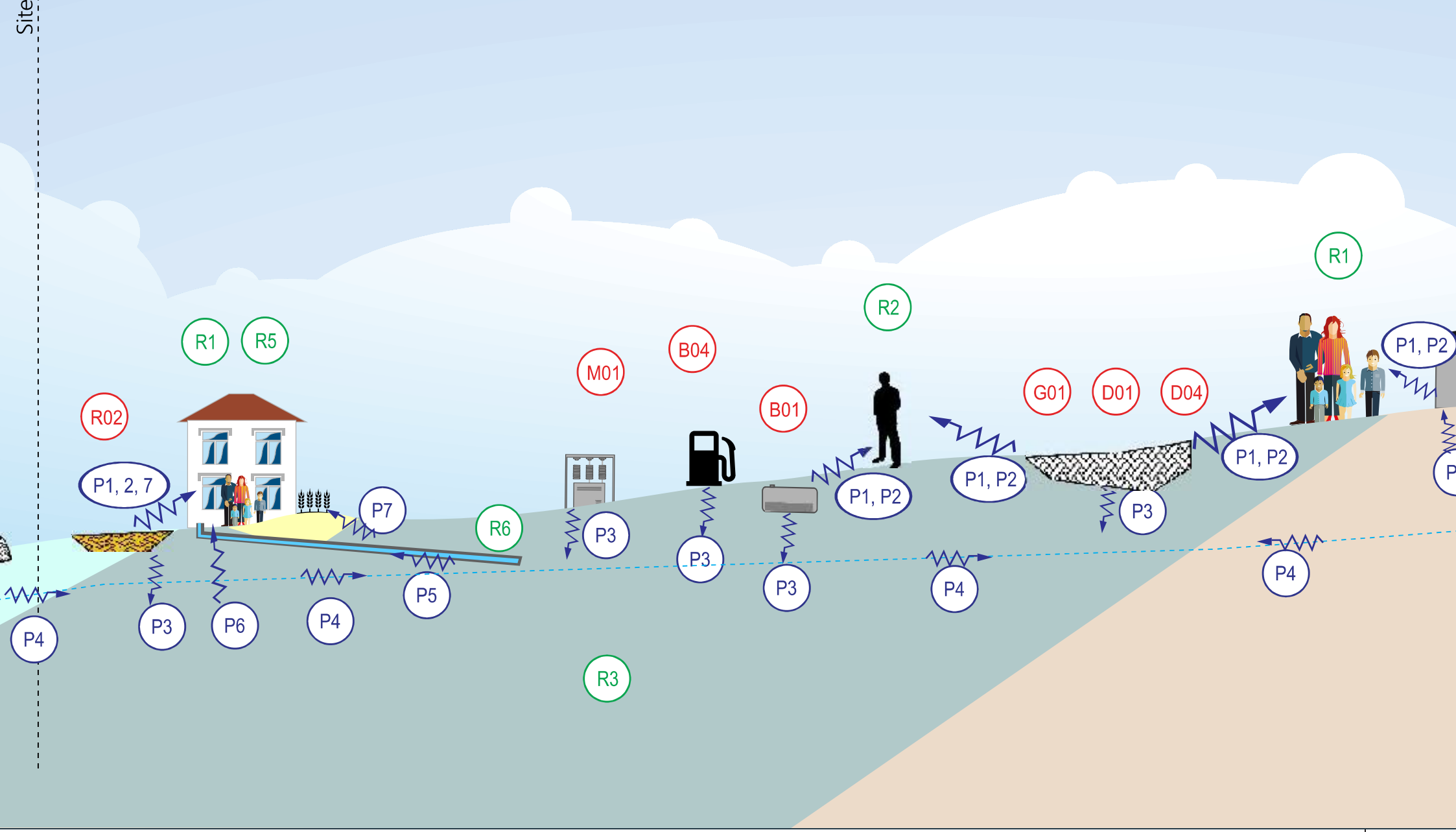


ıdary A)

group and
mation (Secondary A)

econdary A)

one Formation (Secondary A)

Sources

B01) Underground fuel storage
B04) Refuelling area
C02-1) Infilled tip (off-site)
D01) Burning ground
D04) Tip and burning area
E01-1) Vehicle maintenance
G01) Demolished buildings and structures, includes:
C02-2) Infilled ground

Pathways

P1) Direct contact, ingestion or inhalation of contaminated soils and soil dust and vapours
P2) Track back of soil into builidng and direct contact, ingestion, or inhalation inside building
P3) Leaching of contamination from soils via rainwater infiltration
P4) Vertical and lateral migration in groundwater
P5) Migration through water pipes

Receptors

R1) Future residents in flats and houses with gardens
R2) Future commercial site users
R3) Principal aquifer in the bedrock and Secondary A in the bedrock and superficial deposits
R4) Surface water - drains and ditches
R5) Buidlings
R6) Water pipes

Penally Ca
Phase 1 La

Appendix B

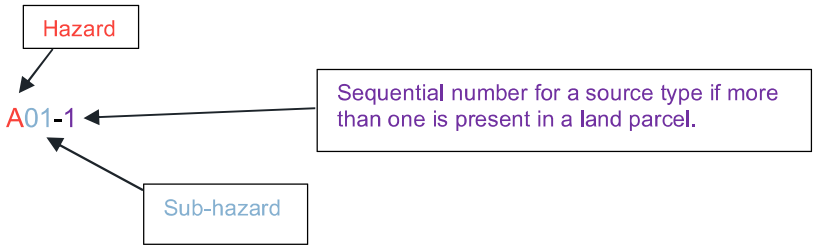
HAZARD MAPPING AND LABELLING

Hazard mapping has been produced to sit alongside the Land Quality Assessment report and this appendix describes the labelling for each hazard (source of contamination) that is adopted consistently within the report, risk assessment, figures and hazard mapping. The Hazard mapping should be read alongside the land quality assessment report that is referred to in 'Comments' column in the shapefile.

Hazard labelling

A unique Hazard ID has been given to each source of contamination (or hazard) which includes both the site's land parcel and the source type (HAZUNIID).

This comprises the following:



Each different source type is given a letter (see table below) and further sub-classification of sources within that type is given a Sub-Hazard by numbers 01, 02 etc. For example, Letter E will always denote a workshop and 01 is a vehicle maintenance. Together the Hazard and Sub-Hazard denote a specific source (e.g. E01 is a vehicle maintenance workshop).

Where there are more than one of that type of source within a parcel of land then to provide a unique reference for each hazard, a sequential number is given at the end.

The labelling is consistently applied across the entire estate, for instance, all firing ranges with stop butts would be labelled A01 as hazard and sub-hazard. Not all sources will be present on each site, therefore there will be Hazards and Sub-Hazards that are not present on individual sites. For example, for a site with no fuel and oil storage (given Hazard letter B) there would be no reference within the report or mapping to a Source B.

Separation by land parcels

Where a source covers two different land parcels, two entries will be included in the Hazard ID. For example, WARC00-A01-1 and WARC01-A01-1 to cover a small arms range crossing a land parcel boundary.

Where the source within a given land parcel is large and the risk changes significantly across the source area (for instance where the source covers two different groundwater sensitivities) separate entries will be included with suffix A, B, C etc.

Hazards and Sub-Hazards

The hazards and sub hazards have been predefined as follows

Hazard	Sub-Hazard	Colour on hazard mapping adopted on Figures
A Ranges and Demolition Grounds	A01 Small Arms range with Stop Butt A02 Small arms with informal bullet capture A03 Small Arms range with no bullet capture A04 Impact Area A05 Tanks and AFV range including antitank range A06 Artillery range A07 Grenade range A08 General Field firing A09 Demolition ground A10 Shotgun/clay pigeon range A11 Munition Manufacture A12 Mortar Range A13 Munition Debris A14 Other	
B Fuel and Oil Storage and Use	B01 Underground storage tanks B02 Above storage tanks B03 Fuel pipeline B04 Refuelling area (no tanks) B05 Tanker/Bowser park B06 Packed POL B07 Engine/Generator tank B08 Other	
C Waste disposal	C01 Buried Tip C02 Surface tipping C03 Bund/Stockpiled mounds C04 Waste compound C05 Infilled pit/pond C06 Other	
D Burning Areas	D01 Burning grounds (Targetry) D02 Propellant and Munitions Burning D03 Incinerators D04 Tip and burning area D05 General Burning Grounds D06 Other	
E Workshops	E01 Vehicle Maintenance E02 Range workshop and joiners E03 Armourers workers E04 Hangar E05 Other	
F Other Hazardous material storage	F01 Hazardous material store F02 Solvent tanks F03 Coolant and antifreeze F04 Battery storage F05 Other	
G Demolished Buildings and structures	G01 Demolished buildings and structures	

Hazard	Sub-Hazard	Colour on hazard mapping adopted on Figures
H Fire training area	H01 Firefighting using foam H02 Firefighting not using foam H03 Other	
I Air raid shelter/ bunkers	I01 Air Raid Shelter	
J Chemical warfare agents	J01 Chemical Warfare Agent	
K Radioactivity	K01 Radioactive Store K02 Supervised Radiation Area K03 Radioactivity Impacted areas K04 Radioactivity Other	
L Other Areas of known contamination	L01 Asbestos impacted area L02 Other	
M Substations	M01 Substation/Transformer	
N Vehicle Washdown	N01 Vehicle Wash	
P Agriculture	P01 Sheep Dip P02 Silage/Slurry tanks P03 Other	
Q Ordnance Storage	Q01 Ammunition and Explosive storage area Q02 Armoury Q03 Amnesty disposal box Q04 Shooting in Box	

Hazard	Sub-Hazard	Colour on hazard mapping adopted on Figures
R Sewage/ Water treatment	R01 Cess pit/Septic Tank R02 Sewage treatment works R03 Water treatment chemicals R04 Discharges to land R05 Other	
X Other	X01 Mining X02 Aircraft Crash site X03 Disused Lime Kiln/Quarry X04 Former Railway X06 Helicopter landing site X07 Vehicle storage X08 Other	

Appendix C

RISK ASSESSMENT APPROACH

Preliminary Risk Assessment Methodology

Risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risks to receptors. The receptor may be human health, a controlled water, a sensitive local ecosystem or even future construction materials. Receptors can be linked with the hazard under consideration via one or several exposure pathways (e.g. the pathway of direct contact). Risks are generally managed by isolating or removing the hazard, isolating the receptor, or by intercepting the exposure pathway. Without the three essential components of a source (hazard), pathway and receptor, there can be no risk. Thus, the mere presence of a hazard at a site does not mean that there will necessarily be attendant risks. The following risk assessment thus focuses on those parts of the site where hazards or potential hazards have been identified and is not general to the whole site.

Hazards

Potential sources of contamination are identified for the site, based on a review of the current and previous site uses. Not only the nature but also the likely extent of any contamination is considered, e.g. whether such contamination is likely to be localised or widespread.

Receptors

The varying effects of a hazard on individual receptors depends largely on the sensitivity of the target. Receptors include any people, animal or plant population, or natural or economic resources within the range of the source which are connected to the source by the transport pathway. Receptors can, in addition, extend to remediation processes and future construction materials that may be adversely affected by on-site contamination. In general, however, receptors can be divided into a number of groups depending on the final use of the site.

Pathways

The mere presence of contamination does not infer a risk. The exposure pathway determines the dose delivered to the receptor and the effective dose determines the extent of the adverse effect on the receptor. The pathway which transports the contaminants to the receptor or target generally involves conveyance via soil, water or air.

Exposure Assessment

By considering the source, pathway and receptor, an assessment is made for each contaminant on a receptor by receptor basis with reference to the significance and degree of the risk. In assessing this information, a measure is made of whether the source contamination can reach a receptor, determining whether it is of a major or minor significance. The exposure risks are assessed against the present site conditions.

A preliminary risk assessment has been undertaken for these potential source-pathway-receptor linkages to identify potentially unacceptable risks on a qualitative basis. Risk is based on a consideration of both:

The likelihood of an event (probability); [takes into account both the presence of the hazard and receptor and the integrity of the pathway].

The severity of the potential consequence [takes into account both the potential severity of the hazard and the sensitivity of the receptor].

The definitions used in the current report have been taken from Annex E of the Land Quality Management Practitioner Guide 2017/01 It is worth noting that the classification of the consequence (severity) does not take account of the probability (likelihood) of that consequence being realised. Hence a ‘severe’ consequence refers to acute (short term) risk and a ‘medium’ consequence refers to chronic (long term) risk as would be the case of carcinogens and asbestos etc. Both can be classed as SPOSH and ultimately result in death. Therefore, only those contaminants that pose an acute risk to human health i.e. exposure duration of less than

24 hours should be classed as severe. Similarly contaminants that result in temporary health impacts that are non-fatal should be classed as 'minor' in consequence. Care must therefore be taken and due consideration given to acute versus chronic risks otherwise the severity may be overestimated.

Likelihood of Contaminant Linkage	
High likelihood	There is a pollutant linkage and an event is High Likelihood to occur in the short term, and is almost inevitable over the long term OR there is evidence at the receptor of harm or pollution.
Likely	There is a pollutant linkage and it is probable than an event will occur. It is not inevitable, but possible in the short term and likely over the long term.
Low likelihood	There is a pollutant linkage and circumstances are possible under which an event could occur. It is by no means certain that even over a longer period such an event would take place, and less likely in the short term.
Unlikely	There is a pollutant linkage and it is improbable that an event would occur even in the very long term.

Potential Consequence of Contaminant Linkage	
Severe	▪ Acute risks to human health. ▪ Short-term risk of pollution of controlled waters or significant impact on controlled waters e.g. large scale pollution or very high levels of contamination equivalent to EA category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on operational effectiveness and/or amenity value or major damage to agriculture or commerce. ▪ Catastrophic damage to buildings or property (e.g. explosion causing building collapse). ▪ Ecological system effects – Immediate risks of major damage which is likely to result in irreversible substantial adverse changes in the functioning of the ecosystem or harm to a species of special interest that endangers the long-term maintenance of the population.
Medium	▪ Chronic risks to human health. ▪ Pollution of sensitive water resources (e.g. leaching of contaminants into controlled waters) that is the equivalent of an EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to site operations, agriculture or commerce. ▪ Ecological system effects – Immediate risks of significant damage which may result in substantial adverse changes to the ecosystem's functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. ▪ Significant damage to buildings, structures and services (e.g. damage rendering a building unsafe to occupy, such as foundation damage).
Mild	▪ Non-permanent health effects to human health (exposure unlikely to lead to 'significant' harm). ▪ Pollution of controlled waters or non-sensitive water resources (e.g. pollution of non-classified groundwater) that is equivalent to an EA Category 3 pollution incident or short lived effect on water quality; marginal effect on operational capability, amenity value, agriculture or commerce. ▪ Minor damage to buildings, structures and services (e.g. damage rendering a building unsafe to occupy, such as foundation damage). ▪ Ecological systems effects – Minor or short term damage which is unlikely to result in substantial adverse changes to the ecosystem's functioning or harm to a species of special interest that may endanger the long-term maintenance of the population ▪ Substantial damage to non-sensitive environments (unprotected ecosystems e.g. crops).

Minor/ Negligible	▪ No measurable effects on human health including non-permanent health effects to human health that are easily prevented by appropriate use of PPE etc. ▪ Minor pollution of controlled waters including non-sensitive water resources with no discernible effect on water quality or ecosystems. ▪ Minor damage to non-sensitive environments (unprotected ecosystems e.g. crops). ▪ Easily repairable effects of damage to buildings, structures, services or the environment (e.g. discoloration of concrete, loss of plants in a landscaping scheme).

In order to then determine the risk to the identified receptor, both the likelihood and severity of the potential hazard is input into a risk assessment matrix as follows:

Potential Significance of Contaminant Linkage Matrix

Matrix		Likelihood			
		High Likelihood	Likely	Low Likelihood	Unlikely
Potential consequence	Severe	Very High	High	Moderate	Moderate/Low
	Medium	High	Moderate	Moderate/Low	Low
	Mild	Moderate	Moderate/Low	Low	Negligible
	Minor / Negligible	Moderate/Low	Low	Negligible	Negligible

The overall definition of risk is given below

Potential Significance	
Very High Risk	Severe harm to a receptor may already be occurring OR a high likelihood that severe harm will arise to a receptor, unless immediate remedial works / mitigation measures are undertaken. Realisation of that risk is likely to present a substantial liability to MOD
High Risk	Harm is likely to arise to a receptor, and is likely to be severe, unless appropriate remedial actions / mitigation measures are undertaken. Remedial works may be required in the short term, but likely to be required over the long term. Realisation of that risk is likely to present a substantial liability to MOD
Moderate Risk	Possible that harm could arise to a receptor, but low likelihood that such harm would be severe. Harm is likely to be mild. Some remedial works may be required in the long term. Realisation of that risk is unlikely to present a substantial liability to MOD, but further work may be required to determine whether this is the case
Moderate/Low Risk	Possible that harm could arise to a receptor, but where a combination of likelihood and consequence results in a risk that is above low, but is not of sufficient concern to be classified as mild. It can be driven by cases where there is an acute risk which carries a severe consequence, but where the exposure is unlikely. Such harm would at worse normally be mild. Unlikely to present a substantial liability to MOD. Limited further investigation may be required to clarify the risk and liability. If necessary remediation works likely to be limited in extent.
Low Risk	Possible that harm could arise to a receptor. Such harm would at worse normally be mild.
Negligible Risk	Low likelihood that harm could arise to a receptor. Such harm unlikely to be any worse than mild. No liability.

