# **Gas Connection Environmental Report Appendices Part 2 of 2**

Appendix 8.1: Landmark Envirocheck report

Appendix 8.2: Preliminary Geo-Environmental Risk Assessment

Appendix 8.3: British Geological Survey Borehole Log SN65200160

Appendix 8.4: Coal Authority Mining Report

Appendix 8.1

Landmark Information Group Envirocheck Report 2015 Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN** 

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

142844199 Glamorgan 1935 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 1961 1:2,500 142844199 Ordnance !

142844199 Glamorgan 1876-1877 1:2,500

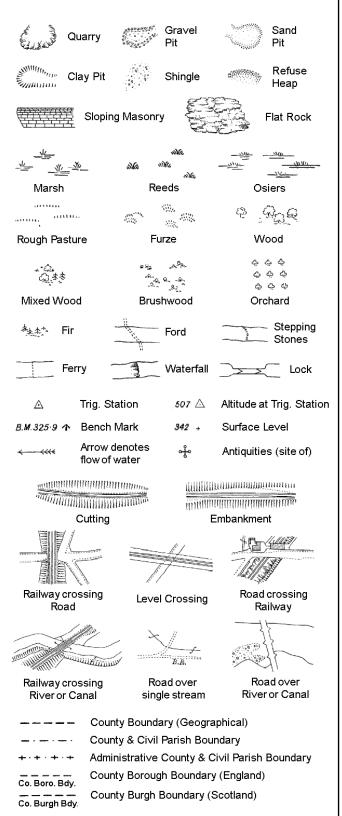
142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

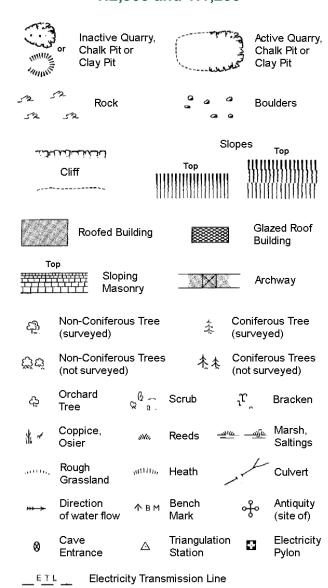
Trough Well

S.P

Sl.

 $T_{T}$ 

#### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



#### County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary

Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

FΒ

Filter Bed

Gas Governer

**Guide Post** 

Manhole

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

### 1:1,250

|                           |  | Slopes                                  |  |  |  |
|---------------------------|--|---|--|--|--|
| وأعالند                   | للخلاسان   |   | Тор  |  |  |
| 1                         | Cliff  | Top                                     | <b>!!!!!!!!!!!!!!!!!!</b>                    |  |  |
|                           |  |   |  |  |  |
|                           | 1111   | ((((((((((((((((((((((((((((((((((((((( | (1111) [ ( ) [ ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( |  |  |
| 23                        | Rock   | 7,5                                     | Rock (scattered)                             |  |  |
| $ \overline{C}^{\sigma} $ | Boulders   | 2                                       | Boulders (scattered)                         |  |  |
|                           | Positioned Boulder                                   |   | Scree  |  |  |
| <u>ක</u> ු                | Non-Coniferous Tree<br>(surveyed)                    | *                                       | Coniferous Tree<br>(surveyed)                |  |  |
| Öά                        | Non-Coniferous Trees<br>(not surveyed)               | <b>大</b> 木                              | Coniferous Trees (not surveyed)              |  |  |
| දා                        | Orchard $\c Q \ \widehat{\c Q} \ \widehat{\c a} \ .$ | Scrub                                   | <sub>າ</sub> ຕຸ Bracken                      |  |  |
| * ~                       | Coppice, W.  | Reeds 🛥                                 | Marsh,<br>Saltings                           |  |  |
| arren,                    | Rough grassland                                      | Heath                                   | Culvert                                      |  |  |
| <del>*** &gt;</del>       | Direction $	riangle$ of water flow                   | Triangulation<br>Station                | Antiquity (site of)                          |  |  |
| E_TL                      | _ Electricity Transmis                               | sion Line                               | ⊠ Electricity<br>Pylon                       |  |  |
| \ <del> </del>            | 231.60m Bench Mark                                   |   | Buildings with<br>Building Seed              |  |  |
|                           | Roofed Building                                      |   | Glazed Roof<br>Building                      |  |  |
|                           | • • • Ci∨il parish                                   | /community b                            | oundary                                      |  |  |
|                           | — District bou                                       | rict boundary                           |  |  |  |
| _ •                       | —— County bou  | ındary                                  |  |  |  |
| ٥                         | Boundary p   | ost/stone                               |  |  |  |
| ,c                        | _  |   | ol (note: these<br>ed pairs or groups        |  |  |
| Bks                       | Barracks   | Р                                       | Pillar, Pole or Post                         |  |  |
| Bty                       | Battery  | PO                                      | Post Office                                  |  |  |
| Cemy                      | Cemetery   | PC                                      | Public Convenience                           |  |  |
| Chy                       | Chimney  | Pp                                      | Pump   |  |  |
| Cis                       | Cistern  | Ppg Sta                                 | Pumping Station                              |  |  |
| Dismtd R                  | Rly Dismantled Railway                               | PW                                      | Place of Worship                             |  |  |
| El Gen S                  | ta Electricity Generating<br>Station                 | Sewage P                                | pg Sta Sewage<br>Pumping Station             |  |  |
| EIP                       | Electricity Pole, Pillar                             | SB, S Br                                | Signal Box or Bridge                         |  |  |
| El Sub S                  | ta Electricity Sub Station                           | SP, SL                                  | Signal Post or Light                         |  |  |

Spr

Tr

Wd Pp

Wks

Spring

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tank or Track

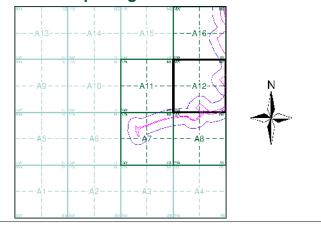
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1877        | 2  |
| Glamorganshire                           | 1:2,500 | 1898 - 1899 | 3  |
| Glamorganshire                           | 1:2,500 | 1916 - 1918 | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1961 - 1962 | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1961 - 1962 | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1973 - 1975 | 8  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 9  |
| Additional SIMs                          | 1:2,500 | 1989 - 1992 | 10 |
| Additional SIMs                          | 1:2,500 | 1990        | 11 |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 12 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 13 |

#### **Historical Map - Segment A12**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice: 32.39 Site Area (Ha):

Search Buffer (m):

100

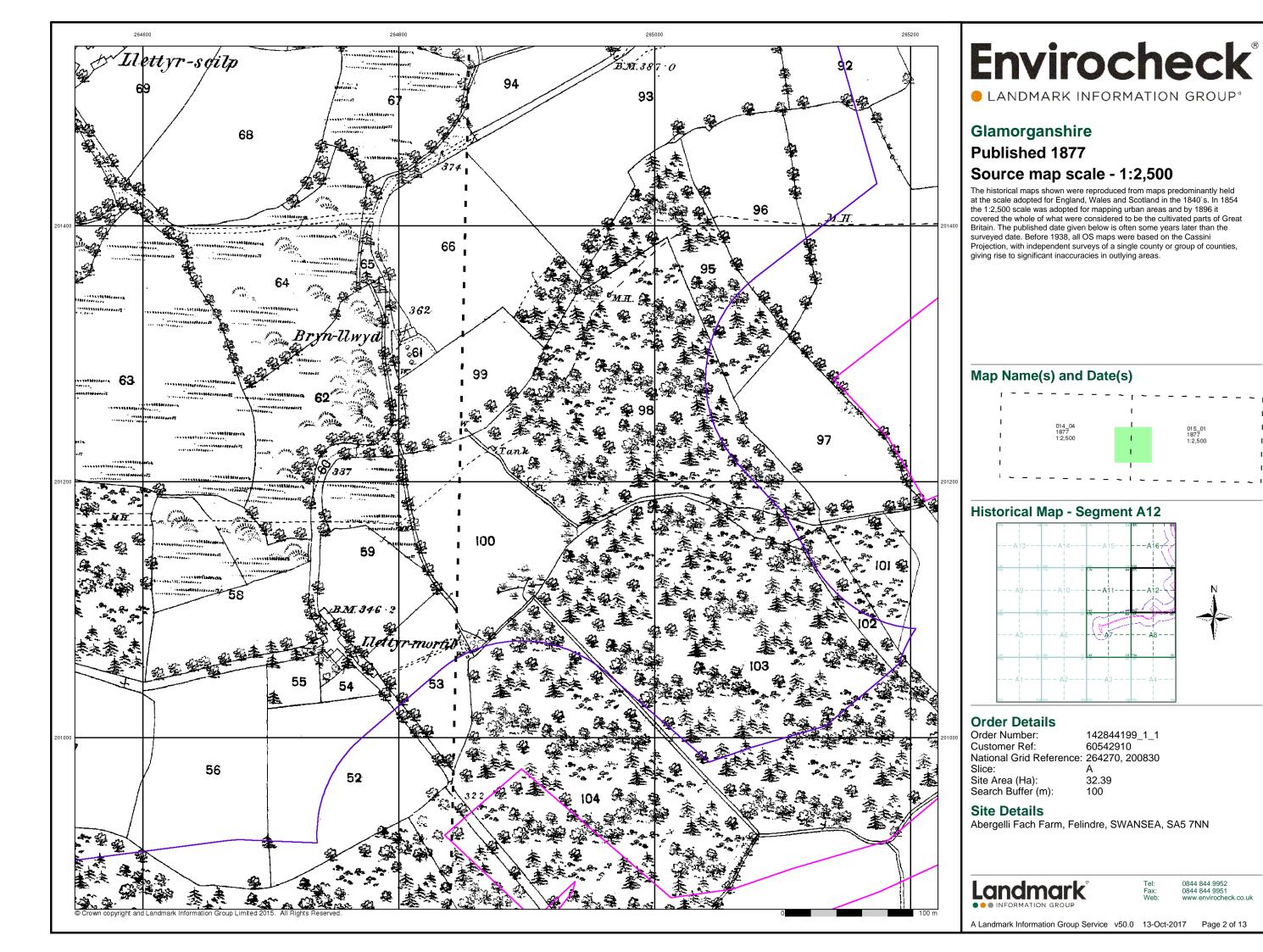
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

