

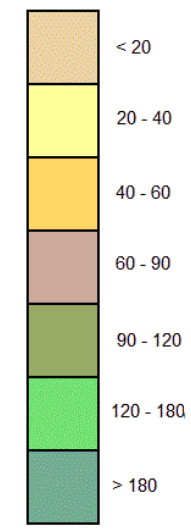


General

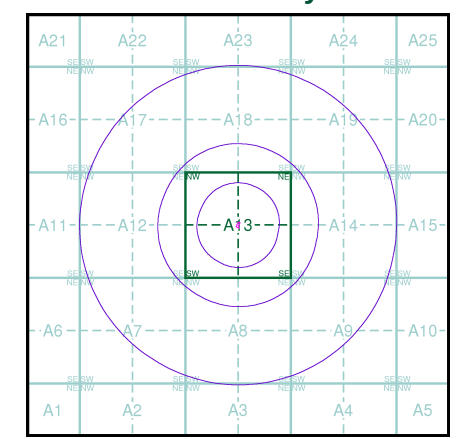
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

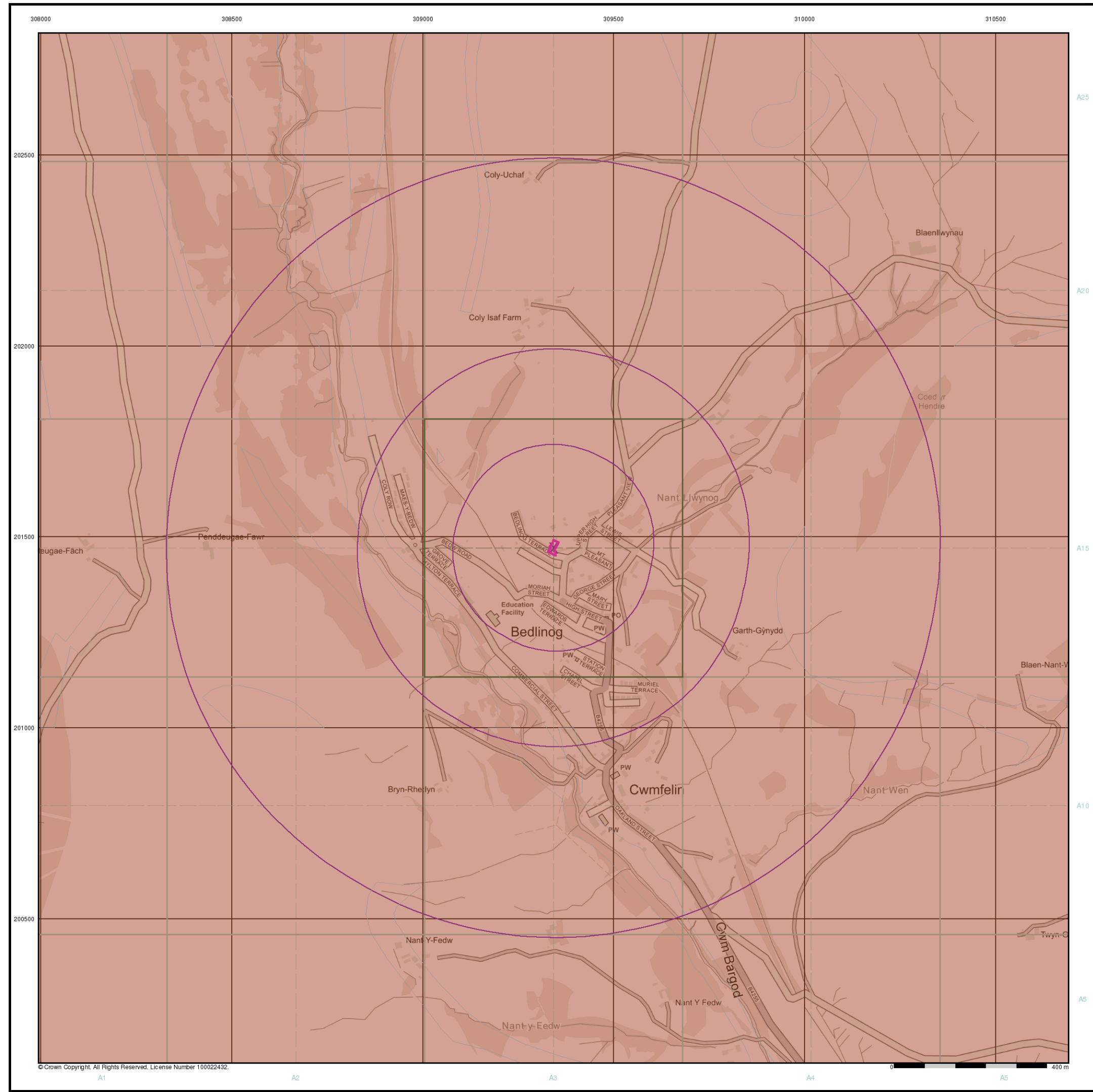
Order Details: 233104494_1_1
Customer Ref: 15886 - Bedlinog Terrace
National Grid Reference: 309340, 201470
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Land Adjacent 1, Bedlinog Terrace, Bedlinog, TREHARRIS, CF46 6SB



