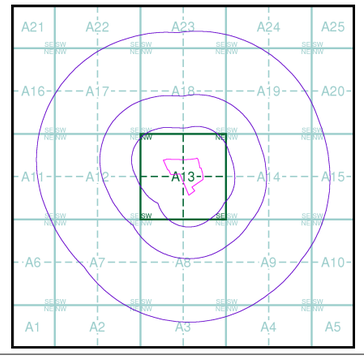
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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)

SN21NE
1974
1:10,000

SN21SE
1973
1:10,000

Historical Map - Slice A



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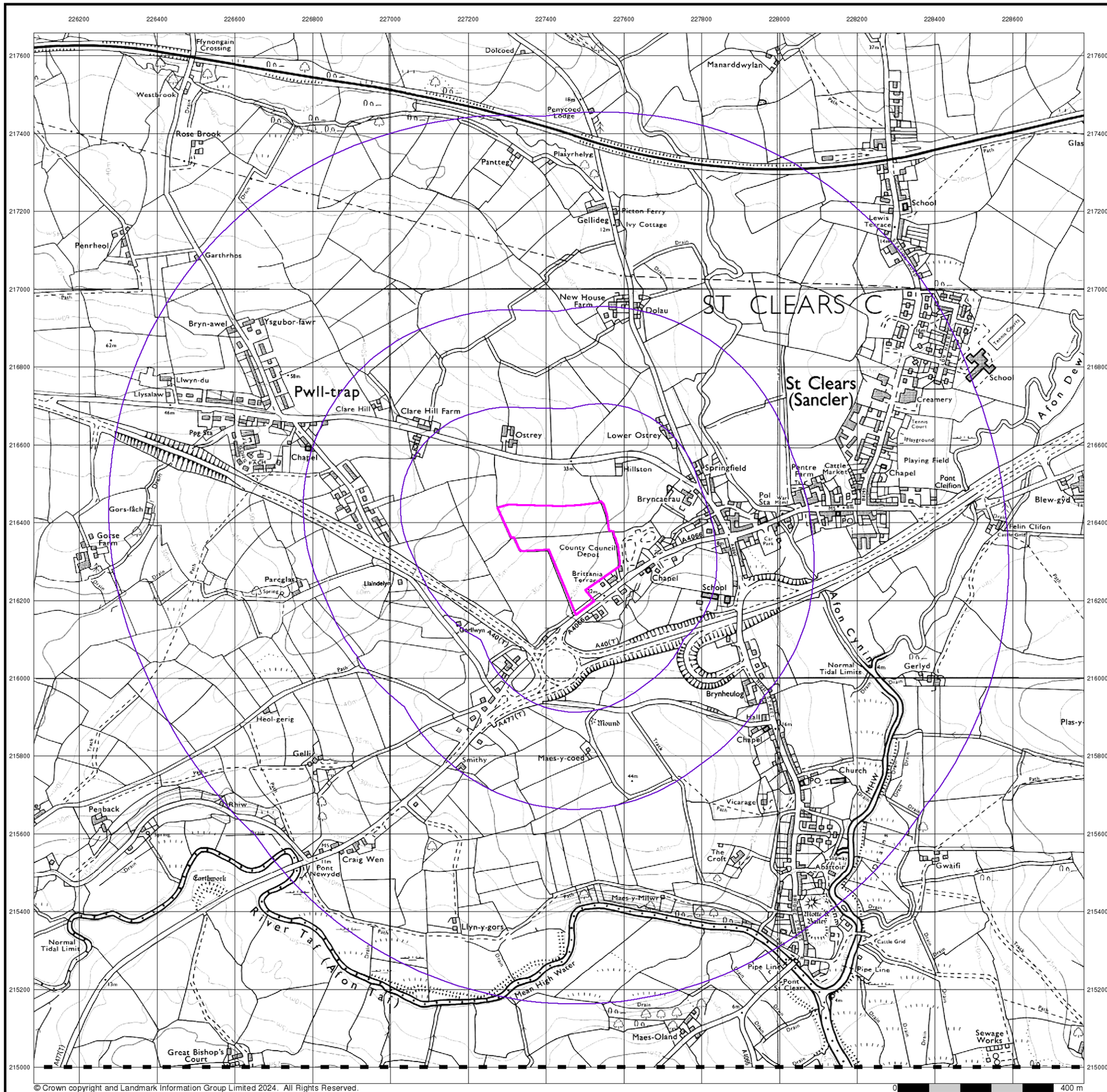

0 400 m

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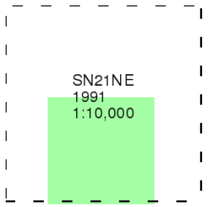
Ordnance Survey Plan

Published 1991

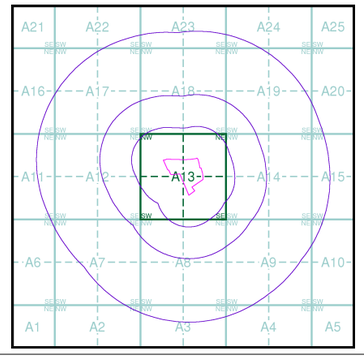
Source map scale - 1:10,000

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



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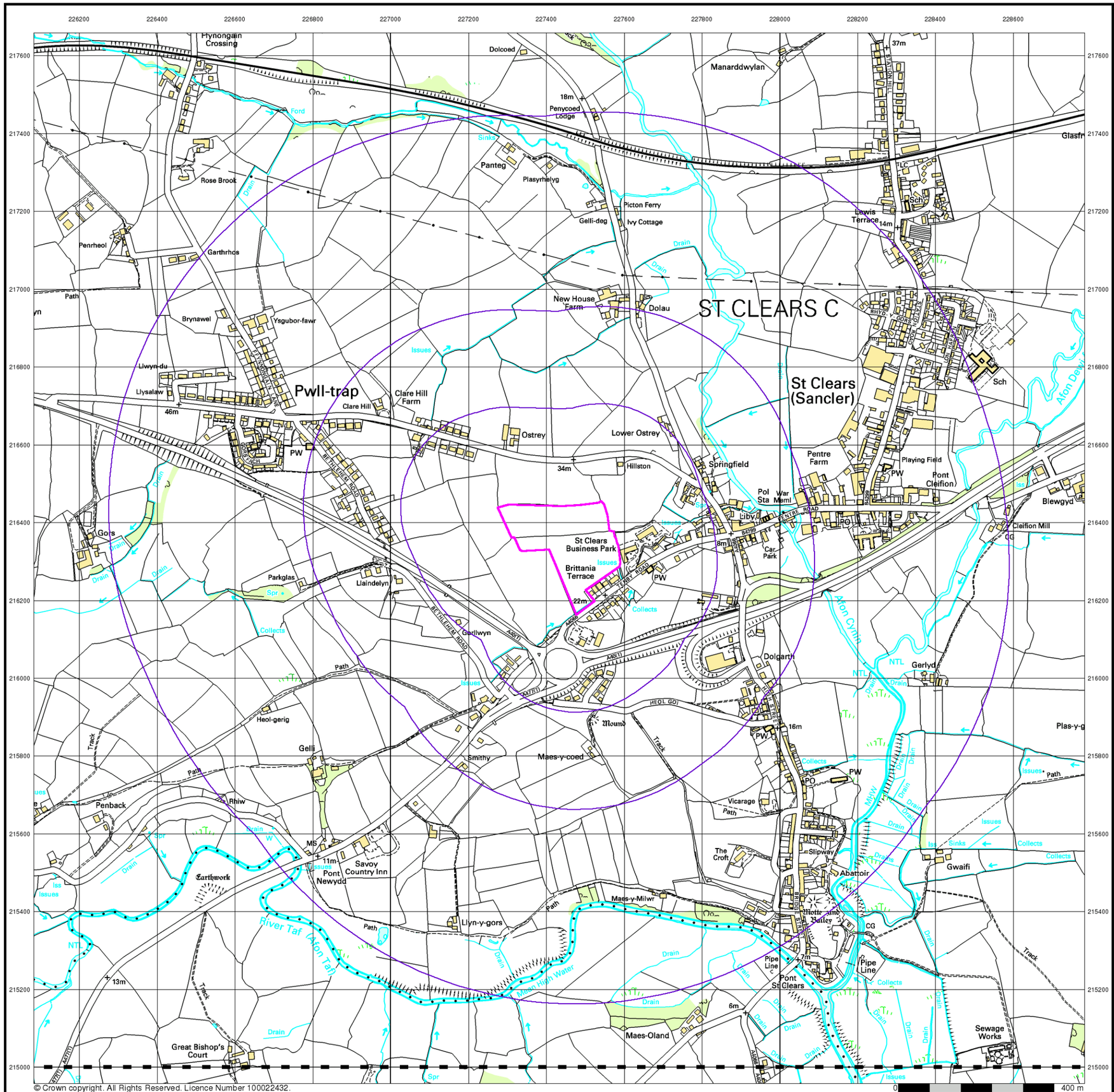

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10k Raster Mapping

Published 2000

Source map scale - 1:10,000

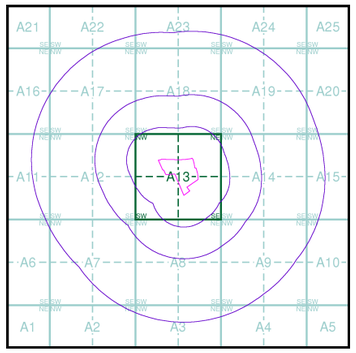
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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)

SN21NE
2000
1:10,000

SN21SE
2000
1:10,000

Historical Map - Slice A



Order Details

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Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	1000

Site Details

Site at, St Clears/Sancler, Carmarthenshire

Landmark INFORMATION GROUP
Tel: 0844 844 9952
Fax: 0844 844 9951
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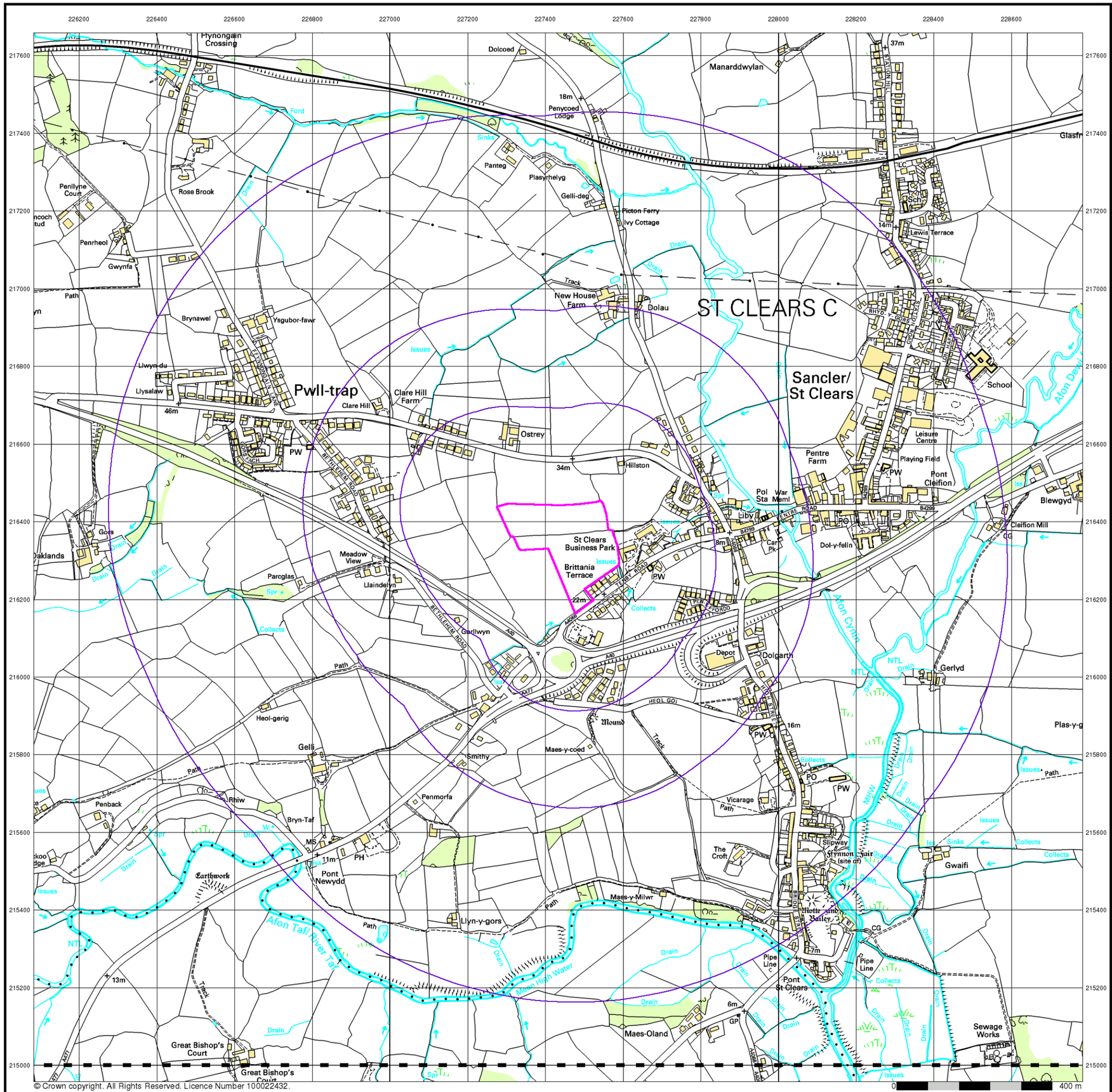

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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

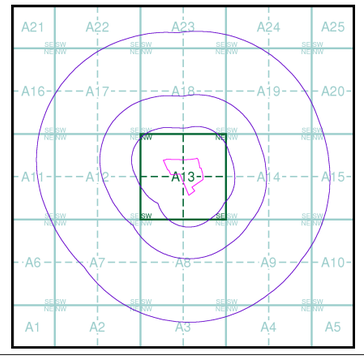
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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)

SN21NE
2006
1:10,000

SN21SE
2006
1:10,000

Historical Map - Slice A



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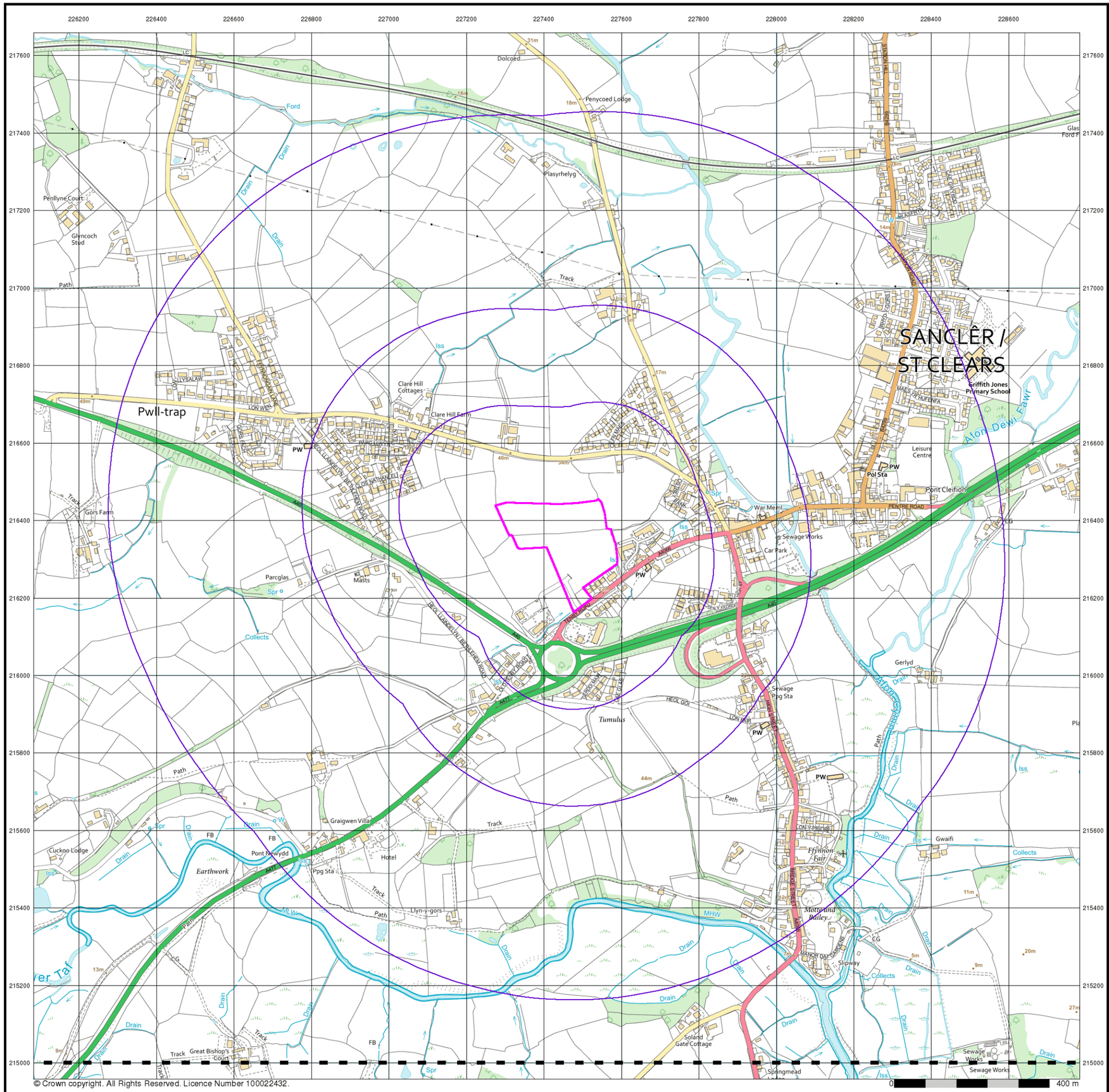

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VectorMap Local

Published 2024

Source map scale - 1:10,000

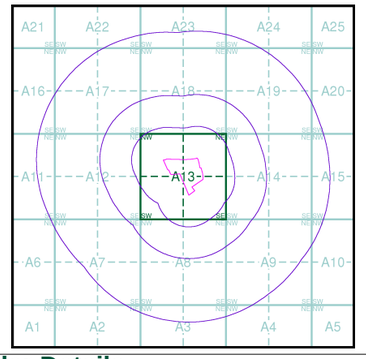
VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap 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)

SN21NE 2024 Variable

SN21SE 2024 Variable

Historical Map - Slice A



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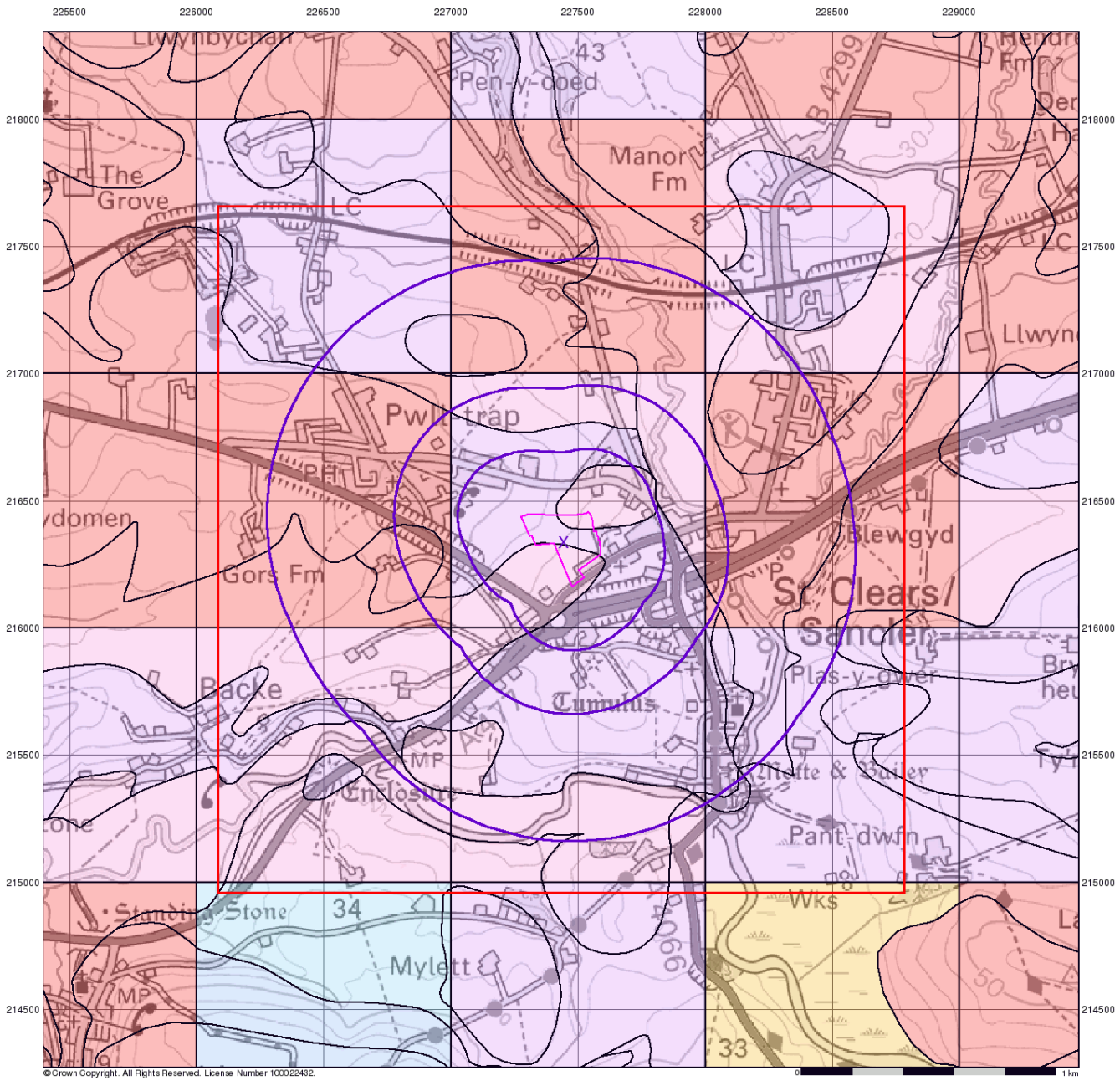

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Groundwater Vulnerability

General

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

Slice | Map ID

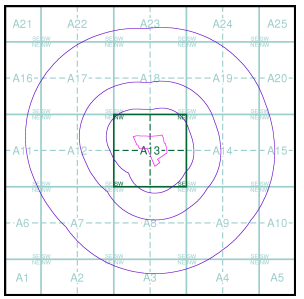
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



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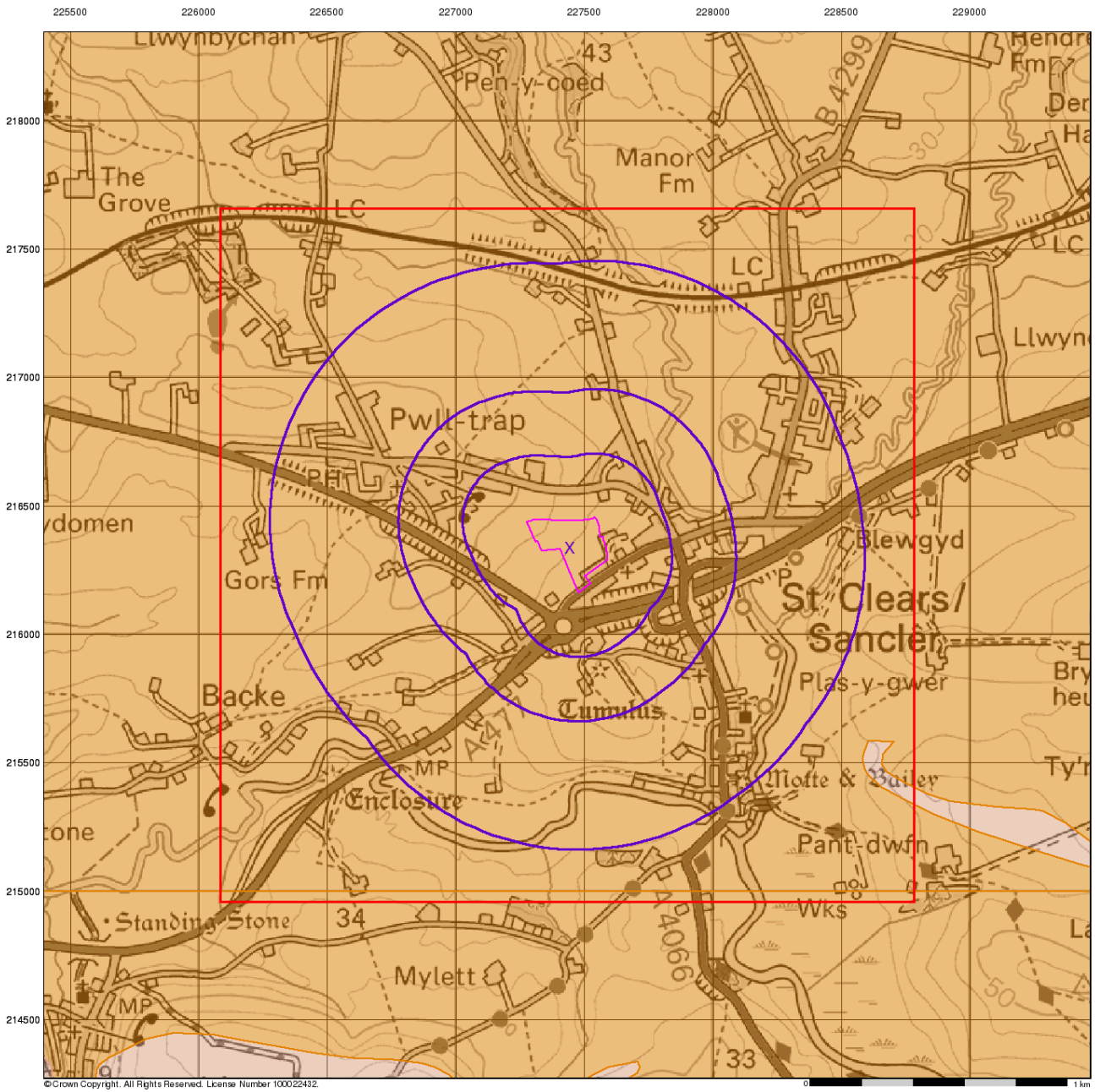