Appendix D

ENVIROCHECK REPORT

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
322920343_1_1

Customer Reference:
Penally LQA

National Grid Reference:
210950, 198940

Slice:
A

Site Area (Ha):
5.97

Search Buffer (m):
1000

Site Details:

Site at 210942,198920

Client Details:

Mr O Willis
WSP UK Ltd
Sir Ian Wood House
Altens Industrial Estate
All CanningsHareness Road
Aberdeen
AB12 3LE

Envirocheck®
LANDMARK INFORMATION GROUP

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.

Report Version v53.0

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	6
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					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4			1	(*1)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 5	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 7	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 8	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 9		5	21	28

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 16	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 16		1	2	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					

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 17	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 17	Yes	Yes	Yes	
BGS Recorded Mineral Sites	pg 17		3	2	3
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	pg 19	Yes	n/a	n/a	n/a
Man-Made Mining Cavities	pg 19		1		
Natural Cavities	pg 19			1	2
Non Coal Mining Areas of Great Britain	pg 19	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 20	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 20	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 20	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 20	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 20	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 20	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 20	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 22		1		2
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 22	1			
Points of Interest - Public Infrastructure	pg 22				3
Points of Interest - Recreational and Environmental	pg 22				2
Gas Pipelines					
Underground Electrical Cables					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 23				7
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	pg 23		1		
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 23		1	1	1
Special Areas of Conservation	pg 24		1	2	
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: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	0	1	210954 198935
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	0	1	210954 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	0	1	210954 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	16	1	210954 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	50	1	211150 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	69	1	210750 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	92	1	211200 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	117	1	210700 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	120	1	211200 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	129	1	210700 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (W)	165	1	210650 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	177	1	210650 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	198	1	210600 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	202	1	211300 198950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	211	1	211300 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	213	1	210600 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	227	1	210550 198935
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	230	1	211300 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	242	1	211350 198935
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	292	1	211400 198935
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	327	1	210450 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	350	1	211450 198950

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	A8NW (SW)	354	1	210700 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SW)	360	1	210600 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	368	1	211000 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	377	1	210400 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	385	1	210750 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (S)	404	1	210800 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A19SW (NE)	418	1	211400 199350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SW)	429	1	210500 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	443	1	211550 198935
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	452	1	211150 198350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SW)	464	1	210500 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	467	1	211550 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	486	1	210300 199100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	498	1	210300 199150
1	**Discharge Consents** Operator: The Occupier Property Type: Undefined Or Other Location: Fairview Penally Nr Tenby Dyfed Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bn0147401 Permit Version: 1 Effective Date: 23rd April 1976 Issued Date: 23rd April 1976 Revocation Date: 10th October 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: To Land **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	348	2	211430 199140

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	**Discharge Consents** Operator: Mrs M E Smith Property Type: Domestic Property (Single) Location: Wayland Edge The Ridgeway Penally S, The Ridgeway Penally Sa70 7nu Authority: Natural Resources Wales Catchment Area: HA 61 Stream 120 Reference: BN0247401 Permit Version: 1 Effective Date: 25th August 1981 Issued Date: 25th August 1981 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge Environment: Land/Soakaway Receiving Water: Underground Strata **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	613	2	211400 199600
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Penally Sewage Pumping Station, Tenby, Pembrokeshire, Sa70 7px Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0112201 Permit Version: 2 Effective Date: 31st March 2010 Issued Date: 7th March 2005 Revocation Date: 25th March 2008 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Stream **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A20SW (E)	925	2	211990 199280
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Penally Sewage Pumping Station, Tenby, Pembrokeshire, Sa70 7px Authority: Natural Resources Wales Catchment Area: Not Given Reference: BP0112201 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 30th March 2010 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Stream **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A20SW (E)	925	2	211990 199280
3	**Discharge Consents** Operator: Dwr Cymru Welsh Water Property Type: Sewerage Network - Sewers - Water Company Location: Penally Sewage Pumping Station, Tenby, Pembrokeshire, Sa70 7px Authority: Natural Resources Wales Catchment Area: RITEC - HEADWATERS TO TIDAL LIMIT Reference: Bp0112201 Permit Version: 4 Effective Date: 24th January 2018 Issued Date: 24th January 2018 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Stream **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A20SW (E)	928	2	211993 199281

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Dwr Cymru Welsh Water Property Type: Sewerage Network - Sewers - Water Company Location: Penally Sewage Pumping Station, Tenby, Pembrokeshire, Sa70 7px Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0112201 Permit Version: Not Supplied Effective Date: 24th January 2018 Issued Date: 24th January 2018 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Stream **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A20SW (E)	928	2	211993 199281
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Penally Sewage Pumping Station, Tenby, Pembrokeshire, Sa70 7px Authority: Natural Resources Wales Catchment Area: RITEC - HEADWATERS TO TIDAL LIMIT Reference: Bp0112201 Permit Version: 3 Effective Date: 26th March 2008 Issued Date: 26th March 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Stream **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A20SW (E)	928	2	211993 199281
	Nearest Surface Water Feature	A13SE (SE)	129	-	211206 198791
4	**Water Abstractions** Operator: Mrs P L Evans Licence Number: 22/61/6/0029 Permit Version: 100 Location: Reservoir At Bubbleton Farm Authority: Environment Agency, Welsh Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Reservoir At Bubbleton Farm Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (W)	478	3	210310 199110
	Water Abstractions Operator: Tenby Golf Club Ltd Licence Number: Wa/061/0006/0015 Permit Version: Not Supplied Location: Tenby Golf Club - 18th Fairway, Tenby Golf Club, Tenby, Sa70 7np Authority: Natural Resources Wales Abstraction: Golf courses: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20NE (NE)	1674	2	212583 199827

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (S)	0	2	211000 198782
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (S)	0	2	211000 198800
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (S)	0	2	210984 198782
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (S)	0	2	210991 198798

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High 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: No Data	A13NE (N)	0	2	210954 199000
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (NE)	0	2	211000 199000
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (S)	0	2	210952 198783
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (E)	0	2	210954 198935

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (E)	0	2	211000 198935
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13SE (S)	0	2	210952 198783
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (E)	0	2	210954 198935
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (S)	0	2	210991 198798
	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	A13SE (S)	0	2	210954 198815
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	5	2	211021 198785
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	14	2	211023 198796
	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	A13SE (SE)	27	2	211035 198781
	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	A13SE (SE)	57	2	211120 198820
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	57	2	211123 198821
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	57	2	211065 198780
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	59	2	211130 198820
	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	A13SE (SE)	59	2	211069 198783
	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	A13SE (SE)	60	2	211129 198820
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	211119 198815

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: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	64	2	211072 198780
	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	A13SE (SE)	70	2	211150 198820
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	75	2	211158 198820
	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	A13SE (SE)	81	2	211170 198825
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	84	2	211175 198825
	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	A13SE (SE)	92	2	211128 198785
	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	A13SE (SE)	92	2	211190 198835
	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	A13SE (SE)	96	2	211142 198785
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	97	2	211141 198785
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	98	2	211145 198785
	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	A13SE (SE)	121	2	211185 198783
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	127	2	211192 198780
	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	A13SE (SE)	179	2	211245 198761
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	181	2	211250 198765
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (S)	0	2	210954 198815
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	61	2	211123 198815

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	63	2	211096 198796
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	84	2	211170 198820
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	85	2	211174 198822
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	87	2	211106 198785
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	88	2	211096 198785
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	94	2	211190 198830
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	120	2	211185 198785
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
5	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 188.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A13SE (SE)	129	4	211206 198791
6	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 136.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14NW (E)	231	4	211333 198927
7	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 164.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A13NW (NW)	241	4	210662 199223
8	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 74.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	245	4	210532 199011

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SW (SE)	246	4	211327 198763
10	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SW (SE)	251	4	211332 198762
11	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SW (SE)	258	4	211339 198761
12	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 118.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (NW)	262	4	210541 199119
13	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 428.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SW (SE)	276	4	211346 198738
14	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 309.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12SE (W)	290	4	210504 198904
15	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12SE (W)	290	4	210504 198904
16	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	299	4	210482 198956
17	**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: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	313	4	210470 198941

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 44.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	315	4	210468 198939
19	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 73.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	322	4	210456 199036
20	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	344	4	210435 198966
21	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 602.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	344	4	210435 198966
22	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 198.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A17SE (NW)	371	4	210602 199333
23	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 51.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	377	4	210400 199010
24	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 93.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	377	4	210414 199110
25	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 45.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	381	4	210406 199094
26	**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: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	384	4	210396 199055

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 47.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (NW)	386	4	210433 199182
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (NW)	387	4	210459 199227
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	479	4	210306 199096
30	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 117.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NE (W)	491	4	210296 199102
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 31.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SE (E)	565	4	211672 198905
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18SW (N)	579	4	210715 199590
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NW (W)	593	4	210206 199165
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 226.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 2	A14SE (E)	595	4	211703 198901
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 311.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SE (E)	595	4	211703 198901

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 175.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NW (N)	602	4	210711 199613
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 236.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NE (N)	613	4	211230 199670
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 141.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A12NW (W)	623	4	210191 199217
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SE (E)	685	4	211766 198687
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 166.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NW (N)	688	4	210839 199733
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 421.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SE (E)	718	4	211801 198692
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 244.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NW (N)	772	4	210936 199835
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 82.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NW (N)	804	4	210649 199806
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 343.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14SE (E)	810	4	211910 198764

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	**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: Milford Haven South and South Pembrok Primacy: 1	A18NE (N)	815	4	211174 199884
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 392.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NE (N)	819	4	211175 199888
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 76.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 2	A18NW (N)	823	4	210939 199887
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 116.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A14NE (E)	861	4	211950 199083
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 272.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A23SE (N)	872	4	211018 199945
50	**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: Milford Haven South and South Pembrok Primacy: 2	A18NW (N)	885	4	210633 199886
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 111.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A18NW (N)	885	4	210633 199886
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 77.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A15NW (E)	914	4	211997 199185
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 332.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A20SW (E)	931	4	211989 199312

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 340.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A15NW (E)	933	4	212023 199092
55	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 36.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A11NE (W)	933	4	209848 199101
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 238.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 2	A17NE (NW)	940	4	210520 199911
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 169.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A11NE (W)	967	4	209816 199118
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 88.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Milford Haven South and South Pembrok Primacy: 1	A22SE (NW)	997	4	210497 199963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Pembrokeshire County Council - Has supplied landfill data		0	5	210954 198935
59	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A13SW (W)	122	-	210699 198837
60	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A12SE (W)	321	-	210510 198764
61	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A12SE (W)	326	-	210488 198829
62	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A9NE (SE)	681	-	211699 198538
63	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A18NE (N)	825	-	211033 199898
64	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1986	A23SE (N)	867	-	211091 199941

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Upper Devonian Rocks (Undifferentiated)	A13NE (E)	0	1	210954 198935
	BGS 1:625,000 Solid Geology Description: Dinantian Rocks (Undifferentiated)	A13NE (S)	0	1	210953 198933
	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 (E)	0	1	210954 198935
	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: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (N)	167	1	210895 199217
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: no data Cadmium Concentration: <1.8 mg/kg Chromium Concentration: no data Lead Concentration: <100 mg/kg Nickel Concentration: no data	A8NE (S)	390	1	210975 198376
65	**BGS Recorded Mineral Sites** Site Name: Penally Barracks Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90809 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	63	1	210869 198771
66	**BGS Recorded Mineral Sites** Site Name: Little Crackwell Cottage Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90810 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	149	1	210675 198816

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	**BGS Recorded Mineral Sites** Site Name: Valleyfield Top Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90822 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8NE (S)	202	1	210996 198566
68	**BGS Recorded Mineral Sites** Site Name: Valleyfield Top Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90821 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	271	1	211203 198591
69	**BGS Recorded Mineral Sites** Site Name: Drusselton Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90811 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A12SE (W)	338	1	210475 198829
70	**BGS Recorded Mineral Sites** Site Name: Rifle Range Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90791 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Black Rock Subgroup And Gully Oolite Formation (Undifferentiated) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	678	1	211697 198541
71	**BGS Recorded Mineral Sites** Site Name: Longbury Bank Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90806 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pembroke Limestone Group Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	809	1	211017 199881
72	**BGS Recorded Mineral Sites** Site Name: Longbury Bank Location: Penally, Tenby, Pembrokeshire Source: British Geological Survey, National Geoscience Information Service Reference: 90805 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pembroke Limestone Group Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	855	1	211080 199929

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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				
	Mining Instability Mining Evidence: Conclusive Iron Ore Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (E)	0	-	210954 198935
	Man-Made Mining Cavities Easting: 210900 Northing: 198800 Distance: 36 Quadrant Reference: A13 Quadrant Reference: SW Bearing Ref: S Cavity Type: Not supplied Commodity: Iron Solid Geology Detail: No Details Superficial Geology Detail: No Details	A13SW (S)	36	6	210900 198800
	Natural Cavities Easting: 210500 Northing: 198600 Distance: 399 Quadrant Reference: A12 Quadrant Reference: SE Bearing Ref: SW Cavity Type: Sea Cave x 6 Solid Geology Detail: Carboniferous Limestone Supergroup, Lower Carboniferous Limestone, Upper Carboniferous Limestone Superficial Geology Detail: No Details	A12SE (SW)	399	6	210500 198600
	Natural Cavities Easting: 210700 Northing: 199800 Distance: 783 Quadrant Reference: A18 Quadrant Reference: NW Bearing Ref: N Cavity Type: Swallow Hole Solid Geology Detail: Carboniferous Limestone Supergroup, Upper Carboniferous Limestone Superficial Geology Detail: No Details	A18NW (N)	783	6	210700 199800
	Natural Cavities Easting: 211160 Northing: 199950 Distance: 879 Quadrant Reference: A23 Quadrant Reference: SE Bearing Ref: N Cavity Type: Vadose Cave Solid Geology Detail: Carboniferous Limestone Supergroup, Lower Carboniferous Limestone, Upper Carboniferous Limestone Superficial Geology Detail: No Details	A23SE (N)	879	6	211160 199950
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	210966 199016
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210991 198798
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210991 198798
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210984 198782
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	210966 199016
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210991 198798
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	2	1	210912 198778
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	112	1	210715 198807
	Potential for Ground Dissolution Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	217	1	210588 198872
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A12SE (W)	224	1	210591 198840
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	167	1	210895 199217
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210991 198798
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	210966 199016
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	210954 198935
	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	A13NE (N)	0	1	210975 199025
	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 (E)	0	1	210954 198935
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Higher probability radon area (10 to 30% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	210954 198800
	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	A13NE (N)	0	1	210975 199025

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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 (E)	0	1	210954 198935
	Radon Potential - Radon Protection Measures Protection Measure: Full 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	210954 198800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	**Contemporary Trade Directory Entries** Name: A1 Epos Ltd Location: Unit 4 Crackwell I T C, Penally, Tenby, Dyfed, SA70 7RU Classification: Cash Registers & Check-Out Equipment **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13NW (W)	147	-	210637 198958
74	**Contemporary Trade Directory Entries** Name: A1 Epos Ltd Location: Unit 4, Penally, Tenby, Dyfed, SA70 7RU Classification: Cash Registers & Check-Out Equipment **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	749	-	211744 199434
75	**Contemporary Trade Directory Entries** Name: M G Maintenance & Property Cleaning Location: 1, Sea Vista, Penally, Tenby, Dyfed, SA70 7PD Classification: Painting & Decorating Supplies **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NE (NE)	923	-	211696 199766
76	**Points of Interest - Manufacturing and Production** Name: Tank Location: SA70 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	0	7	211068 199067
77	**Points of Interest - Public Infrastructure** Name: Penally Rail Station Location: SA70 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14NE (E)	724	7	211814 199073
77	**Points of Interest - Public Infrastructure** Name: Penally Station Location: Nr Golygfa Coron, SA70 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A14NE (E)	724	7	211814 199073
78	**Points of Interest - Public Infrastructure** Name: Sewage Pumping Station Location: SA70 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A20SW (E)	908	7	211973 199278
79	**Points of Interest - Recreational and Environmental** Name: Play Area Location: SA70 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NE (NE)	935	7	211626 199837
80	**Points of Interest - Recreational and Environmental** Name: Play Area Location: SA70 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	970	7	211921 199570

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	**Ancient Woodland** Name: Not Supplied Reference: 163 Area(m²): 6367.65 Type: Ancient and Semi-Natural Woodland	A18NE (N)	553	2	210968 199619
82	**Ancient Woodland** Name: Not Supplied Reference: 203 Area(m²): 7760.9 Type: Restored Ancient Woodland Site	A14NE (NE)	562	2	211624 199245
83	**Ancient Woodland** Name: Not Supplied Reference: 178 Area(m²): 2518.59 Type: Ancient and Semi-Natural Woodland	A18NW (N)	680	2	210844 199726
84	**Ancient Woodland** Name: Not Supplied Reference: 161 Area(m²): 2538.7 Type: Ancient and Semi-Natural Woodland	A18NW (N)	692	2	210845 199738
85	**Ancient Woodland** Name: Not Supplied Reference: 164 Area(m²): 15476.73 Type: Ancient and Semi-Natural Woodland	A17NE (NW)	791	2	210476 199737
86	**Ancient Woodland** Name: Not Supplied Reference: 179 Area(m²): 8434.24 Type: Ancient and Semi-Natural Woodland	A23SE (N)	881	2	211018 199953
87	**Ancient Woodland** Name: Not Supplied Reference: 175 Area(m²): 4380.72 Type: Ancient and Semi-Natural Woodland	A24SW (N)	919	2	211289 199970
88	**National Parks** Name: Pembrokeshire Coast Multiple Area: Y Area (m2): 116527029.52 Source: Natural Resources Wales **Status: Fully Designated - designated as a National Park** Designation Date: 31st December 1951	A13SE (S)	63	2	210968 198703
89	**Sites of Special Scientific Interest** Name: Lydstep Head To Tenby Burrows Multiple Areas: Y Total Area (m2): 2013971.03 Source: Natural Resources Wales Reference: 142832wut Designation Details: Biological Designation Date: 1st January 1954 Date Type: Notified	A13SE (SE)	239	2	211197 198624
90	**Sites of Special Scientific Interest** Name: Cors Penally (Penally Marsh) Multiple Areas: N Total Area (m2): 101497.51 Source: Natural Resources Wales Reference: 107532wdz Designation Details: Biological Designation Date: 12th June 1984 Date Type: Notified	A14SW (SE)	275	2	211346 198738
91	**Sites of Special Scientific Interest** Name: Little Hoyle And Hoyles Mouth Caves & Woodlands Multiple Areas: Y Total Area (m2): 29470.33 Source: Natural Resources Wales Reference: 73132wgj Designation Details: Mixed Biological And Geological Designation Date: 19th October 1984 Date Type: Notified	A18NE (N)	857	2	211186 199925