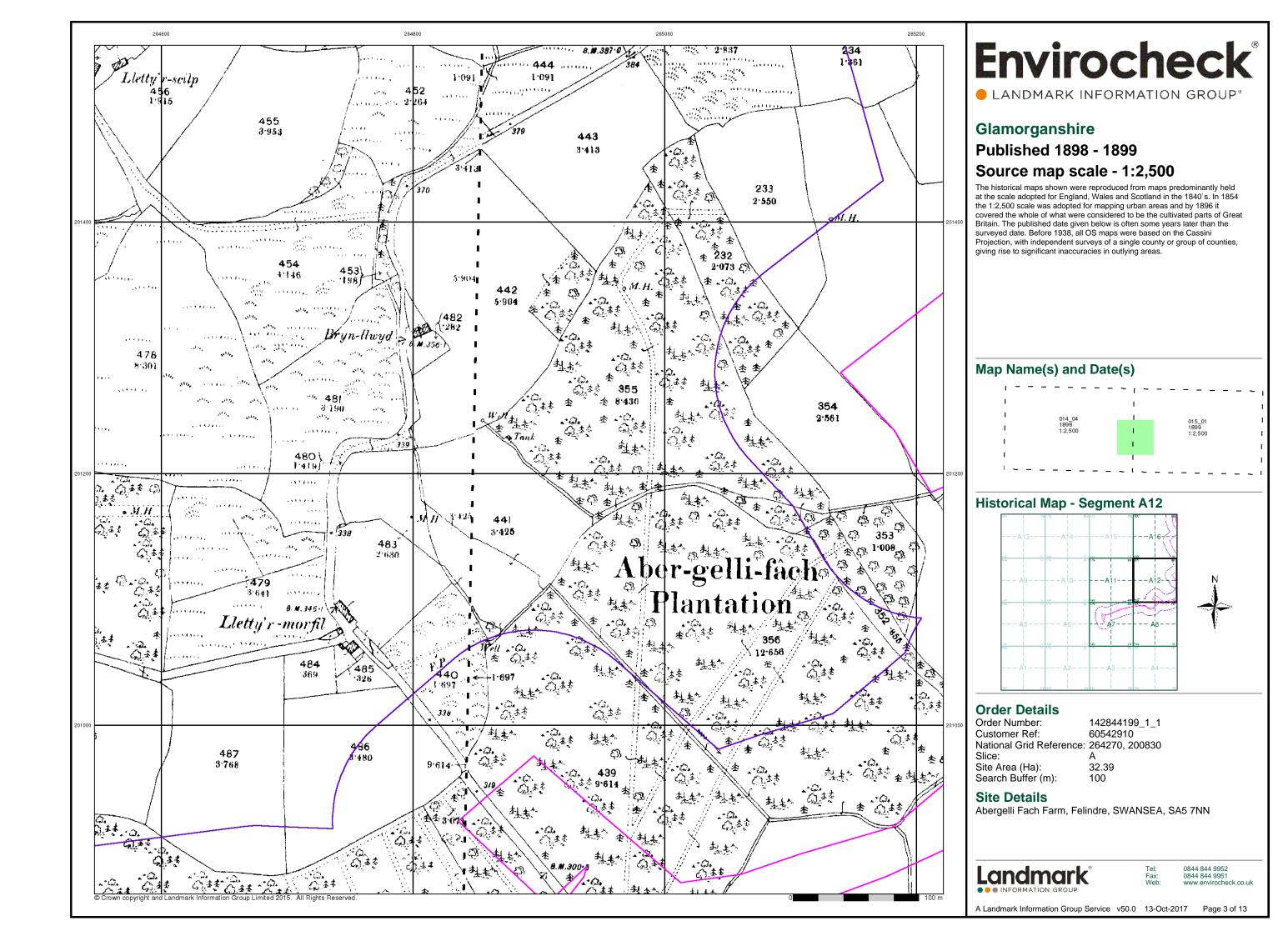


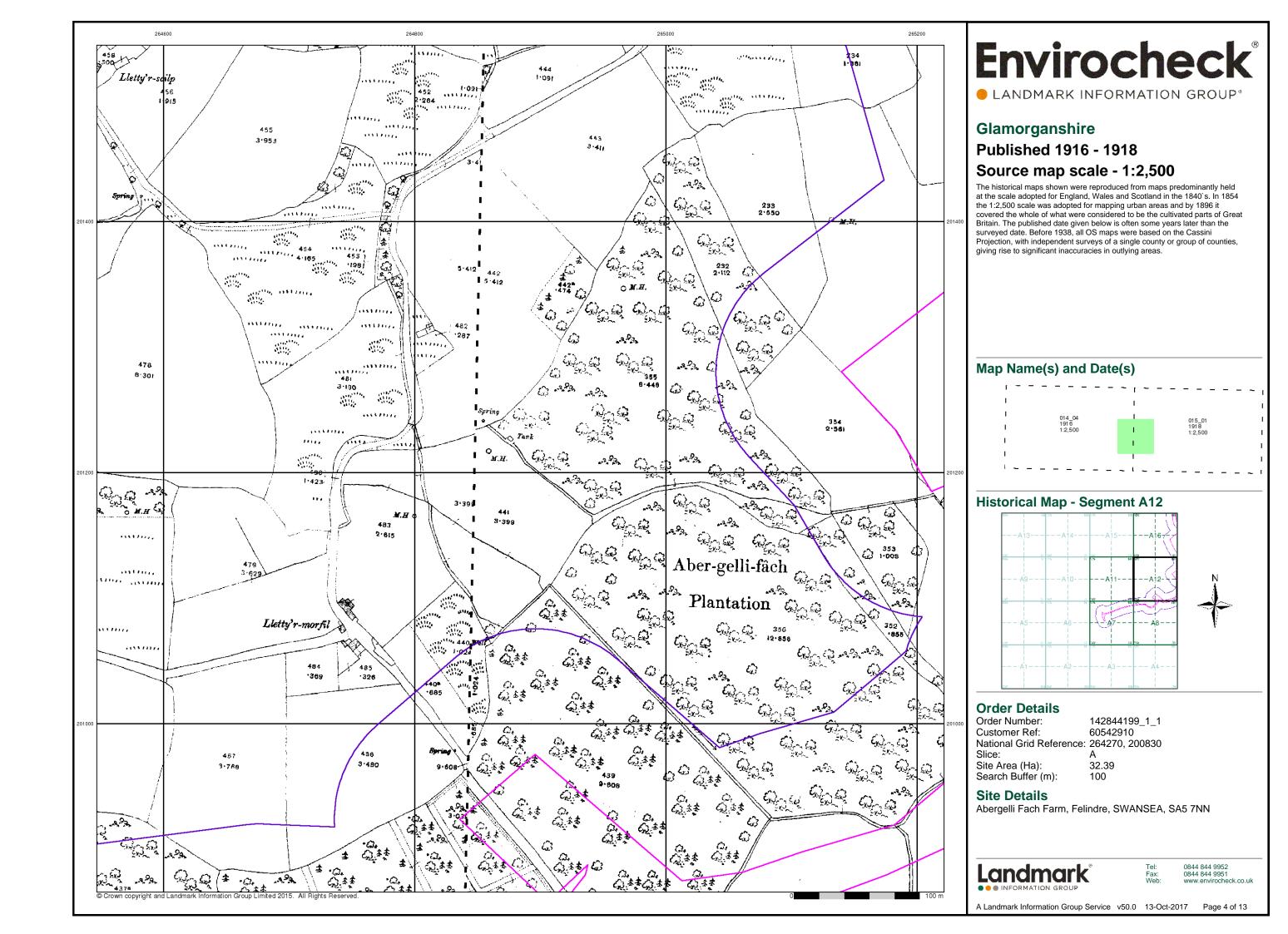
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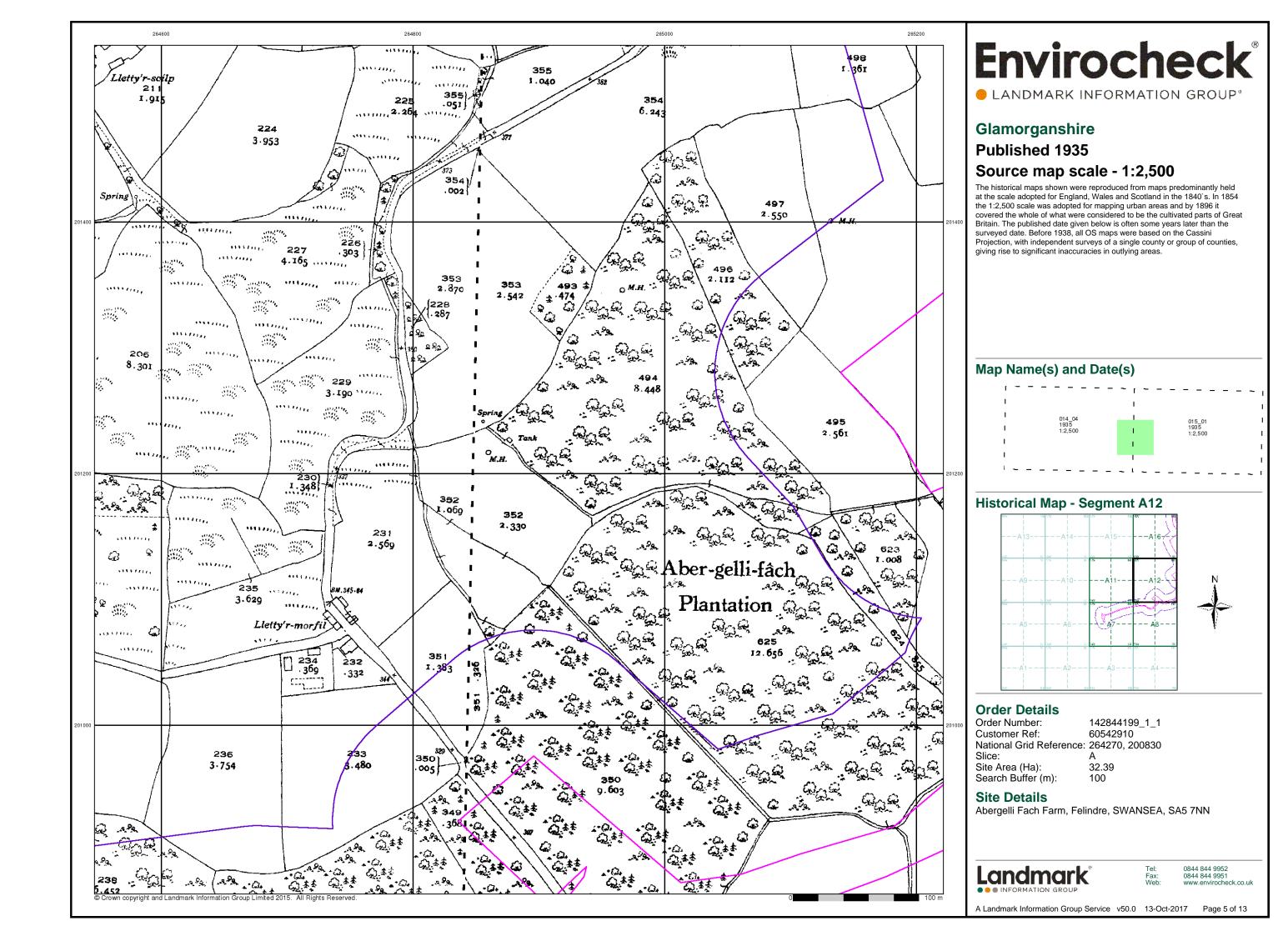
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13