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



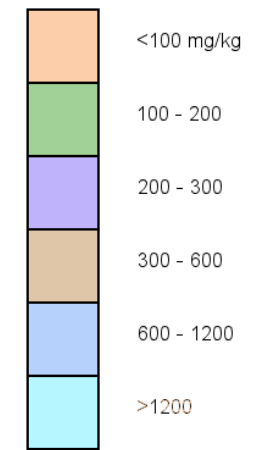


General

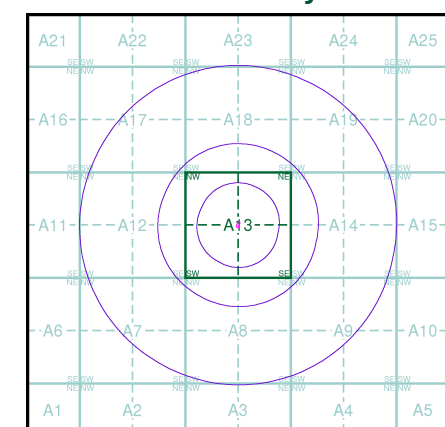
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

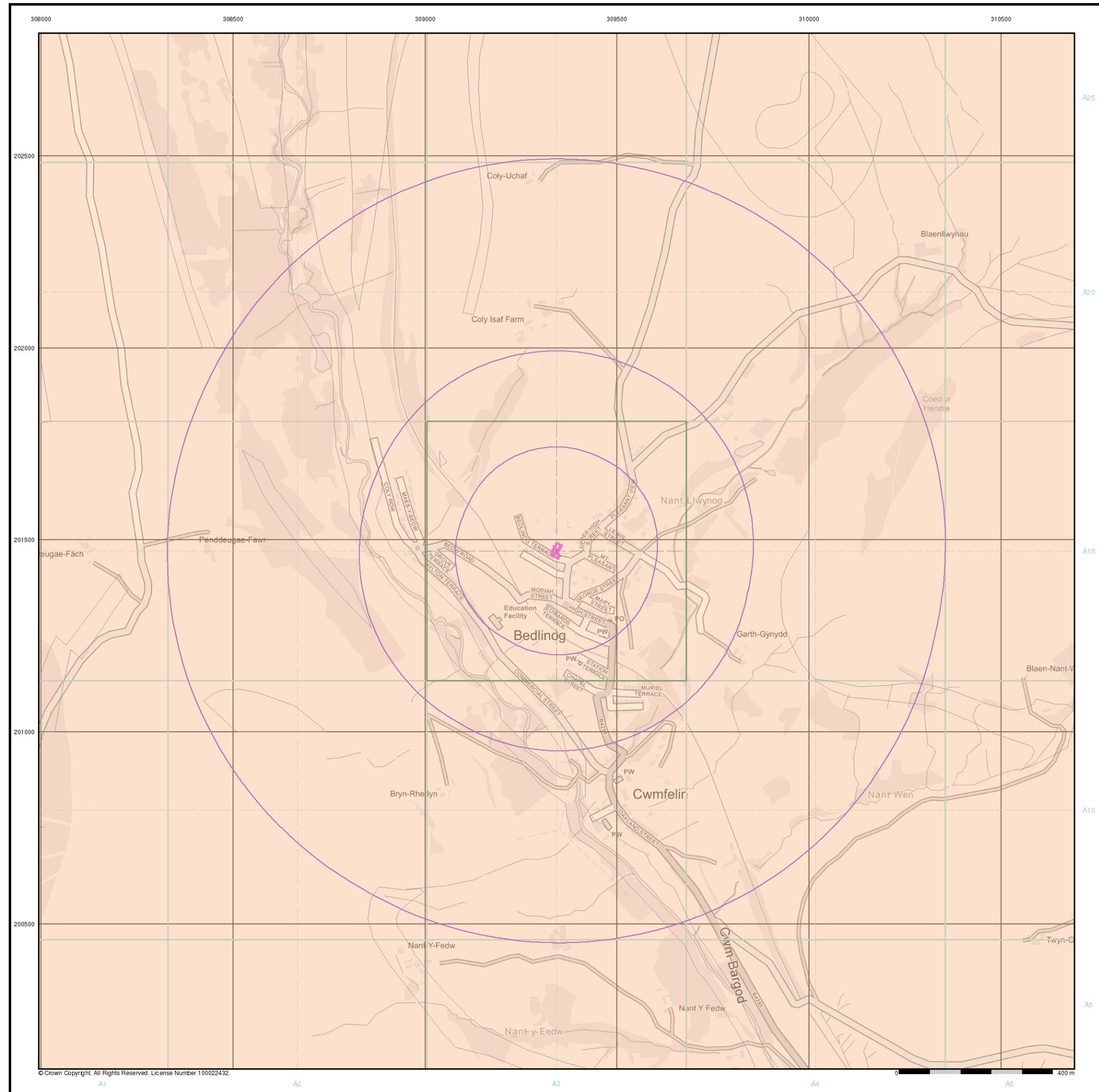
Order Details: 233104494_1_1
Customer Ref: 15886 - Bedlinog Terrace
National Grid Reference: 309340, 201470
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Land Adjacent 1, Bedlinog Terrace, Bedlinog, TREHARRIS, CF46 6SB



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



ANNEX C
Coal Authority Mining Report



The Coal
Authority

CON29M

coal mining report

LAND ADJACENT 1, BEDLINOG TERRACE, BEDLINOG, TREHARRIS, MERTHYR
TYDFIL, CF46 6SB



Known or potential coal mining risks