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	**Special Areas of Conservation** Name: Limestone Coast Of South West Wales / Arfordir Calchfaen De Orllewin Cymru Multiple Areas: Y Total Area (m2): 15947433.12 Source: Natural Resources Wales Reference: Uk0014787 **Status: Designated**	A13SE (SE)	239	2	211197 198624
93	**Special Areas of Conservation** Name: Bristol Channel Approaches / Dynesfeydd Môr Hafren Multiple Areas: N Total Area (m2): 5851290732.96 Source: Natural Resources Wales Reference: UK0030396 **Status: Designated**	A8NW (SW)	377	2	210724 198459
94	**Special Areas of Conservation** Name: Bristol Channel Approaches / Dynesfeydd Mor Hafren Multiple Areas: N Total Area (m2): 5821695468.08 Source: Natural England Reference: UK0030396 **Status: Designated**	A8NW (SW)	377	8	210724 198459

Data Currency

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Natural Resources Wales	June 2020	Annually
Pembrokeshire County Council - Public Protection Division	September 2017	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	August 2023	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		
Natural Resources Wales	August 2023	Quarterly
Environment Agency - Welsh Region	January 2021	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Pembrokeshire County Council - Environmental Health Department	November 2015	Variable
Local Authority Pollution Prevention and Controls		
Pembrokeshire County Council - Environmental Health Department	November 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Pembrokeshire County Council - Environmental Health Department	November 2015	Variable
Nearest Surface Water Feature		
Ordnance Survey	September 2023	
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
Substantiated Pollution Incident Register		
Natural Resources Wales	August 2023	Quarterly
Environment Agency Wales - South West Area	January 2021	Quarterly
Water Abstractions		
Natural Resources Wales	June 2023	Quarterly
Environment Agency - Welsh Region	October 2023	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
Source Protection Zones		
Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences		
Natural Resources Wales	September 2020	

Agency & Hydrological	Version	Update Cycle
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	Quarterly
OS Water Network Lines Ordnance Survey	October 2023	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
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 Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	August 2023 July 2021	Quarterly Quarterly
Local Authority Landfill Coverage Pembrokeshire County Council - Environmental Health Department	February 2003	Not Applicable
Local Authority Recorded Landfill Sites Pembrokeshire County Council - Environmental Health Department	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	March 2023	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		
Pembrokeshire Coast National Park Authority - Development Control	July 2023	Variable
Pembrokeshire County Council - Planning Department	June 2023	Variable
Planning Hazardous Substance Consents		
Pembrokeshire Coast National Park Authority - Development Control	February 2016	Variable
Pembrokeshire County Council - Planning Department	October 2015	Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry		
British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	June 2023	Bi-Annually
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	
Cheshire Brine Subsidence Compensation Board (CBSCB)	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	July 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	September 2023	Quarterly
Points of Interest - Education and Health PointX	September 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2023	Quarterly
Points of Interest - Public Infrastructure PointX	September 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural Resources Wales	October 2023	Bi-Annually
Areas of Adopted Green Belt		
Pembrokeshire Coast National Park Authority - Development Control	August 2023	Quarterly
Pembrokeshire County Council	August 2023	Quarterly
Areas of Unadopted Green Belt		
Pembrokeshire Coast National Park Authority - Development Control	August 2023	Quarterly
Pembrokeshire County Council	August 2023	Quarterly
Areas of Outstanding Natural Beauty		
Natural Resources Wales	April 2023	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		
Pembrokeshire County Council	August 2023	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	October 2023	Bi-Annually
National Nature Reserves		
Natural Resources Wales	September 2023	Bi-Annually
National Parks		
Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	April 2016	
Natural Resources Wales	March 2023	Bi-Annually
Ramsar Sites		
Natural Resources Wales	October 2023	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	March 2023	Bi-Annually
Special Areas of Conservation		
Natural England	April 2023	Bi-Annually
Natural Resources Wales	October 2023	Bi-Annually
Special Protection Areas		
Natural Resources Wales	October 2023	Bi-Annually

Data Suppliers

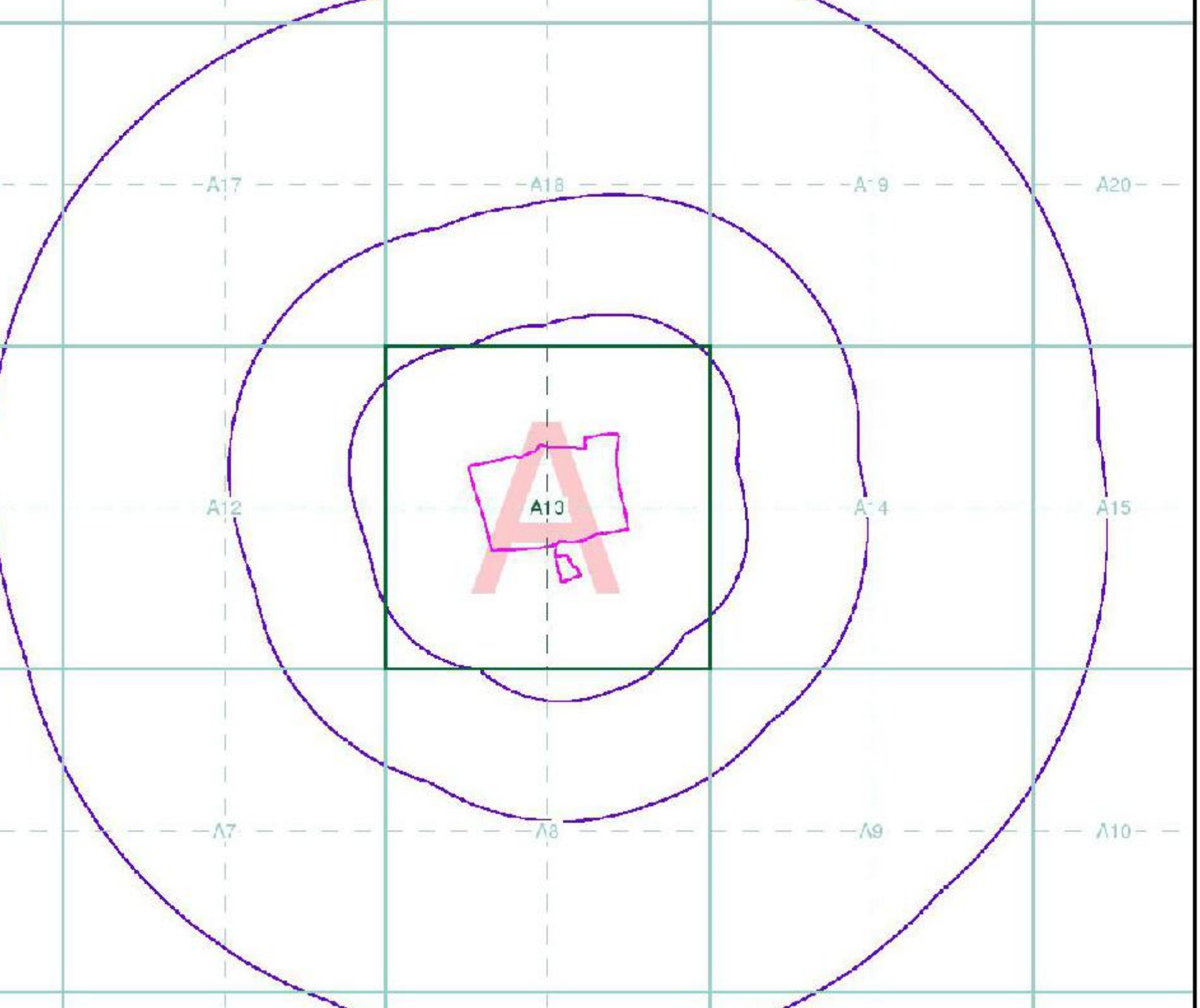
A selection of organisations who provide data within this report

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	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	**Pembrokeshire County Council - Environmental Health Department** Public Protection Division, Pembrokeshire County Council, County Hall, Haverfordwest, Pembrokeshire, SA61 1TP	Telephone: 01437 764551 Fax: 01437 775838 Website: www.pembrokeshire.gov.uk
6	**Stantec UK Ltd** Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
7	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.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.



For ease of identification, your site
Segments and Quadrants. These
and explained further below.

Slice
Each slice represents a 1:10,000 p
buffer. A large site and buffer may
by a red outline), that are referenc
the bottom left corner of the slice "
Grid lines but is designed to give b

Segment
A segment represents a 1:2,500 p
associated with them are shown in
numbered from the bottom left han

Quadrant
A quadrant is a quarter of a segme
SE and are referenced in the datas
on plots. Therefore a feature that
in Slice A, Segment 7 and the NW

A selection of organisations who p

Map data

Cyfoeth Naturiol Cymru
Natural Resources Wales

Envirocheck reports are compiled

Client Details

Mr O Willis, WSP UK Ltd, S
Industrial Estate, All Canni
AB12 3LE

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Site Area (Ha):	5
Search Buffer (m):	1

Site Details

General

Specified Site

Specified Buffer

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 Controls

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

Water Quality Sampling Point

Substantiated Pollution Incident Register

Water Abstraction

Water Industry Act Referrals

Hazardous Substances

COMAH Site

Explosive Site

NIHHS Site

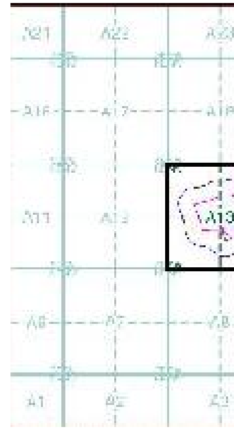
Planning Hazardous Substance Consent

Planning Hazardous Substance Enforcement

Geological

BGS Recorded Mineral Site

Site Sensitivity Map



Order Details

Order Number:

Customer Ref:

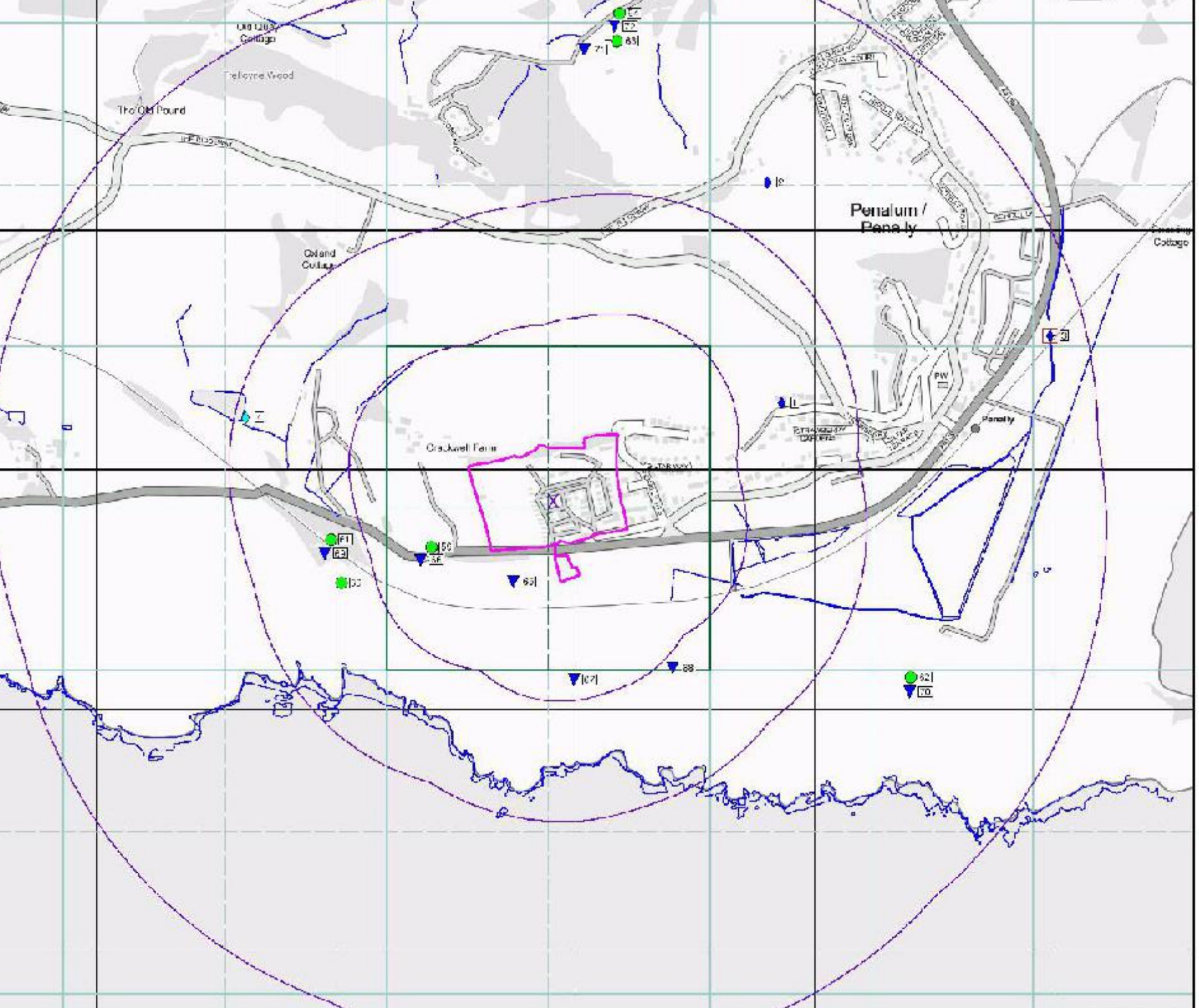
National Grid Reference:

Slice:

Site Area (Ha):

Plot Buffer (m):