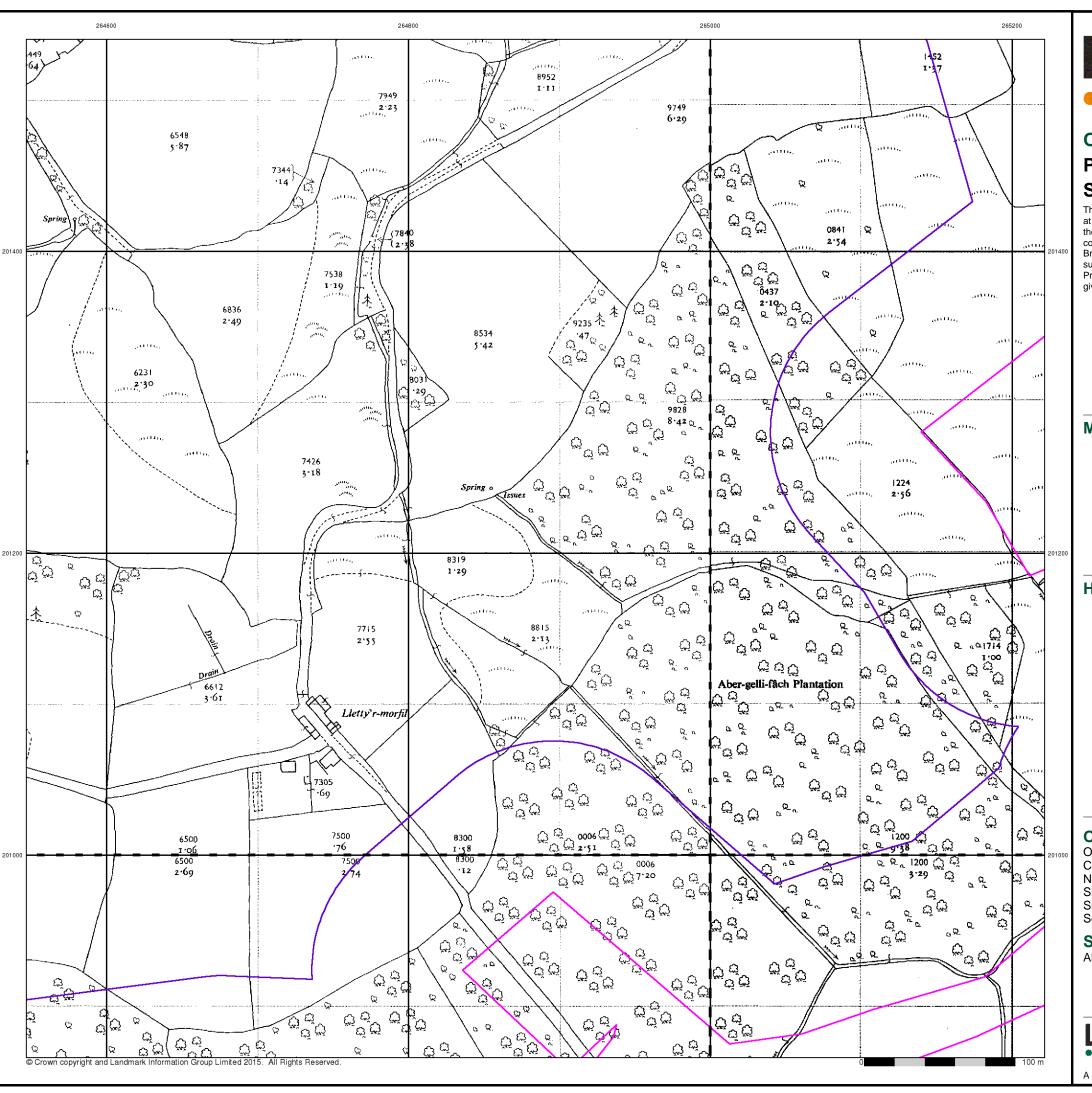


0844 844 9952 0844 844 9951 www.envirocheck.co.uk









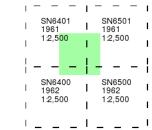
LANDMARK INFORMATION GROUP®

#### **Ordnance Survey Plan** Published 1961 - 1962

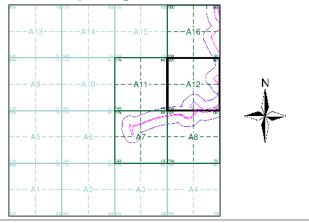
### Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A12**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m):