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Bedrock Aquifer Designation

General

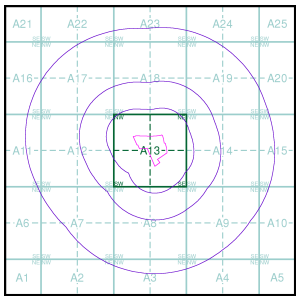
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

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



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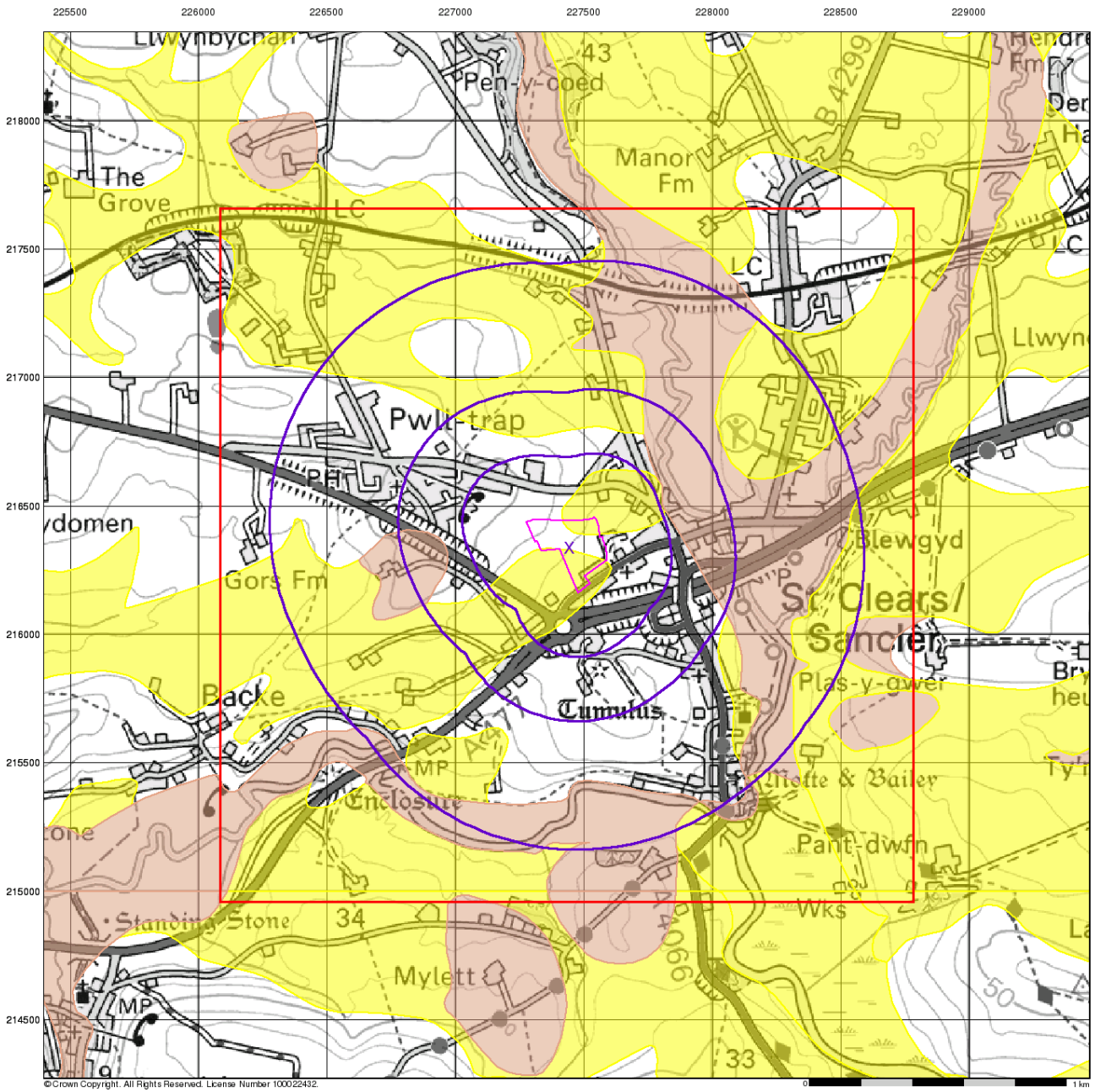

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Superficial Aquifer Designation

General

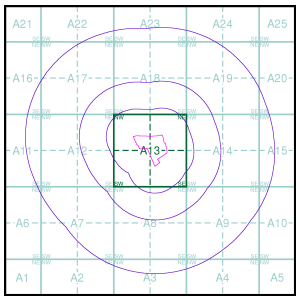
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

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



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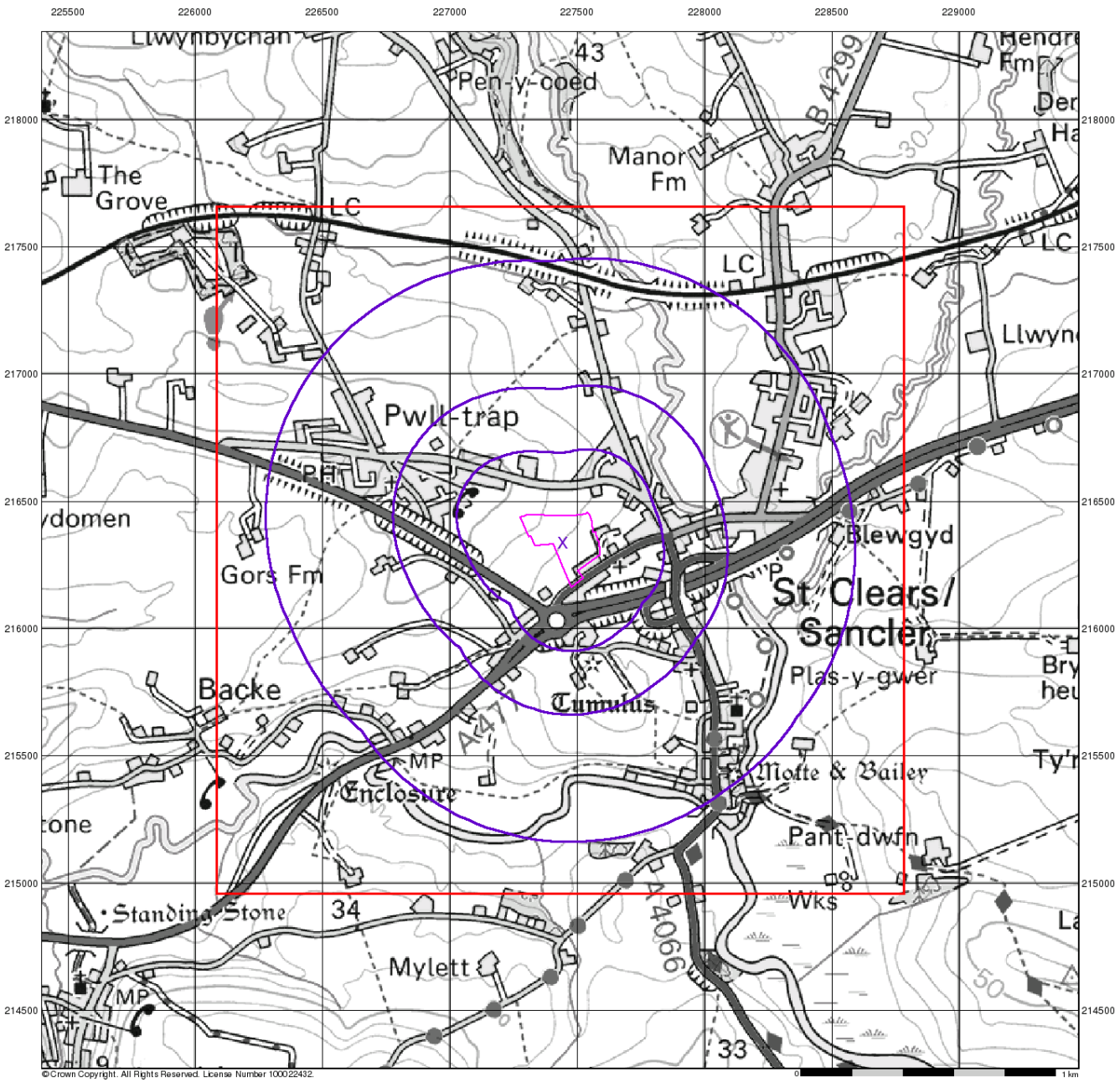

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Source Protection Zones

General

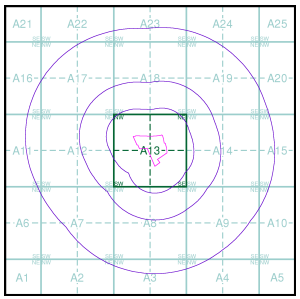
Specified Site | Specified Buffer(s) | Bearing Reference Point

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



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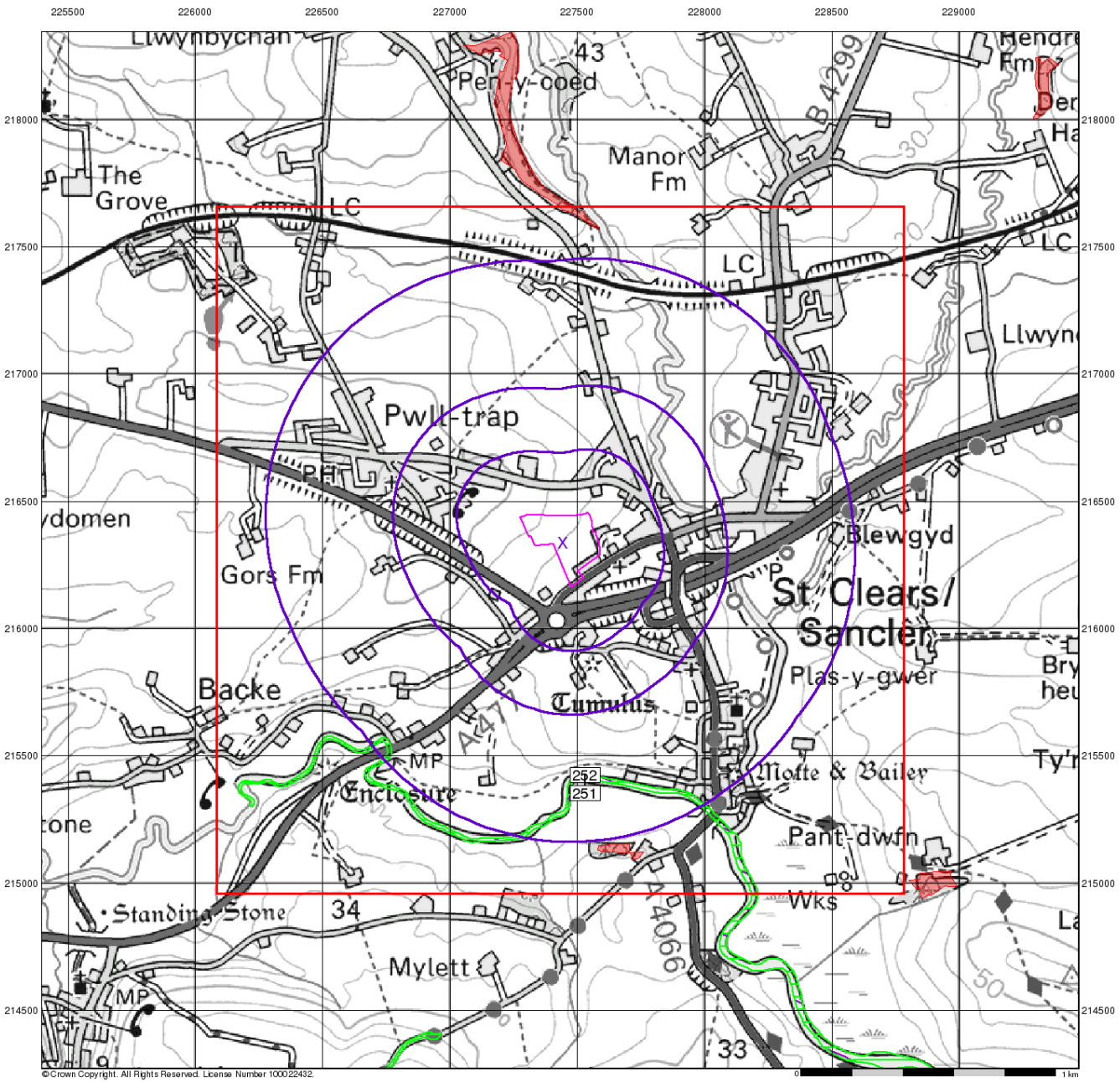

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Sensitive Land Uses

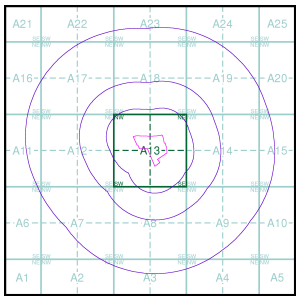
General

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



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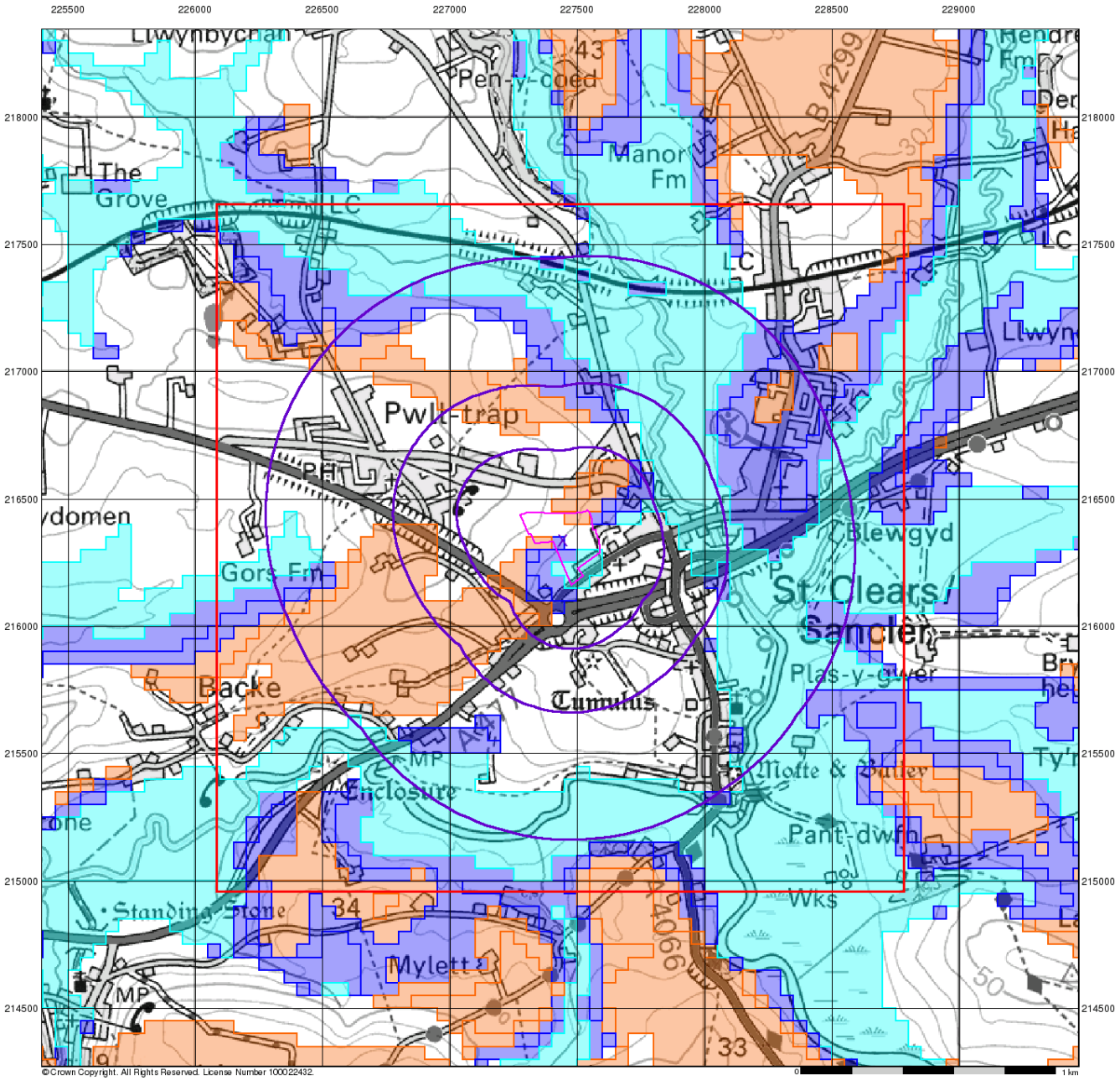

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BGS Flood GFS Data

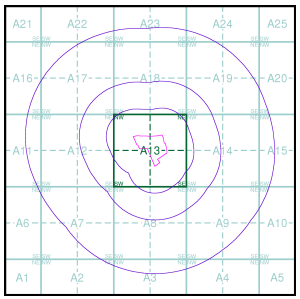
General

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



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Geology 1:50,000 Maps Legends

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
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SLR	Slade and Redhill Formation	Argillaceous Rocks and [Subequal/Subordinate] Sandstone, Interbedded	Not Supplied - Ashgill
	RWSL	Robeston Wathen Limestone and Sholeshook Limestone (Undifferentiated)	Limestone and [Subequal/Subordinate] Argillaceous Rocks, Interbedded	Not Supplied - Ashgill
	MYSH	Mydrim Shales Formation	Mudstone	Not Supplied - Caradoc
	DBB	Didymograptus Bifidus Beds	Mudstone	Not Supplied - Abereiddian
	LLF	Llandeilo Flags Formation	Limestone and [Subequal/Subordinate] Argillaceous Rocks, Interbedded	Not Supplied - Abereiddian
	DBB	Didymograptus Bifidus Beds	Tuffaceous-sandstone	Not Supplied - Abereiddian
	TTRA	Tetragraptus Beds	Mudstone	Not Supplied - Arenig
		Faults		

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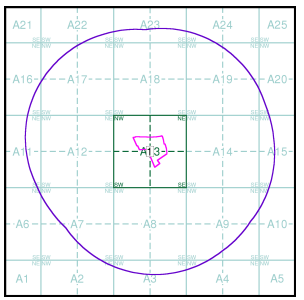
Geology 1:50,000 Maps

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



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Site Details:

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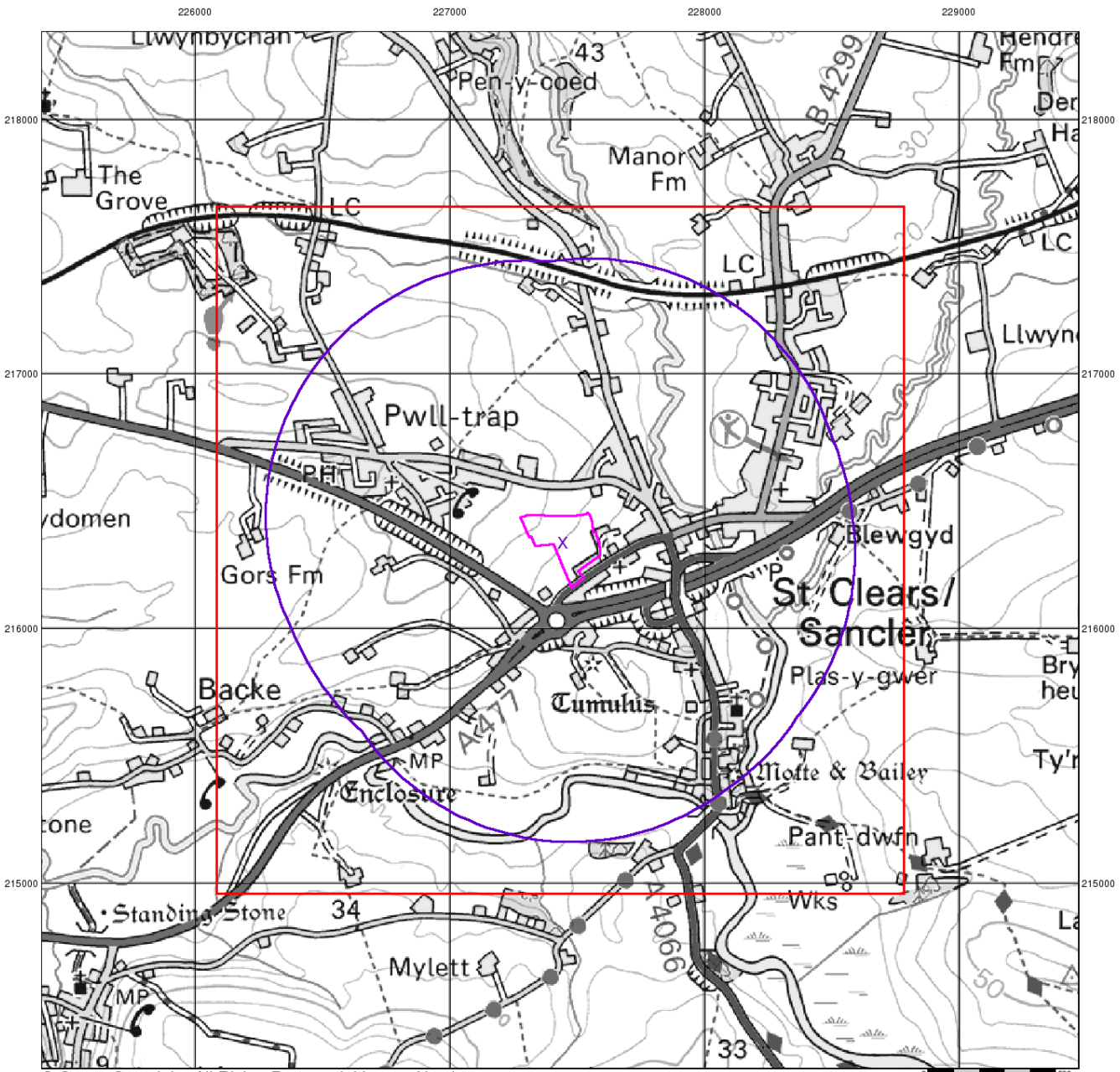

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Artificial Ground and Landslip

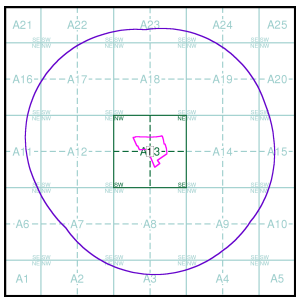
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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



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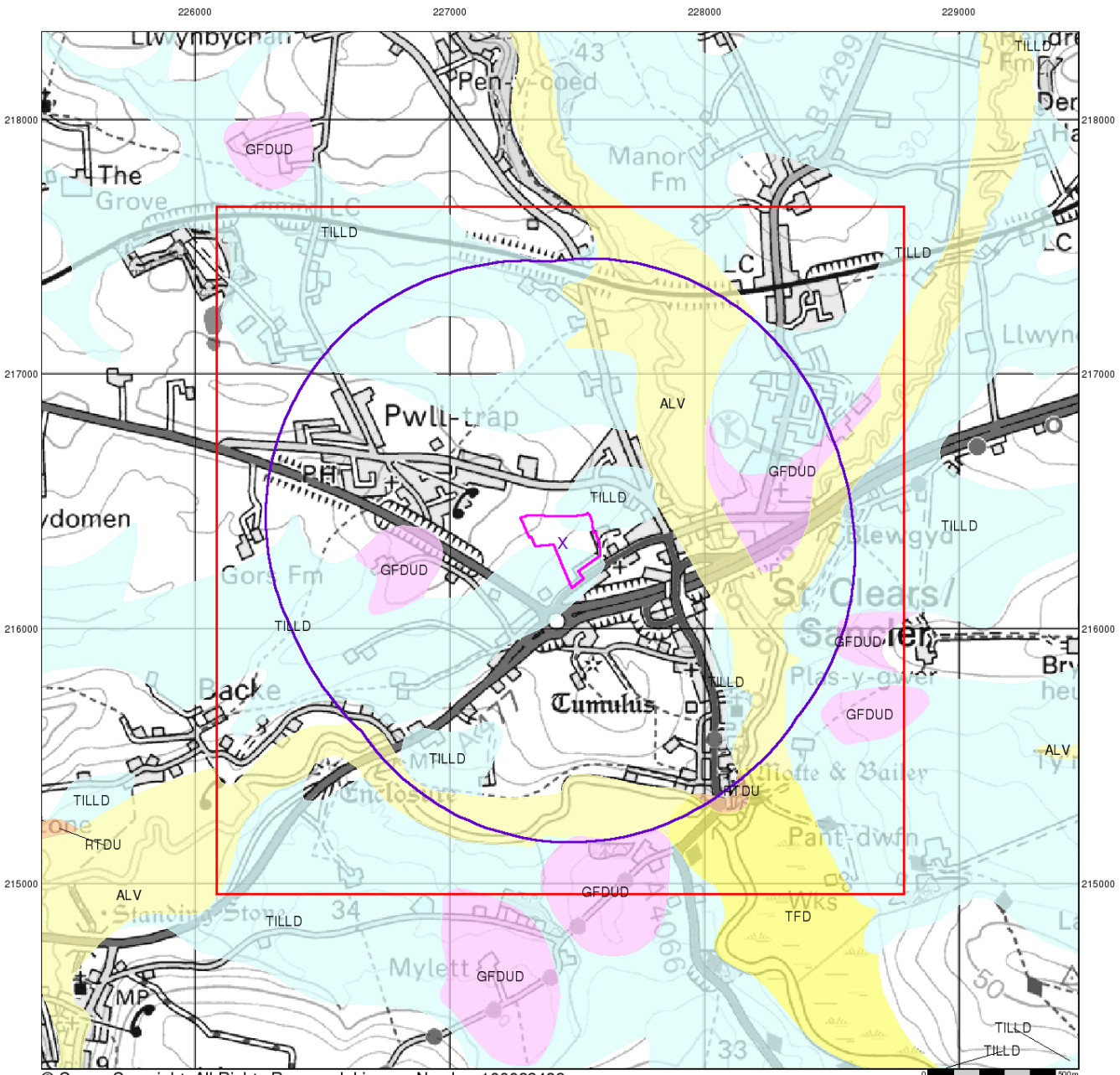