Site Details



General

Agency and Hydrological

Hazardous Substances

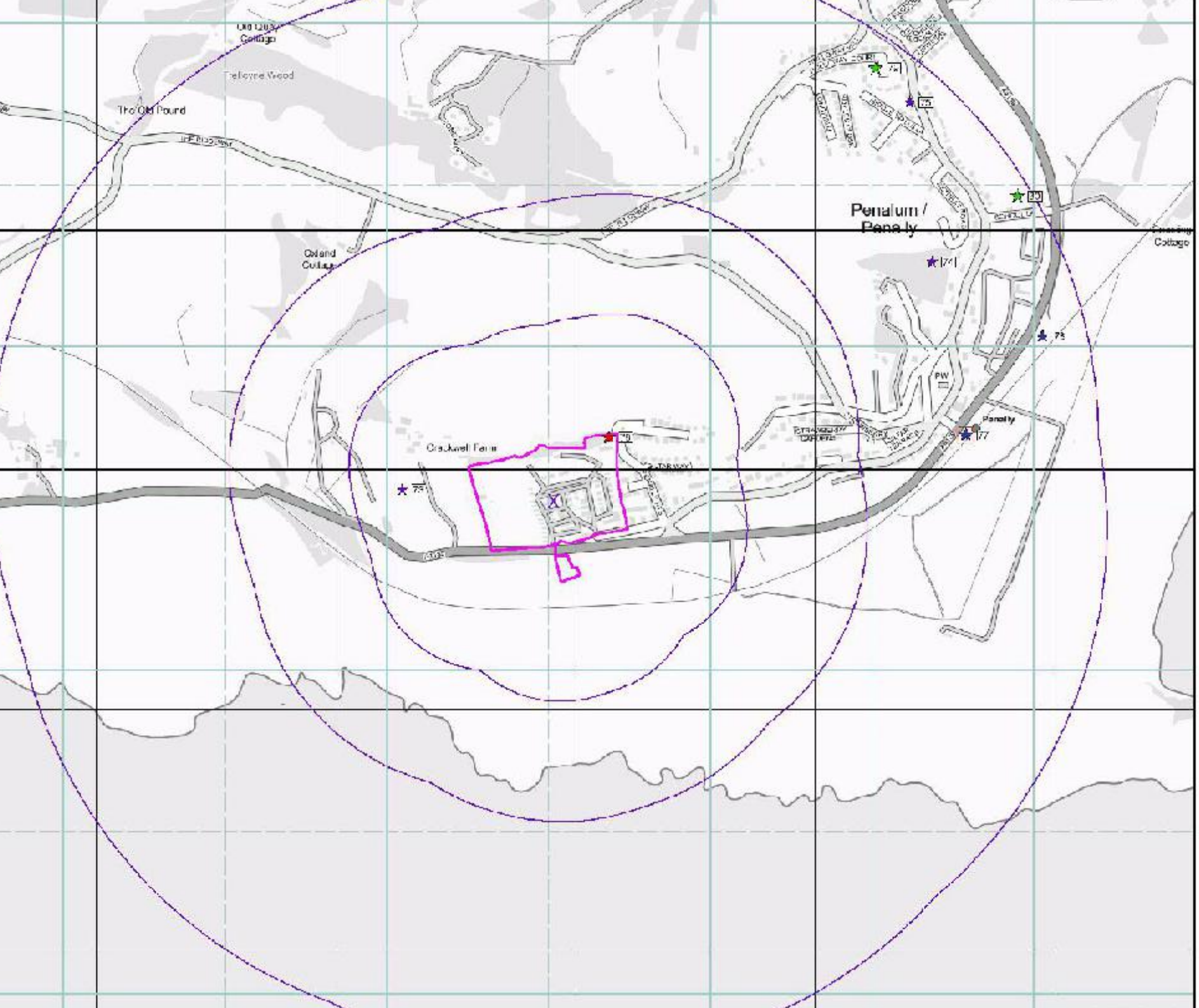
Geological

Site Sensitivity Ma

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Specific Site

Site

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

Points of Interest - Public Infrastructure

Points of Interest - Recreational and Environmental

Overground Electrical Cables

Industrial Land Use

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details

General

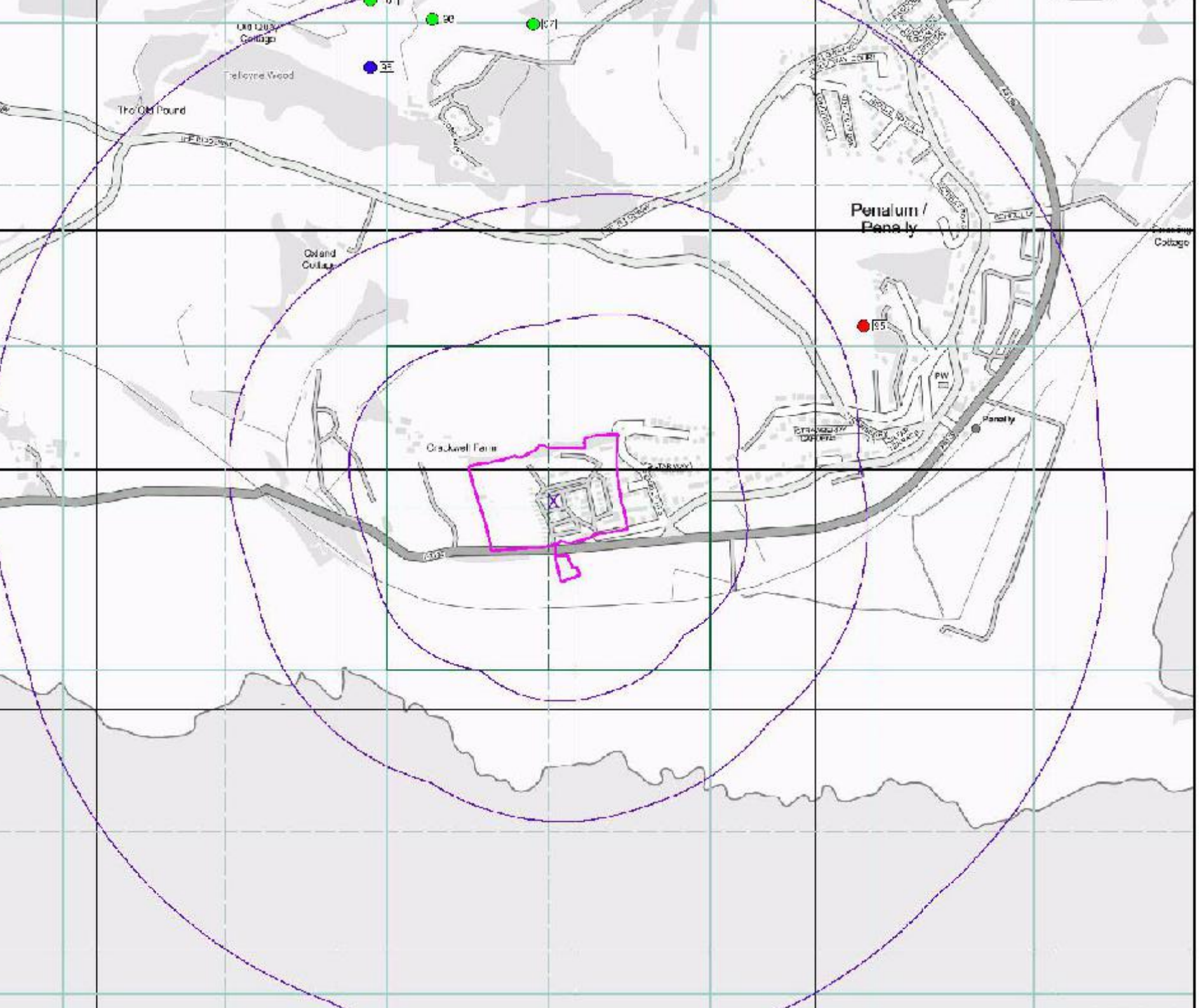
Agency and Hydrologi

Flood Map - Slice A

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Agency and Hydrologi

For Borehole information plea
accompanied this slice.

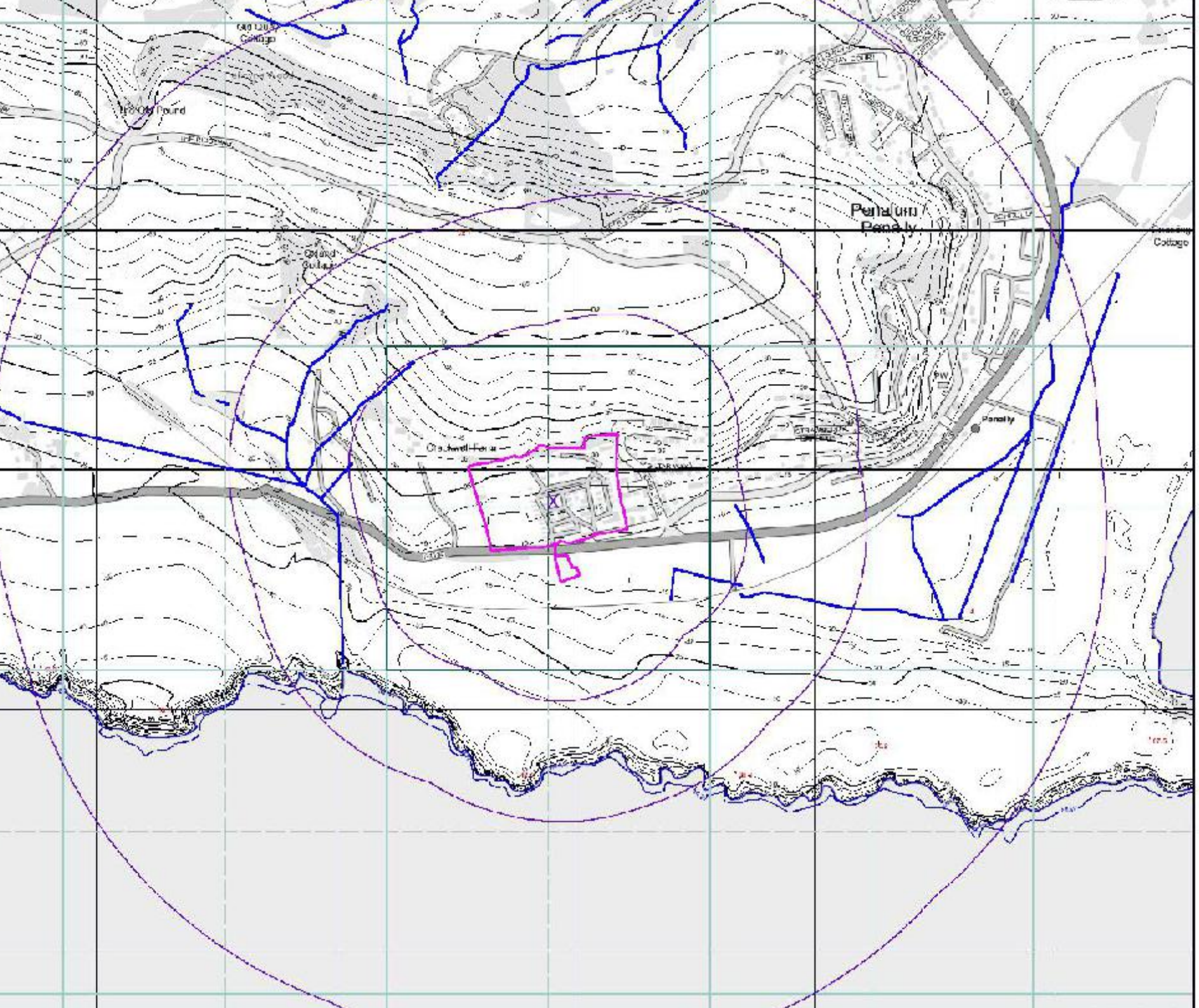
A copy of the BGS Borehole C
from the Support section of w

Borehole Map - Sli

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Specified Site

Specified Buffer(s)

Drawing Reference Point

OS Water Network Data

Canal

Reservoir

Foreshore

Marsh

Tidal River

Inland River

Contours (height in meters

Standard Contour

Master Contour

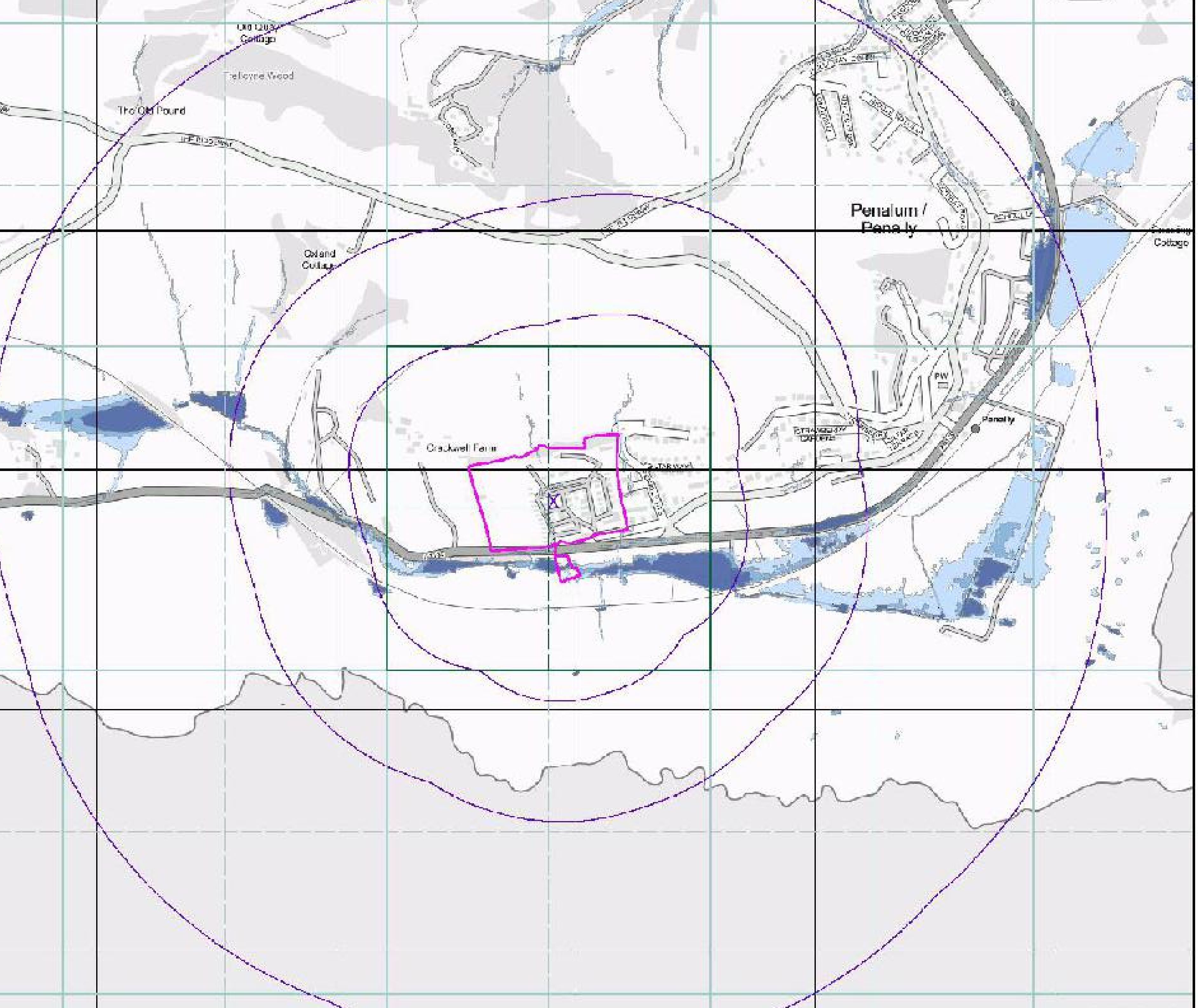
Spot Height

OS Water Network M

Order Details

Order Number:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Risk of Flooding from

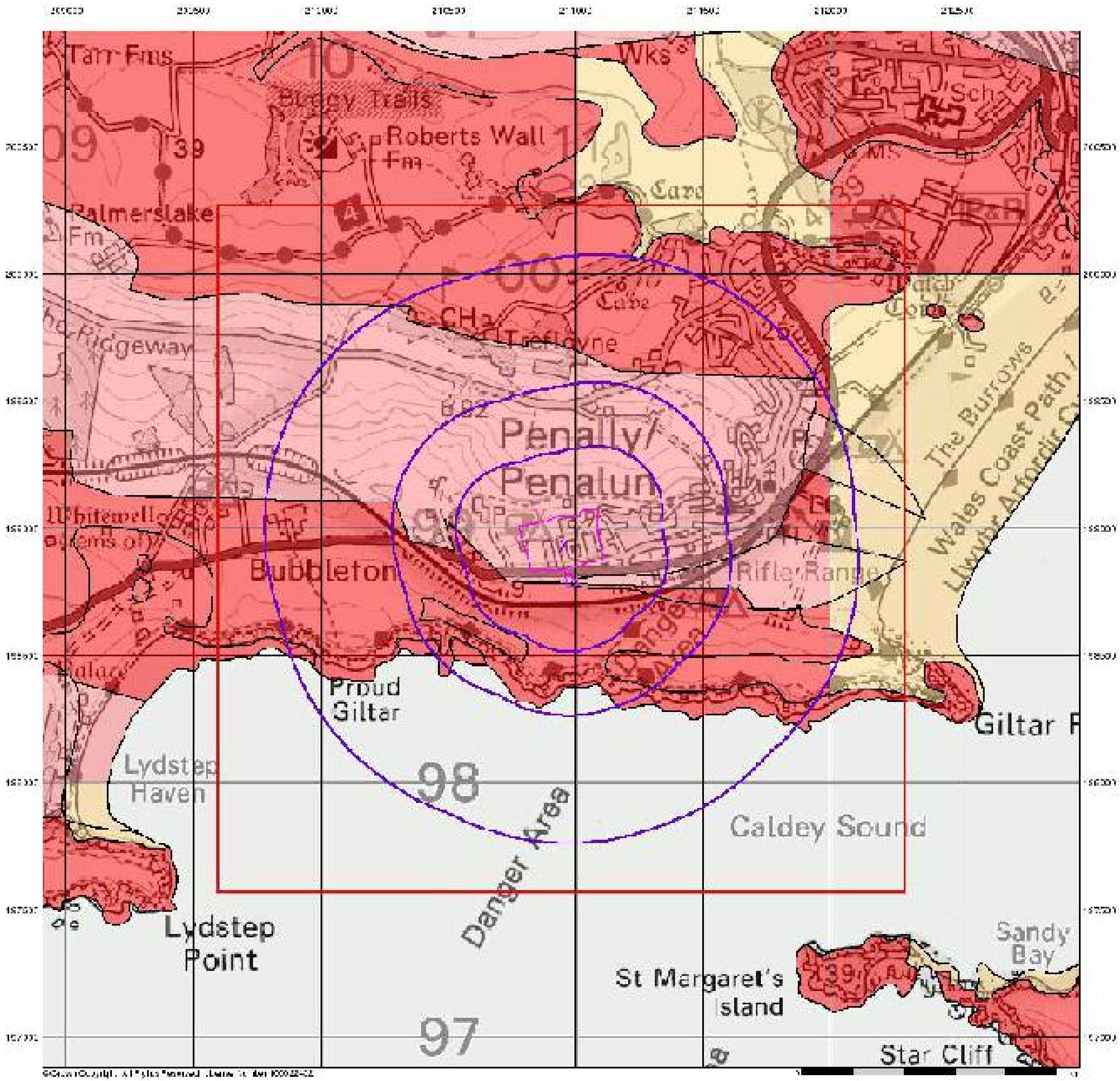
Suitability

EA/NRW Suitability M

Order Details

Order Number:
Customer Ref:
National Grid Reference:
Slice:
Site Area (Ha):
Search Buffer (m):