Past underground coal mining	Page 3
Future underground coal mining	Page 3
Mine entries	Page 4
Withdrawal of support	Page 5



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **233104494_2**
Our reference: **51002253101001**
Date: **4 February 2020**

Client name:
**LANDMARK INFORMATION
GROUP LIMITED**

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk

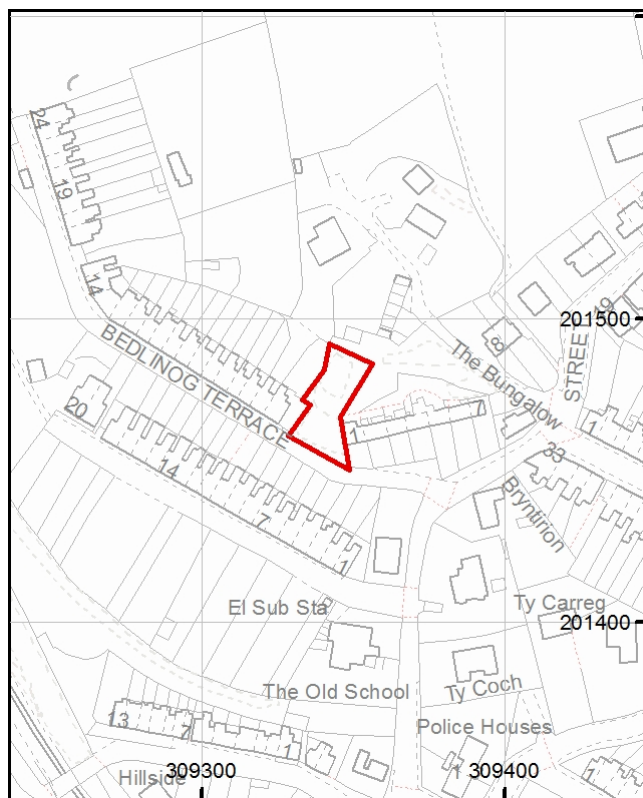


The Law
Society

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 4 seams of coal at 60m to 560m depth, and last worked in 1919.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is in an area where notices to withdraw support were given in 1946 and 1975.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