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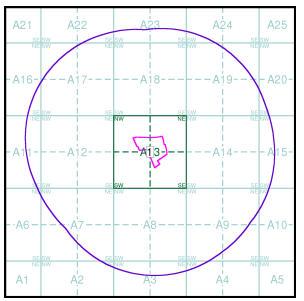
Superficial Geology

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



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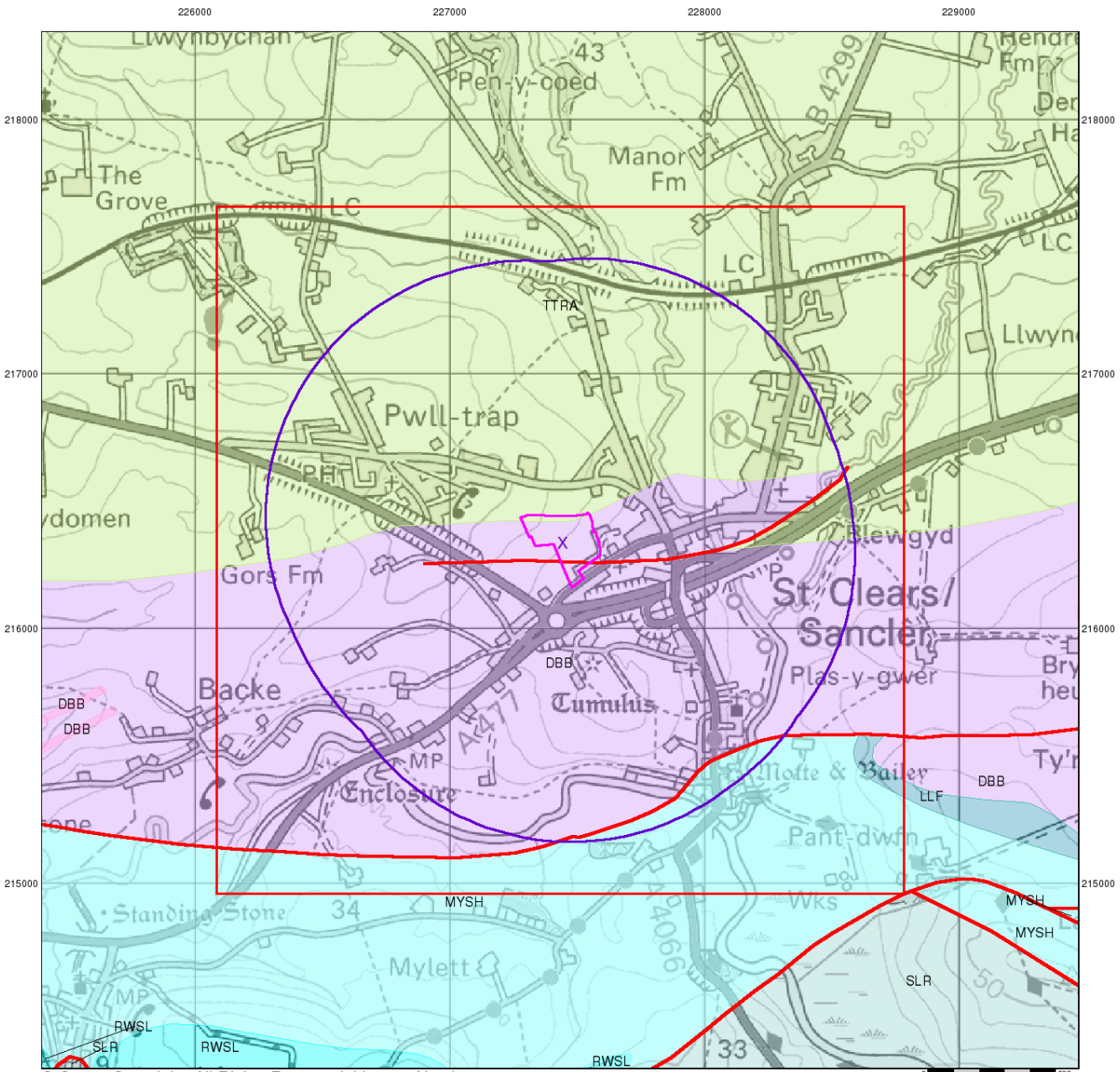

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Bedrock and Faults

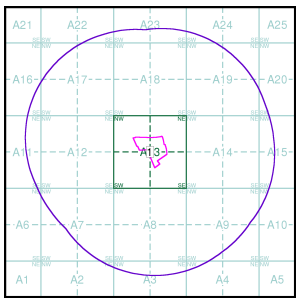
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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



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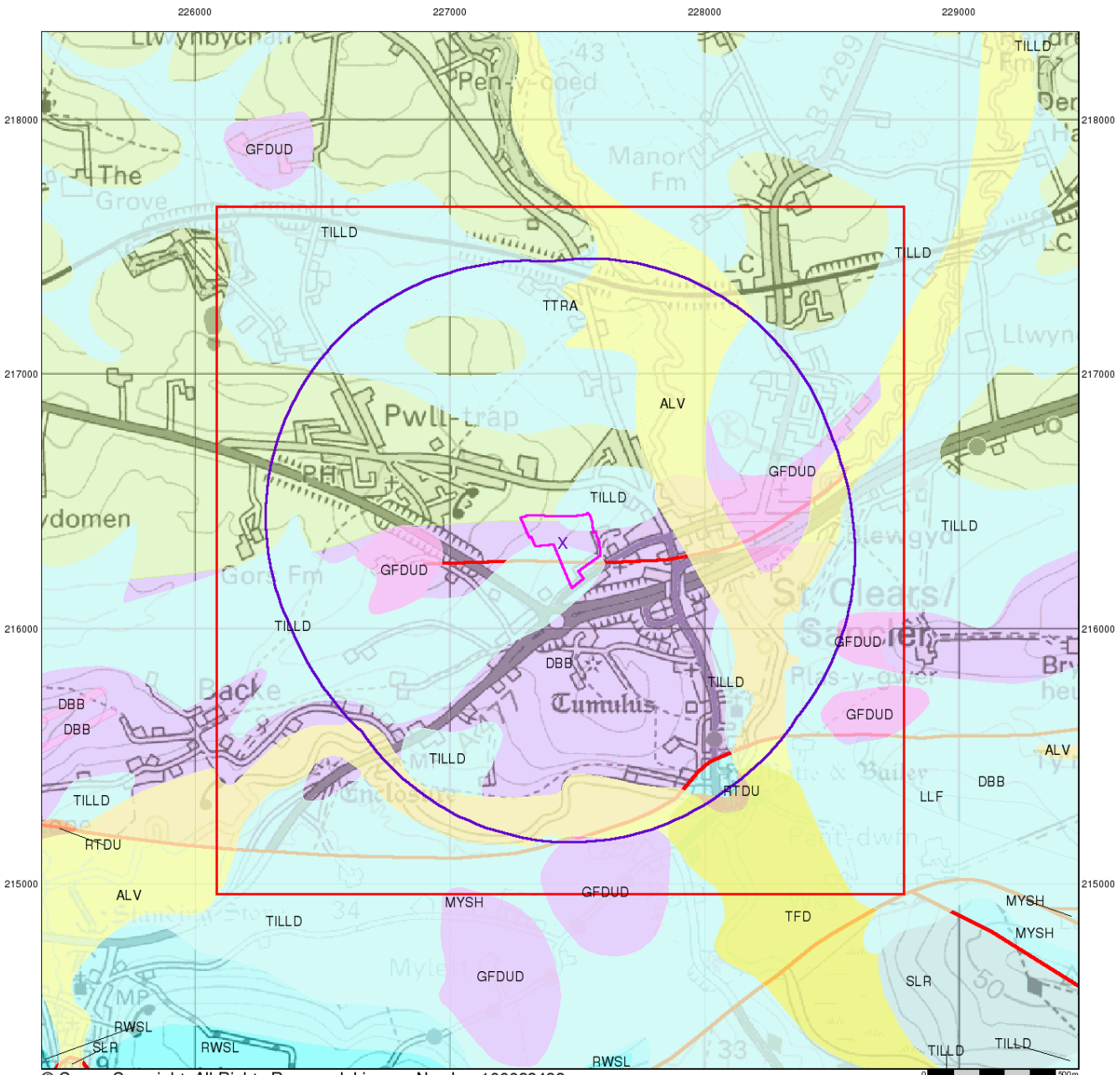

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Combined Surface Geology

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.

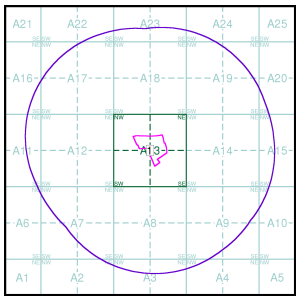
Additional Information

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

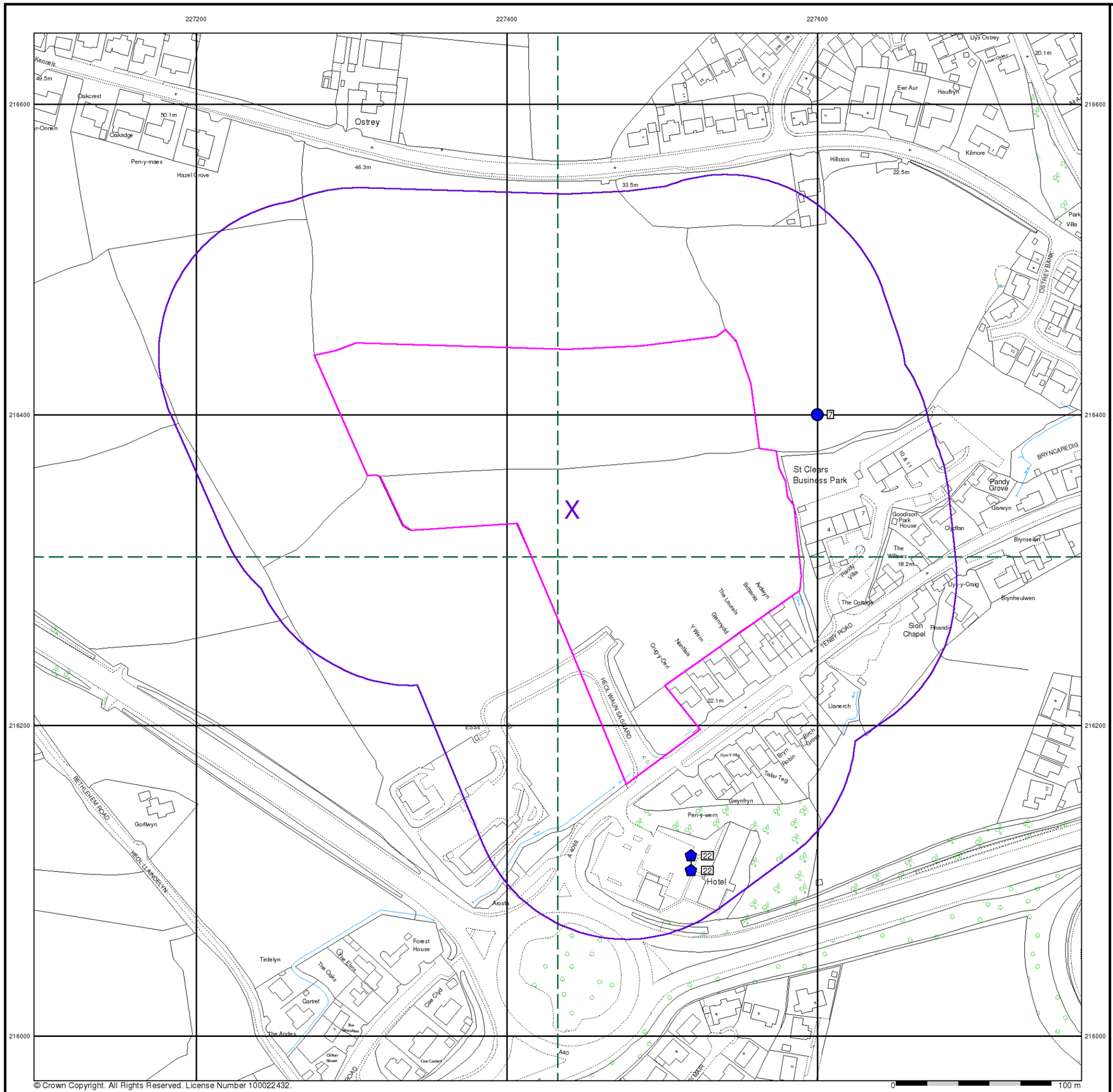


Order Details:

Order Number:	351548027_1_1
Customer Reference:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Search Buffer (m):	1000

Site Details:

Site at, St Clears/Sancler, Carmarthenshire



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Geotechnical & Geoenvironmental Specialists

General

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

Hazardous Substances

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

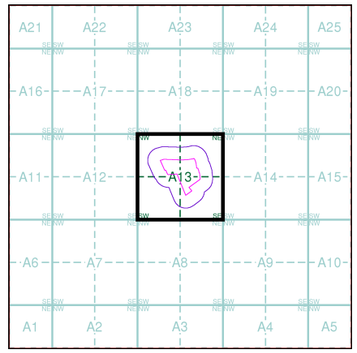
Geological

- BGS Recorded Mineral Site

Waste

- 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 (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

Site Sensitivity Map - Segment A13



Order Details

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Customer Ref:	252 St Clears
National Grid Reference:	227440, 216340
Slice:	A
Site Area (Ha):	4.74
Plot Buffer (m):	100

Site Details

Site at, St Clears/Sancler, Carmarthenshire

Landmark INFORMATION GROUP

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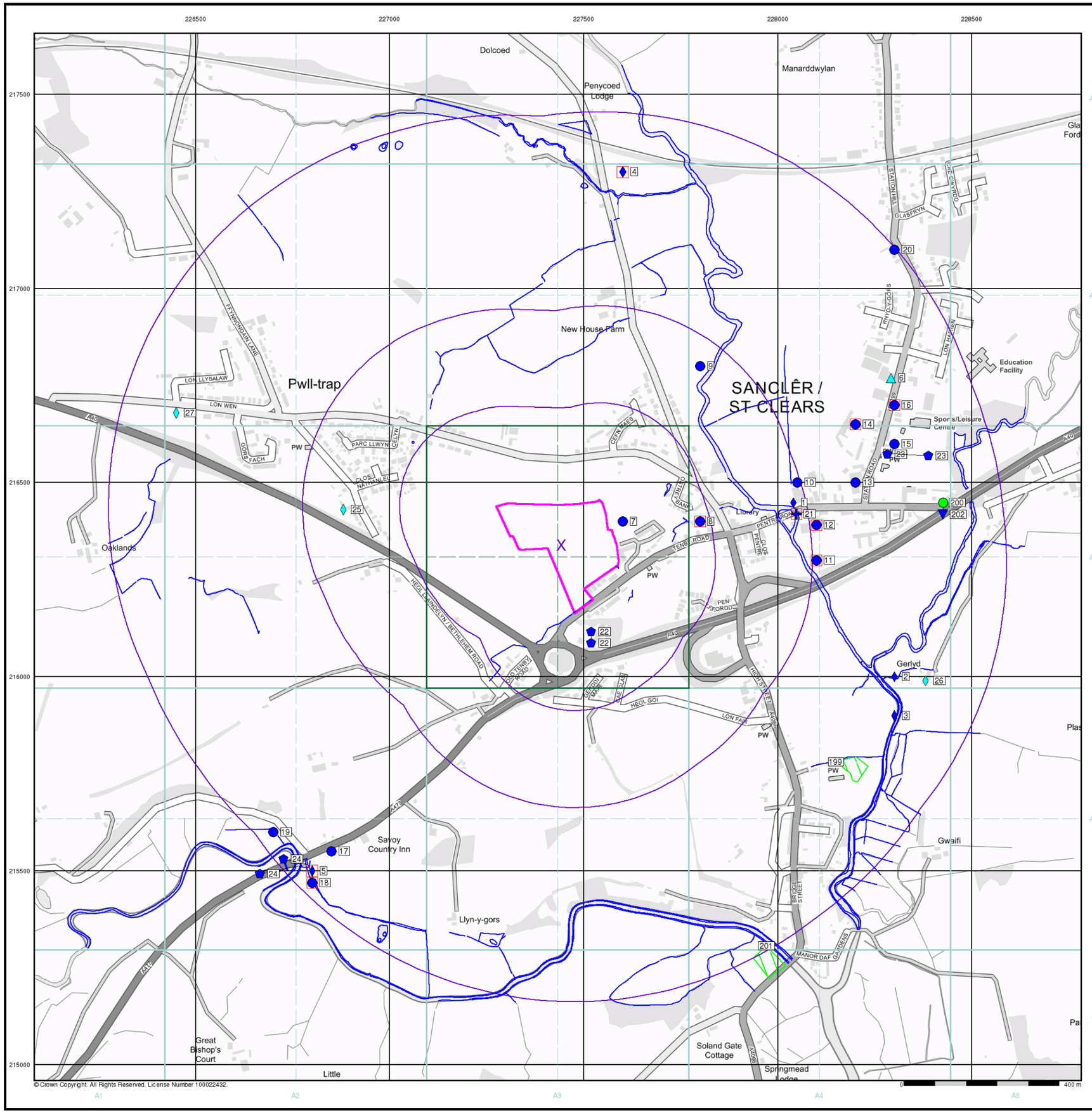

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General
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

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
- 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

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

Geological
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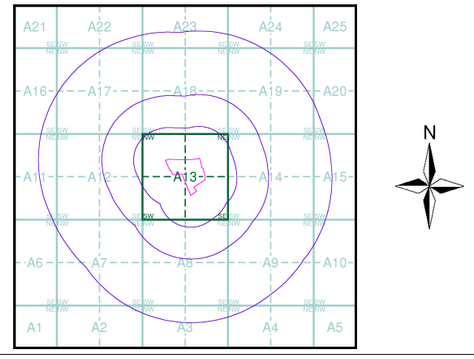
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



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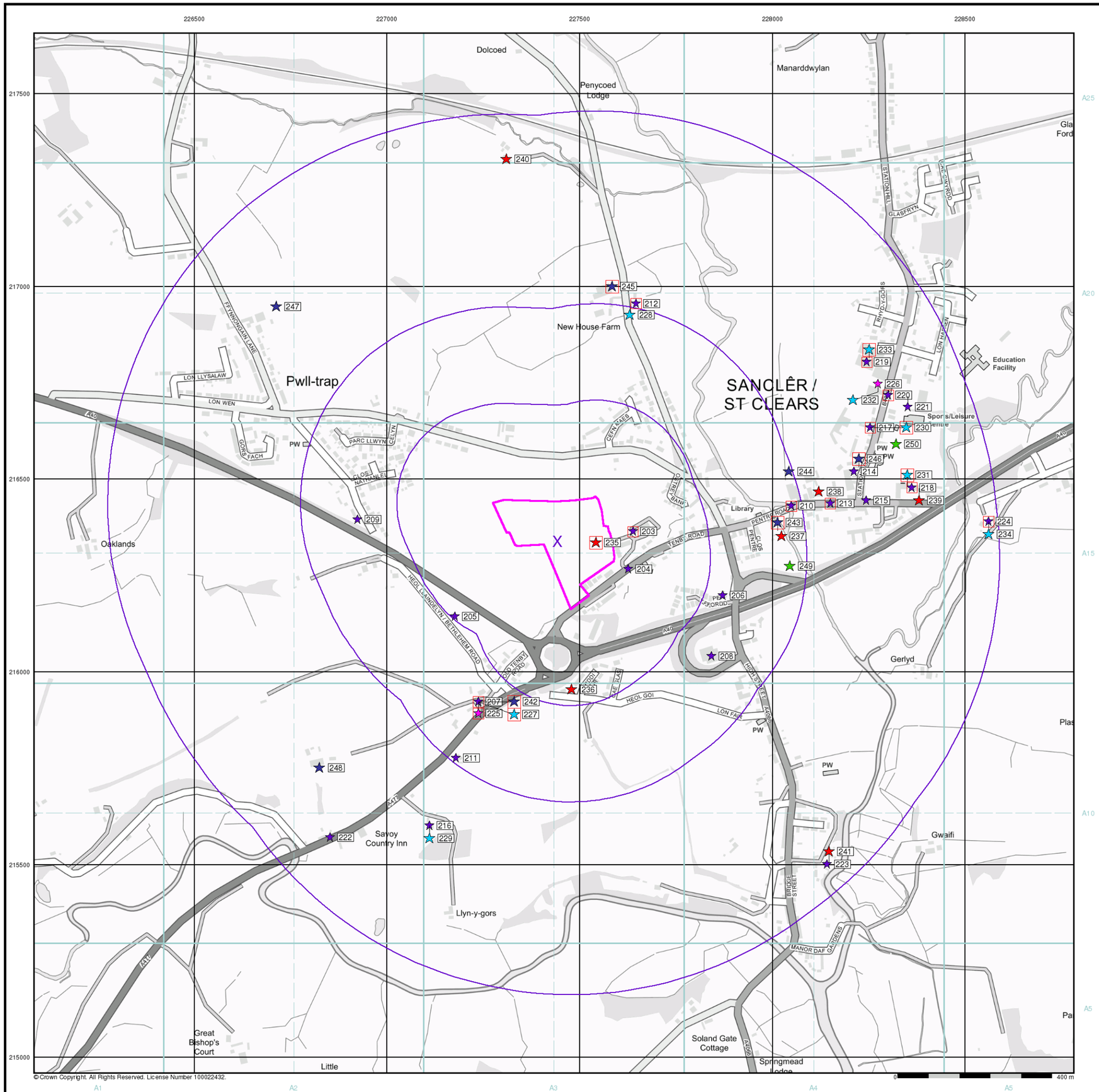

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Industrial Land Use Map

General

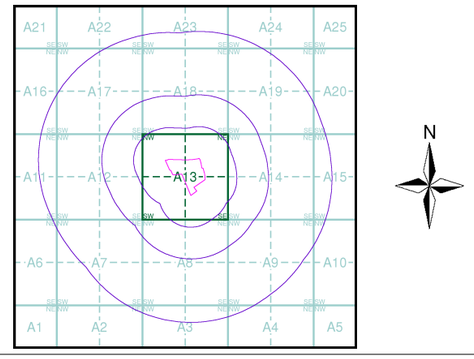
Specified Site | Specified Buffer(s) | Bearing Reference Point

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



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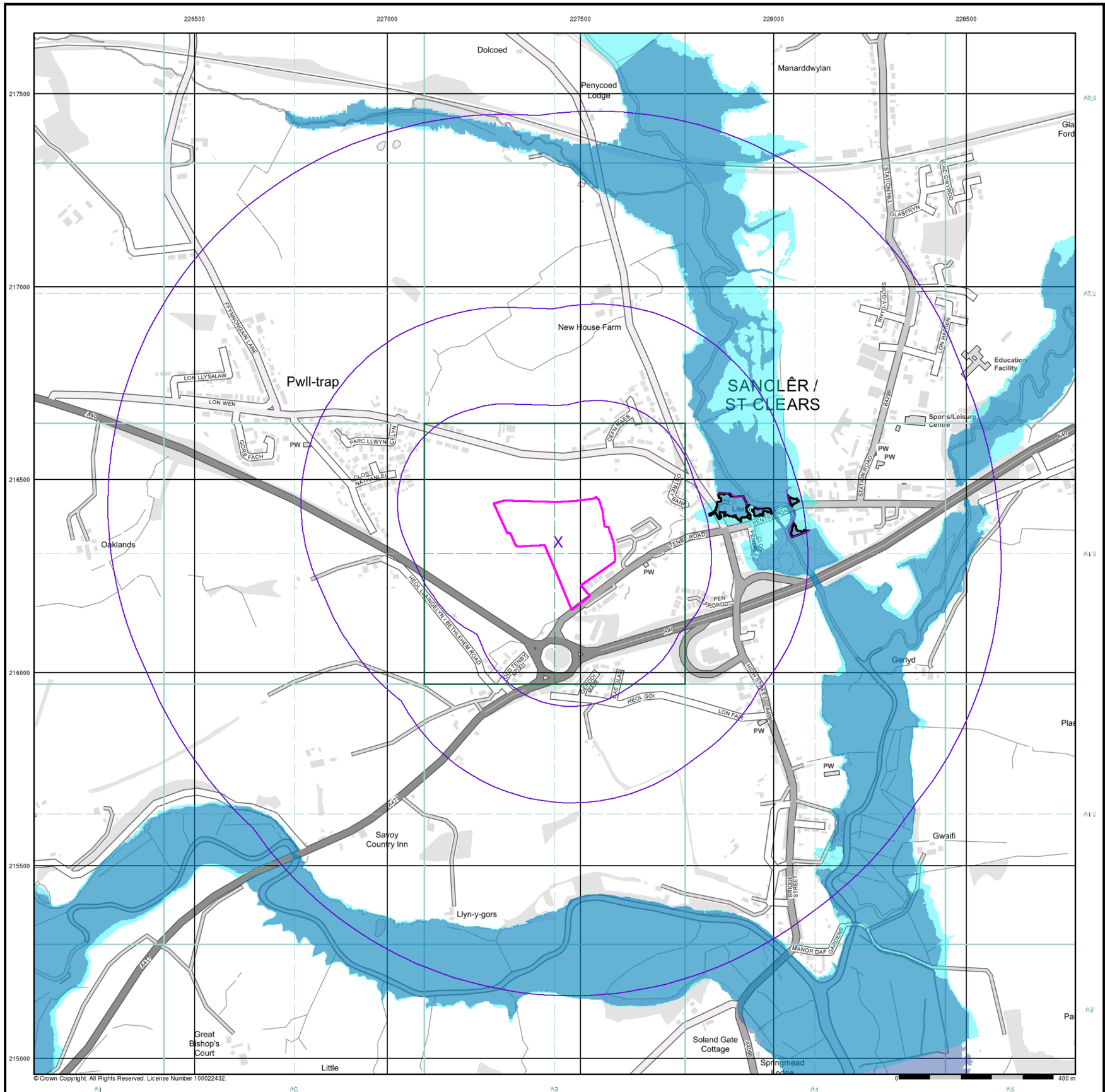