Site Details



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Groundwater Vulnerability

General

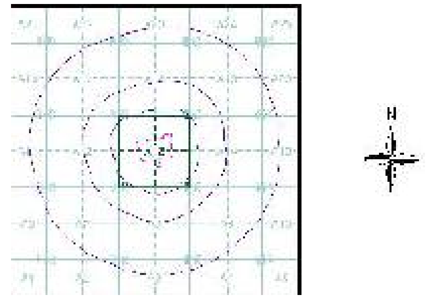
Agency and Hydrological

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



Order Details

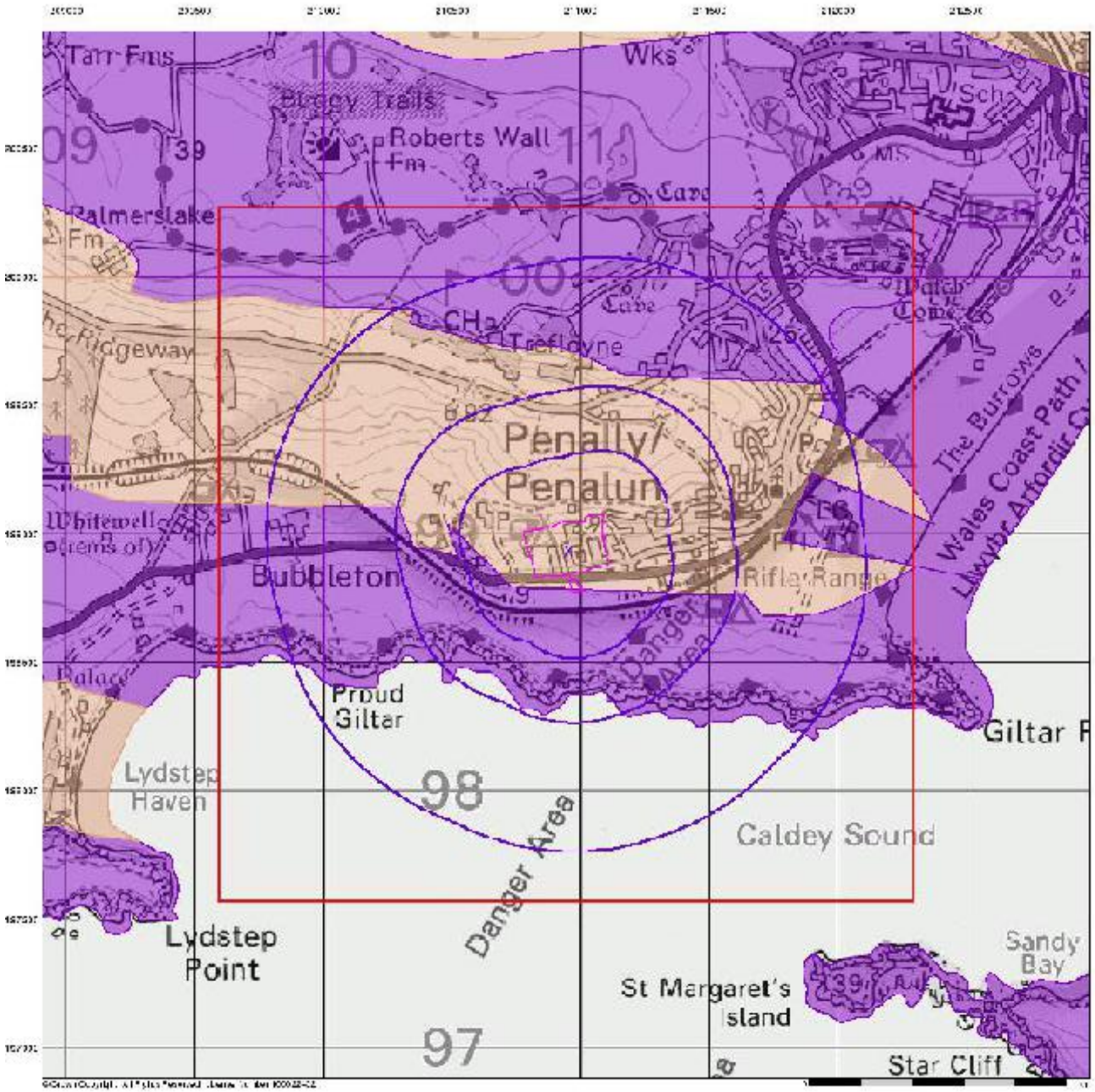
Order Number:	322920343_1_1
Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details

Site at 210942,198920

Landmark INFORMATION GROUP

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



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LANDMARK INFORMATION GROUP

Bedrock Aquifer Designation

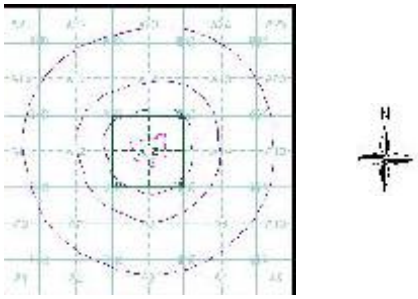
Generic

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



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Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

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Site at 210942,198920

Landmark INFORMATION GROUP
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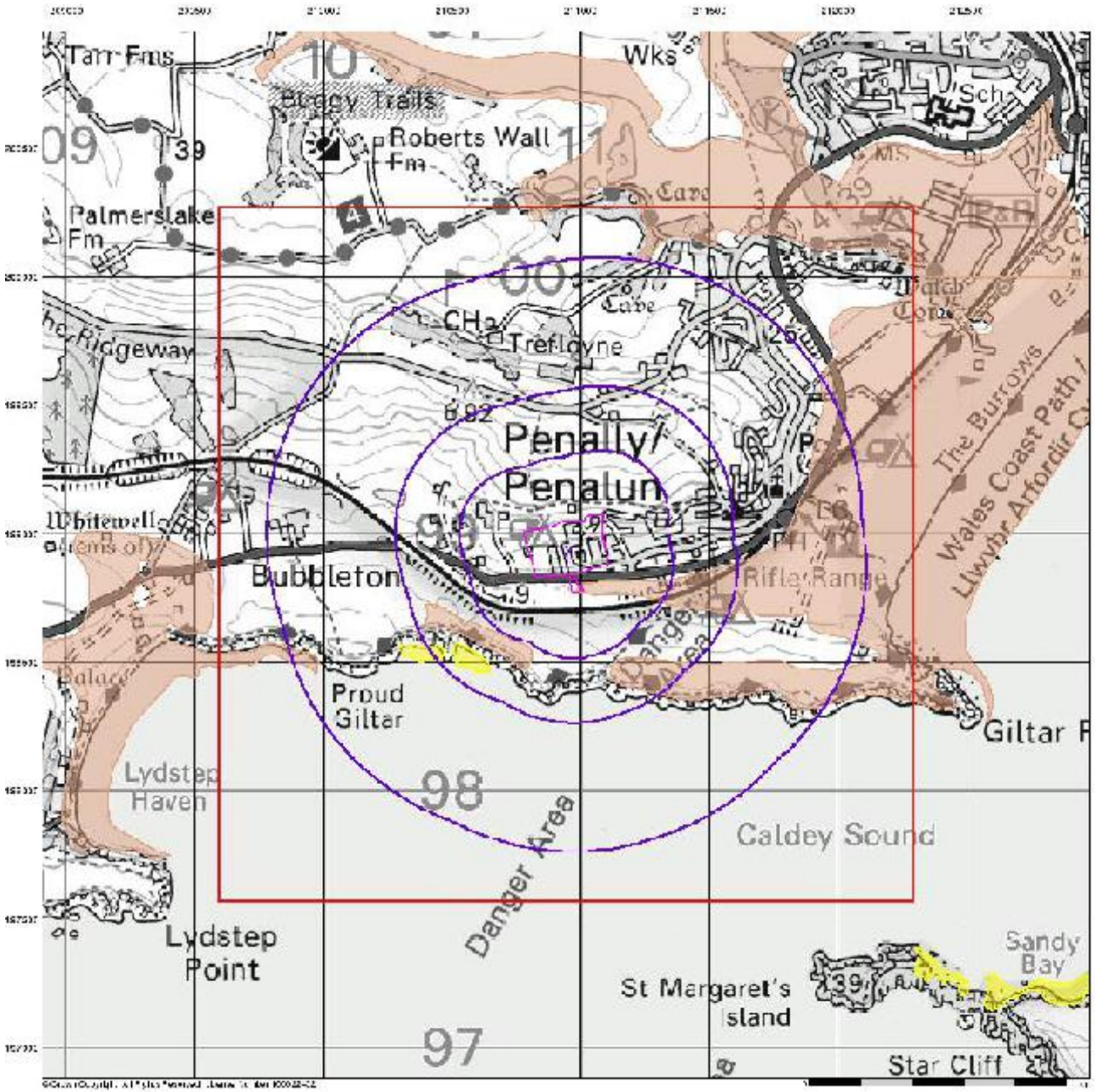


Envirocheck

LANDMARK INFORMATION GROUP

Superficial Aquifer Designation

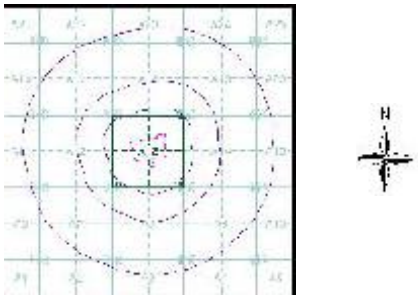
Generic

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	322920343_1_1
Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details

Site at 210942,198920

Landmark INFORMATION GROUP

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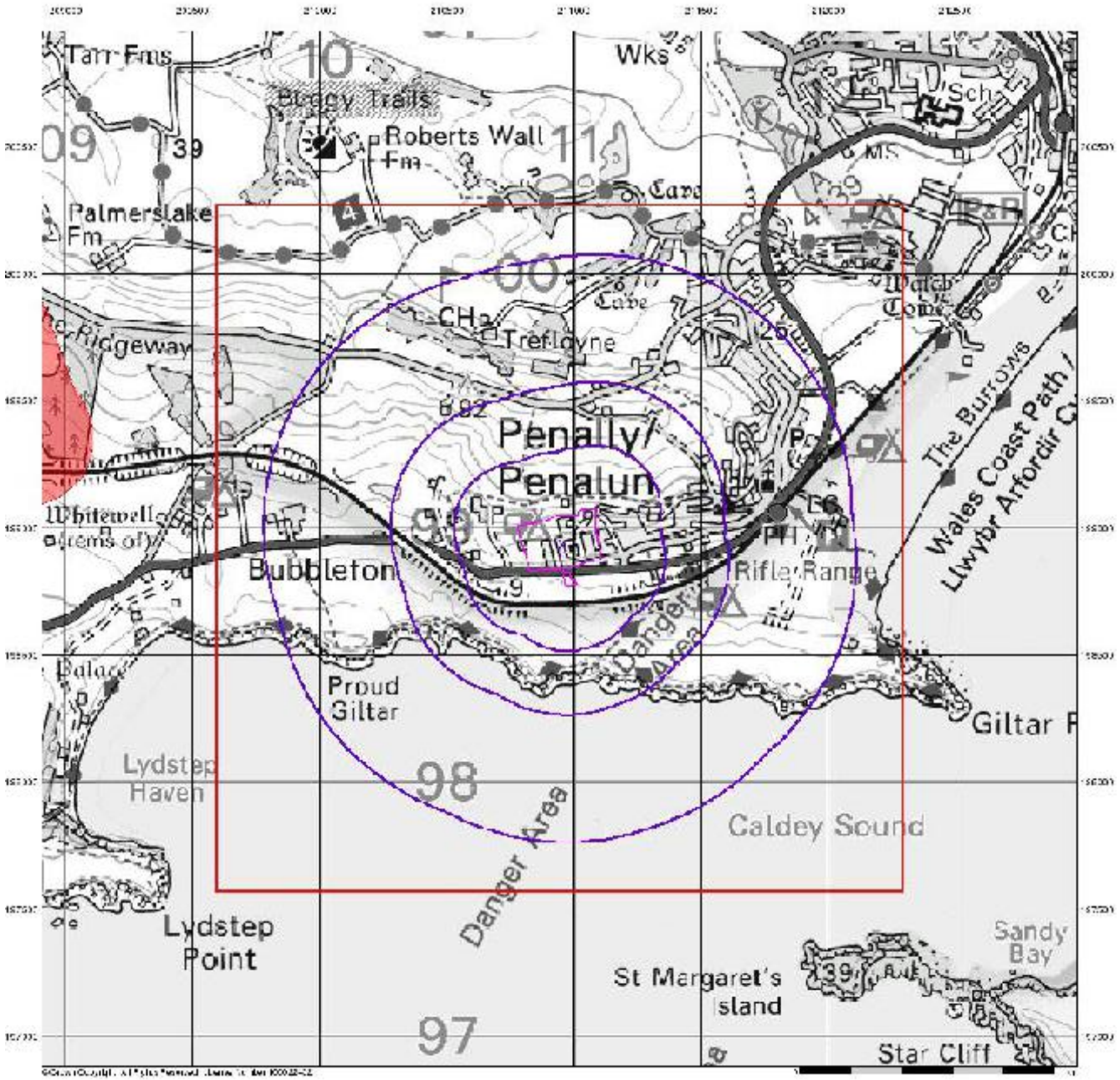
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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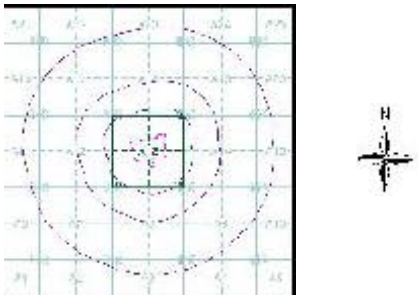
LANDMARK INFORMATION GROUP

Source Protection Zones

Genera

Age ncy and Hydrologica

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	322920343_1_1
Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details

Site at 210942,198920

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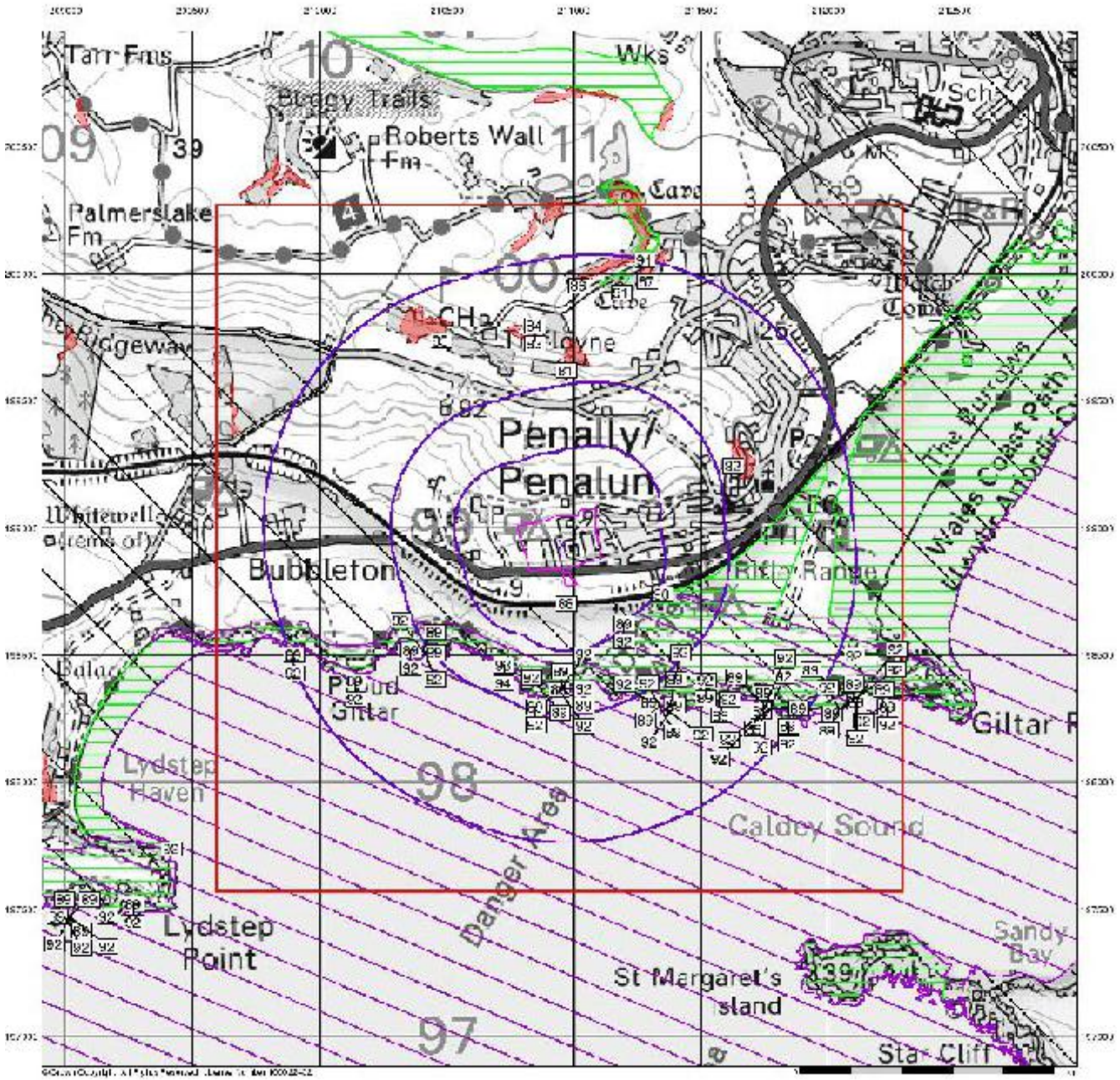
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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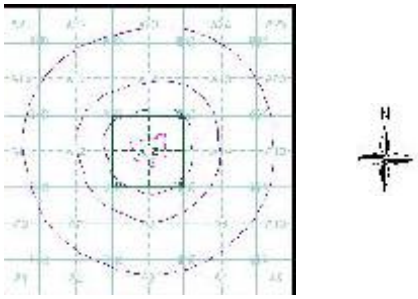
LANDMARK INFORMATION GROUP