ANNEX D
Trial Pit Logs



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

Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Trial Pit No:
TP01
Sheet 1 of 1

Project Name: Land Adjacent Number 1 Bedlinog Terrace

Project No:
15886

Co-ords: -
Level:

Date:
03/02/2020

Location: Bedlinog, Merthyr Tydfil

Dimensions:

Depth
1.60



Scale:
1:25

Logged:
ADB

Client: Mr Ben Pricor

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30			MADE GROUND: Soft, brown, gravelly CLAY. Gravel is fine to coarse, angular sandstone. Contains plastic litter and occasional brick and timber. Fine roots.	
				0.80			(Medium dense), brown, very clayey GRAVEL and COBBLES with common boulders. Gravel is fine to coarse, angular sandstone.	
	0.90	D					Firm, grey brown, sandy gravelly CLAY with common cobbles and boulders. Gravel is fine to coarse, angular sandstone.	1
	1.60	D		1.60			End of Pit at 1.600m	2
								3
								4
								5

Stability: Stable.

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.



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

Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Trial Pit No:
TP02
Sheet 1 of 1

Project Name: Land Adjacent Number 1 Bedlinog Terrace
Project No: 15886
Co-ords: -
Level:

Date:
03/02/2020

Location: Bedlinog, Merthyr Tydfil

Dimensions:

Depth
1.50



Scale:
1:25

Logged:
ADB

Client: Mr Ben Pictor

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.20			MADE GROUND: Soft, dark brown, slightly gravelly CLAY. Gravel is fine to coarse, subangular sandstone. Contains plastic litter. Fine roots.	
				0.60			(Loose to medium dense), brown, clayey GRAVEL with common cobbles and boulders. Gravel is fine to coarse, subangular sandstone.	
				1.50			Firm, orange brown, sandy very gravelly CLAY with occasional cobble. Gravel is fine to coarse, angular sandstone.	1
							End of Pit at 1.500m	2
								3
								4
								5

Stability: Stable.

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.



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

Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Trial Pit No:

TP03

Sheet 1 of 1

Project Name: Land Adjacent Number 1 Bedlinog Terrace

Project No:
15886

Co-ords: -
Level:

Date:
03/02/2020

Location: Bedlinog, Merthyr Tydfil

Dimensions:

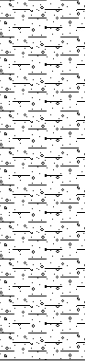
Depth
1.40



Scale:
1:25

Logged:
ADB

Client: Mr Ben Pricor

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.40	D		0.20			MADE GROUND: Soft, brown, gravelly CLAY. Gravel is fine to coarse, subangular sandstone. Contains plastic strap and litter. Fine roots.	
	1.30	D		1.40			Soft to firm and firm, grey brown, sandy very gravelly CLAY with common cobbles and boulders. Gravel is fine to coarse, angular sandstone.	1
							End of Pit at 1.400m	2
								3
								4
								5

Stability: Stable.

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated as struggling to advance due to cobbles and boulders. 4. Trial pit backfilled with arisings.