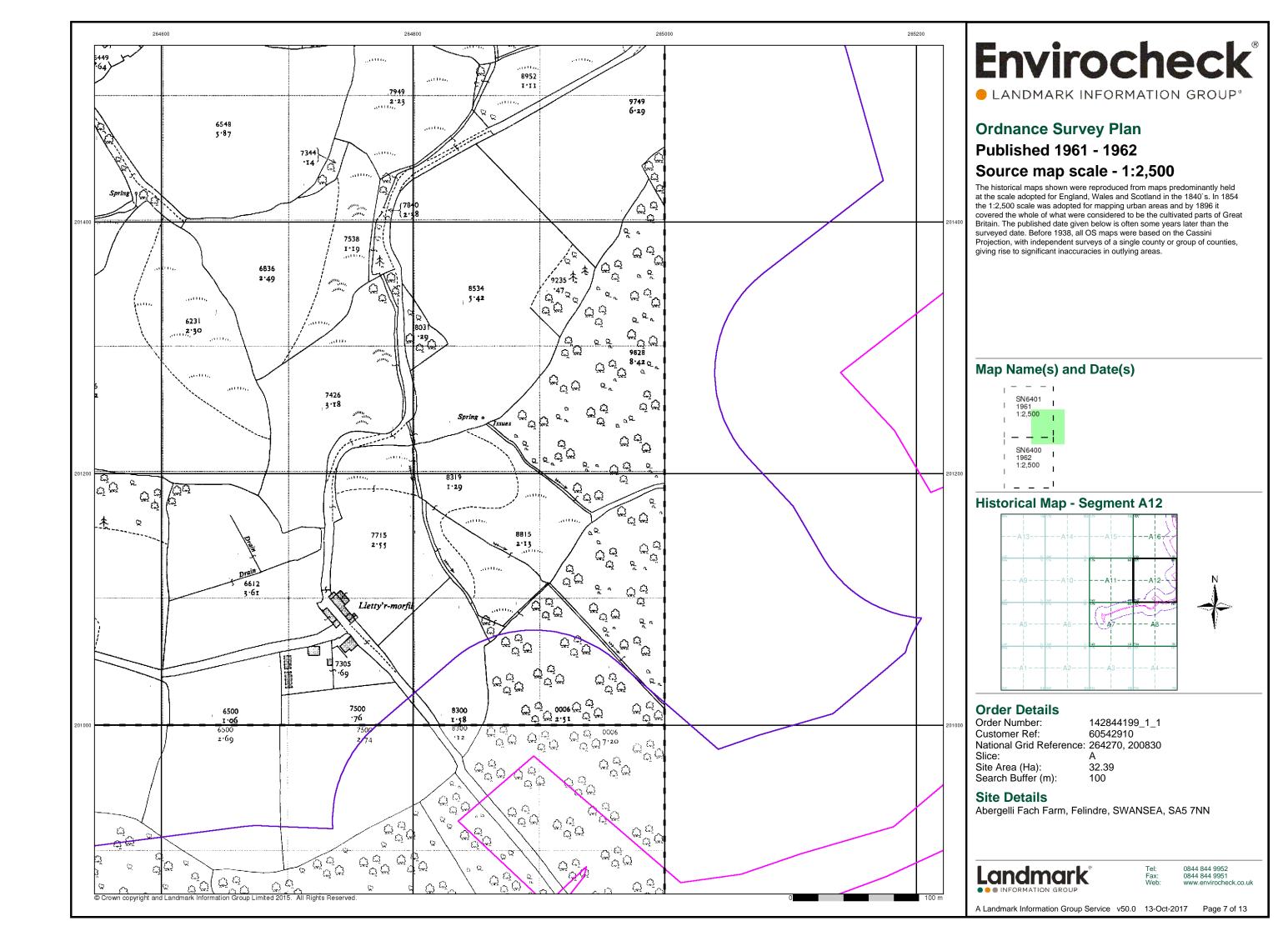
#### **Site Details**

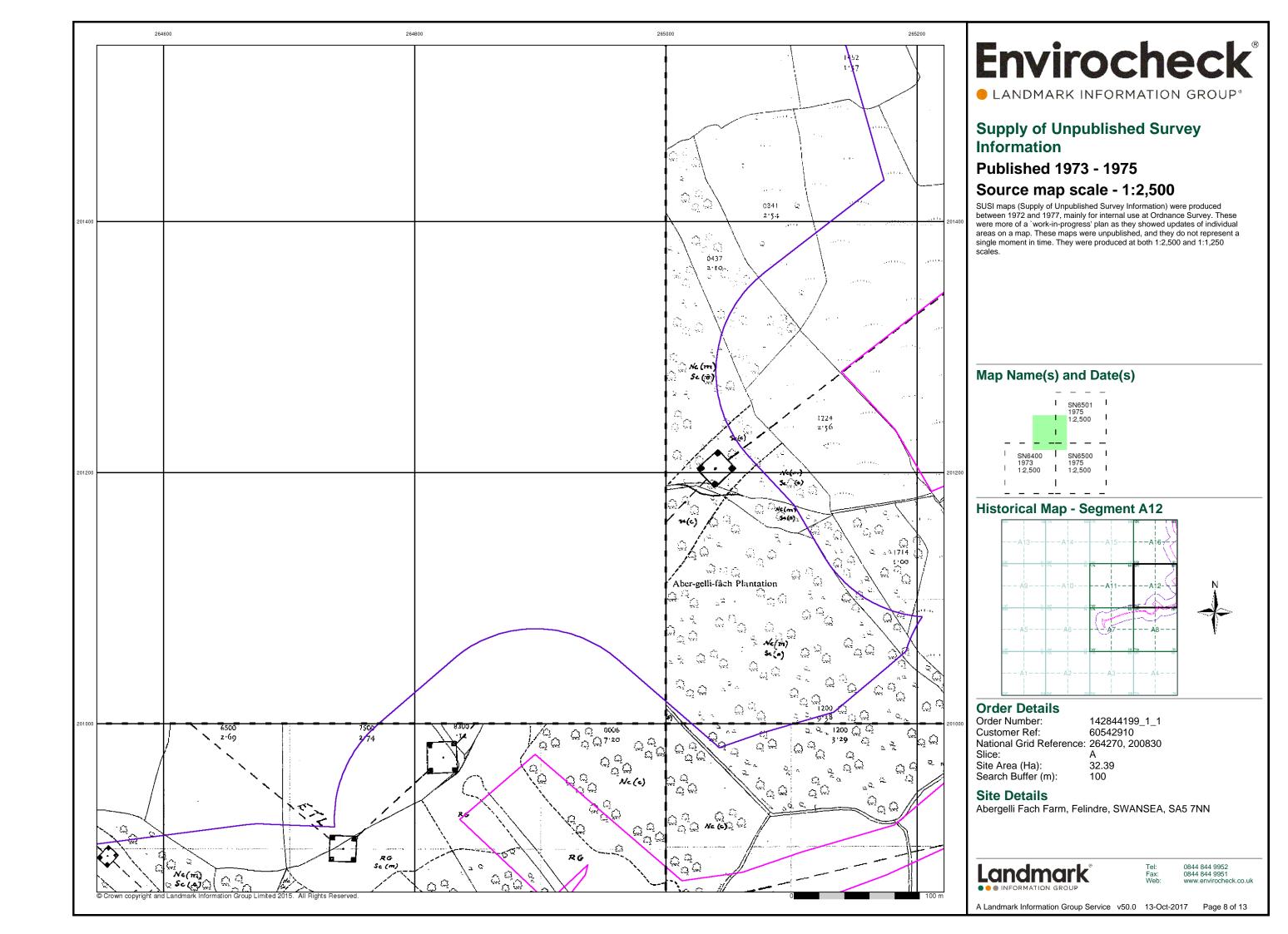
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