Sensitive Land Uses

General

Sensitive Land Uses

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	322920343_1_1
Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details

Site at 210942,198920

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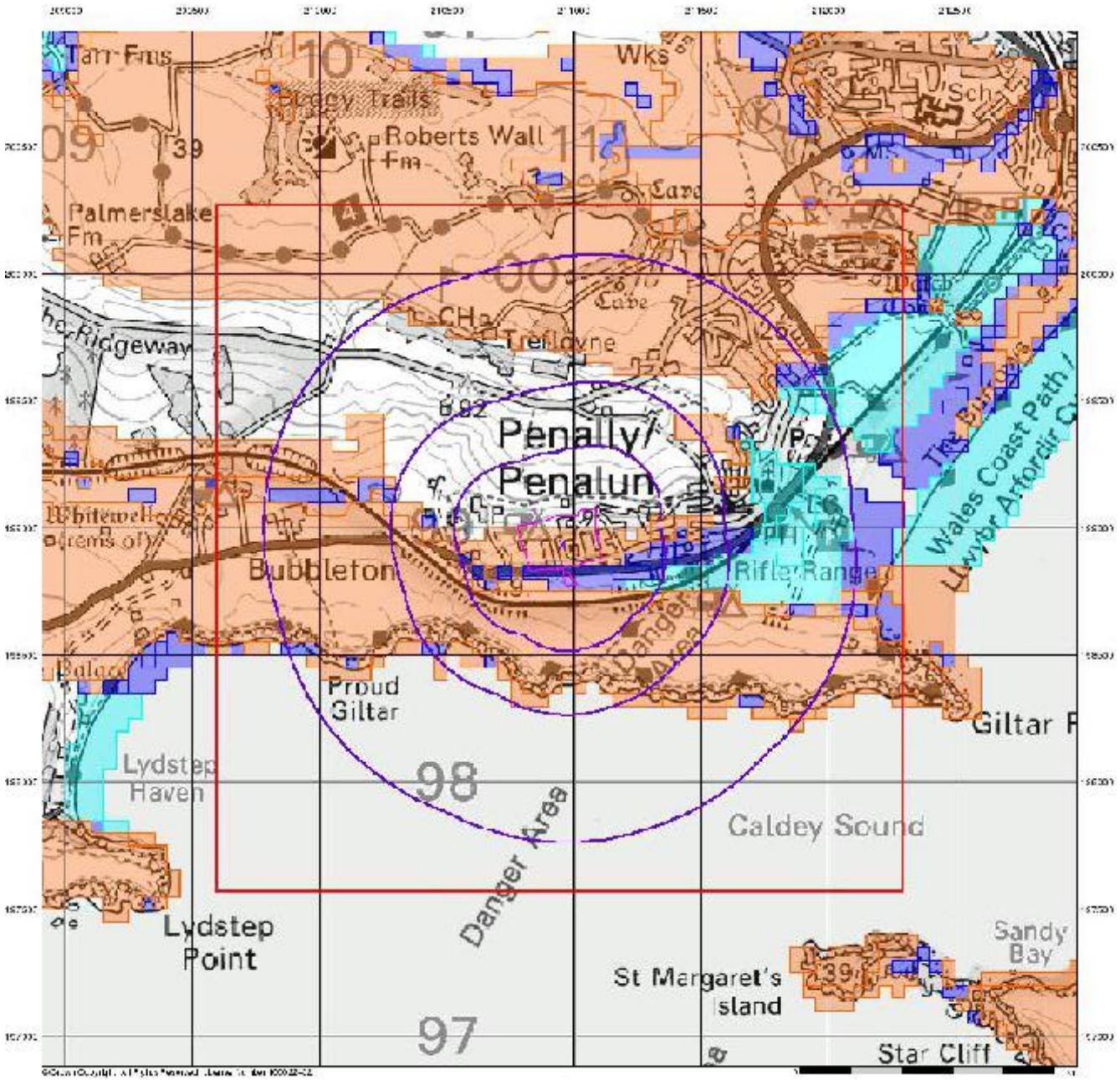
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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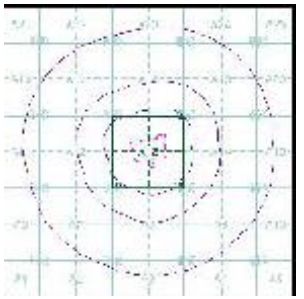
LANDMARK INFORMATION GROUP

BGS Flood GFS Data

General

Agency and Hydrological (Flood)

Site Sensitivity Context Map - Slice A



Order Details

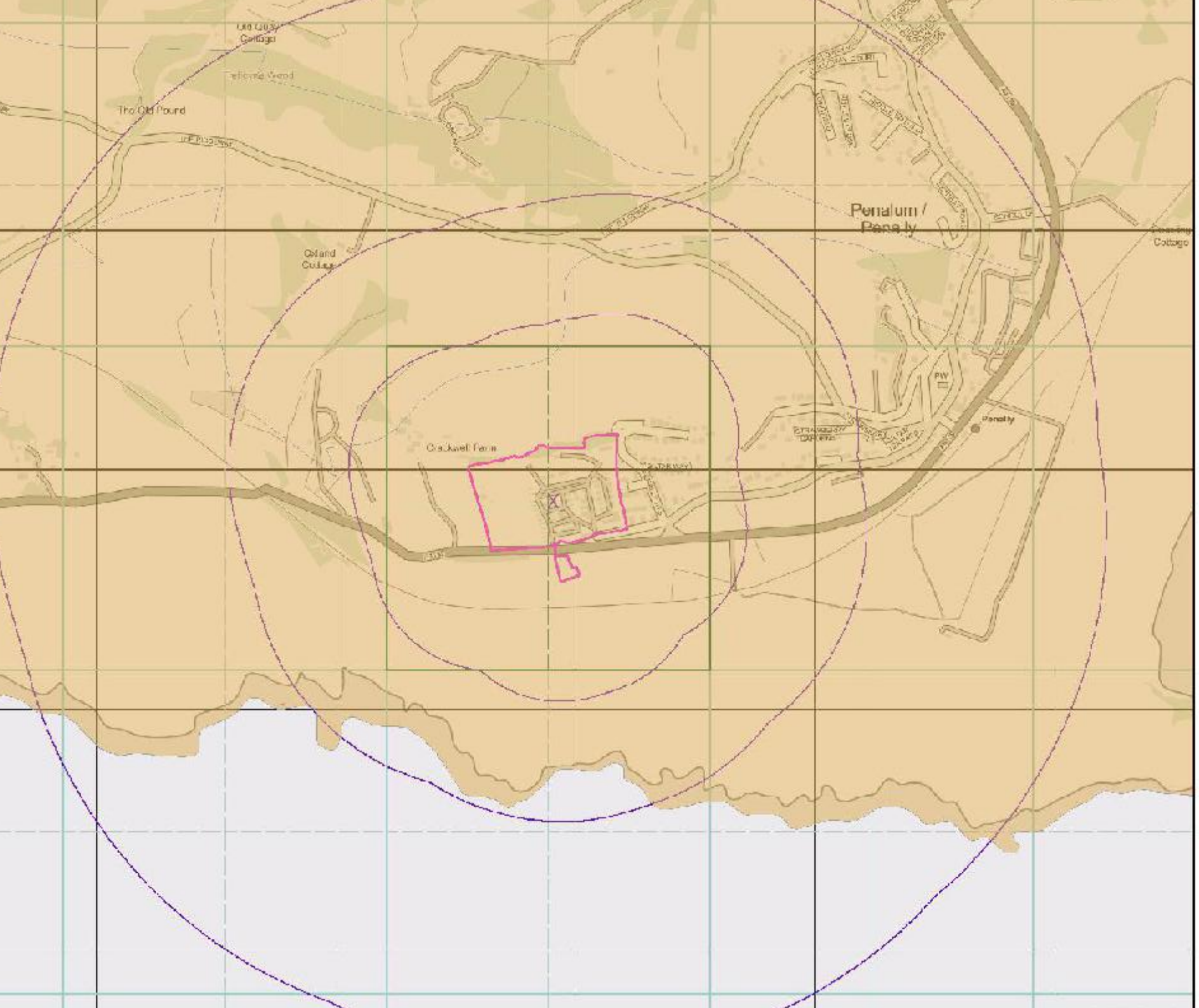
Order Number:	322920343_1_1
Customer Ref:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details

Site at 210942,198920

Landmark INFORMATION GROUP

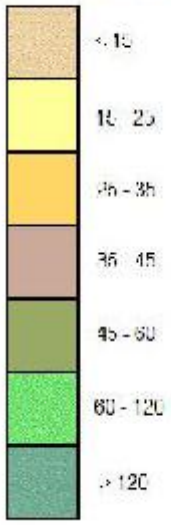
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



General

Estimated Soil Chemistry

Arsenic Concentrations mg/kg

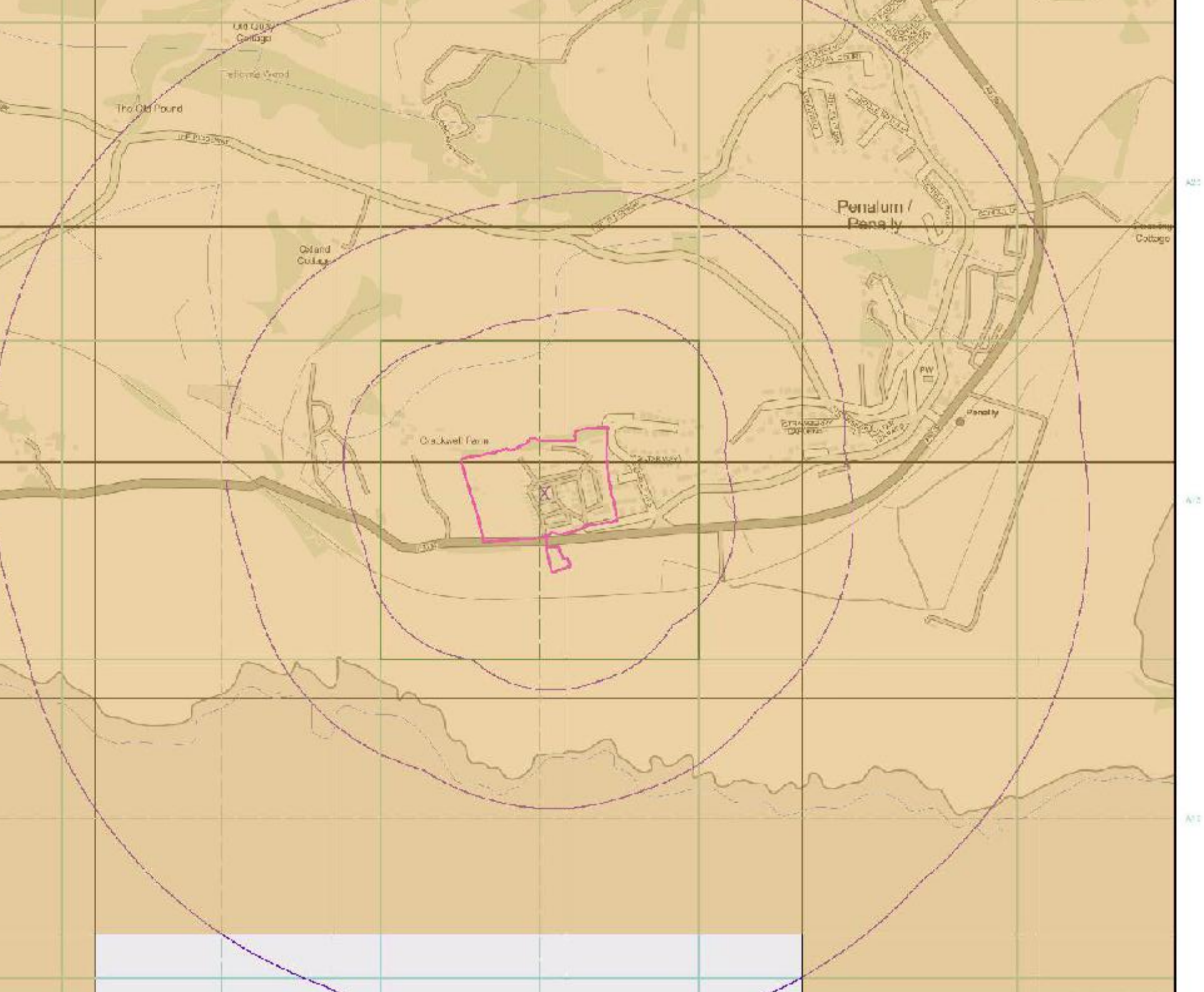


Estimated Soil Chem

Order Details

Order Details:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Estimated Soil Chemistry

Cadmium Concentrations mg/kg

1.8 - 2.2

2.2 - 3.0

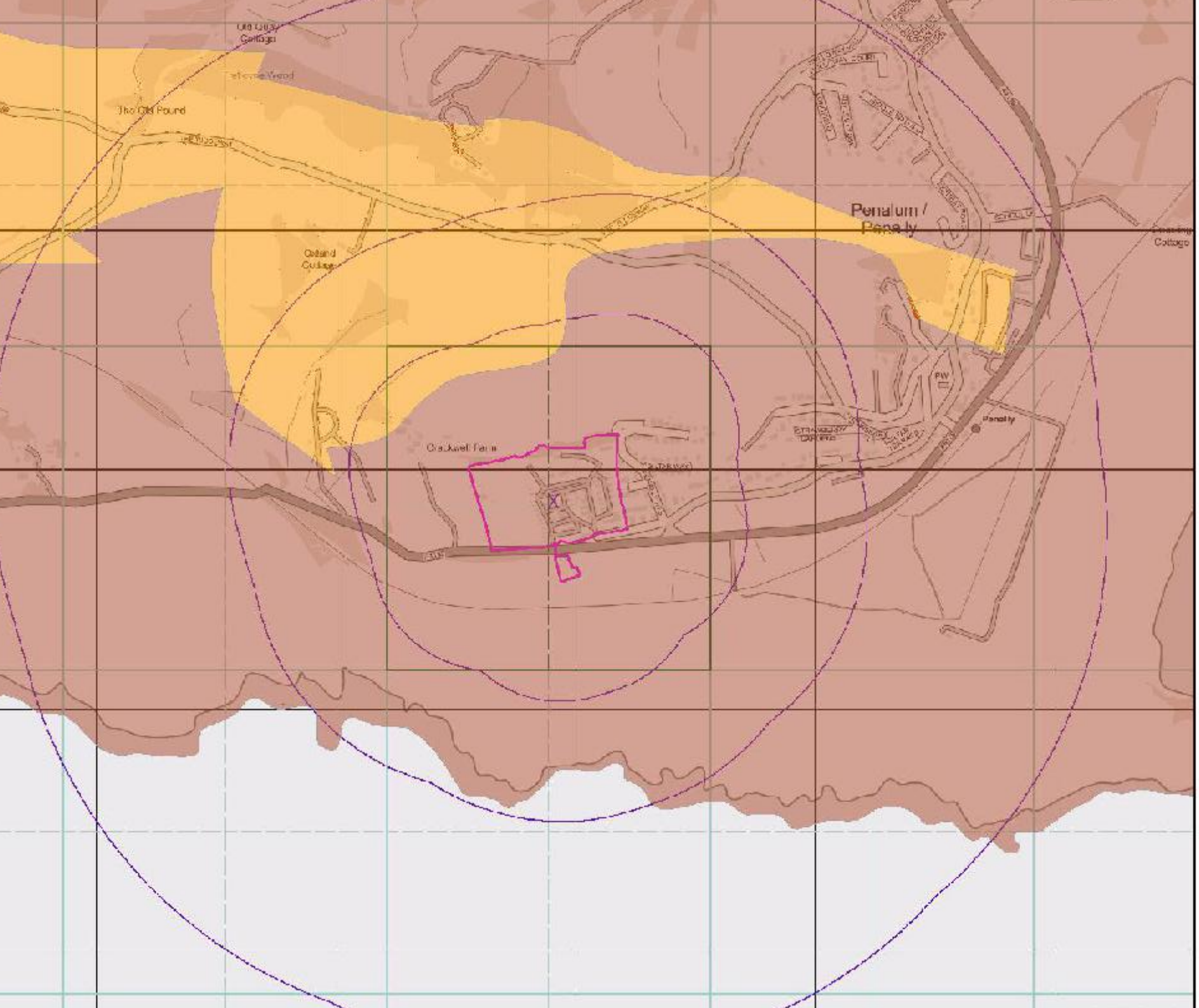
> 3.0

Estimated Soil Chem

Order Details

Order Details:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Estimated Soil Chemistr