ANNEX E
Laboratory Plasticity Test Results

TEST REPORT
LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX
BS EN ISO 17892-12:2018 Clauses 5.3/5.5/6.5

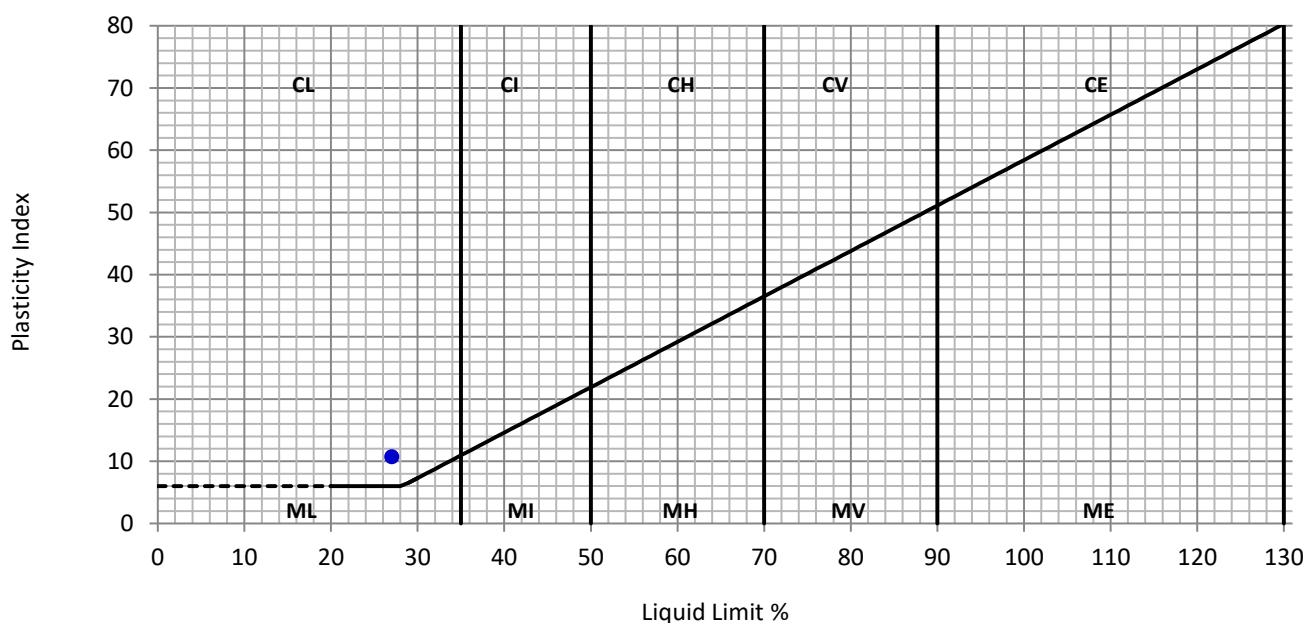
Project No: D20039 Project Name: Bedlinog Terrace ATS Sample No: 19648	Client: Terra Firma Email: Deryn Court 5 Wharfdale Road Cardiff CF23 7HA
---	--

Site Ref / Hole ID: TP01 Sample No: Sampling Certificate Received: No Location in Works: Unknown Date Sampled: Unknown Sampled By: Unknown Date Received: 04 February 2020	Depth (m): 1.60 Sample Type: Bulk Material Description: Brownish grey gravelly CLAY Material Source: N/A Material Supplier: N/A Specification: Date Tested: 05 February 2020
---	---

Test Results

Liquid Limit	27	%
Plastic Limit	16	%
Plasticity Index	11	%

Preparation:	4.2.4 Sieved Specimen
Proportion retained on 425µm sieve:	48 %



Remarks:

QA Ref.

EN ISO
17892-
12:2018:E



Apex Testing Solutions

Sturmi Way, Village Farm Industrial Est, Pyle,
Bridgend, CF33 6BZ
Tel: 01656 746762 Fax: 01656 749096



7771

Approver

A Grogan

Date

06/02/2020

A Grogan, Laboratory Manager

Fig.