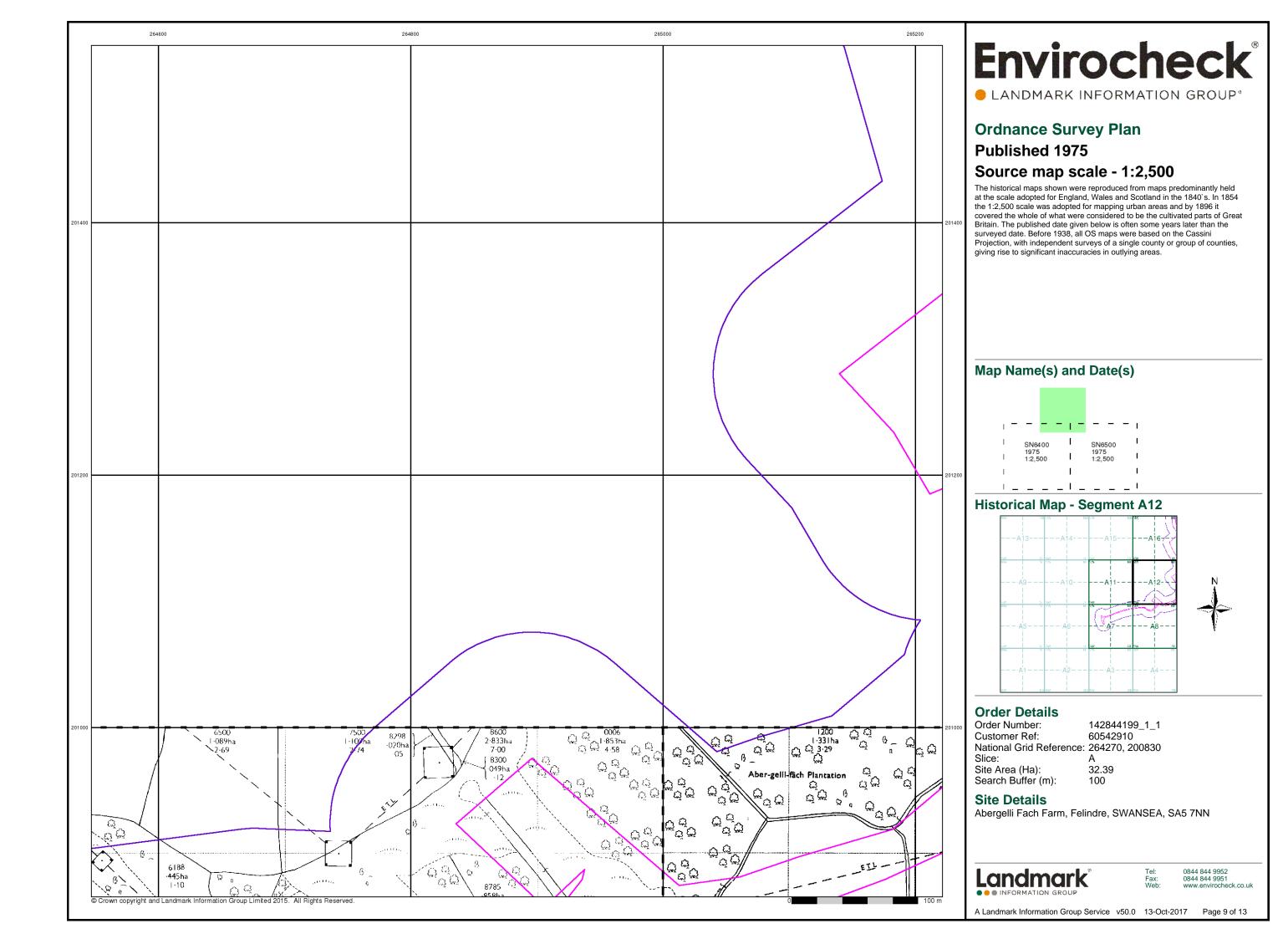


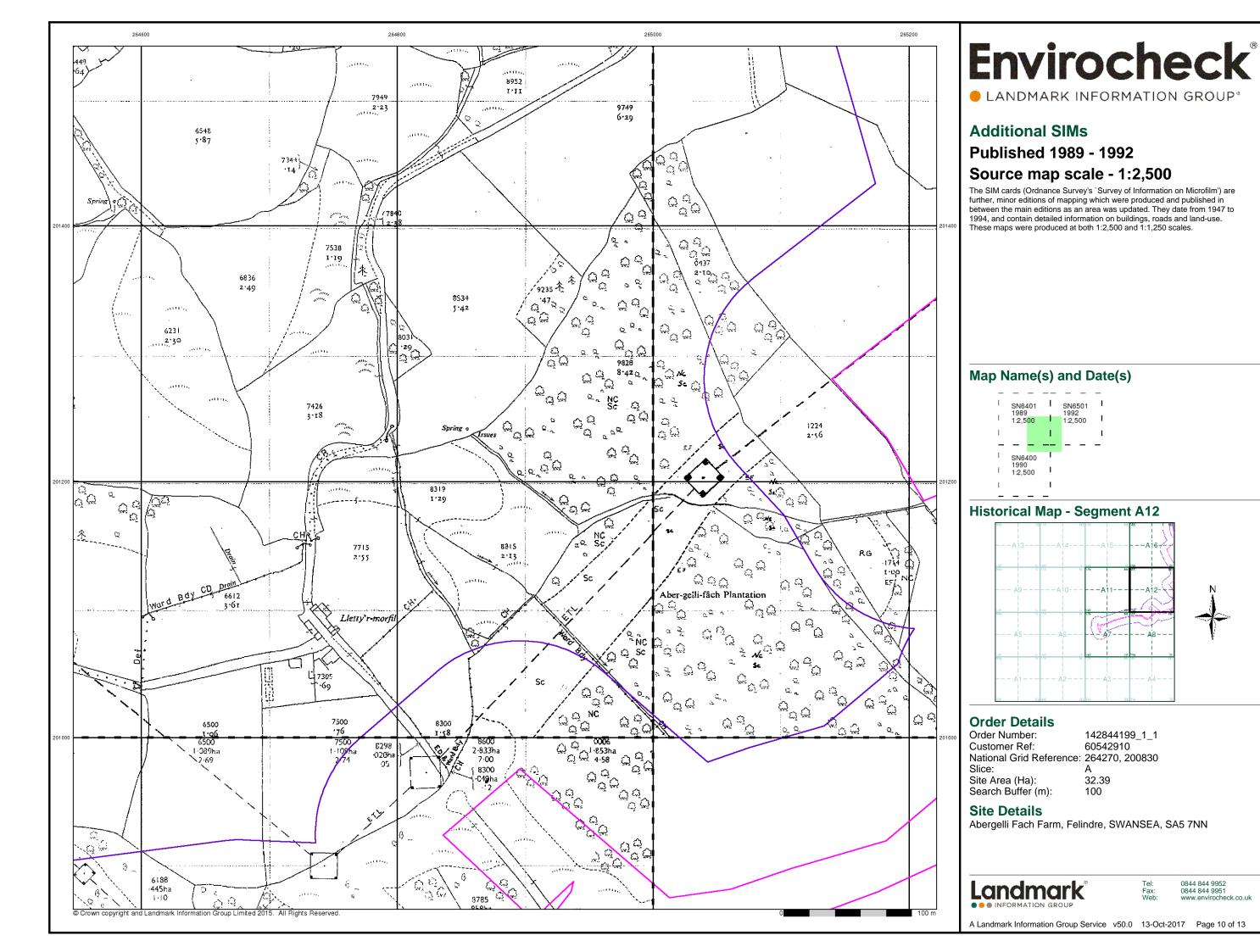
0844 844 9951 www.envirocheck.co.uk

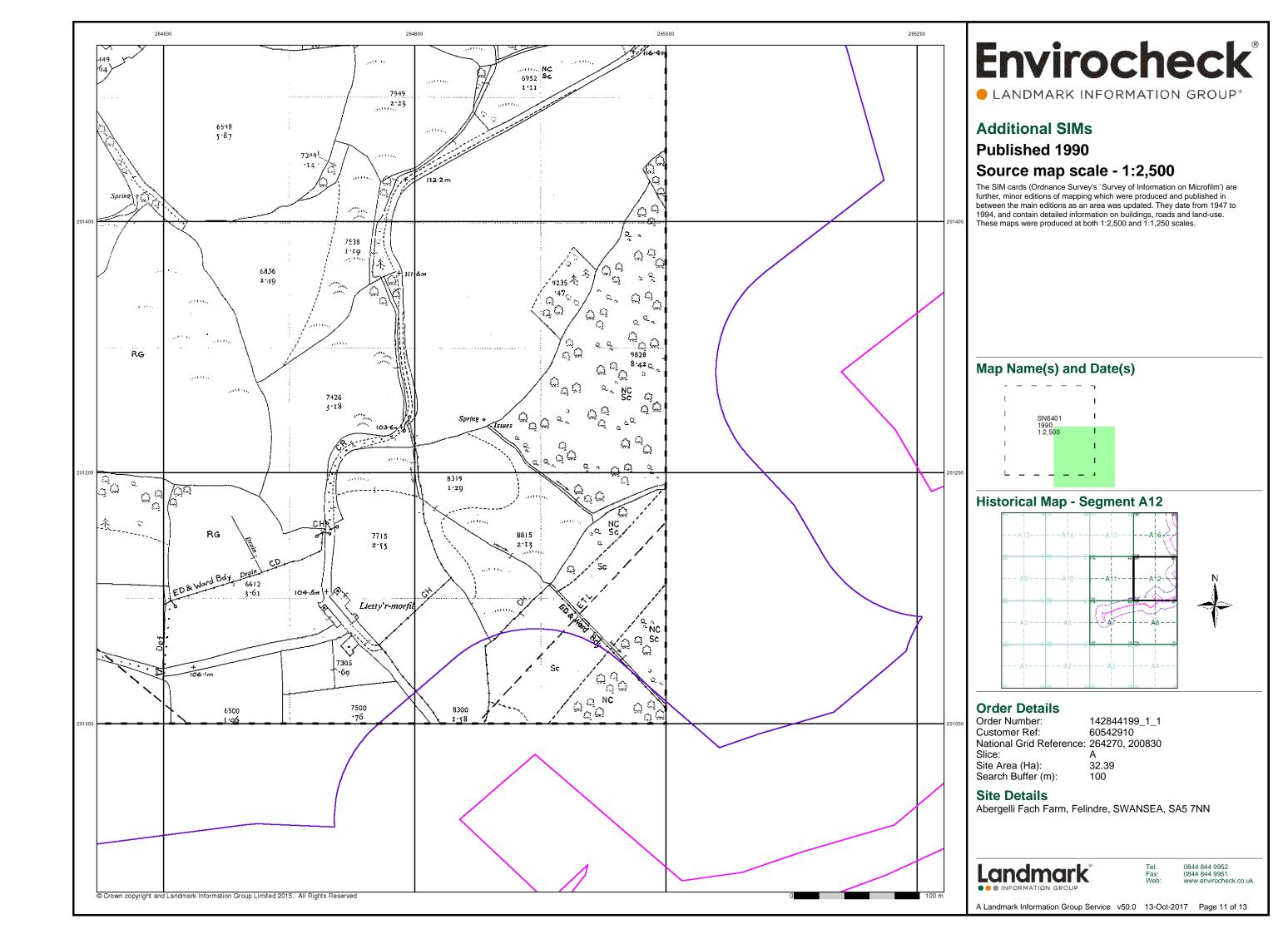
A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 13

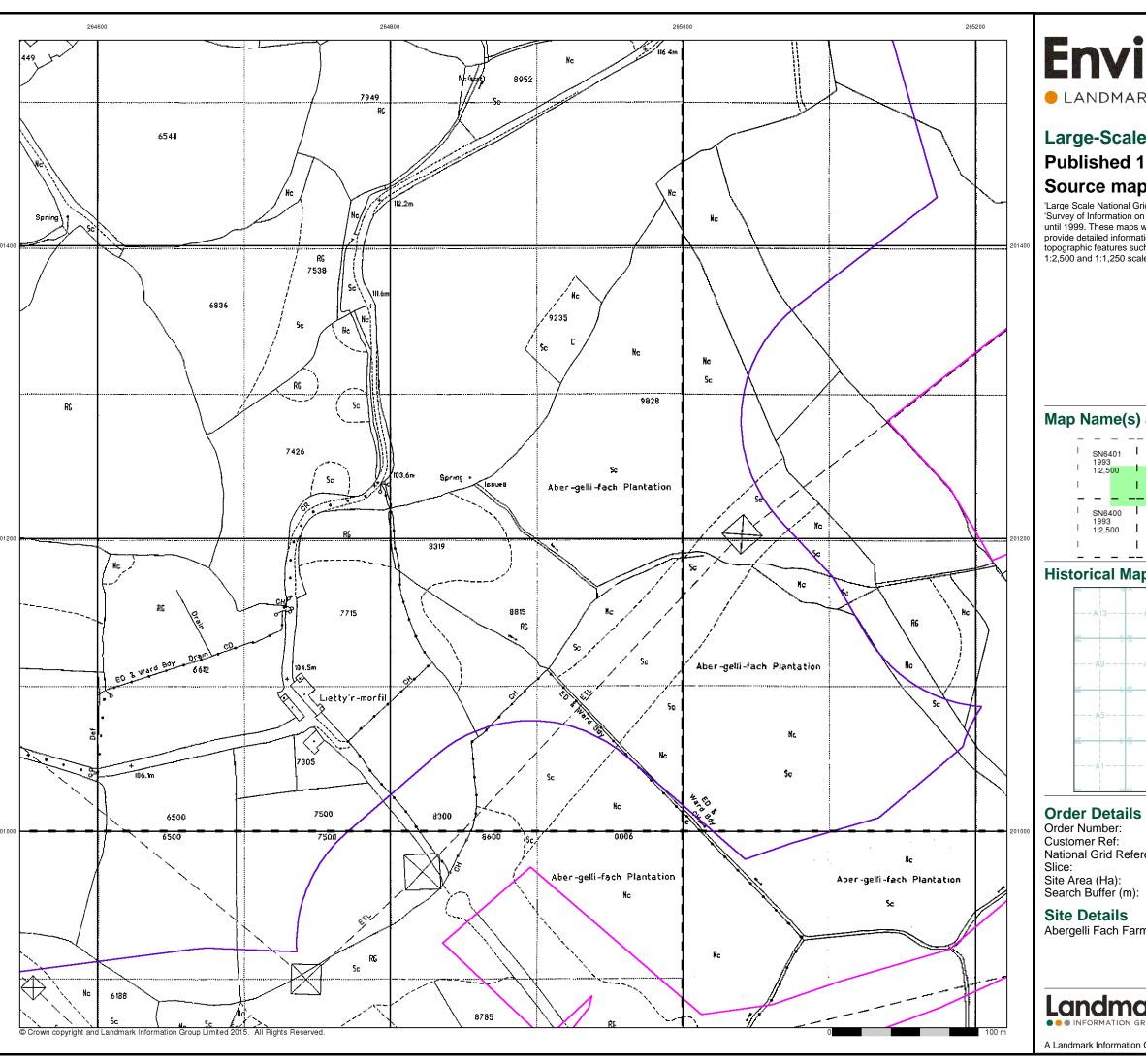












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#### **Large-Scale National Grid Data**