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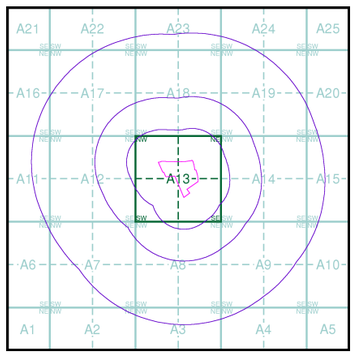
General

- 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



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Slice:	A
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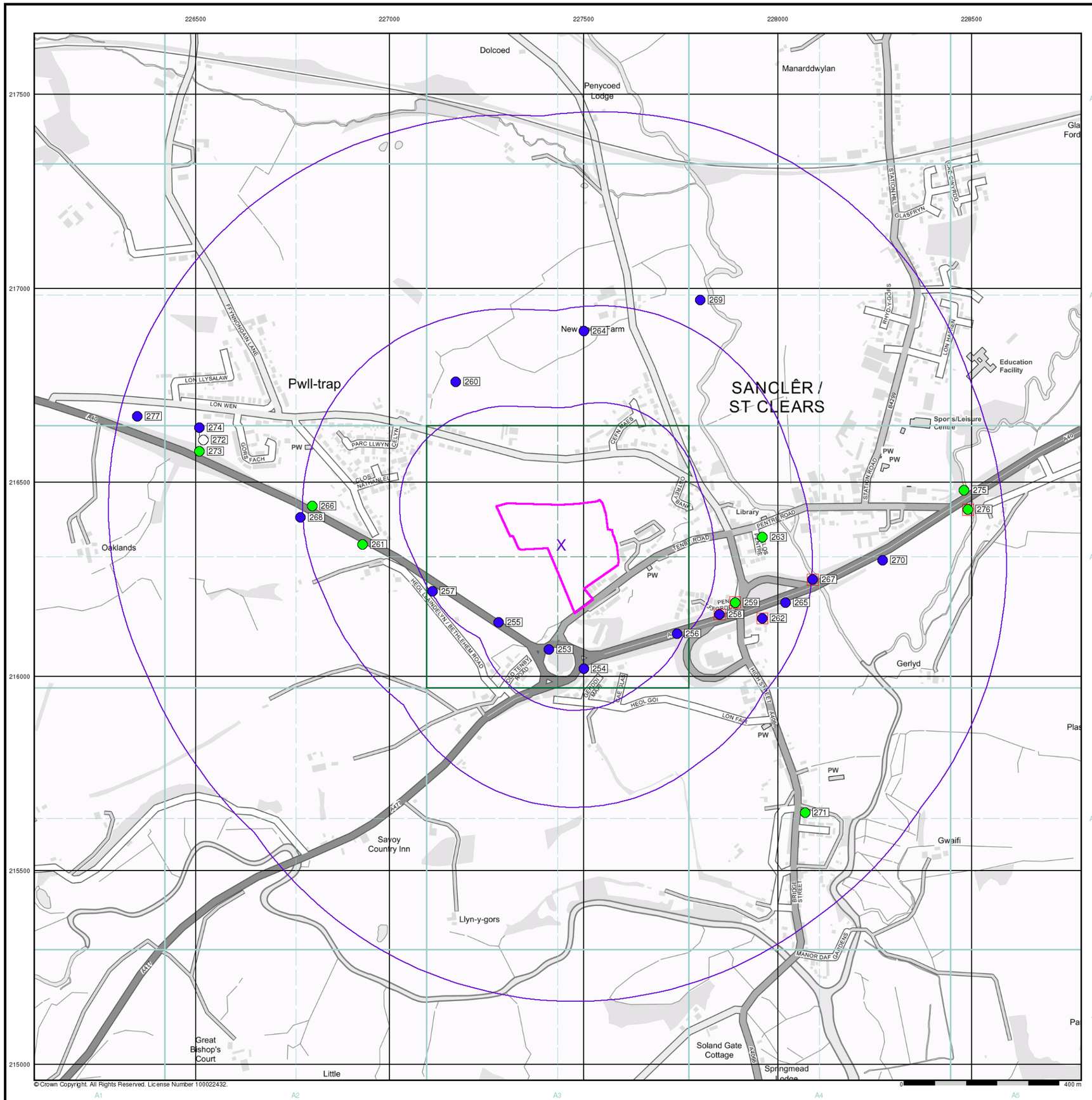

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Geotechnical & Geoenvironmental Specialists

General

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

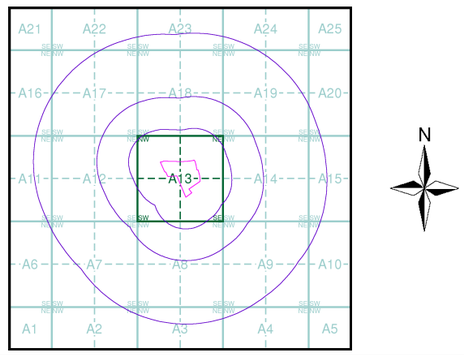
Agency and Hydrological (Boreholes)

- 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.

Borehole Map - Slice A



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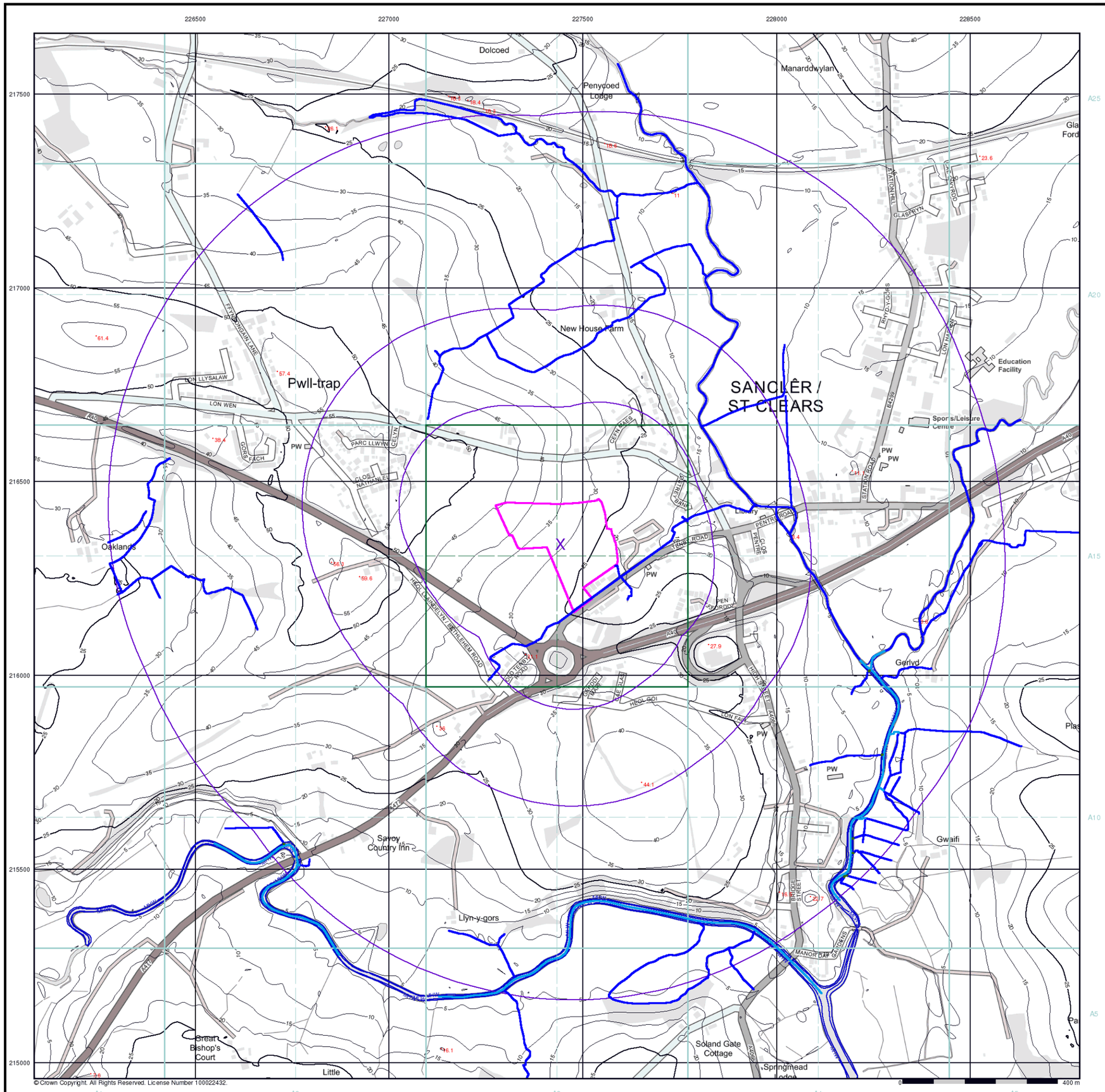

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General

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

OS Water Network Data

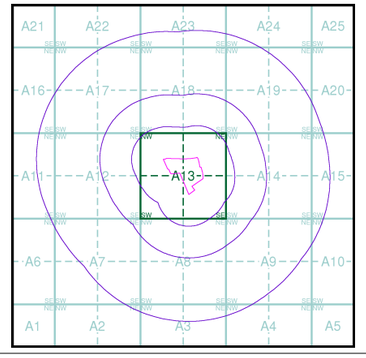
- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

Standard Contour 105 100 95
Master Contour
Spot Height 167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



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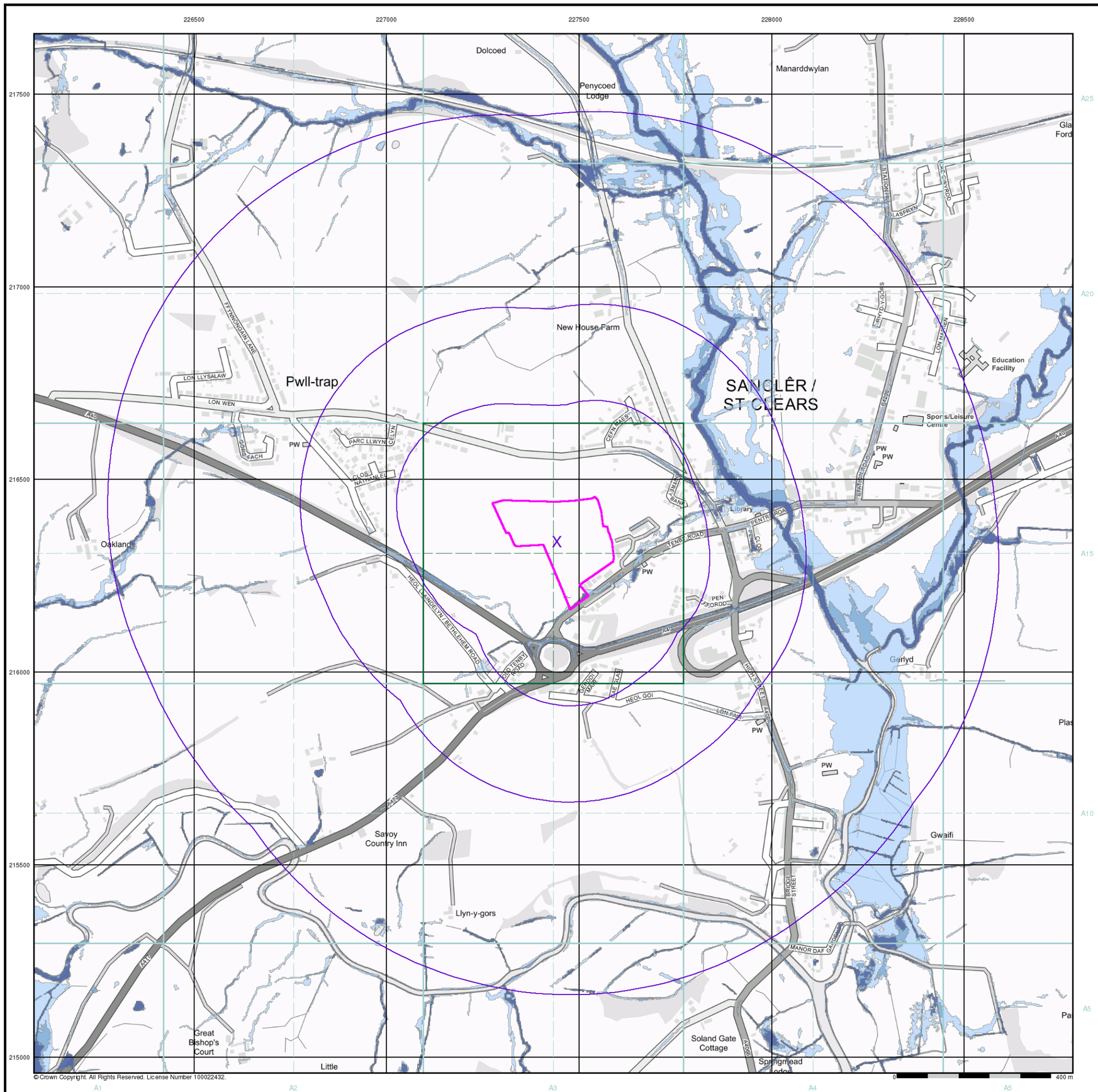

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Geotechnical & Geoenvironmental Specialists

General

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

Risk of Flooding from Surface Water

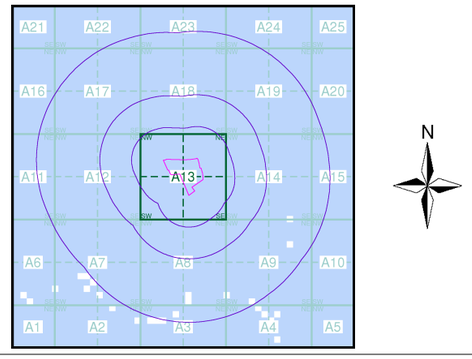
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

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

EA/NRW Suitability Map - Slice A



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Geotechnical & Geoenvironmental Specialists

General

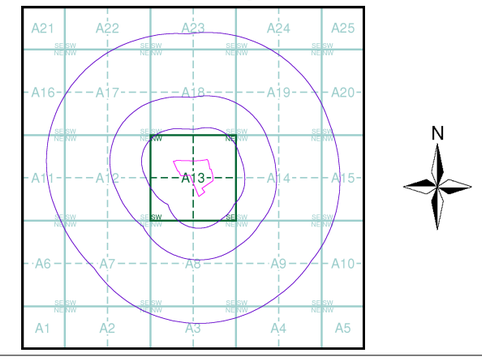
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



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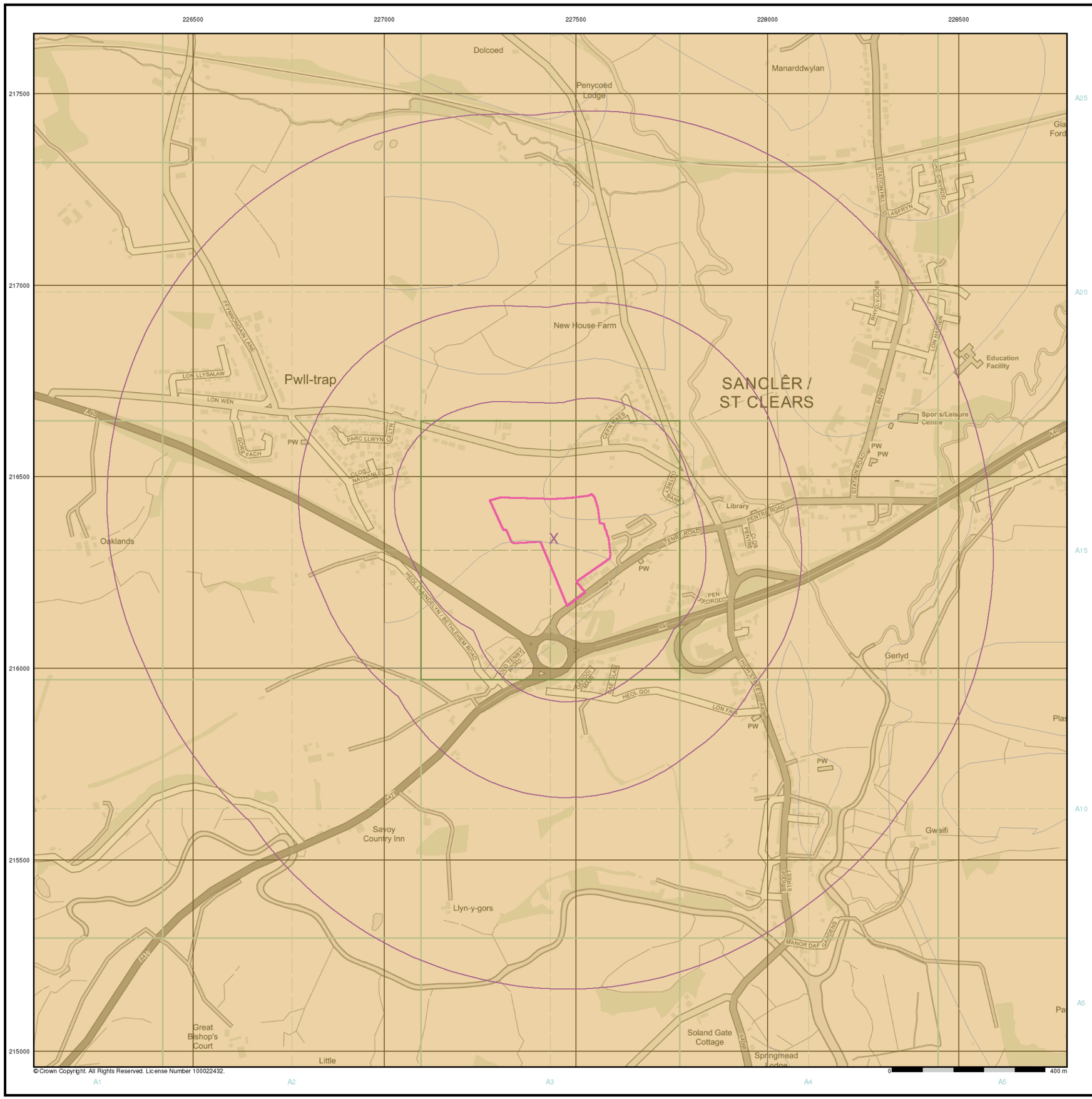

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Geotechnical & Geoenvironmental Specialists

General

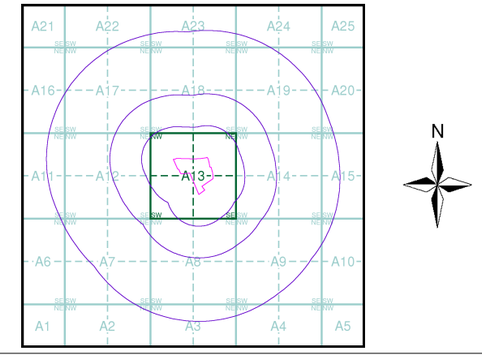
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Estimated Soil Chemistry Cadmium - Slice A



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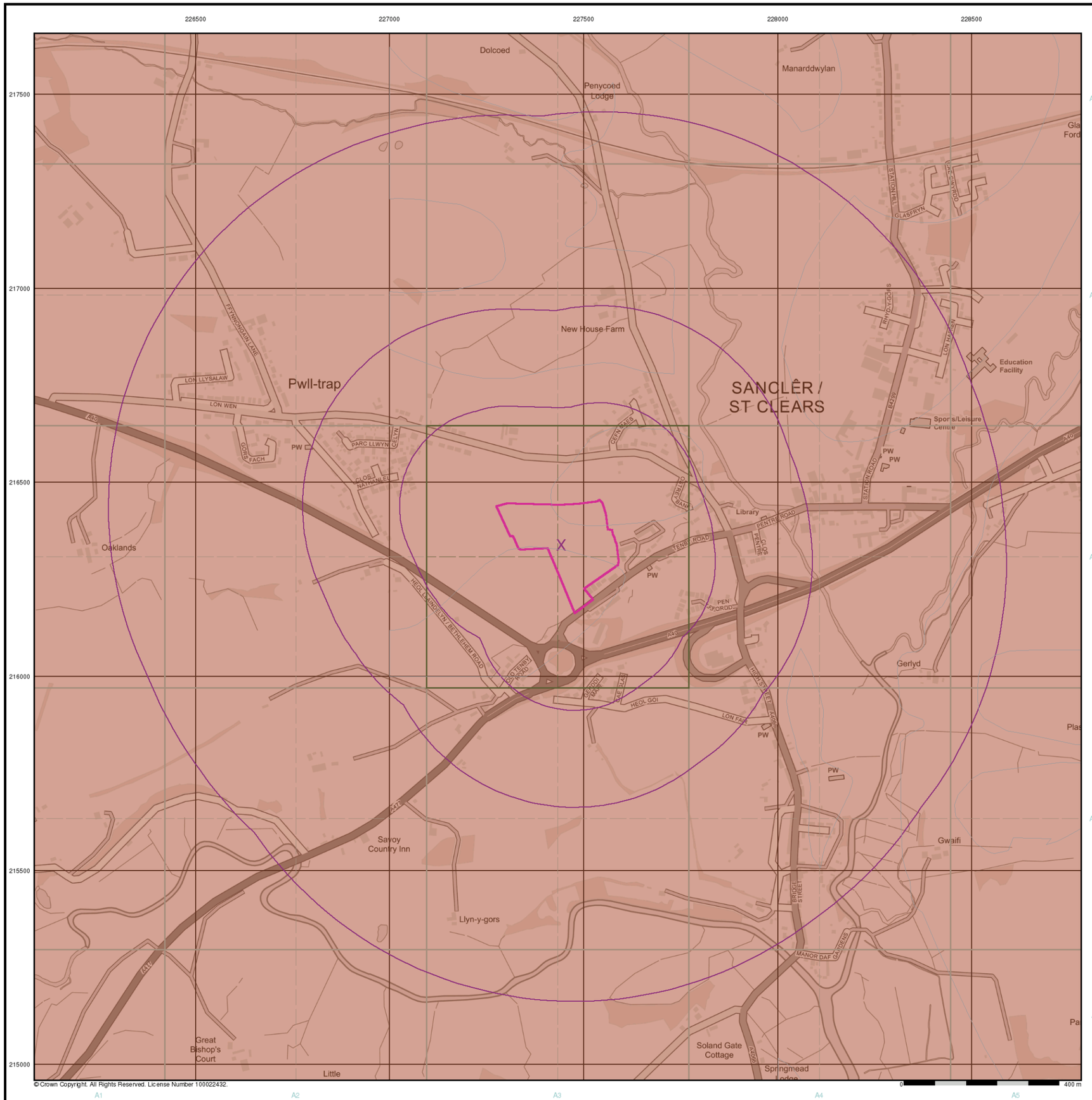

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Geotechnical & Geoenvironmental Specialists

General

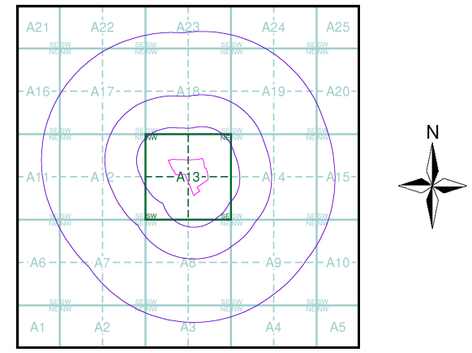
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



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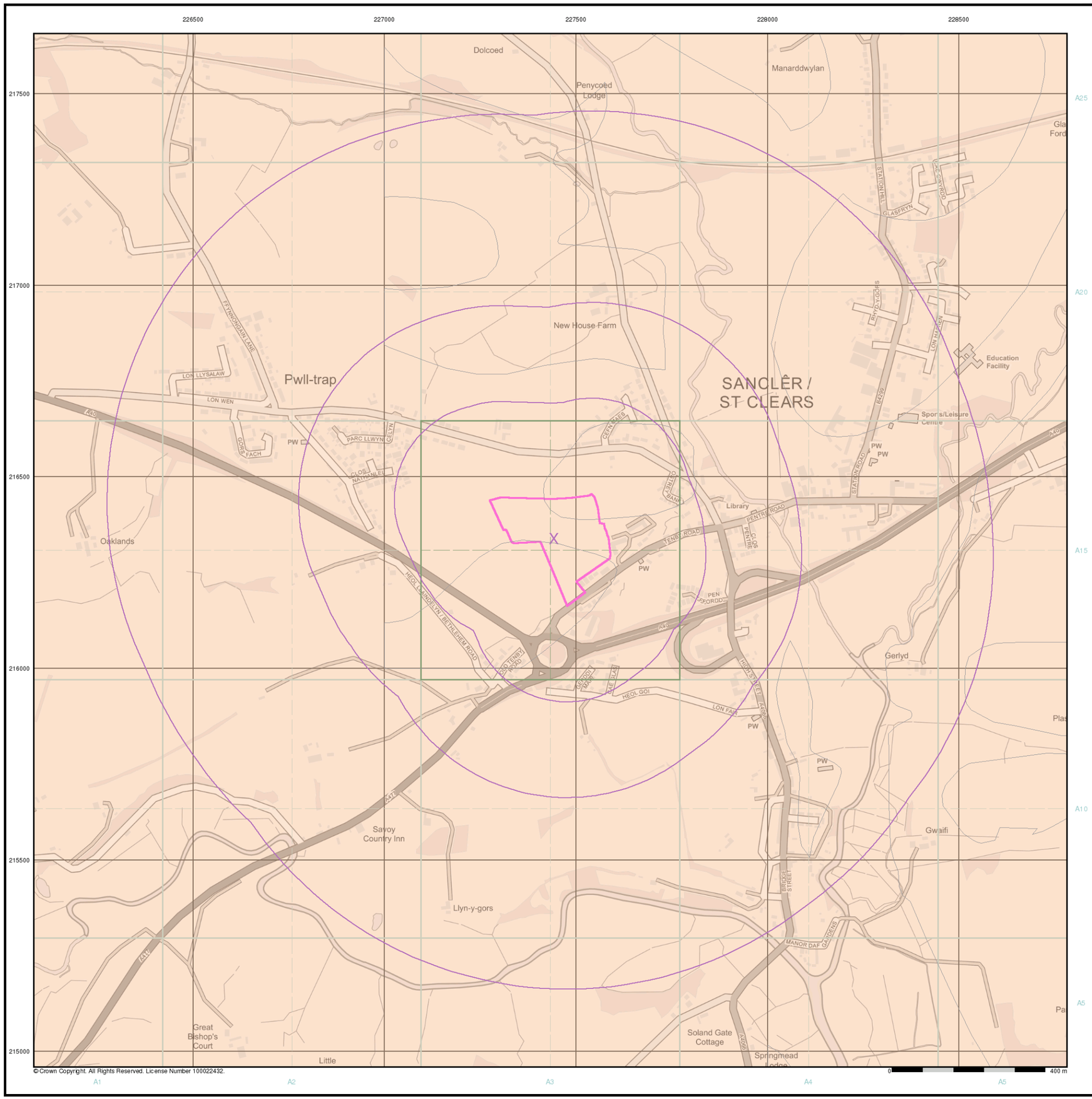