ATT

TEST REPORT
LIQUID LIMIT, PLASTIC LIMIT & PLASTICITY INDEX
BS EN ISO 17892-12:2018 Clauses 5.3/5.5/6.5

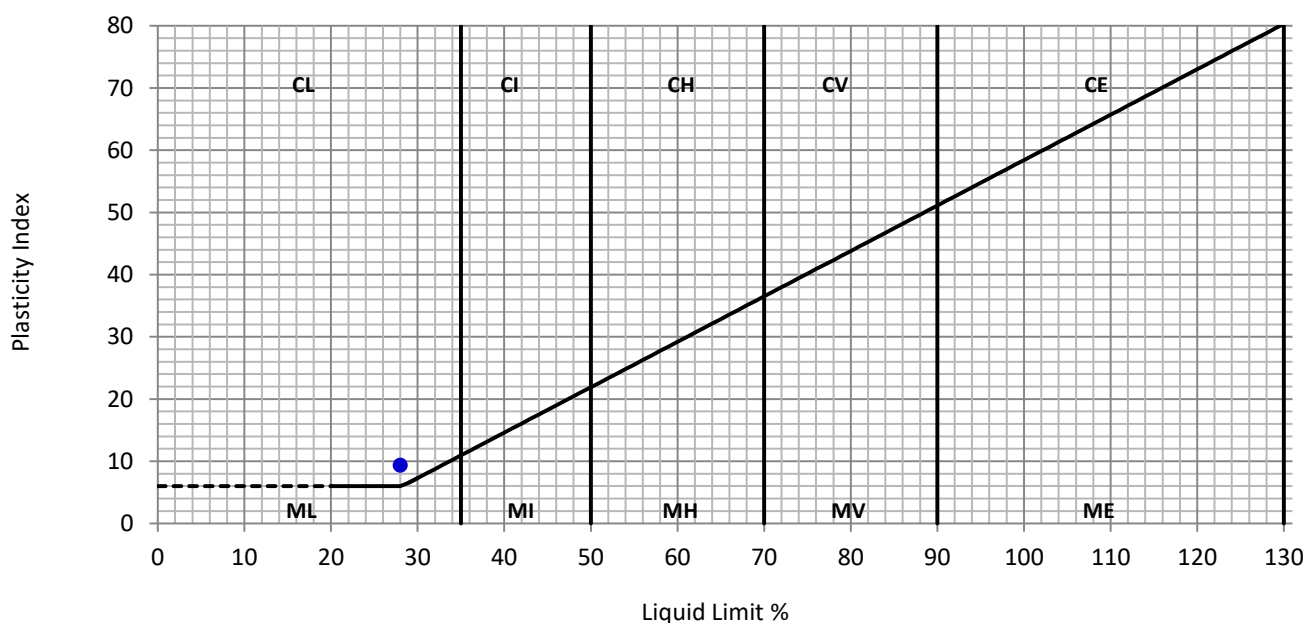
Project No:	D20039	Client:	Terra Firma
Project Name:	Bedlinog Terrace	Email:	Deryn Court 5 Wharfdale Road Cardiff CF23 7HA
ATS Sample No:	19649		

Site Ref / Hole ID:	TP03	Depth (m):	1.30
Sample No:		Sample Type:	Bulk
Sampling Certificate Received:	No	Material Description:	Brownish grey gravelly CLAY
Location in Works:	Unknown	Material Source:	N/A
Date Sampled:	Unknown	Material Supplier:	N/A
Sampled By:	Unknown	Specification:	
Date Received:	04 February 2020	Date Tested:	06 February 2020

Test Results

Liquid Limit	28	%
Plastic Limit	19	%
Plasticity Index	9	%

Preparation:	4.2.4 Sieved Specimen
Proportion retained on 425µm sieve:	50 %



Remarks:

QA Ref.

EN ISO
17892-
12:2018:E



Apex Testing Solutions

Sturmi Way, Village Farm Industrial Est, Pyle,
Bridgend, CF33 6BZ
Tel: 01656 746762 Fax: 01656 749096



7771

Approver

A Grogan

Date

07/02/2020

A Grogan, Laboratory Manager

Fig.