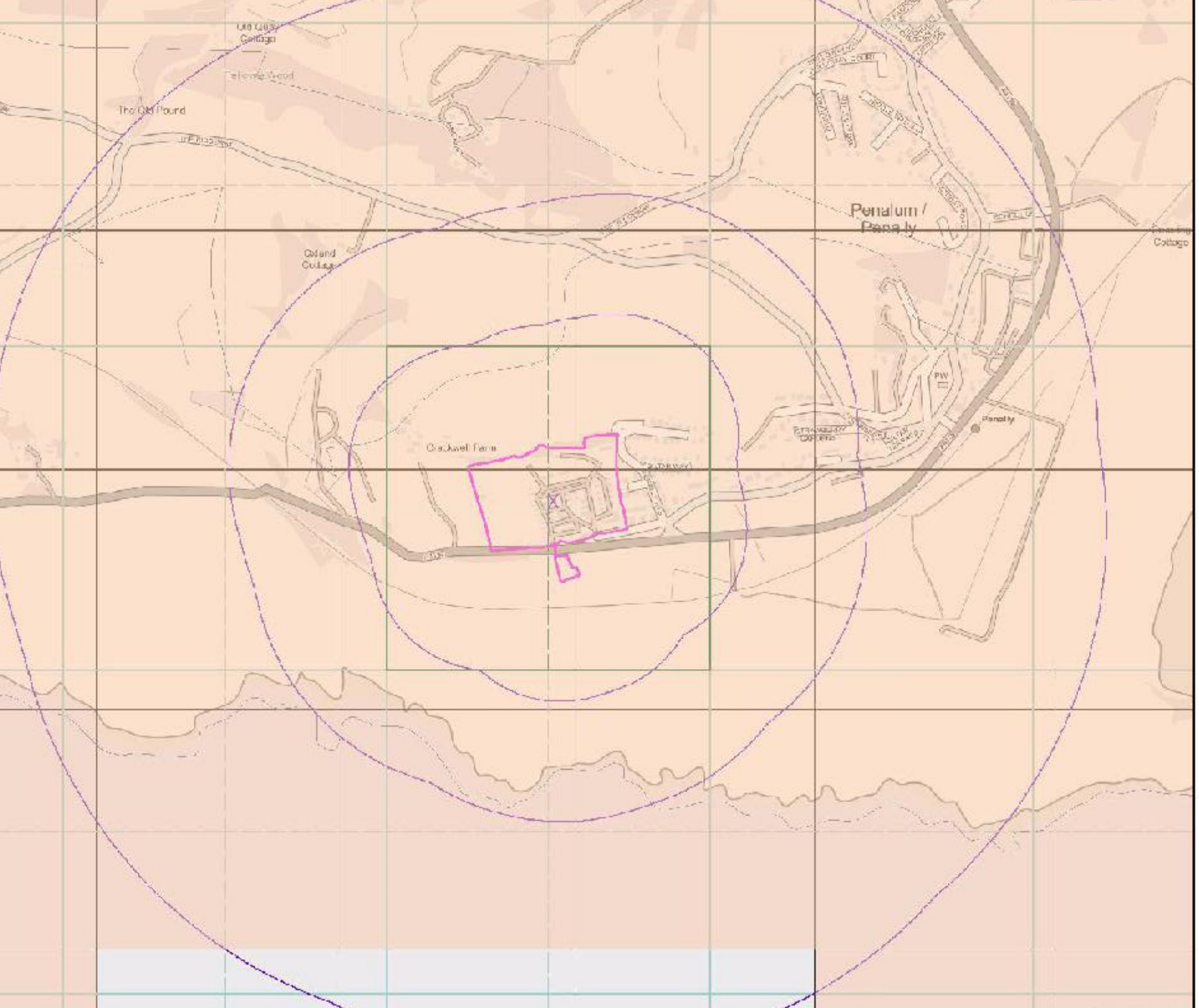
< 20
20 - 40
40 - 60
60 - 80
80 - 120
120 - 180
> 180

Estimated Soil Chem

Order Details

Order Details:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Estimated Soil Chemistry

Lead Concentrations mg/kg

<100 mg/kg

100 - 200

200 - 300

300 - 600

600 - 1200

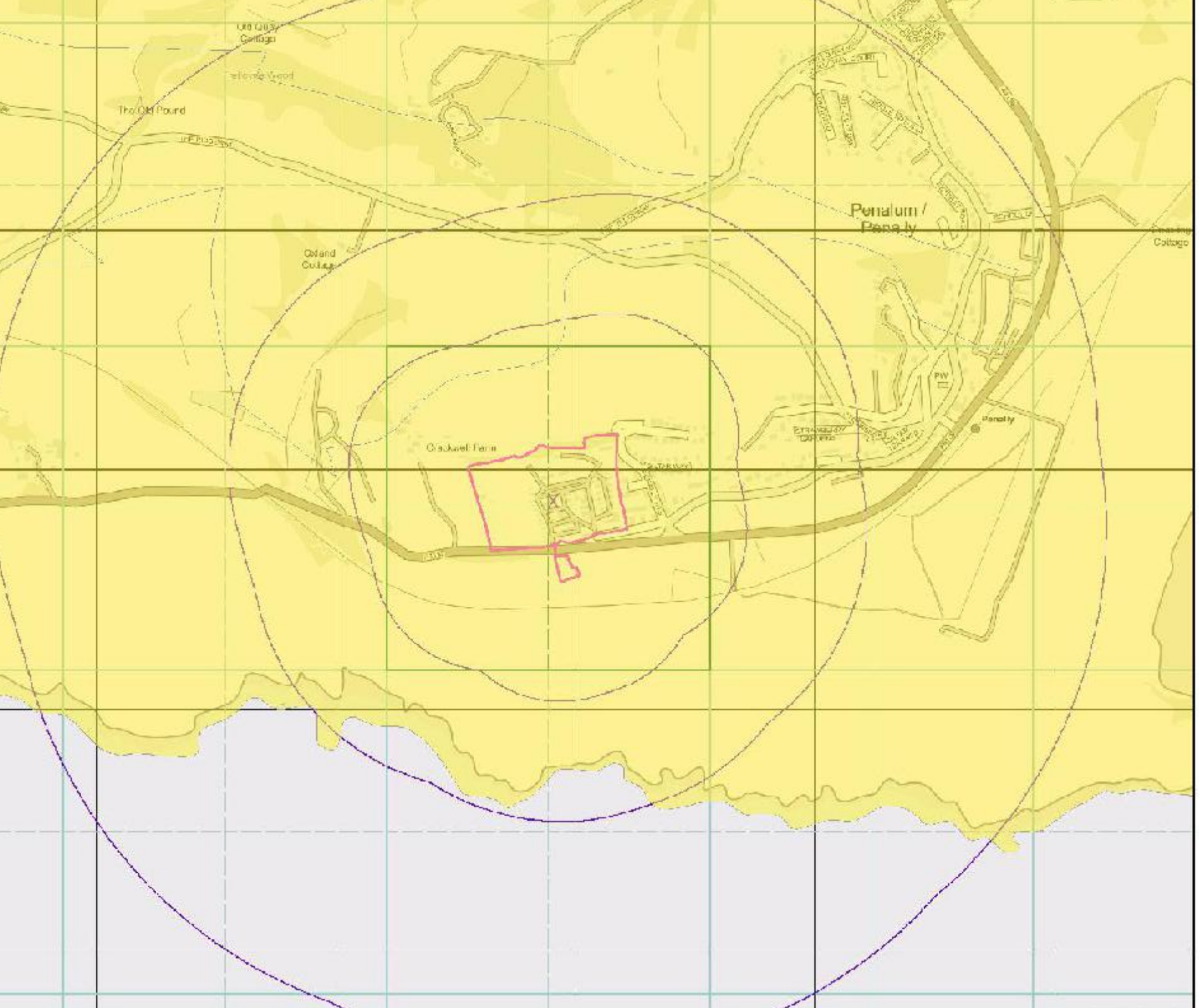
>1200

Estimated Soil Chem

Order Details

Order Details:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details



General

Estimated Soil Chemistry

Nickel Concentrations mg/kg

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

Estimated Soil Chem

Order Details

Order Details:	3
Customer Ref:	P
National Grid Reference:	2
Slice:	A
Site Area (Ha):	5
Search Buffer (m):	1

Site Details

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
	BSA	Blown Sand	Sand	Not Supplied - Quaternary
	MBD	Marine Beach Deposits	Sand	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	TRIA	Triassic Rocks (Undifferentiated)	Breccia	Not Supplied - Triassic
	BISHM	Bishopston Mudstone Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Namurian
	BGUO	Black Rock Subgroup and Gully Oolite Formation (Undifferentiated)	Limestone	Not Supplied - Tournaisian
	AVO	Avon Group	Limestone and Mudstone, Interbedded	Not Supplied - Tournaisian
	PEMB	Pembroke Limestone Group	Limestone	Not Supplied - Tournaisian
	SES	Skrinkle Sandstone Formation	Sandstone	Not Supplied - Famennian
	RDWC	Ridgeway Conglomerate Formation	Conglomerate	Not Supplied - Pragian
	DEVC	Devonian and Carboniferous Rocks (Undifferentiated)	Limestone, Argillaceous Rocks and Subordinate Sandstone, Interbedded	Not Supplied - Devonian
		Faults		

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LANDMARK INFORMATION GROUP

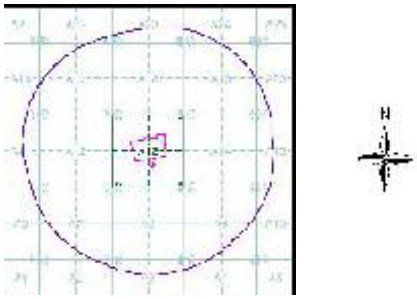
Geology 1:50,000 Maps

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:	**245**
Map Name:	**Pembroke and L**
Map Date:	**1983**
Bedrock Geology:	**Available**
Superficial Geology:	**Available**
Artificial Geology:	**Not Available**
Faults:	**Not Supplied**
Landslip:	**Not Available**
Rock Segments:	**Not Supplied**

Geology 1:50,000 Maps - Slice A



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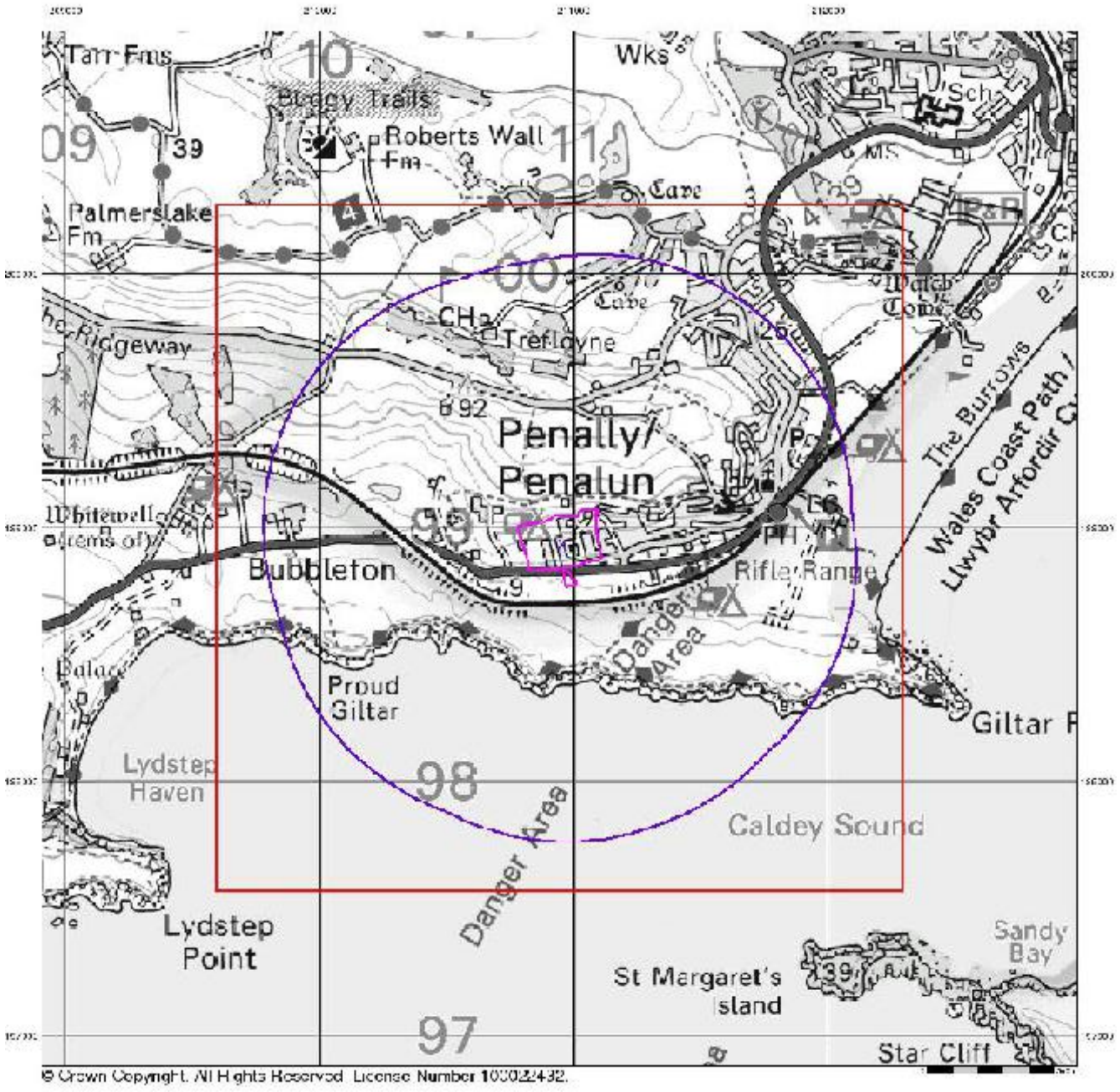
Order Number:	322920343_1_1
Customer Reference:	Penally LQA
National Grid Reference:	210950, 198940
Slice:	A
Site Area (Ha):	5.97
Search Buffer (m):	1000

Site Details:

Site at 210942,198920

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



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Artificial Ground and Landslip

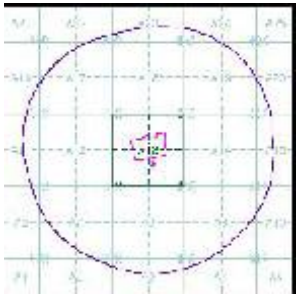
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A



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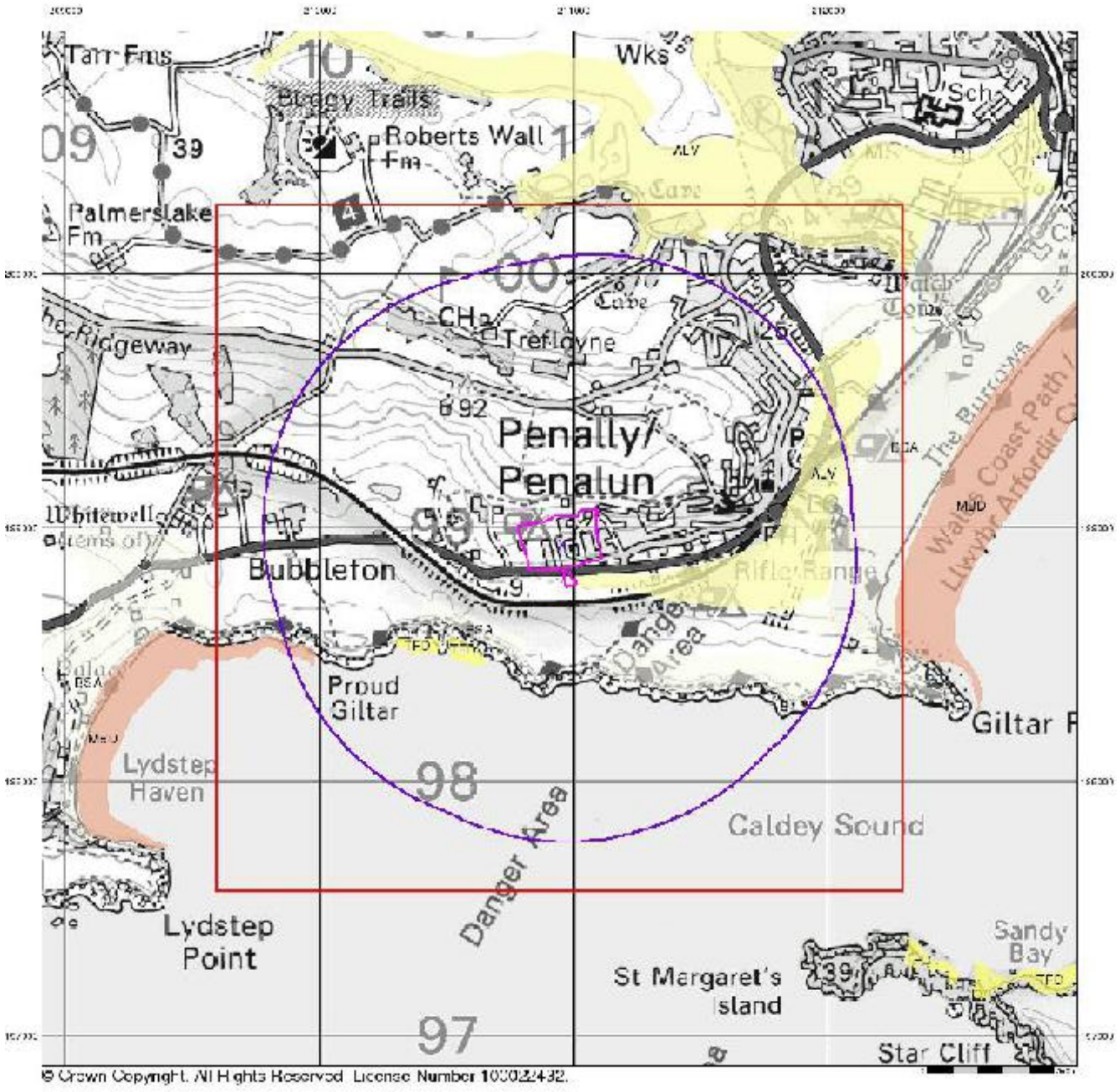