#### Published 1993

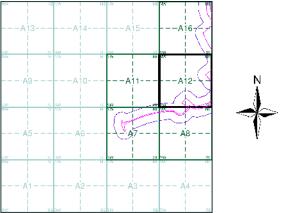
#### Source map scale - 1:2,500

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

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

| 1           | SN6                   |   | - 1            | SN6501                    | ı           |
|-------------|-----------------------|---|----------------|---------------------------|-------------|
| 1           | 1993<br>1:2,5         |   |                | 1993<br>1:2,500           | - 1         |
| 1           |                       |   | -1             |                           | ı           |
| _           | _                     | _ |                |                           | _           |
|             |                       |   |                |                           |             |
| 1           | SN6                   |   | Т              | SN6500                    | ı           |
| 1<br>1      | SN6-<br>1993<br>1:2,5 | 3 | I              | SN6500<br>1993<br>1:2,500 | <br>        |
| 1<br>1<br>1 | 1993                  | 3 | <br> <br> <br> | 1993                      | 1<br>1<br>1 |

#### **Historical Map - Segment A12**



142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

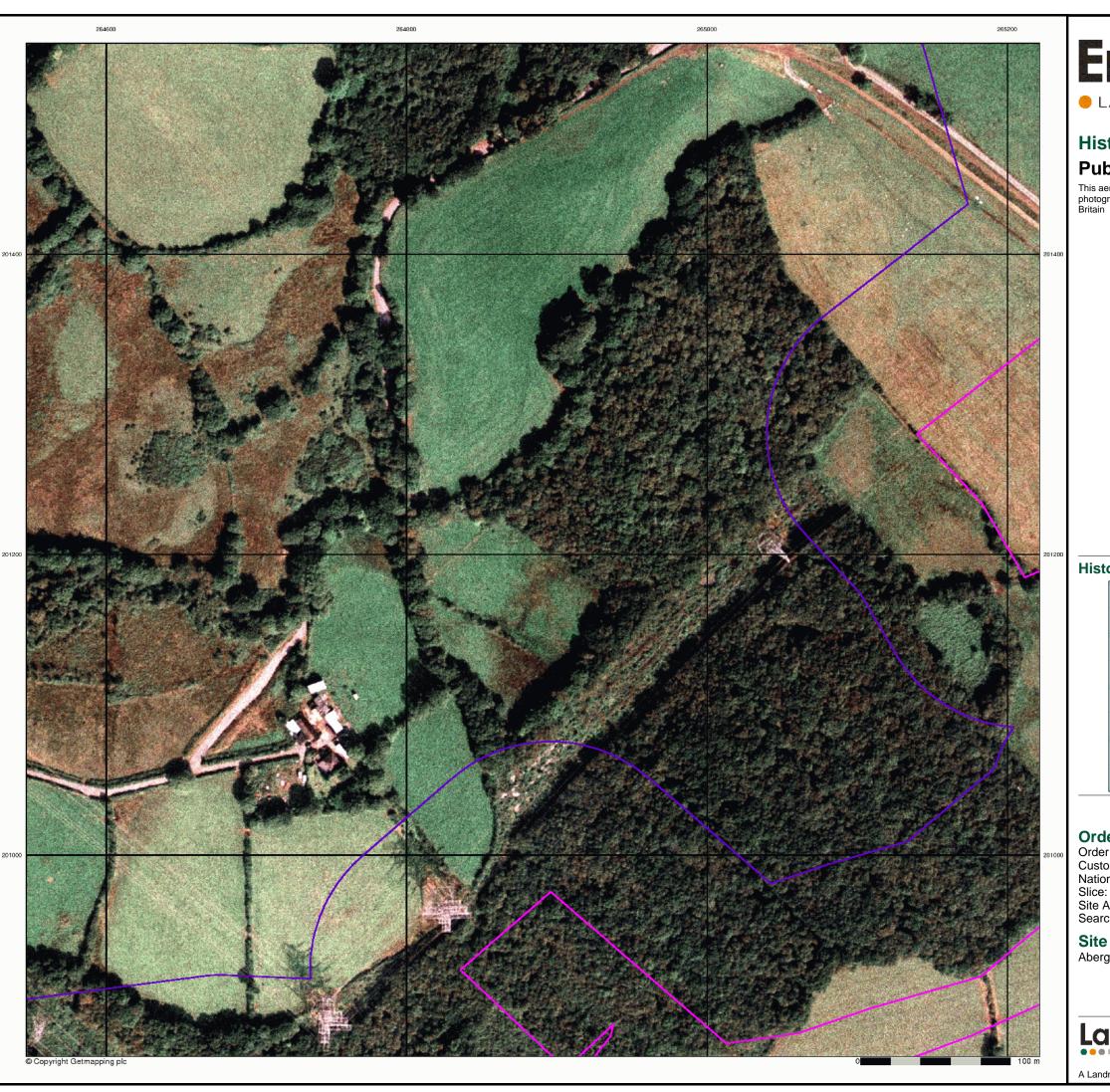
32.39

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 13

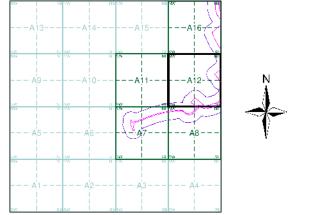


LANDMARK INFORMATION GROUP®

### Historical Aerial Photography Published 2000

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

#### **Historical Aerial Photography - Segment A12**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 100

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

Fel: 0844 844 9952 Fax: 0844 844 9951 Veb: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 13 of 13

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN** 

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

142844199 Glamorgan 1935 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 1961 1:2,500 142844199 Ordnance !

142844199 Glamorgan 1876-1877 1:2,500

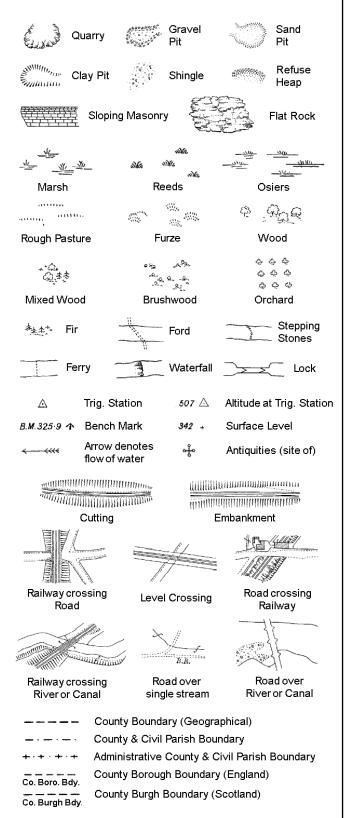
142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

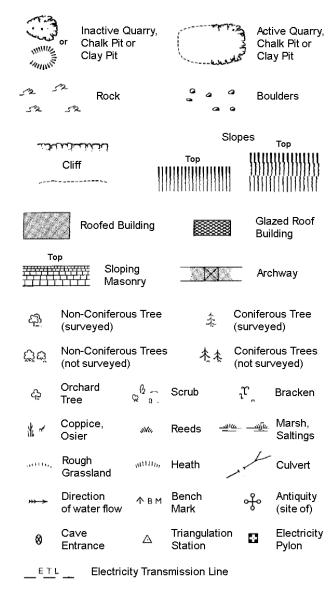
Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

#### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



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

County Boundary (Geographical)

Admin. County or County Bor. Boundary

Symbol marking point where boundary

GVC

Gas Governer

Mile Post or Mile Stone

**Guide Post** 

Manhole

Wd Pp

Wks

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

County & Civil Parish Boundary

Civil Parish Boundary

mereing changes

London Borough Boundary

L B Bdy

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

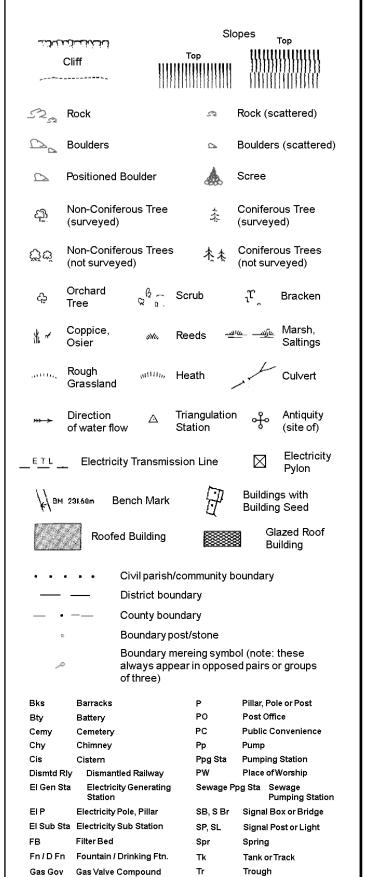
S.P

T.C.B

Sl.