ATT

ANNEX F
Concrete Classification Results



2183

Final Report

Report No.:	20-03821-1		
Initial Date of Issue:	12-Feb-2020		
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	Alan@terrafirmawales.co.uk		
Project	15886 - Bedlinog		
Quotation No.:	Q18-15369	Date Received:	05-Feb-2020
Order No.:	15886AB	Date Instructed:	06-Feb-2020
No. of Samples:	2		
Turnaround (Wkdays):	5	Results Due:	12-Feb-2020
Date Approved:	12-Feb-2020		
Approved By:			
Details:	Glynn Harvey, Laboratory Manager		

Project: 15886 - Bedlinog

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				20-03821	20-03821
Quotation No.: Q18-15369	Chemtest Sample ID.:				965323	965324
	Client Sample ID.:				TP01	TP02
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.90	0.40
	Date Sampled:				03-Feb-2020	03-Feb-2020
	Time Sampled:				12:00	12:00
Determinand	Accred.	SOP	Units	LOD		
Moisture	N	2030	%	0.020	8.8	12
pH	U	2010		4.0	7.9	7.4
Magnesium (Water Soluble)	N	2120	g/l	0.010	< 0.010	< 0.010
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.014	< 0.010
Total Sulphur	U	2175	%	0.010	0.019	0.020
Chloride (Water Soluble)	U	2220	g/l	0.010	< 0.010	< 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010
Ammonium (Water Soluble)	U	2120	g/l	0.01	0.37	0.35
Sulphate (Acid Soluble)	U	2430	%	0.010	< 0.010	< 0.010

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
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.
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurement by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

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"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

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

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

All Asbestos testing is performed at the indicated laboratory

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

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

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

Charges may apply to extended sample storage

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

customerservices@chemtest.com

DRAWINGS

Job Number:

15886

Job Title:

Bedlinog Terrace, Bedlinog

Drawing Title:

Proposed Site Layout

Drawing Number:

01

Scale:

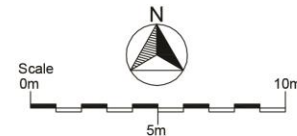
Not To Scale

Legend:



Approximate position of machine excavated trial pit

SITE PLAN AS PROPOSED:



Existing graded earth bank to be re-graded to shallow gradient, as shown (note: works will be beyond 3.0m sewer easement zone). Bank to be planted with suitable low maintenance, evergreen, ground covering plants to provide stabilisation (Vinca Major; Vinca Minor; Cotoneaster).

Shingle beds constructed at base of earth bank to provide permeable surface and effective 'filter drain' along base of bank. Constructed from natural slate chippings, on permeable membrane on min. 150mm clean granular base (refer to Key to Symbols opposite).

Line of public sewer (combined) passing through the site (as identified by survey). Combined sewer, 150mm Ø clay pipe.

Line of sewer easement: 3.0m to either side of centre-line of sewer pipe. No development proposed within the easement area.

New retaining structure to be constructed from galv. steel mesh gabion baskets, filled with natural local stone. Max. height retained to be 1.0m. Ground levels above to be graded to tops of gabions as necessary.

New footway to be constructed across development frontage - where shown hatched. Footway to be designed and constructed to local Highways Authority standards, with tarmacadam surface and p.c.c. kerbs, on suitable sub-base. Tarmac colour: 'black'. Exact details of footway construction, vehicular crossing and verge to be formally agreed with local Highways Authority prior to commencement of highways works. Width of footway to match the existing adjacent footway to which it will be linked (nom. 1.20m).

Existing service pole to be removed/relocated. All details to be formally agreed with the appropriate statutory mains services undertaker prior to commencement of the works.

New concrete steps (with landing) from lower garden to upper garden area. Max. 190mm risers, min. 300mm goings. Brushed concrete finish (or paving slabs to match patio).