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Geotechnical & Geoenvironmental Specialists

General

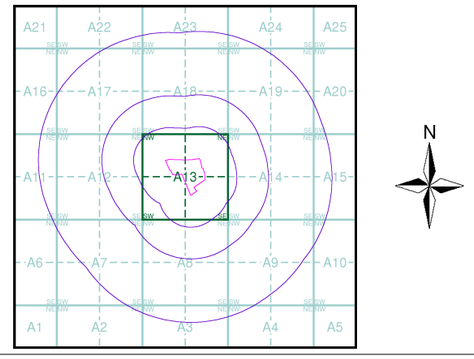
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- <100 mg/kg
- 100 - 200
- 200 - 300
- 300 - 600
- 600 - 1200
- >1200

Estimated Soil Chemistry Lead - Slice A



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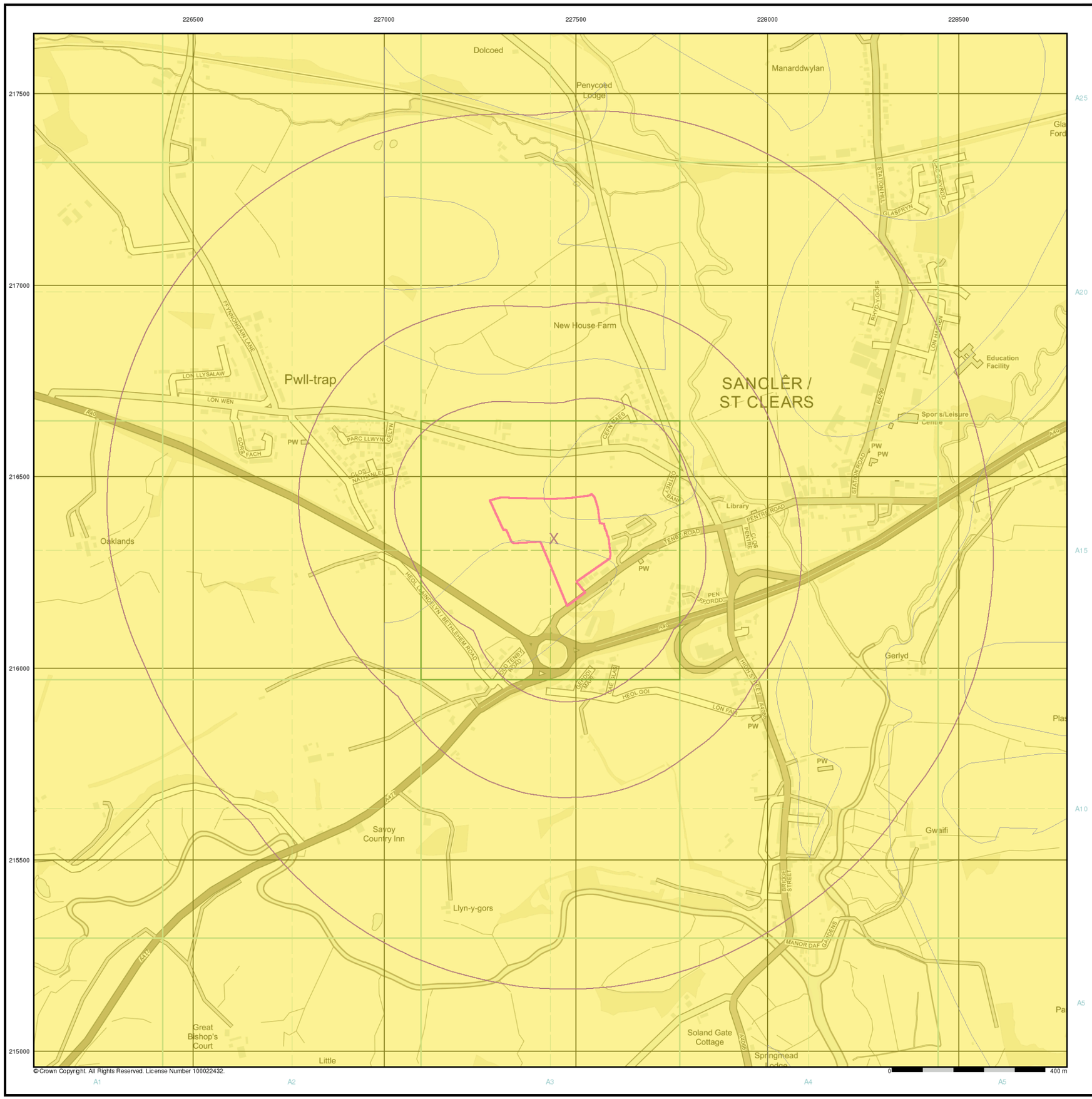

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Geotechnical & Geoenvironmental Specialists

General

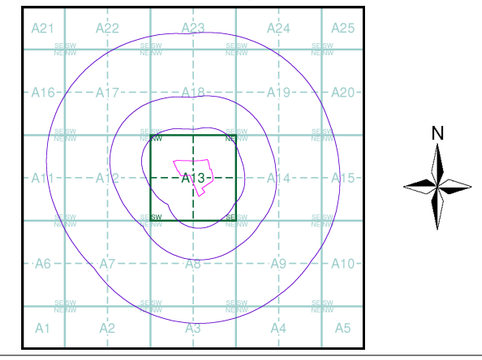
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



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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 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overreaching 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	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	• Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	• Pollution of non-sensitive water resources • Significant damage to buildings/structures • Damage to sensitive buildings/structure/services or the environment
Negligible	• Harm (not necessarily significant) which may result in financial loss • Non-permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Classification of Probability

Table B Classification of Probability	
Classification	**Definition**
High Likelihood	• 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. • Evidence of harm to the receptor
Likely	• There is a complete pollution linkage which means that is it probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low Likelihood	• There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Unlikely	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

Risk Assessment Matrix

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

Table C Risk Assessment Matrix

Increasing acceptability →		Consequence			
		Severe	**Medium**	**Mild**	**Negligible**
Probability	**High Likelihood**	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

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

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

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

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

ANNEX C
Trial Pit Logs

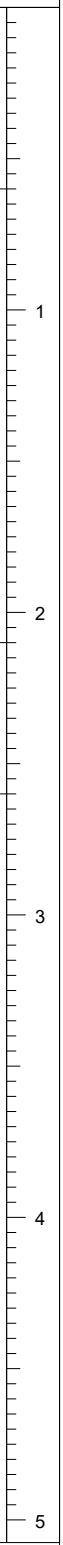
terra firma
Geotechnical & Geoenvironmental Specialists
Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP01
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.60 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.60			Soft to firm friable slightly sandy CLAY with rare gravel.
				2.10			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz.
				2.60			Stiff brown mottled grey slighlty sandy CLAY.
							End of Pit at 2.600m



Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Geotechnical & Geoenvironmental Specialists
Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP02
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 1.90 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.40			MADE GROUND: Soft friable slightly sandy slightly gravelly CLAY. Gravel is angular fine to coarse of mudstone, glass, pottery and coal.
				1.30			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz.
				1.90			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 1.900m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Geotechnical & Geoenvironmental Specialists
Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP03
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.50 (1.60 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone, coal and quartz.
				1.90			Firm brown slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz.
				2.50			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 2.500m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP04
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 1.90 (2.20 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.20			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone, coal and quartz.
				0.80			Firm brown slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz. Cobbles are subrounded of sandstone.
				1.90			Medium dense becoming dense grey slightly sandy slightly clayey GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 1.900m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP05
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.25			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone, coal and quartz.
				1.50			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz.
				1.90			Stiff brown mottled grey slighlty sandy CLAY.
				2.40			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 2.400m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Geotechnical & Geoenvironmental Specialists
Tel: 02920 735354
info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP06
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 3.00 — 2.00 × 0.60	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			MADE GROUND: Soft friable slightly sandy slightly gravelly CLAY. Gravel is angular fine to coarse of mudstone, glass, pottery and coal.
				2.00			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz. Cobbles are subrounded to rounded of mudstone and sandstone.
				3.00			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
							End of Pit at 3.000m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Geotechnical & Geoenvironmental Specialists
Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP07
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone, coal and quartz.
				1.70			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone, sandstone and quartz. Cobbles are subrounded to rounded of mudstone.
				2.40			Very stiff brown slightly sandy gravelly CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse of mudstone. Cobbles are subrounded of sandstone and mudstone.
							End of Pit at 2.400m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP08
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.80 (1.90 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of mudstone.
				2.20			Firm becoming stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of sandstone and mudstone.
				2.80			Very stiff dark brown slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to caorse of sandstone and mudstone.
							End of Pit at 2.800m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP09
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 02/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.30 (1.60 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.40			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.90			Firm becoming stiff brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
				2.30			Very stiff dark grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to caorse of sandstone and mudstone.
							End of Pit at 2.300m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP10
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 03/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.00 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.50			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.50			Firm becoming stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.00			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
							End of Pit at 2.000m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated at test depth. 3. Soakaway test undertaken at 2.00m. 4. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP11
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 03/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.80, 2.00 × 0.60	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.50			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.00			Firm becoming stiff brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.80			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
							End of Pit at 2.800m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated at test depth. 3. Soakaway test undertaken at 2.80m. 4. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP12
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 03/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 1.00 (1.50 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.00			Firm becoming stiff brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of sandstone and mudstone.
							End of Pit at 1.000m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated at test depth. 3. Soakaway test undertaken at 1.00m. 4. Trial pit backfilled with arisings.

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Tel: 02920 735354
info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP13
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 03/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 1.65 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.35			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				0.90			Firm becoming stiff brown slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of sandstone and mudstone.
				1.65			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 1.650m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated at test depth. 3. Soakaway test undertaken at 1.65m. 4. Trial pit backfilled with arisings.

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Tel: 02920 735354
info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP14
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 03/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.00 — 2.00 × 0.60	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.00			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				0.50			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of sandstone and mudstone.
				1.50			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
				2.00			End of Pit at 2.000m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated at test depth. 3. Soakaway test undertaken at 2.00m. 4. Trial pit backfilled with arisings.

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Tel: 02920 735354
info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP15
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (2.10 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.25			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.10			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.40			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
							End of Pit at 2.400m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP16
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.50 (2.20 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.50			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.50			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY. Gravel is subrounded fine to coarse of mudstone.
							End of Pit at 2.500m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP17
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.20 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				0.65			Soft to firm brown slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				1.50			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.20			Medium dense becoming dense grey slightly sandy GRAVEL. Gravel is angular fine to coarse of mudstone.
							End of Pit at 2.200m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP18
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.20 (1.80 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.25			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.30			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.20			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone. Cobbles are subrounded of sandstone and mudstone.
							End of Pit at 2.200m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP19
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (1.90 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.10			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.40			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone. Cobbles are subrounded of sandstone and mudstone.
							End of Pit at 2.400m

1 2 3 4 5

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP20
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: - Level:	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.50, 2.00 × 0.60	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.10			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.50			Medium dense brown very clayey sandy GRAVEL. Gravel is angular to subrounded fine to coarse of mudstone.
							End of Pit at 2.500m

1 2 3 4 5

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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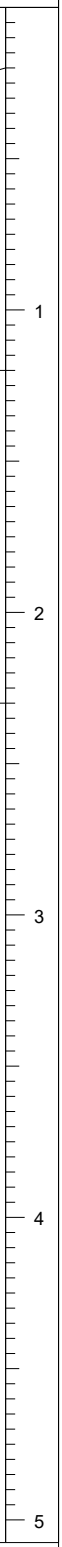
www.terrafirmawales.co.uk

Trial Pit Log

Trial Pit No: TP21
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.30 (1.70 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.20			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.20			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.30			Stiff dark blueish grey mottled dark brown slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone. Cobbles are
							End of Pit at 2.300m



Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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info@terrafirmawales.co.uk
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Trial Pit Log

Trial Pit No: TP22
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.20 (1.60 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.20			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.00			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel is subangular to rounded fine to coarse of sandstone and mudstone. Cobbles are subrounded of sandstone and mudstone.
				2.20			Stiff dark blueish grey mottled dark brown slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone. Cobbles are subrounded of sandstone.
							End of Pit at 2.200m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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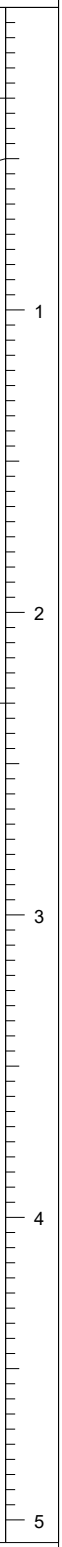
Trial Pit Log

Trial Pit No: TP23
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.30 (2.00 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.30			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				0.50			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
							Stiff dark blueish grey mottled dark brown slightly gravelly CLAY with low cobble content. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone. Cobbles are subrounded of sandstone.
				2.30			End of Pit at 2.300m



Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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Trial Pit Log

Trial Pit No: TP24
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (2.10 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.25			MADE GROUND: Soft friable slightly sandy slightly gravelly CLAY. Gravel is angular fine to coarse of mudstone, pottery and coal.
				1.00			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.40			Stiff dark grey slighlty sandy slightly gravelly CLAY. Gravel is angular to rounded fine to coarse of mudstone and sandstone.
							End of Pit at 2.400m

Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

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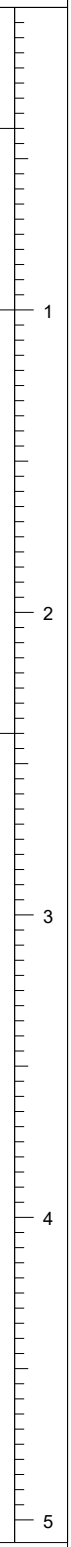
Trial Pit Log

Trial Pit No: TP25
Sheet 1 of 1

Project Name: Tenby Road, St Clears	Project No: TF-24-252-CA	Co-ords: -	Date: 04/07/2024
Location: Tenby Road, St Clears		Dimensions: Depth 2.40 (1.90 × 0.60)	Scale: 1:25
Client: Draycott Group			Logged: JA

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
				0.40			Soft to firm friable slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse of quartz, sandstone and mudstone.
				1.00			Firm becoming stiff orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is subangular to rounded fine to coarse of sandstone and mudstone.
				2.40			Stiff brown mottled grey slighlty sandy slightly gravelly CLAY with low cobble content. Gravel is subrounded fine to coarse of mudstone. Cobbles are subrounded of sandstone and mudstone.
							End of Pit at 2.400m



Stability: Stable

Remarks: 1. No groundwater encountered. 2. Trial pit terminated on dense ground. 3. Trial pit backfilled with arisings.

ANNEX D
Soakaway Results

SOAKAWAY TEST

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Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024
Engineer: Jamie Alderman

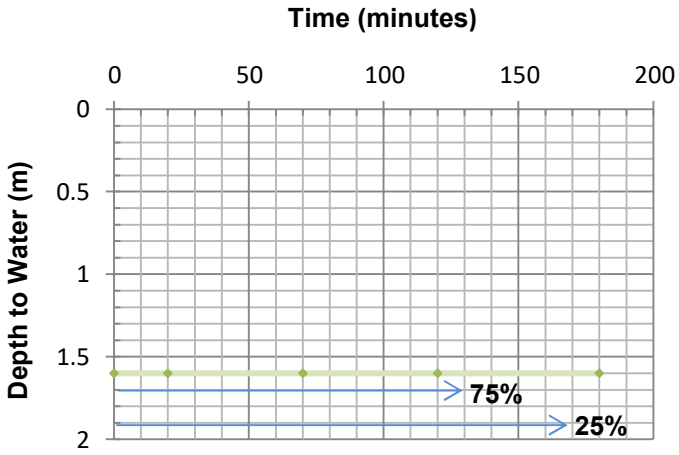
Trial Pit: **TP10**

TEST 1

Length	1.80	m
Bredth	0.60	m
Depth	2.00	m
Fill Level	1.60	m
V_{p75-25}	0.216	m^3
a_{p50}	2.04	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

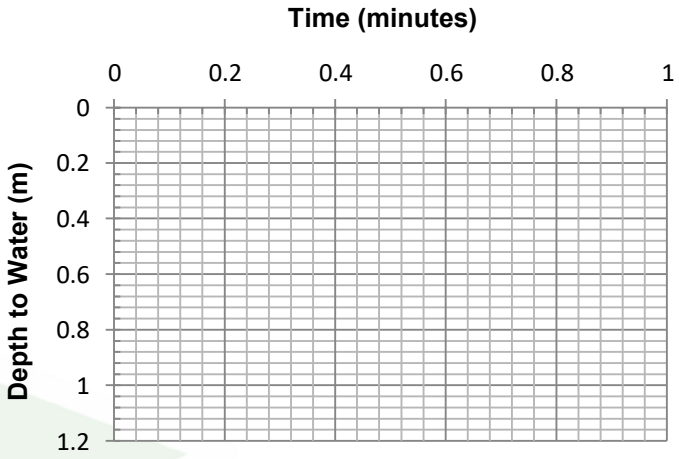
Too little water take to calculate infiltration rate



TEST 2

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

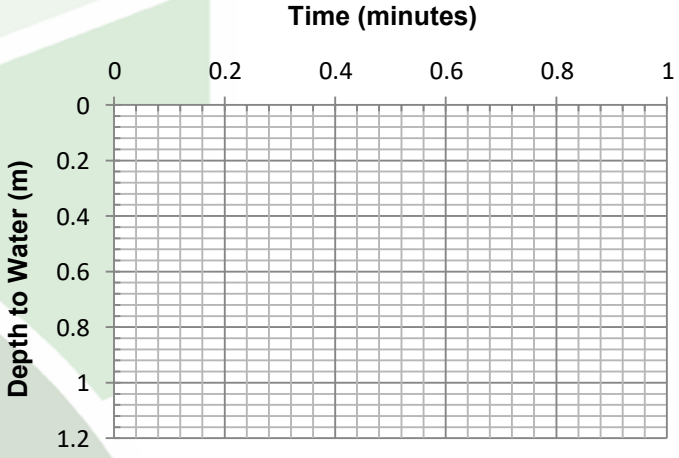
Soil Infiltration Rate, f - ms^{-1}



TEST 3

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}



REMARKS:
Test carried out in genral accordance with BRE DIGEST 365 (2016)

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SOAKAWAY TEST

Time (mins)	Depth to Water (m)
0	1.6
20	1.6
70	1.6
120	1.6
180	1.6

Effective Depth (m)	0.40
Height to 0.75H	1.7
Height to 0.25H	1.9
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

SOAKAWAY TEST

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Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024
Engineer: Jamie Alderman

Trial Pit: **TP11**

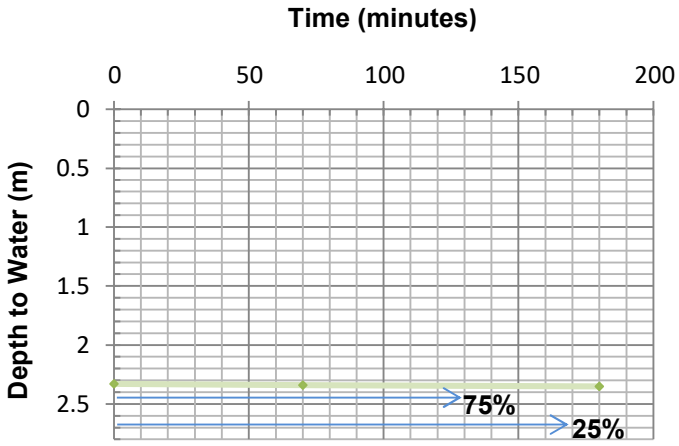
TEST 1

Length	2.00	m
Bredth	0.60	m
Depth	2.80	m
Fill Level	2.33	m

V_{p75-25}	0.282	m^3
a_{p50}	2.422	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

Too little water take to calculate infiltration rate

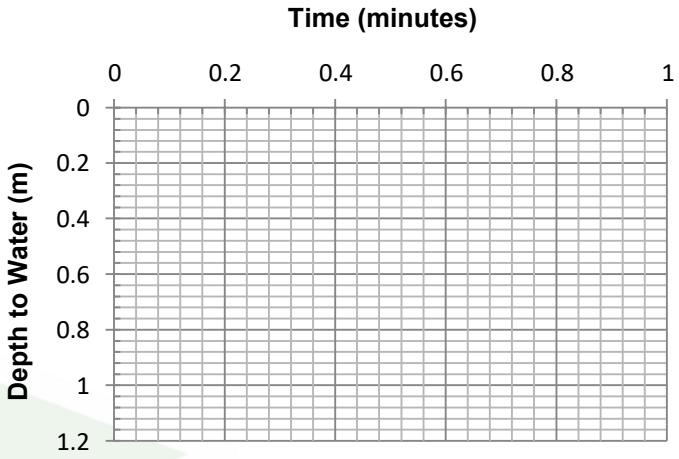


TEST 2

Length		m
Bredth		m
Depth		m
Fill Level		m

V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

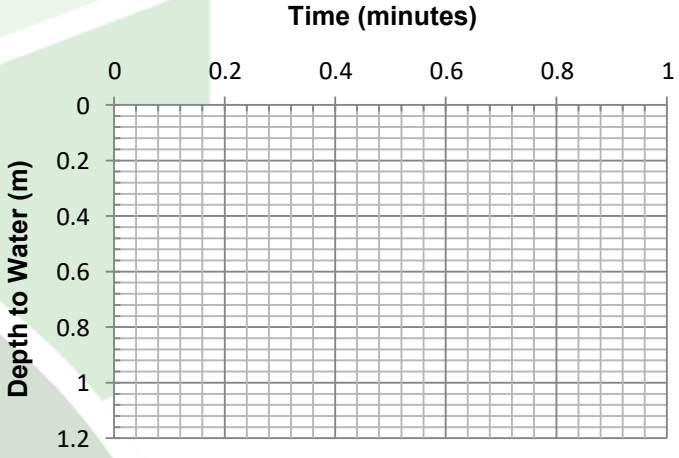


TEST 3

Length		m
Bredth		m
Depth		m
Fill Level		m

V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}



REMARKS:
Test carried out in genral accordance with BRE DIGEST 365 (2016)

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SOAKAWAY TEST

Time (mins)	Depth to Water (m)
0	2.33
70	2.34
180	2.35

Effective Depth (m)	0.47
Height to 0.75H	2.4475
Height to 0.25H	2.6825
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

SOAKAWAY TEST

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Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024
Engineer: Jamie Alderman

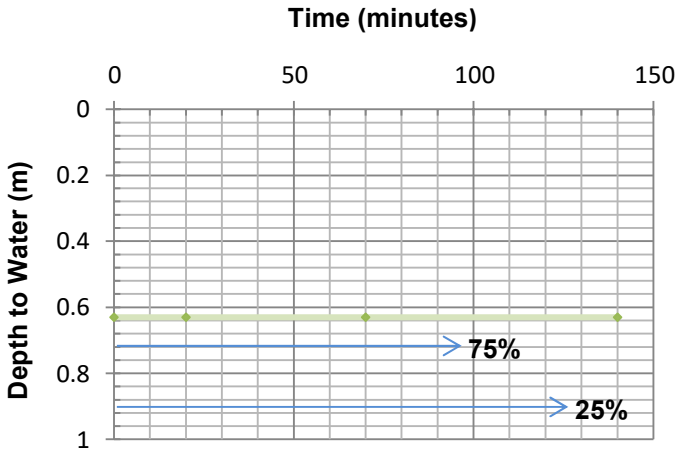
Trial Pit: **TP12**

TEST 1

Length	1.50	m
Bredth	0.60	m
Depth	1.00	m
Fill Level	0.63	m
V_{p75-25}	0.167	m^3
a_{p50}	1.677	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

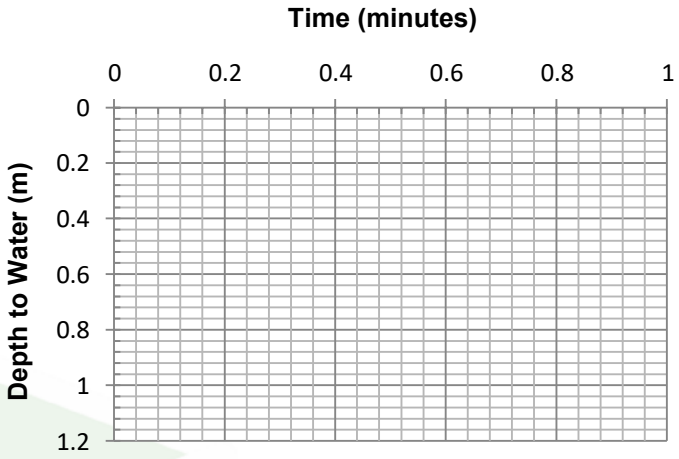
Too little water take to calculate infiltration rate