 $T_T$ 

### 1:1,250



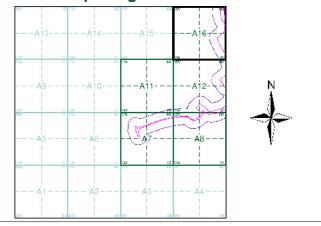
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

| T       |   |         |
|---------|---|---------|
| Scale   | Date  | Pg      |
| 1:2,500 | 1876 - 1877   | 2       |
| 1:2,500 | 1898 - 1899   | 3       |
| 1:2,500 | 1916 - 1918   | 4       |
| 1:2,500 | 1935  | 5       |
| 1:2,500 | 1961  | 6       |
| 1:2,500 | 1961  | 7       |
| 1:2,500 | 1975  | 8       |
| 1:2,500 | 1986 - 1992   | 9       |
| 1:2,500 | 1989 - 1990   | 10      |
| 1:2,500 | 1993  | 11      |
| 1:2,500 | 2000  | 12      |
|         | 1:2,500<br>1:2,500<br>1:2,500<br>1:2,500<br>1:2,500<br>1:2,500<br>1:2,500<br>1:2,500<br>1:2,500 | 1:2,500 |

#### **Historical Map - Segment A16**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

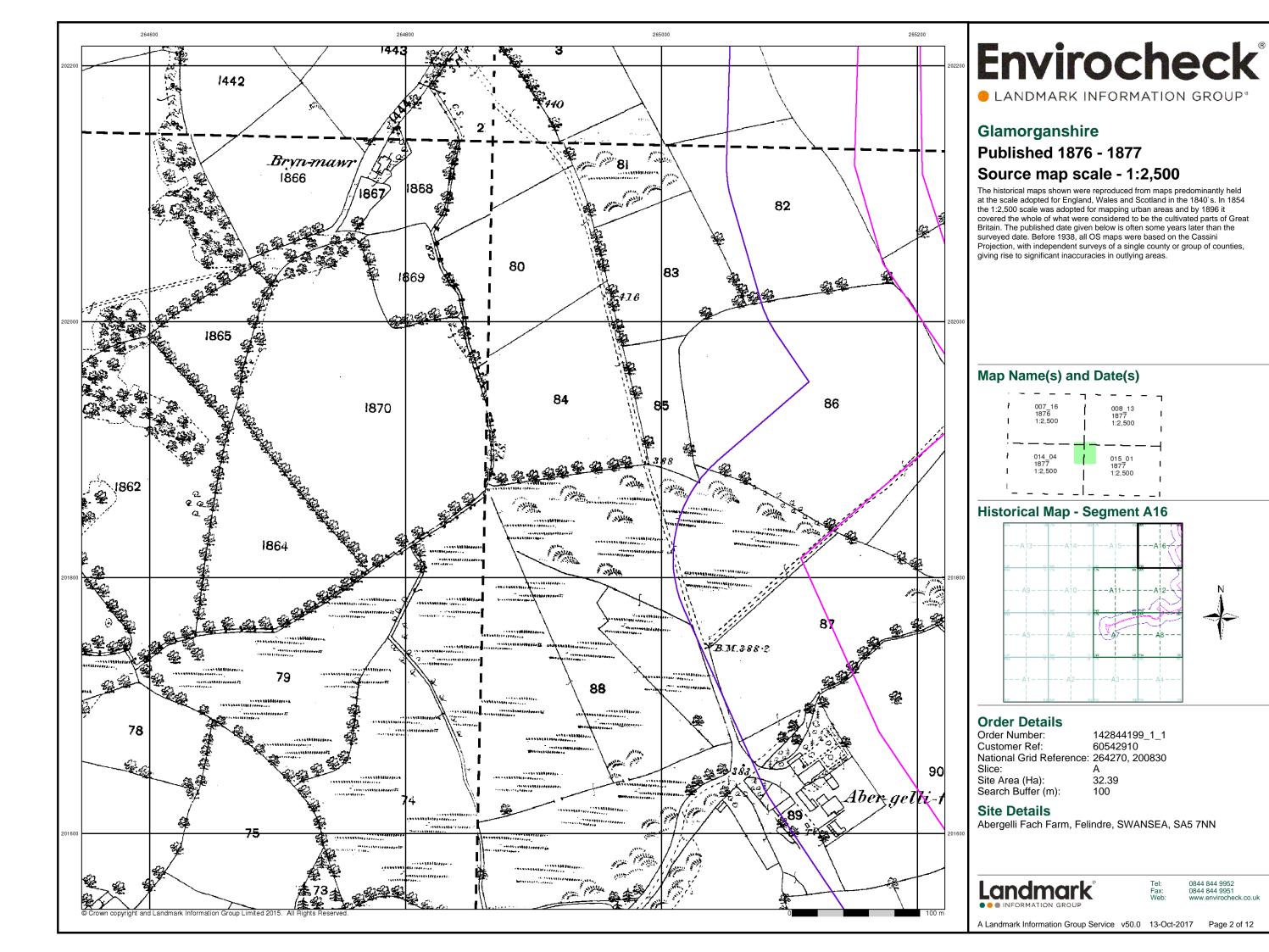
#### **Site Details**

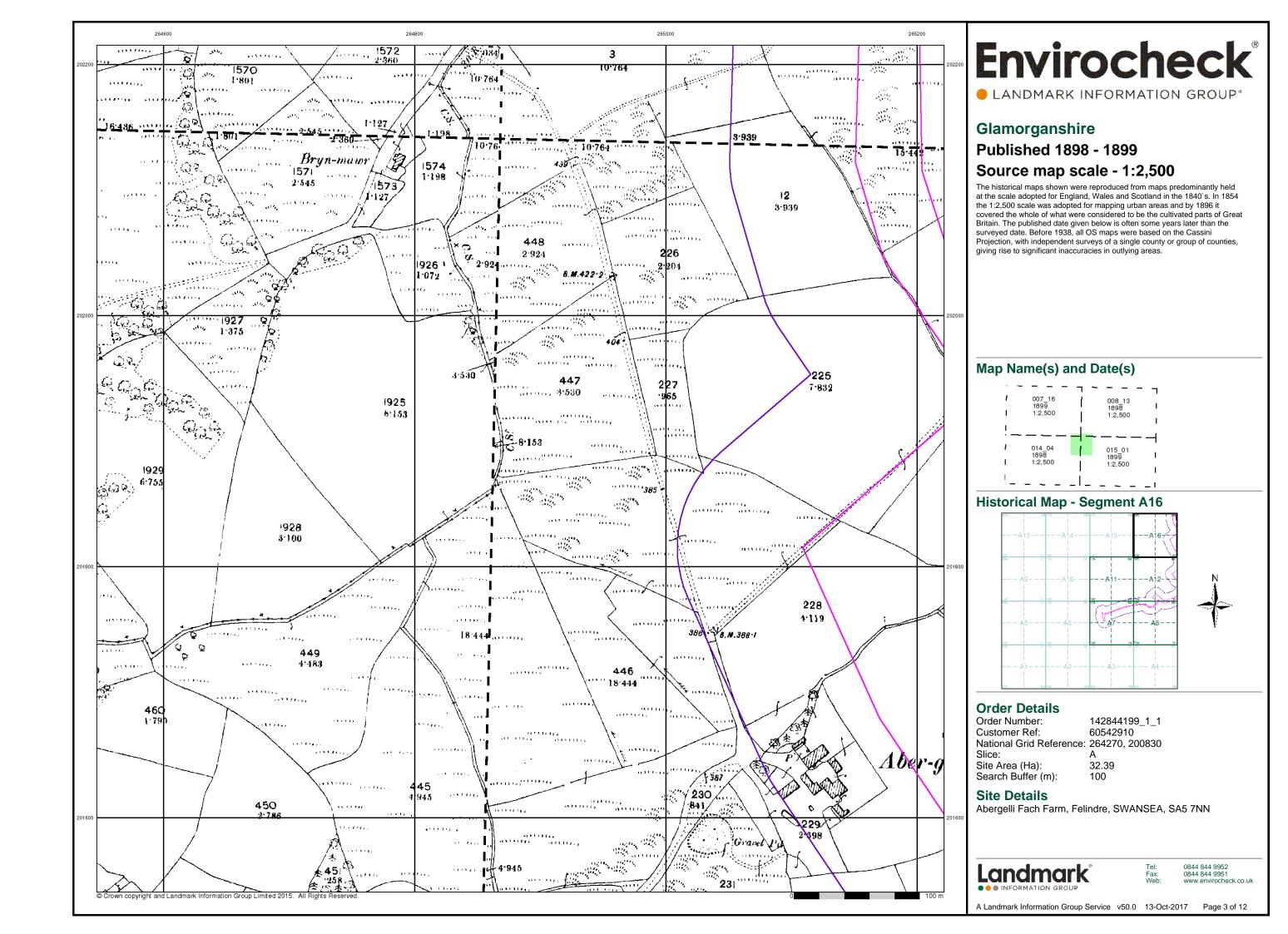
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