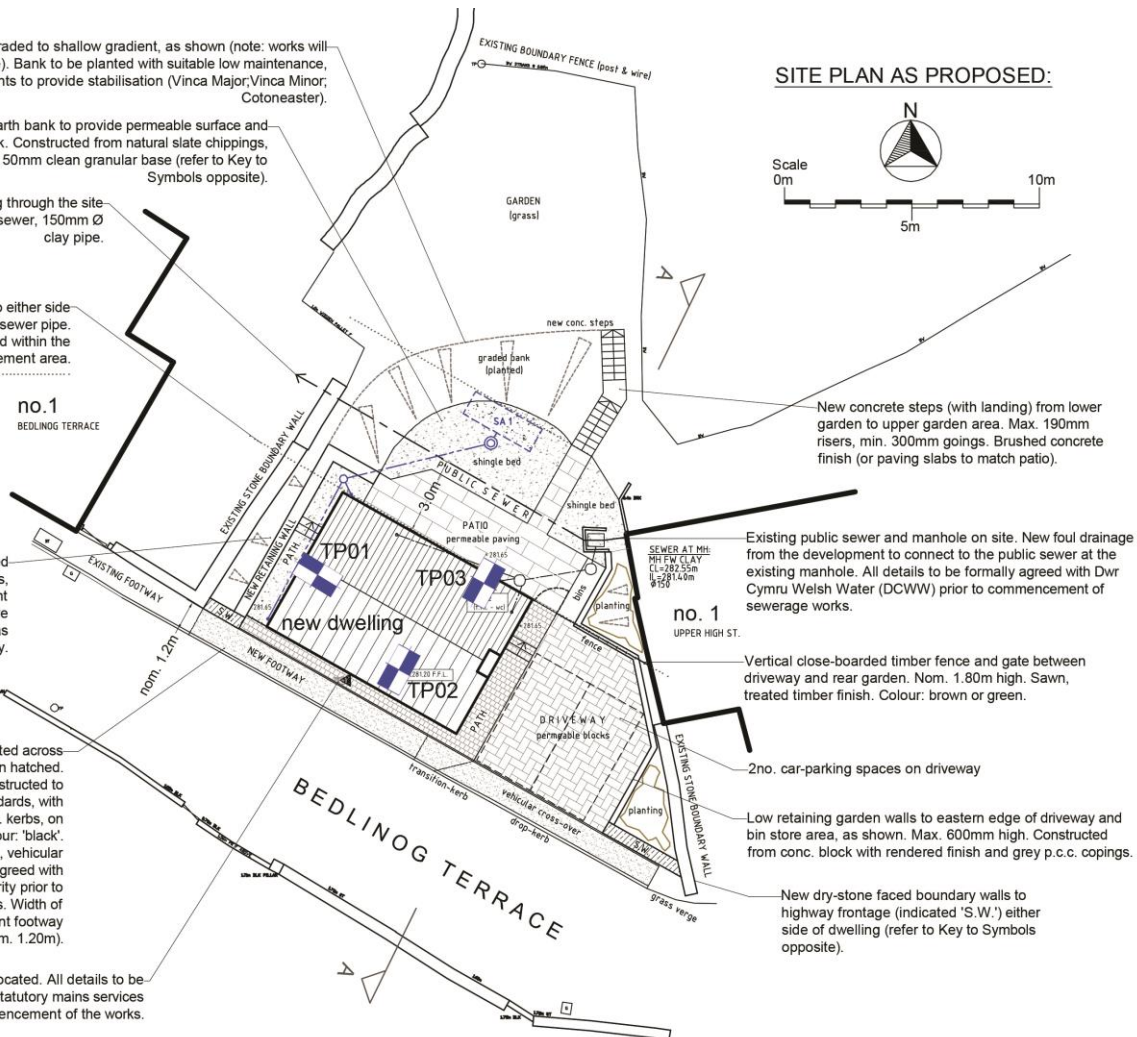
Existing public sewer and manhole on site. New foul drainage from the development to connect to the public sewer at the existing manhole. All details to be formally agreed with Dwr Cymru Welsh Water (DCWW) prior to commencement of sewerage works.

Vertical close-boarded timber fence and gate between driveway and rear garden. Nom. 1.80m high. Sawn, treated timber finish. Colour: brown or green.

2no. car-parking spaces on driveway

Low retaining garden walls to eastern edge of driveway and bin store area, as shown. Max. 600mm high. Constructed from conc. block with rendered finish and grey p.c.c. copings.

New dry-stone faced boundary walls to highway frontage (indicated 'S.W.') either side of dwelling (refer to Key to Symbols opposite).





Terra Firma (Wales) Ltd.

Consulting Geo-Technical & Geo-Environmental Engineers
Site Investigation Contractors

5 Deryn Court, Wharfedale Road,
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Tel: 029 2073 5354 Fax: 029 2073 5433
Email: info@terrafirmawales.co.uk
www.terrafirmawales.co.uk