TEST 2

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

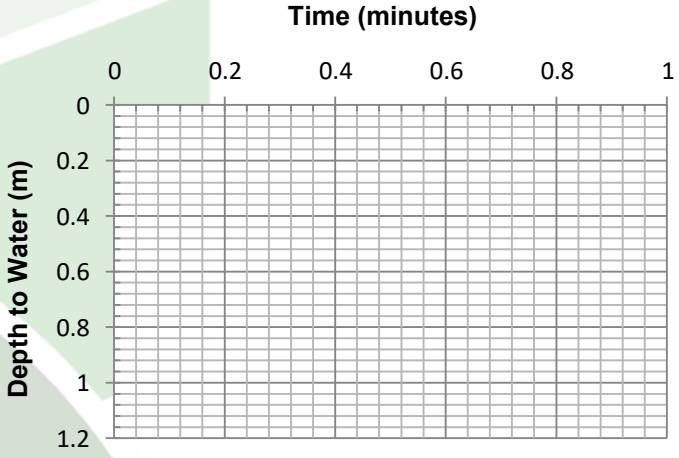
Soil Infiltration Rate, f - ms^{-1}



TEST 3

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}



REMARKS:
Test carried out in genral accordance with BRE DIGEST 365 (2016)

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SOAKAWAY TEST

Time (mins)	Depth to Water (m)
0	0.63
20	0.63
70	0.63
140	0.63

Effective Depth (m)	0.37
Height to 0.75H	0.7225
Height to 0.25H	0.9075
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

SOAKAWAY TEST

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Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024
Engineer: Jamie Alderman

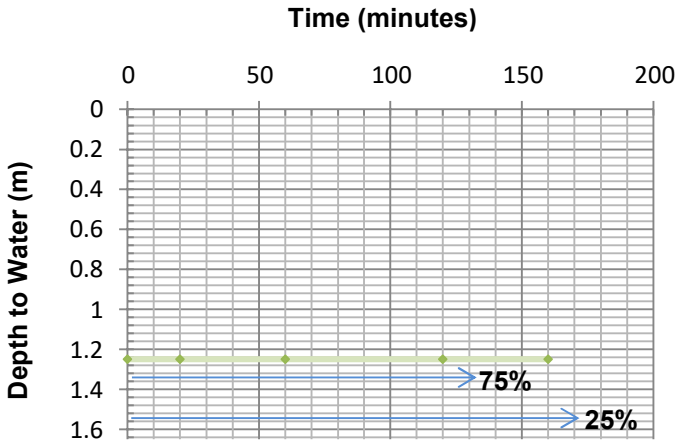
Trial Pit: **TP13**

TEST 1

Length	1.80	m
Bredth	0.60	m
Depth	1.65	m
Fill Level	1.25	m
V_{p75-25}	0.216	m^3
a_{p50}	2.04	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

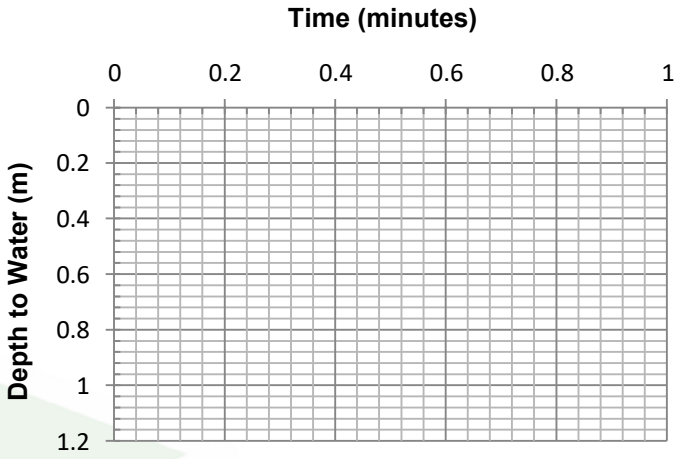
Too little water take to calculate infiltration rate



TEST 2

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

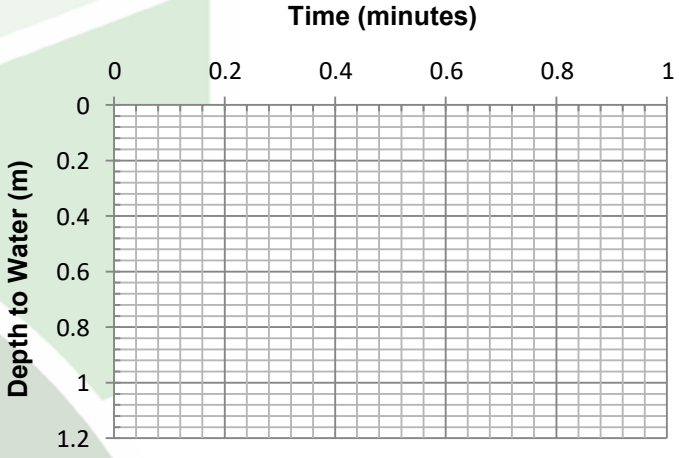
Soil Infiltration Rate, f - ms^{-1}



TEST 3

Length		m
Bredth		m
Depth		m
Fill Level		m
V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}



REMARKS:

Test carried out in genral accordance with BRE DIGEST 365 (2016)

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SOAKAWAY TEST

Time (mins)	Depth to Water (m)
0	1.25
20	1.25
60	1.25
120	1.25
160	1.25

Effective Depth (m)	0.40
Height to 0.75H	1.35
Height to 0.25H	1.55
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

SOAKAWAY TEST

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Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024
Engineer: Jamie Alderman

Trial Pit: **TP14**

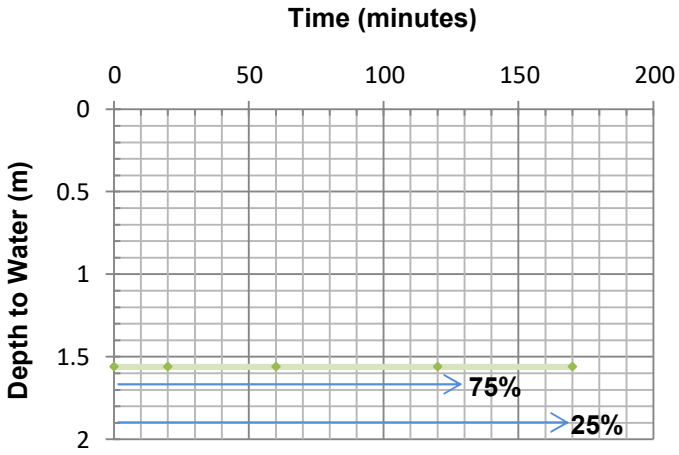
TEST 1

Length	2.00	m
Bredth	0.60	m
Depth	2.00	m
Fill Level	1.56	m

V_{p75-25}	0.264	m^3
a_{p50}	2.344	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

Too little water take to calculate infiltration rate

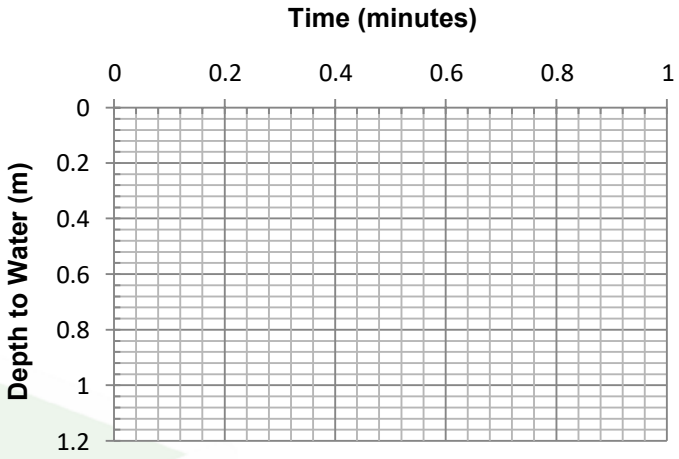


TEST 2

Length		m
Bredth		m
Depth		m
Fill Level		m

V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}

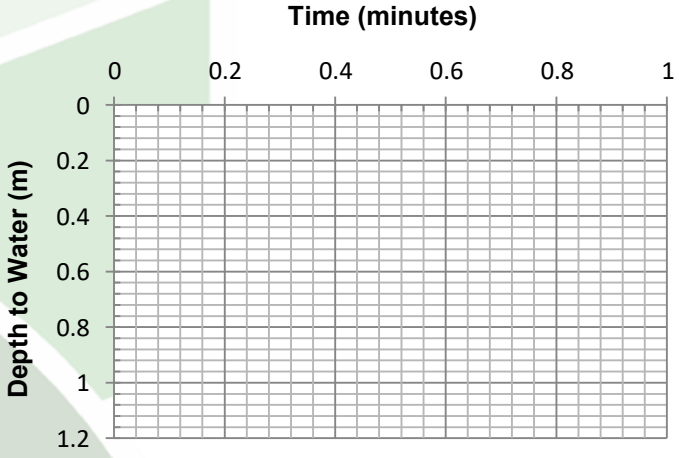


TEST 3

Length		m
Bredth		m
Depth		m
Fill Level		m

V_{p75-25}	0	m^3
a_{p50}	0	m^2
t_{p75-25}	0	minutes

Soil Infiltration Rate, f - ms^{-1}



REMARKS:

Test carried out in genral accordance with BRE DIGEST 365 (2016)

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SOAKAWAY TEST

Time (mins)	Depth to Water (m)
0	1.56
20	1.56
60	1.56
120	1.56
170	1.56

Effective Depth (m)	0.44
Height to 0.75H	1.67
Height to 0.25H	1.89
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

Time (mins)	Depth to Water (m)
0	

Effective Depth (m)	0.00
Height to 0.75H	0
Height to 0.25H	0
tp75	
tp25	

ANNEX E
Dynamic Penetrometer Logs

Dynamic Cone Penetrometer Testing

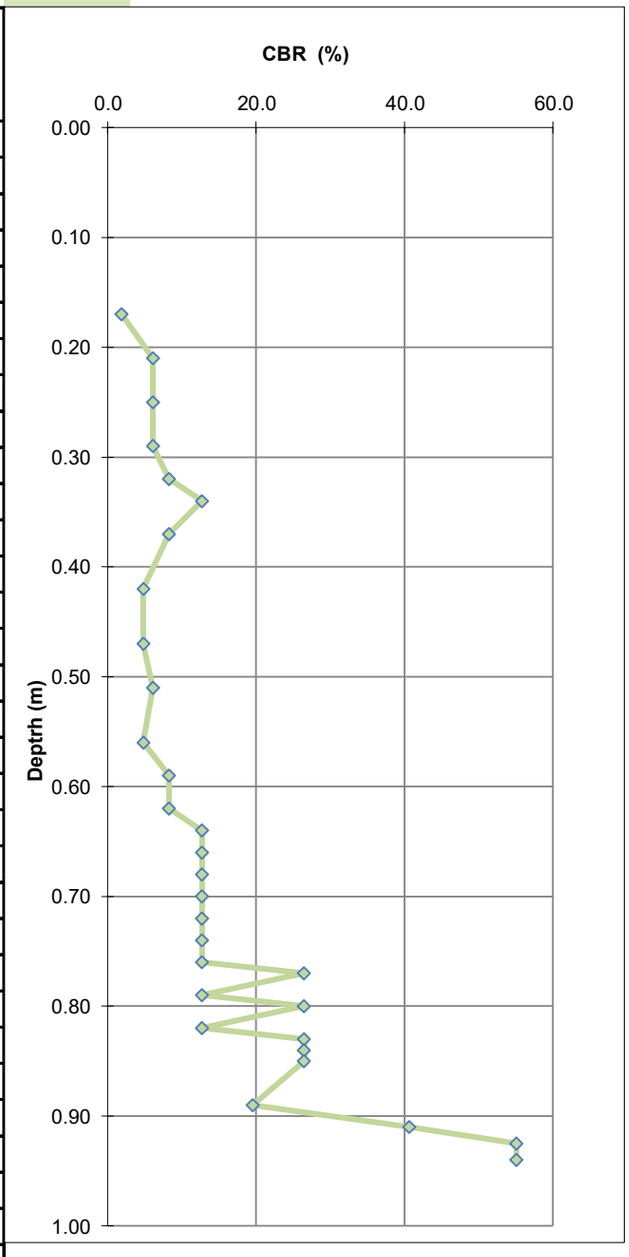
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP01

Initial Scale Reading (mm) 50 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	170	120	0.17	120	1.9
1	210	40	0.21	40	6.1
1	250	40	0.25	40	6.1
1	290	40	0.29	40	6.1
1	320	30	0.32	30	8.3
1	340	20	0.34	20	12.7
1	370	30	0.37	30	8.3
1	420	50	0.42	50	4.8
1	470	50	0.47	50	4.8
1	510	40	0.51	40	6.1
1	560	50	0.56	50	4.8
1	590	30	0.59	30	8.3
1	620	30	0.62	30	8.3
1	640	20	0.64	20	12.7
1	660	20	0.66	20	12.7
1	680	20	0.68	20	12.7
1	700	20	0.70	20	12.7
1	720	20	0.72	20	12.7
1	740	20	0.74	20	12.7
1	760	20	0.76	20	12.7
1	770	10	0.77	10	26.5
1	790	20	0.79	20	12.7
1	800	10	0.80	10	26.5
1	820	20	0.82	20	12.7
1	830	10	0.83	10	26.5
1	840	10	0.84	10	26.5
1	850	10	0.85	10	26.5
3	890	40	0.89	13	19.5
3	910	20	0.91	7	40.7
3	925	15	0.93	5	55.1
3	940	15	0.94	5	55.1



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

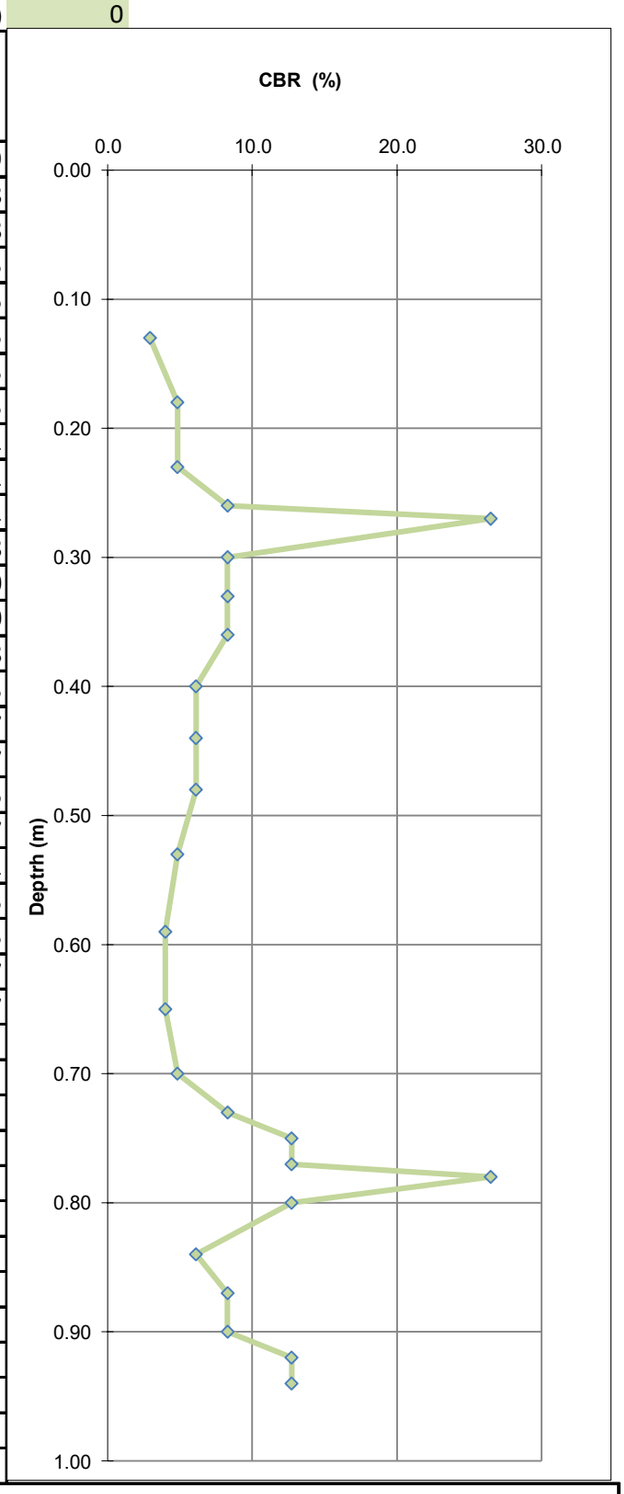
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP02

Initial Scale Reading (mm) 50 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	130	80	0.13	80	2.9
1	180	50	0.18	50	4.8
1	230	50	0.23	50	4.8
1	260	30	0.26	30	8.3
1	270	10	0.27	10	26.5
1	300	30	0.30	30	8.3
1	330	30	0.33	30	8.3
1	360	30	0.36	30	8.3
1	400	40	0.40	40	6.1
1	440	40	0.44	40	6.1
1	480	40	0.48	40	6.1
1	530	50	0.53	50	4.8
1	590	60	0.59	60	4.0
1	650	60	0.65	60	4.0
1	700	50	0.70	50	4.8
1	730	30	0.73	30	8.3
1	750	20	0.75	20	12.7
1	770	20	0.77	20	12.7
1	780	10	0.78	10	26.5
1	800	20	0.80	20	12.7
1	840	40	0.84	40	6.1
1	870	30	0.87	30	8.3
1	900	30	0.90	30	8.3
1	920	20	0.92	20	12.7
1	940	20	0.94	20	12.7



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

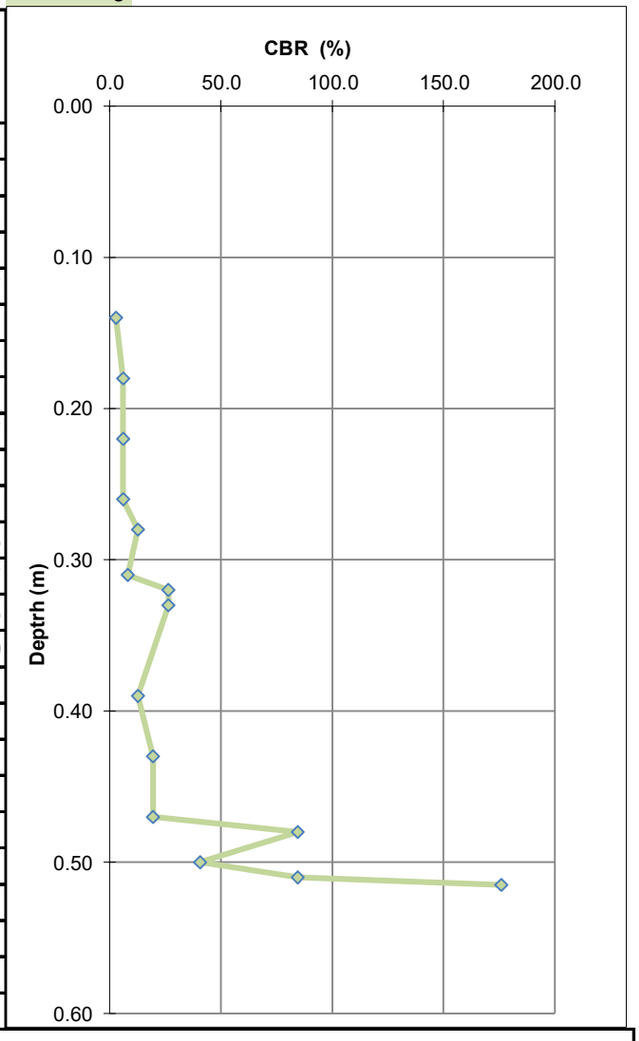
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP03

Initial Scale Reading (mm) 60 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	140	80	0.14	80	2.9
1	180	40	0.18	40	6.1
1	220	40	0.22	40	6.1
1	260	40	0.26	40	6.1
1	280	20	0.28	20	12.7
1	310	30	0.31	30	8.3
1	320	10	0.32	10	26.5
1	330	10	0.33	10	26.5
3	390	60	0.39	20	12.7
3	430	40	0.43	13	19.5
3	470	40	0.47	13	19.5
3	480	10	0.48	3	84.6
3	500	20	0.50	7	40.7
3	510	10	0.51	3	84.6
3	515	5	0.52	2	176.0



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

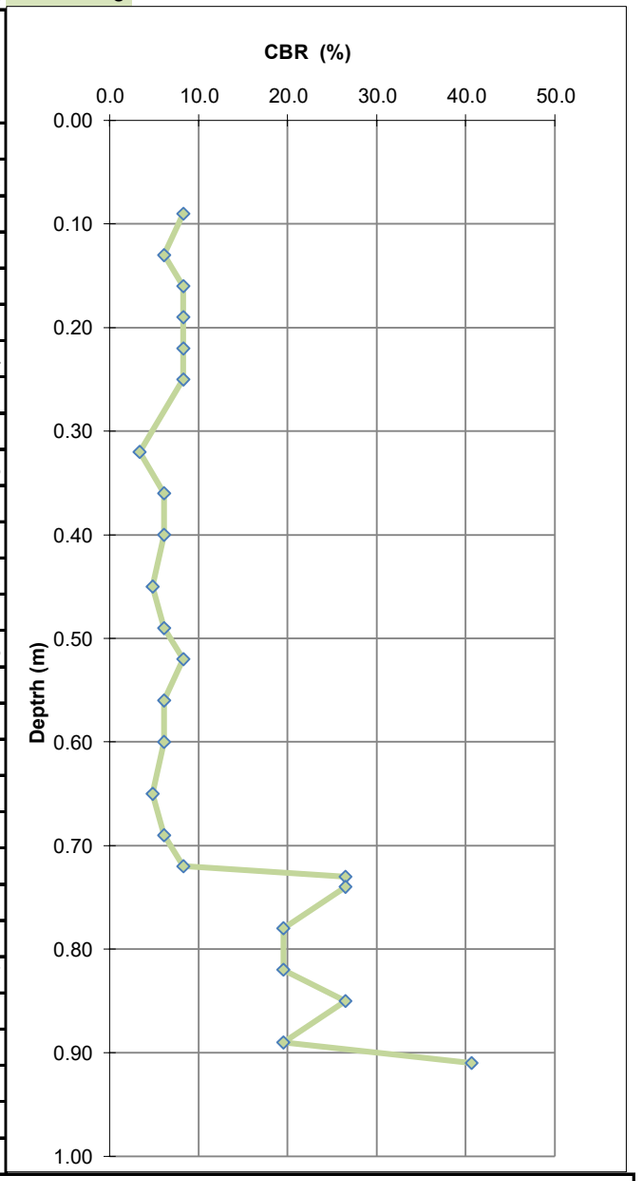
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP04

Initial Scale Reading (mm) 60 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	90	30	0.09	30	8.3
1	130	40	0.13	40	6.1
1	160	30	0.16	30	8.3
1	190	30	0.19	30	8.3
1	220	30	0.22	30	8.3
1	250	30	0.25	30	8.3
1	320	70	0.32	70	3.4
1	360	40	0.36	40	6.1
1	400	40	0.40	40	6.1
1	450	50	0.45	50	4.8
1	490	40	0.49	40	6.1
1	520	30	0.52	30	8.3
1	560	40	0.56	40	6.1
1	600	40	0.60	40	6.1
1	650	50	0.65	50	4.8
1	690	40	0.69	40	6.1
1	720	30	0.72	30	8.3
1	730	10	0.73	10	26.5
1	740	10	0.74	10	26.5
3	780	40	0.78	13	19.5
3	820	40	0.82	13	19.5
3	850	30	0.85	10	26.5
3	890	40	0.89	13	19.5
3	910	20	0.91	7	40.7



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

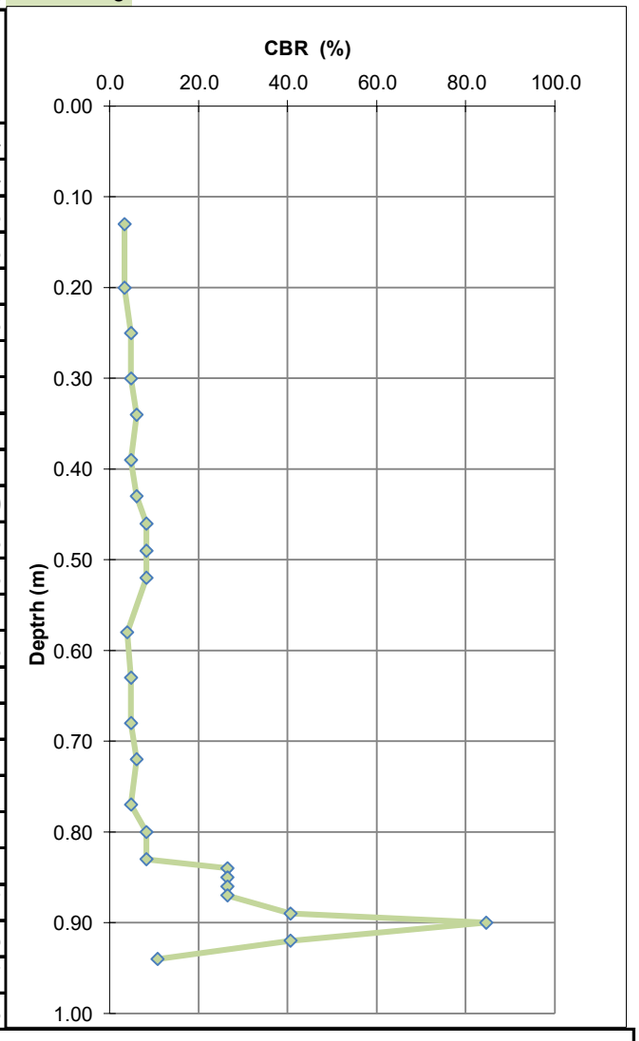
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP05