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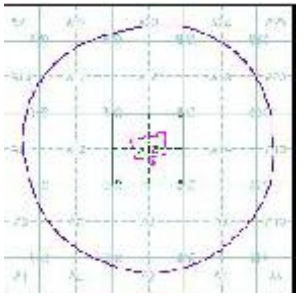
Superficial Geology

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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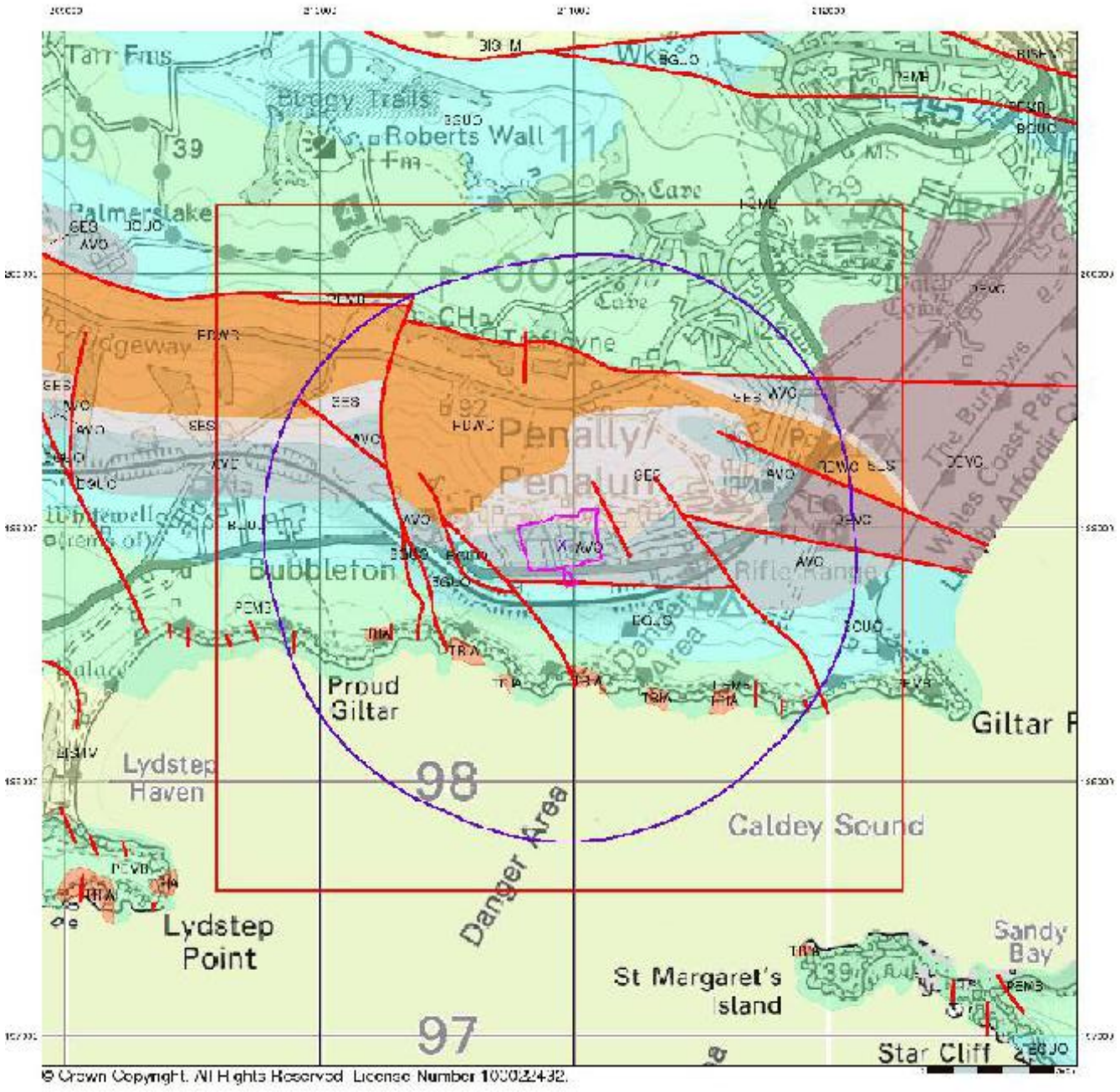

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Bedrock and Faults

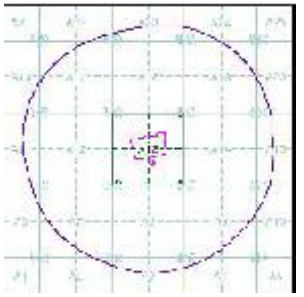
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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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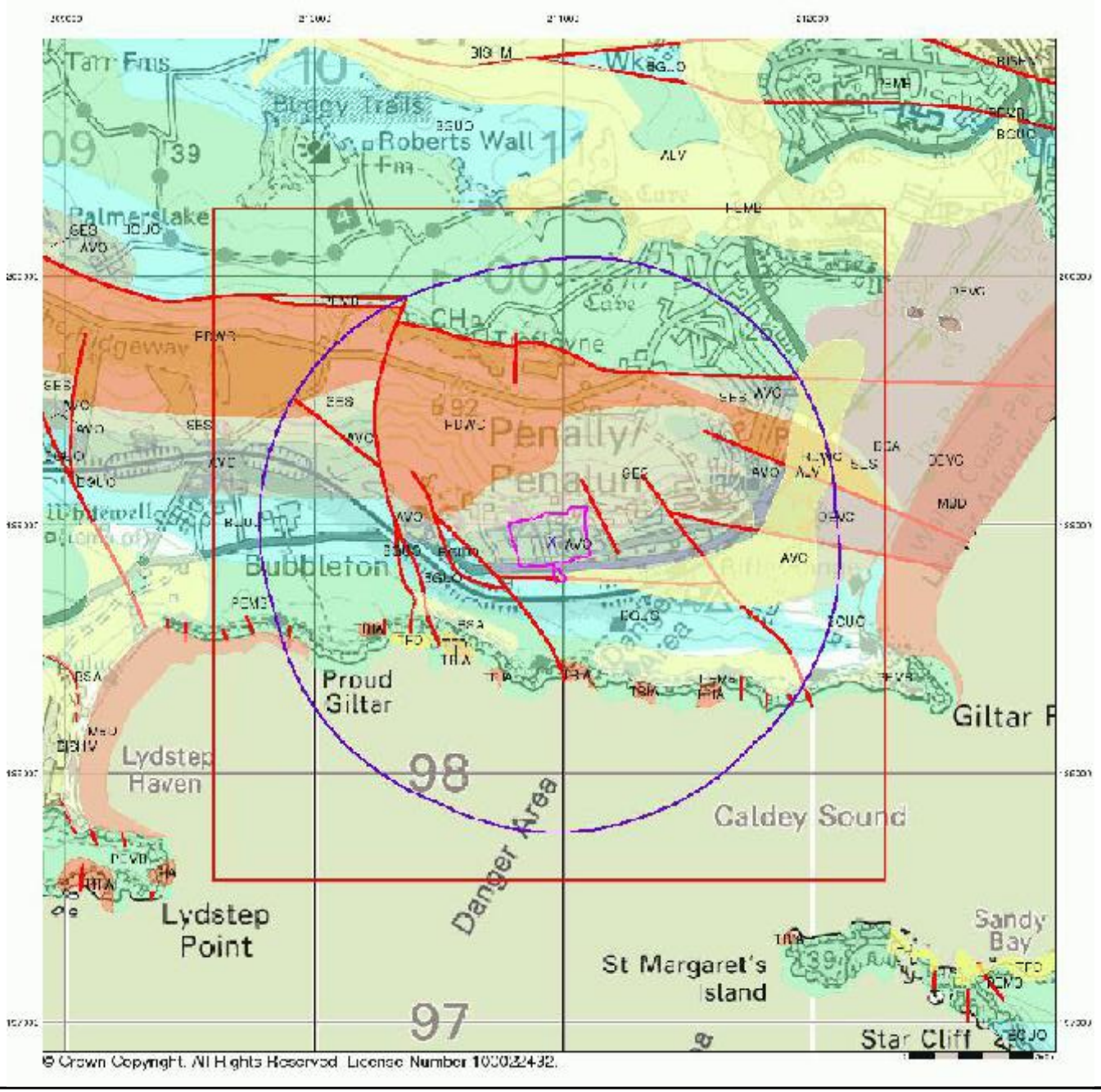

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Combined Surface Geology

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

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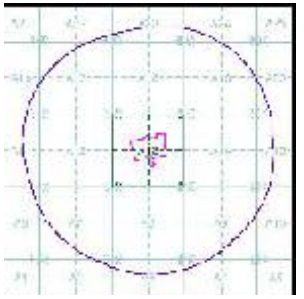
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



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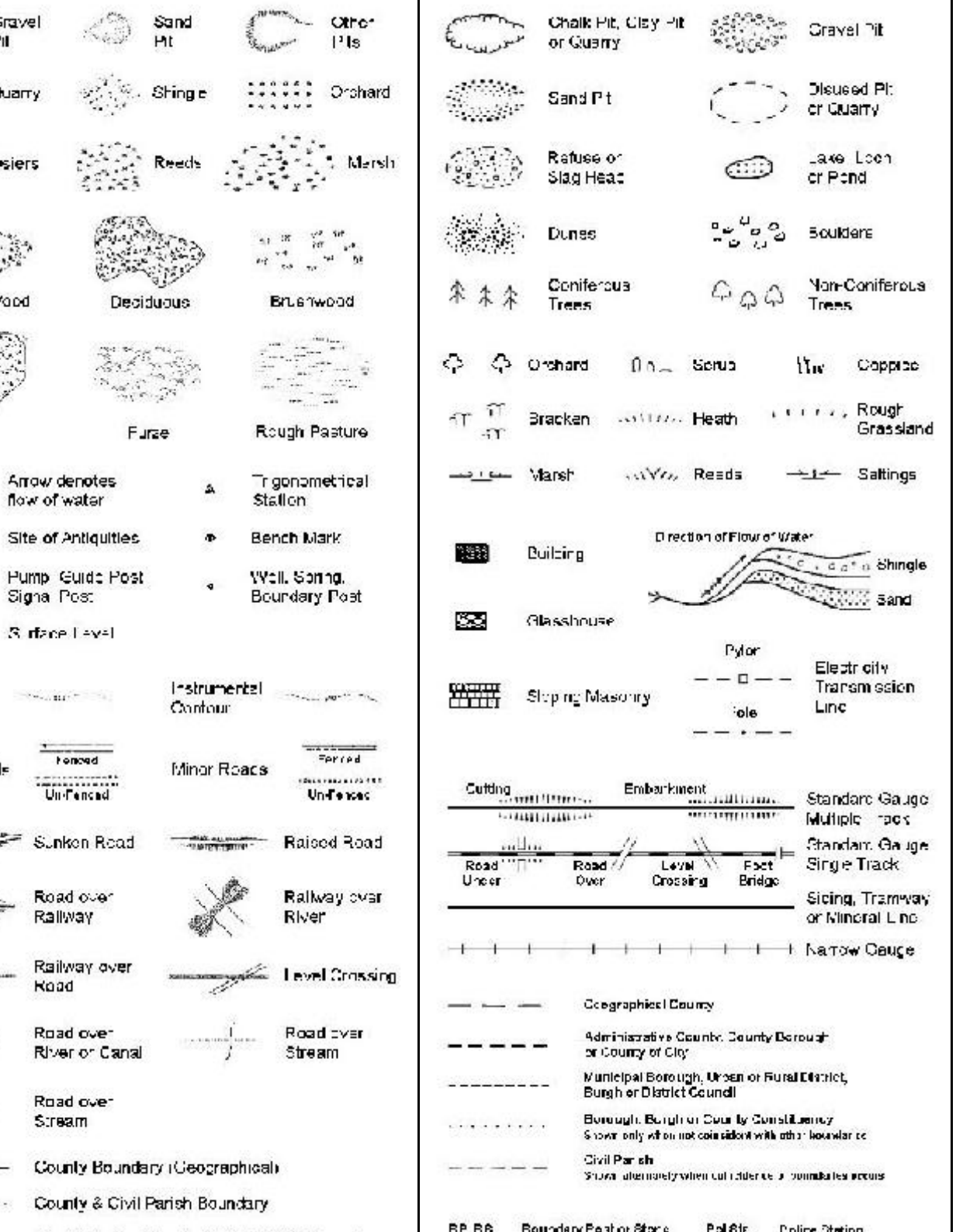

Mapping Type
Pembrokeshire
Pembrokeshire
Pembrokeshire
Pembrokeshire
Ordnance Survey Plan
Ordnance Survey Plan
Ordnance Survey Plan
Ordnance Survey Plan
10K Raster Mapping
10K Raster Mapping
VectorMap Local

Historical Map - Sli

Order Details

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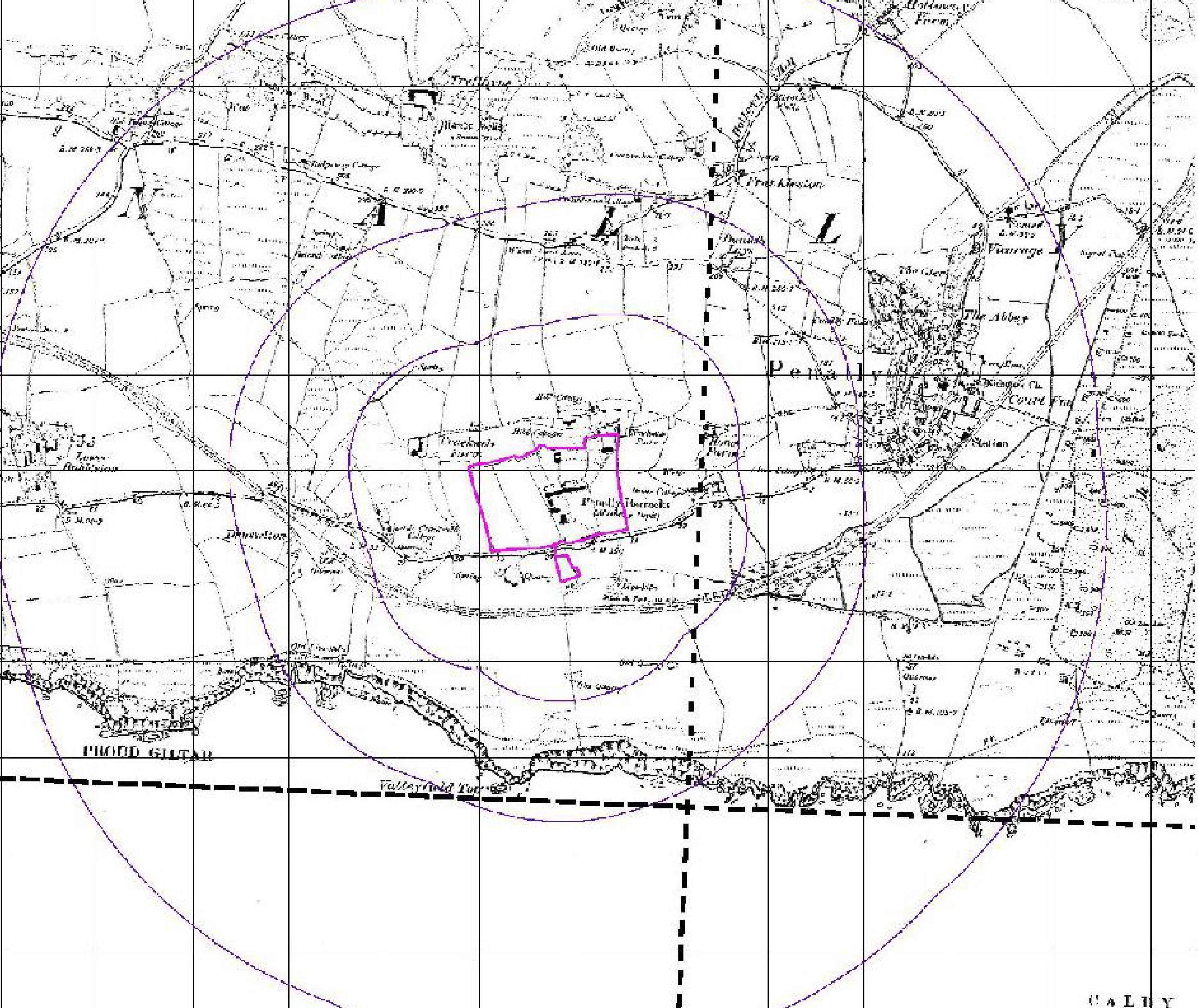
Search Buffer (m):	1

Site Details

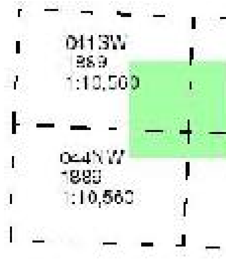


Published 1888

Source map sca

The historical maps shown were re
at the scale adopted for England, W
the 1:2,500 scale was adopted for
used to update the 1:10,560 maps
often some years later than the su
were based on the Cassini Project
county or group of counties, giving
areas. In the late 1940`s, a Provisi
the 1:10,560 mapping from a numb
unfinished - with all military camps
maps were initially overprinted with
1:10,000 maps were produced usi
revision process continued until re
10 years or so for urban areas.

Map Name(s) and D



Historical Map - Sli

Order Details

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