Initial Scale Reading (mm) 60 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	130	70	0.13	70	3.4
1	200	70	0.20	70	3.4
1	250	50	0.25	50	4.8
1	300	50	0.30	50	4.8
1	340	40	0.34	40	6.1
1	390	50	0.39	50	4.8
1	430	40	0.43	40	6.1
1	460	30	0.46	30	8.3
1	490	30	0.49	30	8.3
1	520	30	0.52	30	8.3
1	580	60	0.58	60	4.0
1	630	50	0.63	50	4.8
1	680	50	0.68	50	4.8
1	720	40	0.72	40	6.1
1	770	50	0.77	50	4.8
1	800	30	0.80	30	8.3
1	830	30	0.83	30	8.3
1	840	10	0.84	10	26.5
1	850	10	0.85	10	26.5
1	860	10	0.86	10	26.5
1	870	10	0.87	10	26.5
3	890	20	0.89	7	40.7
3	900	10	0.90	3	84.6
3	920	20	0.92	7	40.7
3	940	70	0.94	23	10.8



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

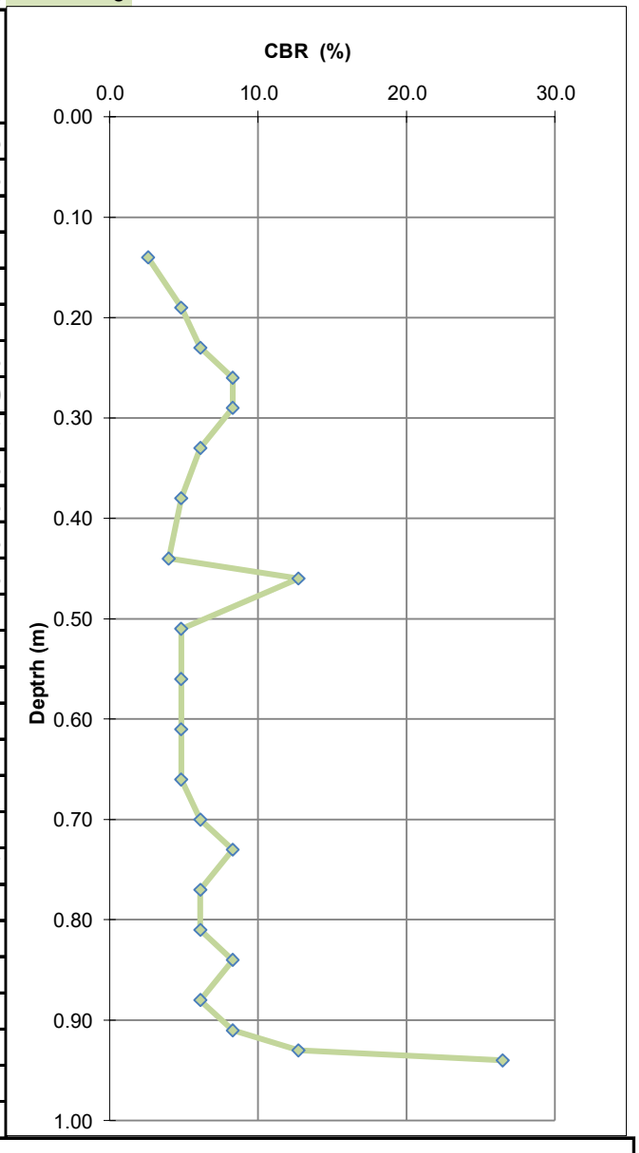
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP06

Initial Scale Reading (mm) 50 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	140	90	0.14	90	2.6
1	190	50	0.19	50	4.8
1	230	40	0.23	40	6.1
1	260	30	0.26	30	8.3
1	290	30	0.29	30	8.3
1	330	40	0.33	40	6.1
1	380	50	0.38	50	4.8
1	440	60	0.44	60	4.0
1	460	20	0.46	20	12.7
1	510	50	0.51	50	4.8
1	560	50	0.56	50	4.8
1	610	50	0.61	50	4.8
1	660	50	0.66	50	4.8
1	700	40	0.70	40	6.1
1	730	30	0.73	30	8.3
1	770	40	0.77	40	6.1
1	810	40	0.81	40	6.1
1	840	30	0.84	30	8.3
1	880	40	0.88	40	6.1
1	910	30	0.91	30	8.3
1	930	20	0.93	20	12.7
1	940	10	0.94	10	26.5



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

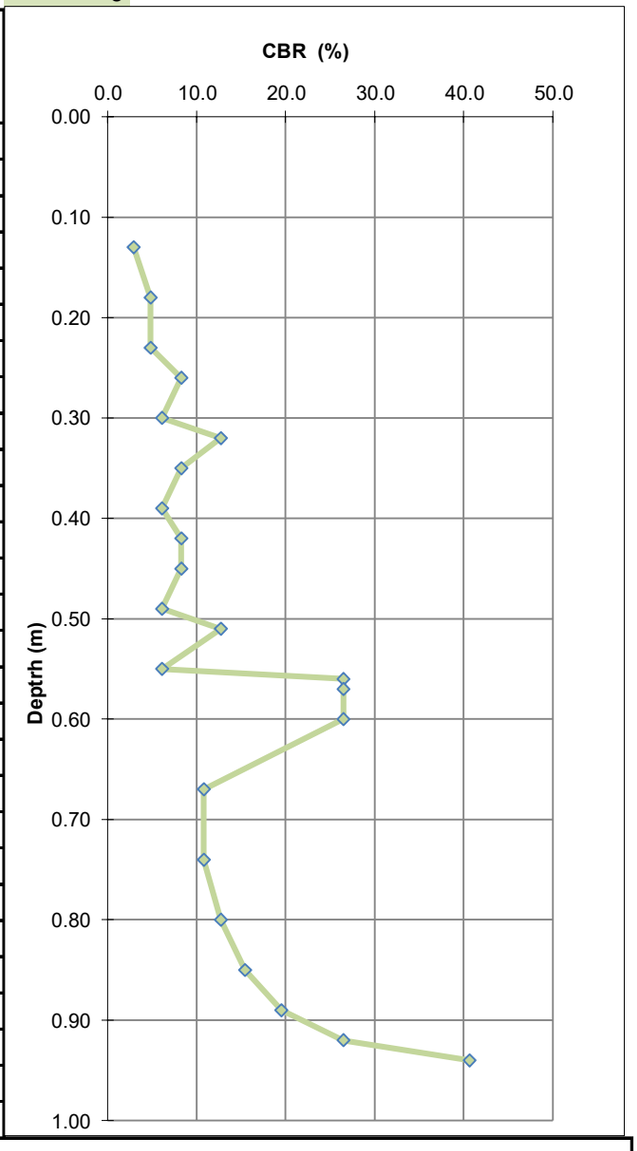
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP07

Initial Scale Reading (mm) 50 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	130	80	0.13	80	2.9
1	180	50	0.18	50	4.8
1	230	50	0.23	50	4.8
1	260	30	0.26	30	8.3
1	300	40	0.30	40	6.1
1	320	20	0.32	20	12.7
1	350	30	0.35	30	8.3
1	390	40	0.39	40	6.1
1	420	30	0.42	30	8.3
1	450	30	0.45	30	8.3
1	490	40	0.49	40	6.1
1	510	20	0.51	20	12.7
1	550	40	0.55	40	6.1
1	560	10	0.56	10	26.5
1	570	10	0.57	10	26.5
3	600	30	0.60	10	26.5
3	670	70	0.67	23	10.8
3	740	70	0.74	23	10.8
3	800	60	0.80	20	12.7
3	850	50	0.85	17	15.4
3	890	40	0.89	13	19.5
3	920	30	0.92	10	26.5
3	940	20	0.94	7	40.7



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (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

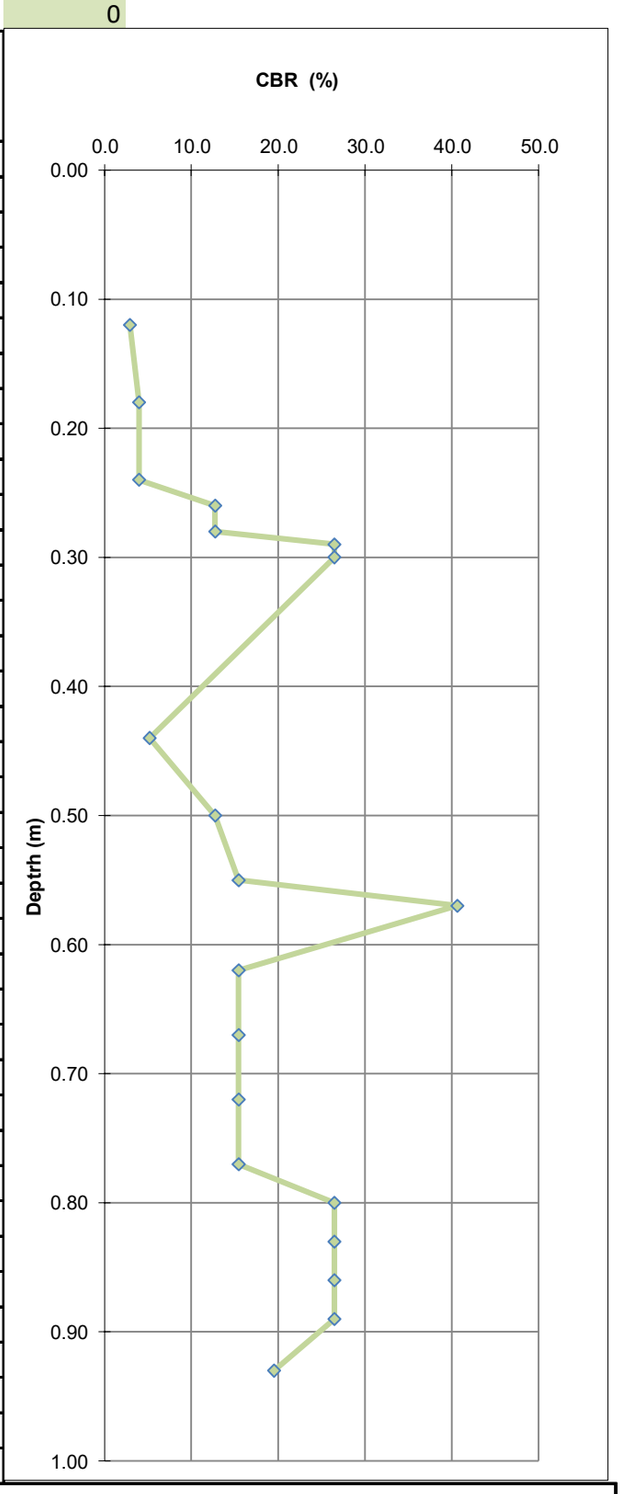
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP08

Initial Scale Reading (mm) 40 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	120	80	0.12	80	2.9
1	180	60	0.18	60	4.0
1	240	60	0.24	60	4.0
1	260	20	0.26	20	12.7
1	280	20	0.28	20	12.7
1	290	10	0.29	10	26.5
1	300	10	0.30	10	26.5
3	440	140	0.44	47	5.2
3	500	60	0.50	20	12.7
3	550	50	0.55	17	15.4
3	570	20	0.57	7	40.7
3	620	50	0.62	17	15.4
3	670	50	0.67	17	15.4
3	720	50	0.72	17	15.4
3	770	50	0.77	17	15.4
3	800	30	0.80	10	26.5
3	830	30	0.83	10	26.5
3	860	30	0.86	10	26.5
3	890	30	0.89	10	26.5
3	930	40	0.93	13	19.5



REMARKS:

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CBR correlation based on the relationship Log10 (CBR) = 2.48 - 1.057 * Log10 (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

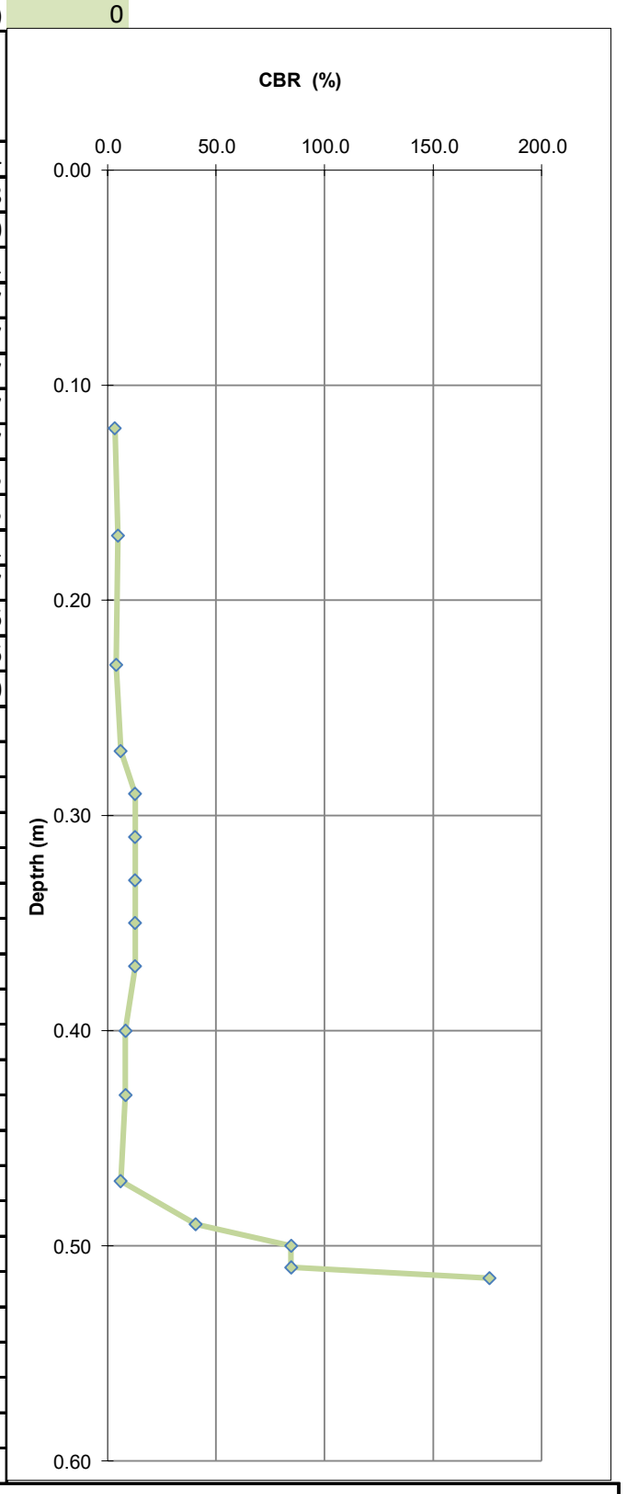
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP09

Initial Scale Reading (mm) 50 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	120	70	0.12	70	3.4
1	170	50	0.17	50	4.8
1	230	60	0.23	60	4.0
1	270	40	0.27	40	6.1
1	290	20	0.29	20	12.7
1	310	20	0.31	20	12.7
1	330	20	0.33	20	12.7
1	350	20	0.35	20	12.7
1	370	20	0.37	20	12.7
1	400	30	0.40	30	8.3
1	430	30	0.43	30	8.3
1	470	40	0.47	40	6.1
3	490	20	0.49	7	40.7
3	500	10	0.50	3	84.6
3	510	10	0.51	3	84.6
3	515	5	0.52	2	176.0



REMARKS:

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CBR correlation based on the relationship Log10 (CBR) = 2.48 - 1.057 * Log10 (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

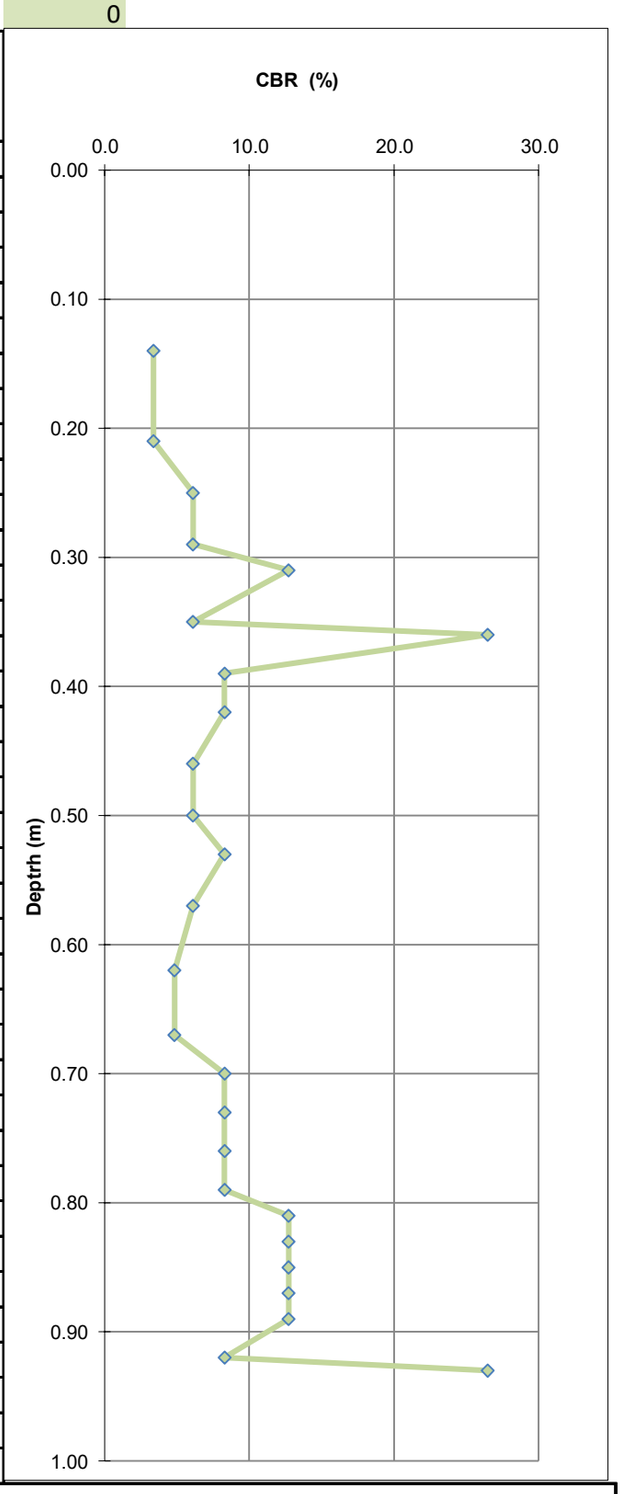
terrafirma

Client: Draycott Group
Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Date: 03/07/2024

DCP10

Initial Scale Reading (mm) 70 Datum bgl (mm) 0

no. of blows	scale reading (mm)	penetration increment (mm)	depth bgl (m)	DCP (mm/blow)	CBR (%)
1	140	70	0.14	70	3.4
1	210	70	0.21	70	3.4
1	250	40	0.25	40	6.1
1	290	40	0.29	40	6.1
1	310	20	0.31	20	12.7
1	350	40	0.35	40	6.1
1	360	10	0.36	10	26.5
1	390	30	0.39	30	8.3
1	420	30	0.42	30	8.3
1	460	40	0.46	40	6.1
1	500	40	0.50	40	6.1
1	530	30	0.53	30	8.3
1	570	40	0.57	40	6.1
1	620	50	0.62	50	4.8
1	670	50	0.67	50	4.8
1	700	30	0.70	30	8.3
1	730	30	0.73	30	8.3
1	760	30	0.76	30	8.3
1	790	30	0.79	30	8.3
1	810	20	0.81	20	12.7
1	830	20	0.83	20	12.7
1	850	20	0.85	20	12.7
1	870	20	0.87	20	12.7
1	890	20	0.89	20	12.7
1	920	30	0.92	30	8.3
1	930	10	0.93	10	26.5



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 Log10 (CBR) = 2.48 - 1.057 * Log10 (mm/blow) developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

ANNEX F
Laboratory Soil Chemical Test Results

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-21351-1
Initial Date of Issue:	15-Jul-2024
Re-Issue Details:	
Client	Terra Firma
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA
Contact(s):	Jamie Alderman
Project	TF-24-252-CA Old Tenby Road, St Clears

Quotation No.:	Q24-33609	**Date Received:**	05-Jul-2024
Order No.:		**Date Instructed:**	05-Jul-2024
No. of Samples:	8		
Turnaround (Wkdays):	5	**Results Due:**	11-Jul-2024
Date Approved:	15-Jul-2024		

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma			**Chemtest Job No.:**			24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351
Quotation No.: Q24-33609			**Chemtest Sample ID.:**			1830613	1830614	1830615	1830616	1830617	1830618	1830619	1830620
			Sample Location:			TP01	TP01	TP05	TP07	TP09	TP09	TP02	TP12
			Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):			0.40	0.80	0.70	0.70	0.20	0.90	0.10	0.20
			Date Sampled:			03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024
			Asbestos Lab:			NEW-ASB				NEW-ASB		NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type		U	2192		N/A	-				-		-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected				No Asbestos Detected		No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	20	17	16	15	22	13	22	21
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones and Roots	Stones	Stones and Roots	Stones	Stones and Roots	Stones	Stones and Roots	Stones and Roots
Soil Texture		N	2040		N/A	Clay	Clay	Clay	Clay	Clay	Clay	Loam	Clay
pH at 20C		M	2010		4.0	7.7				7.2		7.5	7.7
pH (2.5:1) at 20C		N	2010		4.0		7.4	7.4	7.4		7.3		
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	0.73				0.52		0.97	0.51
Magnesium (Water Soluble)		M	2120	mg/kg	20		< 20	< 20	< 20		< 20		
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010		< 0.010	< 0.010	0.012		0.036		
Total Sulphur		U	2175	%	0.010		< 0.010	0.012	0.011		0.022		
Chloride (Water Soluble)		M	2220	g/l	0.010		< 0.010	< 0.010	< 0.010		< 0.010		
Nitrate (Water Soluble)		N	2220	g/l	0.010		< 0.010	< 0.010	< 0.010		< 0.010		
Cyanide (Complex)		M	2300	mg/kg	0.50	0.50				< 0.50		0.50	< 0.50
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50				< 0.50		< 0.50	< 0.50
Cyanide (Total)		M	2300	mg/kg	0.50	0.50				< 0.50		0.50	< 0.50
Ammonium (Extractable)		M	2425	mg/kg	0.50		7.2	2.2	3.0		3.1		
Sulphate (Total)		U	2430	%	0.010		0.012	0.010	0.011		0.022		
Sulphate (Acid Soluble)		U	2430	%	0.010	0.047	0.012	0.010	0.011	0.061	0.022	0.080	0.055
Arsenic		M	2455	mg/kg	0.5	16				15		13	14
Beryllium		U	2455	mg/kg	0.5	1.2				1.1		0.9	1.0
Cadmium		M	2455	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	23				18		16	16
Mercury Low Level		N	2450	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Manganese		M	2455	mg/kg	1.0	340				980		390	460
Molybdenum		M	2455	mg/kg	0.5	1.8				1.7		1.2	1.4
Antimony		N	2455	mg/kg	2.0	< 2.0				< 2.0		< 2.0	< 2.0
Copper		M	2455	mg/kg	0.50	34				35		29	31
Nickel		M	2455	mg/kg	0.50	36				32		28	30
Lead		M	2455	mg/kg	0.50	26				28		23	24
Selenium		M	2455	mg/kg	0.25	1.1				1.1		0.87	1.1
Zinc		M	2455	mg/kg	0.50	93				92		79	80
Chromium (Trivalent)		N	2490	mg/kg	1.0	23				18		16	16
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50				< 0.50		< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma				**Chemtest Job No.:**		24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351
Quotation No.: Q24-33609				**Chemtest Sample ID.:**		1830613	1830614	1830615	1830616	1830617	1830618	1830619	1830620
				Sample Location:		TP01	TP01	TP05	TP07	TP09	TP09	TP02	TP12
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.40	0.80	0.70	0.70	0.20	0.90	0.10	0.20
				Date Sampled:		03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024
				Asbestos Lab:		NEW-ASB				NEW-ASB		NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25				< 0.25		< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	8.8				10		11	11
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	2.6				3.1		3.2	1.9
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0				< 2.0		< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	< 3.0				< 3.0		4.6	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10				< 10		< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	13				15		19	15
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	13				15		19	15
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05				< 0.05		< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25				< 0.25		< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	1.1				1.9		2.4	1.7
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0				< 1.0		< 1.0	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0				< 2.0		< 2.0	< 2.0
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0				< 2.0		8.3	2.9
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	< 1.0				< 1.0		1.4	1.6
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	< 5.0				< 5.0		11	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10				< 10		12	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50				< 0.50		< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	15				17		30	19
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	15				17		31	21
Naphthalene		M	2800	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.53	< 0.10
Anthracene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.50	< 0.10
Fluoranthene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.79	< 0.10
Pyrene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.82	< 0.10
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.91	< 0.10
Chrysene		M	2800	mg/kg	0.10	< 0.10				< 0.10		1.0	< 0.10
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10				< 0.10		1.1	< 0.10
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10				< 0.10		1.0	< 0.10
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.88	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10				< 0.10		1.1	< 0.10

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma				**Chemtest Job No.:**		24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351	24-21351
Quotation No.: Q24-33609				**Chemtest Sample ID.:**		1830613	1830614	1830615	1830616	1830617	1830618	1830619	1830620
				Sample Location:		TP01	TP01	TP05	TP07	TP09	TP09	TP02	TP12
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.40	0.80	0.70	0.70	0.20	0.90	0.10	0.20
				Date Sampled:		03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024	03-Jul-2024
				Asbestos Lab:		NEW-ASB				NEW-ASB		NEW-ASB	NEW-ASB
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10				< 0.10		0.91	< 0.10
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10				< 0.10		0.89	< 0.10
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0				< 2.0		10	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10				< 0.10		< 0.10	< 0.10
Organic Matter BS1377		N	2930	%	0.10	2.8				2.4		4.4	2.6

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	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 <30°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	
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.	
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.	
2455	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-diphenylcarbazide.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane 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

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
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 EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°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.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	24-21607-1
Initial Date of Issue:	14-Jul-2024
Re-Issue Details:	
Client	Terra Firma
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA
Contact(s):	Jamie Alderman
Project	TF-24-252-CA Old Tenby Road, St Clears

Quotation No.:		**Date Received:**	08-Jul-2024
Order No.:		**Date Instructed:**	08-Jul-2024
No. of Samples:	8		
Turnaround (Wkdays):	5	**Results Due:**	12-Jul-2024
Date Approved:	14-Jul-2024		

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma				**Chemtest Job No.:**		24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607
Quotation No.:				**Chemtest Sample ID.:**		1831825	1831826	1831827	1831828	1831829	1831830	1831831	1831832
				Sample Location:		TP15	TP18	TP20	TP21	TP22	TP18	TP25	TP25
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.60	0.20	0.50	0.10	0.60	0.80	0.30	0.70
				Date Sampled:		04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024
				Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
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	
Moisture		N	2030	%	0.020	21	14	18	15	18	13	15	13
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones	Roots	None	Roots	Roots	Stones	Stones and Roots	Stones and Roots
Soil Texture		N	2040		N/A	Clay	Loam	Clay	Loam	Clay	Clay	Clay	Clay
pH at 20C		M	2010		4.0	8.8	8.1	7.8	7.3	7.6	7.5	7.4	7.3
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	1.1	0.54	0.58	< 0.40	< 0.40		< 0.40	
Magnesium (Water Soluble)		N	2120	g/l	0.010						< 0.010		< 0.010
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010						< 0.010		0.012
Total Sulphur		U	2175	%	0.010						< 0.010		< 0.010
Chloride (Water Soluble)		M	2220	g/l	0.010						< 0.010		< 0.010
Nitrate (Water Soluble)		N	2220	g/l	0.010						< 0.010		< 0.010
Cyanide (Complex)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Ammonium (Water Soluble)		M	2220	g/l	0.01						< 0.01		< 0.01
Sulphate (Acid Soluble)		U	2430	%	0.010	< 0.010	0.058	0.014	0.037	< 0.010	< 0.010	< 0.010	< 0.010
Arsenic		M	2455	mg/kg	0.5	18	21	13	12	16		16	
Beryllium		U	2455	mg/kg	0.5	1.4	1.0	1.0	0.9	1.4		1.2	
Cadmium		M	2455	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Chromium		M	2455	mg/kg	0.5	48	33	37	25	44		35	
Mercury Low Level		N	2450	mg/kg	0.05	0.09	0.23	0.07	0.06	0.10		0.07	
Manganese		M	2455	mg/kg	1.0	820	2300	420	640	190		270	
Molybdenum		M	2455	mg/kg	0.5	2.0	1.2	1.3	0.8	1.5		1.3	
Antimony		N	2455	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	
Copper		M	2455	mg/kg	0.50	49	32	24	16	26		36	
Nickel		M	2455	mg/kg	0.50	51	29	33	23	47		34	
Lead		M	2455	mg/kg	0.50	36	83	22	29	32		30	
Selenium		M	2455	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	0.36		< 0.25	
Zinc		M	2455	mg/kg	0.50	130	86	76	60	98		86	
Chromium (Trivalent)		N	2490	mg/kg	1.0	48	33	37	25	44		35	
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma				**Chemtest Job No.:**		24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607
Quotation No.:				**Chemtest Sample ID.:**		1831825	1831826	1831827	1831828	1831829	1831830	1831831	1831832
				Sample Location:		TP15	TP18	TP20	TP21	TP22	TP18	TP25	TP25
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.60	0.20	0.50	0.10	0.60	0.80	0.30	0.70
				Date Sampled:		04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024
				Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25		< 0.25	
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	9.4	8.4	11	8.2	8.4		10	
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	6.4	4.5	4.4	4.5	2.8		2.9	
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	2.2	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	4.7	4.5	3.1	3.8	< 3.0		20	
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10		14	
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	23	18	18	17	12		34	
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	23	18	18	17	12		47	
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05		< 0.05	
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25		< 0.25	
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	1.1	1.2	1.2	1.2	1.2		1.2	
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		3.1	
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	< 2.0	9.6	< 2.0	5.2	< 2.0		3.9	
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	1.3	2.1	1.5	1.6	< 1.0		39	
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	< 5.0	11	< 5.0	6.5	< 5.0		8.2	
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	< 10	13	< 10	< 10	< 10		47	
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	24	29	21	23	13		42	
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	26	31	22	25	13		94	
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Phenanthrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Fluoranthene		M	2800	mg/kg	0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10		< 0.10	
Pyrene		M	2800	mg/kg	0.10	< 0.10	0.12	< 0.10	< 0.10	< 0.10		< 0.10	
Benzo[a]anthracene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Chrysene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Benzo[a]pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	

Results - Soil

Project: TF-24-252-CA Old Tenby Road, St Clears

Client: Terra Firma		**Chemtest Job No.:**				24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607	24-21607
Quotation No.:		**Chemtest Sample ID.:**				1831825	1831826	1831827	1831828	1831829	1831830	1831831	1831832
		Sample Location:				TP15	TP18	TP20	TP21	TP22	TP18	TP25	TP25
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.60	0.20	0.50	0.10	0.60	0.80	0.30	0.70
		Date Sampled:				04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024	04-Jul-2024
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**								
Total Of 16 PAH's		N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	
Organic Matter BS1377		N	2930	%	0.10	1.0	3.3	1.4	2.4	1.3		1.5	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	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 <30°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	
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline 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.	
2455	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-diphenylcarbazide.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane 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

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
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 EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°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.

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

ANNEX G
Laboratory Soil Geotechnical Test Results

Results Summary

Apex Testing Solutions Limited
Sturmi Way
Village Farm Industrial Estate
Pyle
Bridgend
CF33 6BZ

Telephone: 01656 746762
E-mail: andrew.grogan@apex-drilling.com
laura.davis@apex-drilling.com

Reporting Details		**Key Information**	
Company Name:	TFW Group Ltd	**Site Name:**	Old Tenby, St Clears
Address:	5 Deryn Court		
	Wharfdale Road	**Job Number:**	D24272
	Cardiff	**Date Received:**	17/07/2024
	CF23 7HA	**Job Coordinator:**	A. Grogan
Contact Name:	**Jamie**		
Contact Number:			

Item No.	Tests Undertaken	Number of Tests
1	Water Content - ISO 17892 2014	4
2	Atterburg Limits (4 point) - BS1377-2: 1990	4

Results Issued: 19/07/2024

Comments

Results herein relate only to samples received in the laboratory and where not sampled by Apex Testing Solutions personnel relate to the samples as received.
Where tests are UKAS accredited any Opinion and/or Interpretation expressed herein are outside the scope of the UKAS Accreditation. The reports shall not be reproduced in full without the written approval of the laboratory.

Please contact the job coordinator should any further information be required.

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014

Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37162		

Site Ref / Hole ID:	TP01	**Depth (m):**	0.90
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Light brown slightly gravelly slightly sandy CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	ISO 17892-1
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Water Content (%)	23.2

Remarks:

QA Ref.	**Apex Testing Solutions**	Approver	Date	Fig
EN ISO 17892-1:2014	Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	L Davis	19/07/2024	**MC**
	7771	L Davis, Quality Manager		

TEST REPORT

LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX

BS 1377:Part 2:1990. Clause 4.3/5.3/5.4

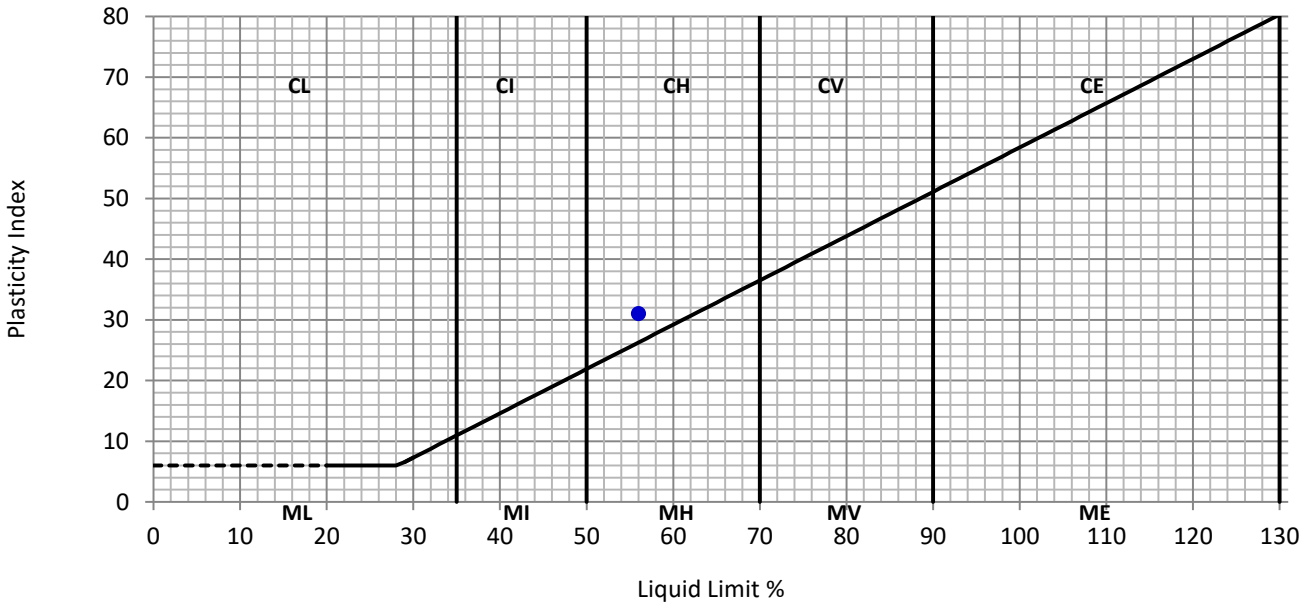
Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37162		

Site Ref / Hole ID:	TP01	**Depth (m):**	0.90
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Light brown slightly gravelly slightly sandy CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	BS1377
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Liquid Limit	56	%
Plastic Limit	25	%
Plasticity Index	31	%

Preparation:	4.2.4 Sieved Specimen	
Proportion retained on 425µm sieve:	30	%



Remarks:

QA Ref. BS1377 - 2 Rev. 3.0	**Apex Testing Solutions** Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	UKAS TESTING 7771	Approver: L Davis L Davis, Quality Manager	Date: 19/07/2024	Fig. **ATT**

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014

Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37163		

Site Ref / Hole ID:	TP09	**Depth (m):**	0.60
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brownish grey slightly sandy slightly gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	ISO 17892-1
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Water Content (%)	20.2

Remarks:

QA Ref.	**Apex Testing Solutions**		Approver	Date	Fig
EN ISO 17892-1:2014	Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	7771	L Davis	19/07/2024	**MC**
			L Davis, Quality Manager		

TEST REPORT

LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX

BS 1377:Part 2:1990. Clause 4.3/5.3/5.4

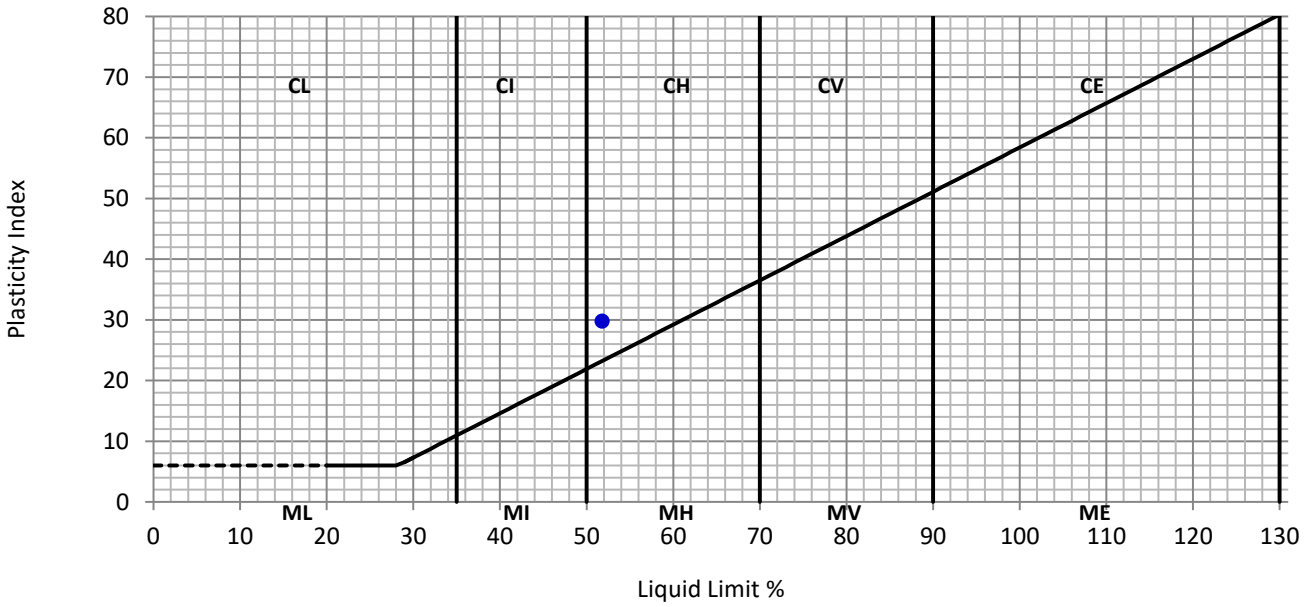
Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37163		

Site Ref / Hole ID:	TP09	**Depth (m):**	0.60
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brownish grey slightly sandy slightly gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	BS1377
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Liquid Limit	52	%
Plastic Limit	22	%
Plasticity Index	30	%

Preparation:	4.2.4 Sieved Specimen	
Proportion retained on 425µm sieve:	32	%



Remarks:

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014

Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37164		

Site Ref / Hole ID:	TP15	**Depth (m):**	0.80
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brown slightly sandy gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	ISO 17892-1
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Water Content (%)	16.7

Remarks:

QA Ref.	**Apex Testing Solutions**		Approver	Date	Fig
EN ISO 17892-1:2014	Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	7771	L Davis	19/07/2024	**MC**
			L Davis, Quality Manager		

TEST REPORT

LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX

BS 1377:Part 2:1990. Clause 4.3/5.3/5.4

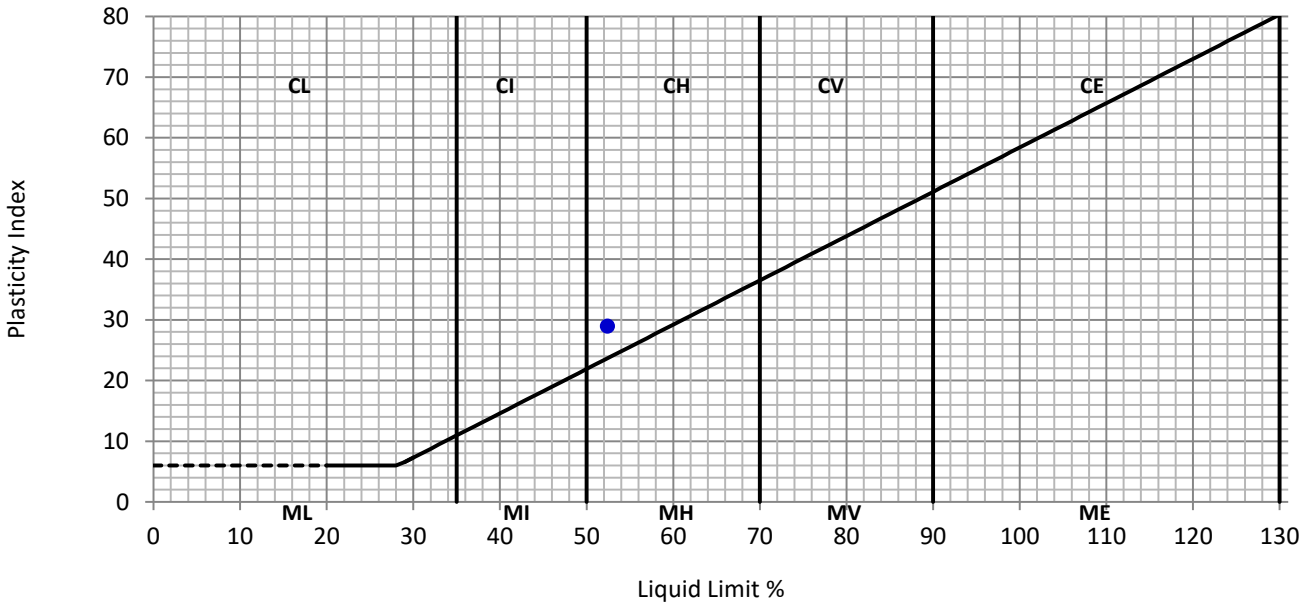
Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37164		

Site Ref / Hole ID:	TP15	**Depth (m):**	0.80
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brown slightly sandy gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	BS1377
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Liquid Limit	52	%
Plastic Limit	23	%
Plasticity Index	29	%

Preparation:	4.2.4 Sieved Specimen	
Proportion retained on 425µm sieve:	39	%



Remarks:

QA Ref.	**Apex Testing Solutions**	Approver	Date	Fig.
BS1377 - 2 Rev. 3.0	Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096 7771	L Davis	19/07/2024	**ATT**
		L Davis, Quality Manager		

TEST REPORT

Determination Of Water Content

ISO 17892-1: 2014

Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37165		

Site Ref / Hole ID:	TP23	**Depth (m):**	1.10
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brownish grey slightly sandy gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	ISO 17892-1
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Water Content (%)	12.2

Remarks:

QA Ref.	**Apex Testing Solutions**		Approver	Date	Fig
EN ISO 17892-1:2014	Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	7771	L Davis	19/07/2024	**MC**
			L Davis, Quality Manager		

TEST REPORT

LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX

BS 1377:Part 2:1990. Clause 4.3/5.3/5.4

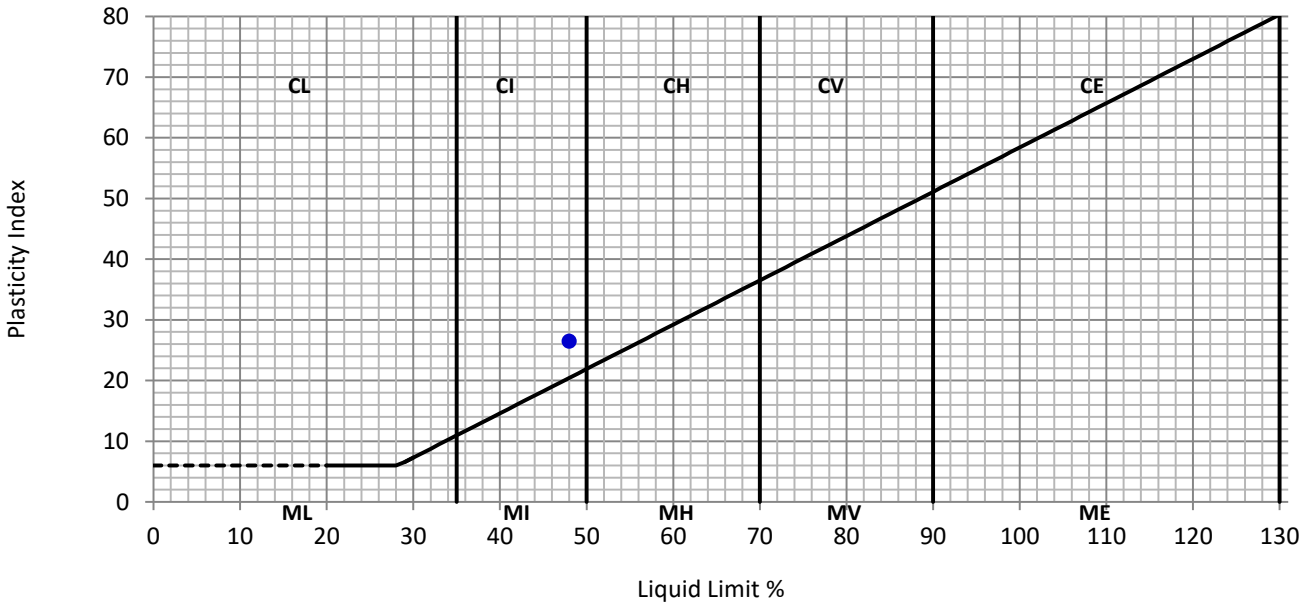
Project No:	D24272	**Client:**	TFW Group Ltd
Project Name:	Old Tenby, St Clears	**Address:**	5 Deryn Court Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	37165		

Site Ref / Hole ID:	TP23	**Depth (m):**	1.10
Sample No:		**Sample Type:**	Disturbed
Sampling Certificate Received:	No	**Material Description:**	Brownish grey slightly sandy gravelly CLAY
Location in Works:	N/a	**Material Source:**	Ex-Site
Date Sampled:	Unknown	**Material Supplier:**	Ex-Site
Sampled By:	Client	**Specification:**	BS1377
Date Received:	17 July 2024	**Date Tested:**	18 July 2024

Test Results

Liquid Limit	48	%
Plastic Limit	22	%
Plasticity Index	26	%

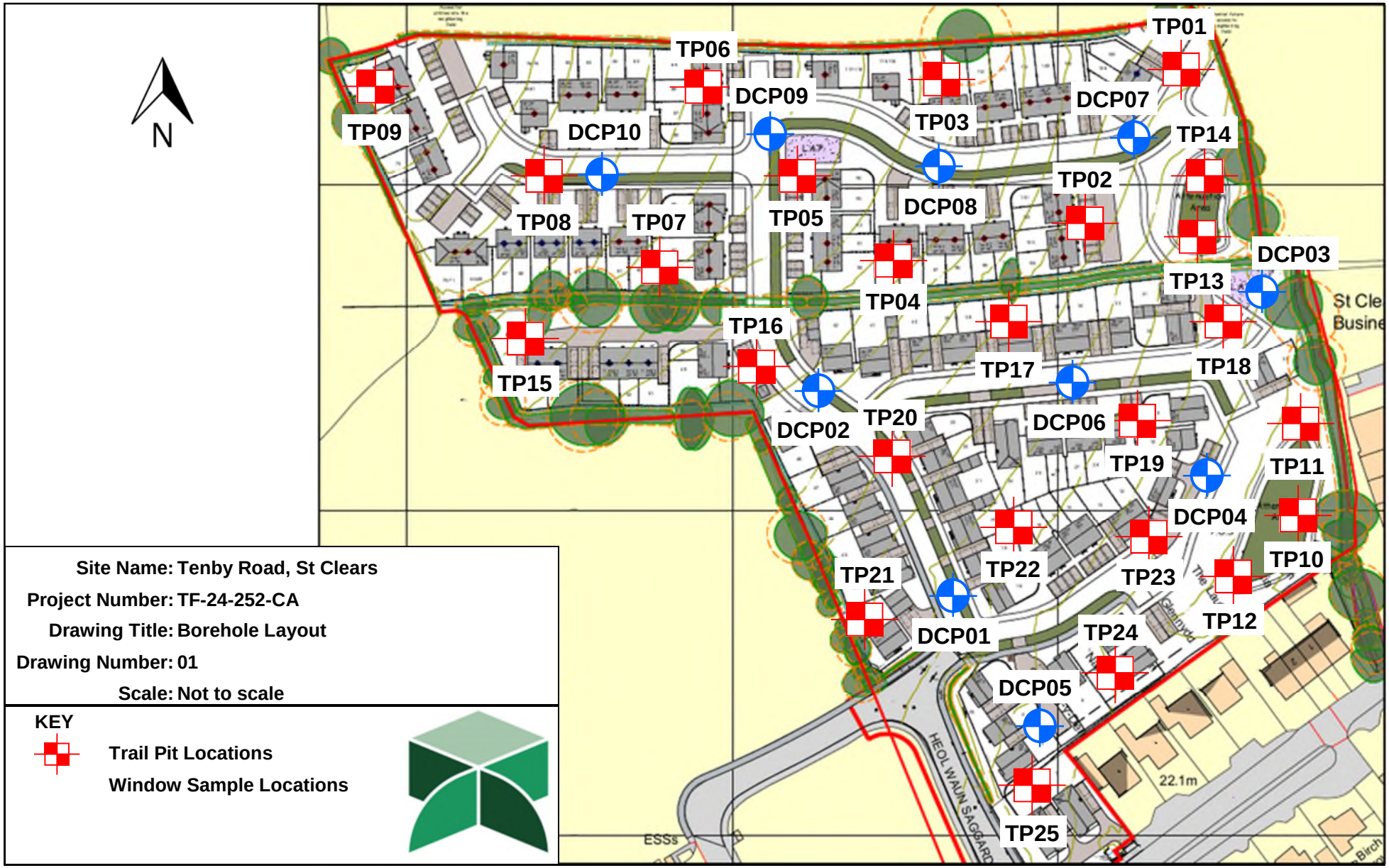
Preparation:	4.2.4 Sieved Specimen	
Proportion retained on 425µm sieve:	54	%



Remarks:

QA Ref. BS1377 - 2 Rev. 3.0	**Apex Testing Solutions** Sturmi Way, Village Farm Industrial Est, Pyle, Bridgend, CF33 6BZ Tel: 01656 746762 Fax: 01656 749096	UKAS TESTING 7771	Approver: L Davis L Davis, Quality Manager	Date: 19/07/2024	Fig. **ATT**

DRAWINGS



Site Name: Tenby Road, St Clears
Project Number: TF-24-252-CA
Drawing Title: Borehole Layout
Drawing Number: 01
Scale: Not to scale

KEY

Trail Pit Locations

Window Sample Locations

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 **www.terrafirmawales.co.uk**