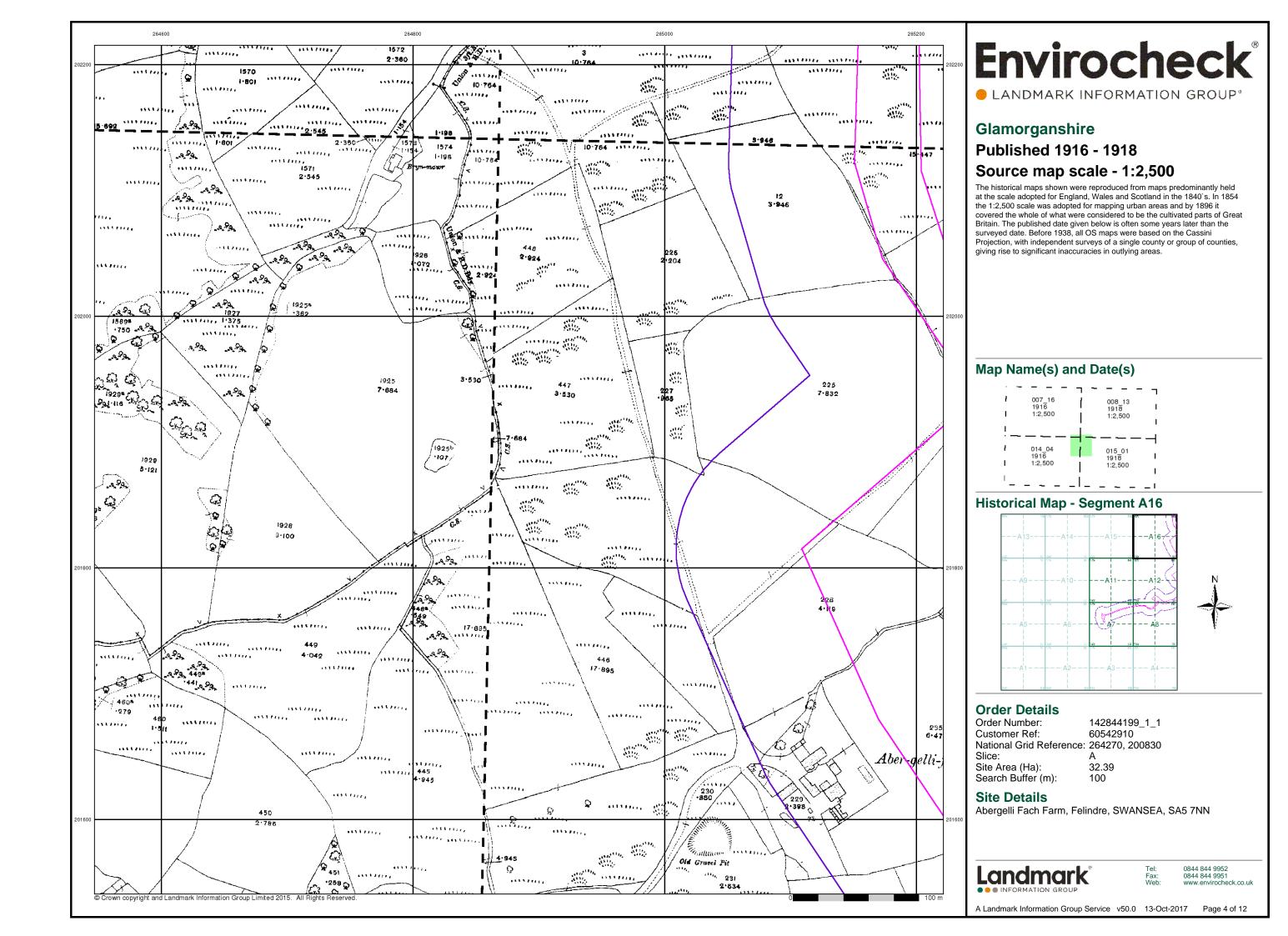


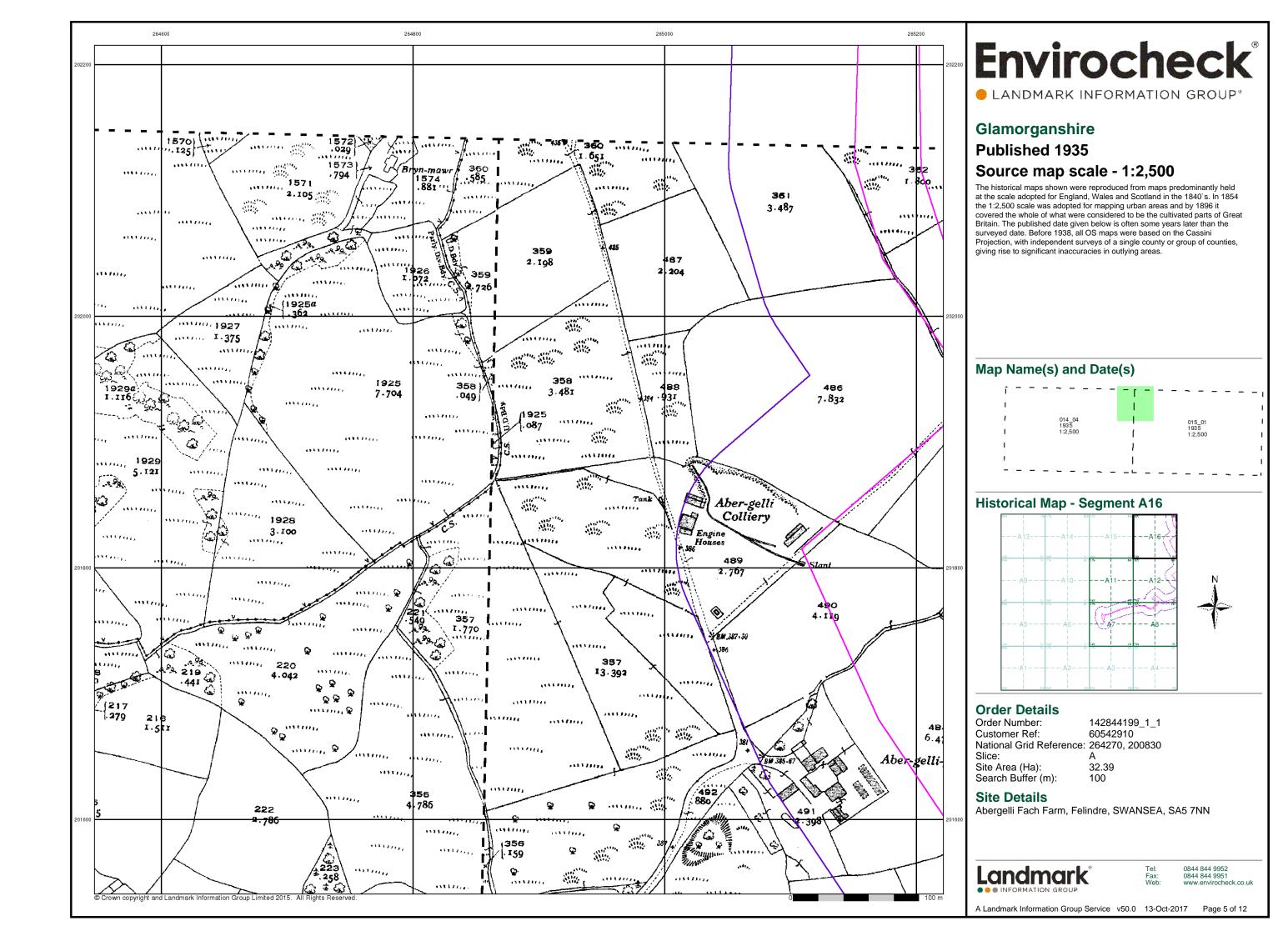
0844 844 9952 0844 844 9951

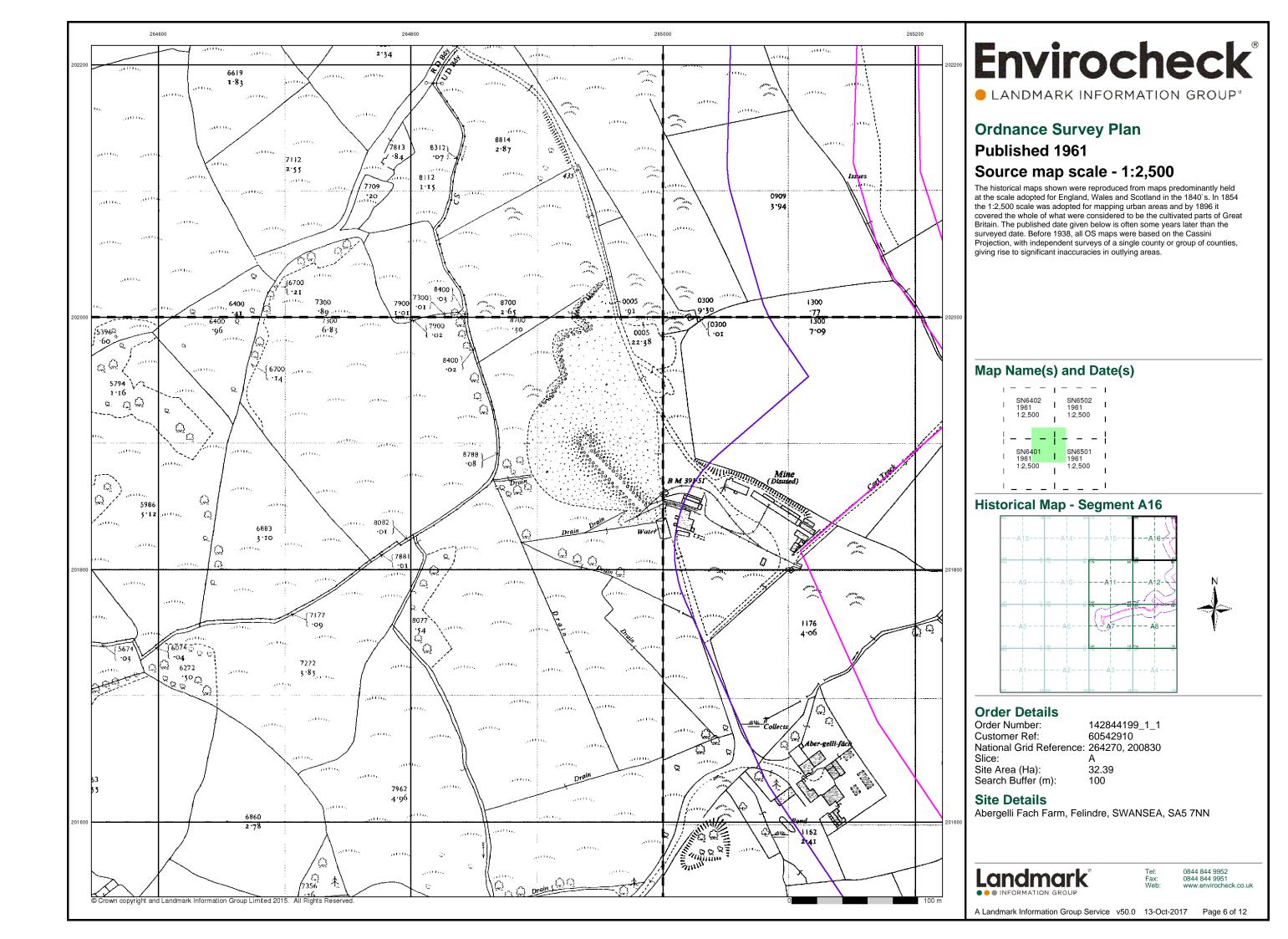
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12

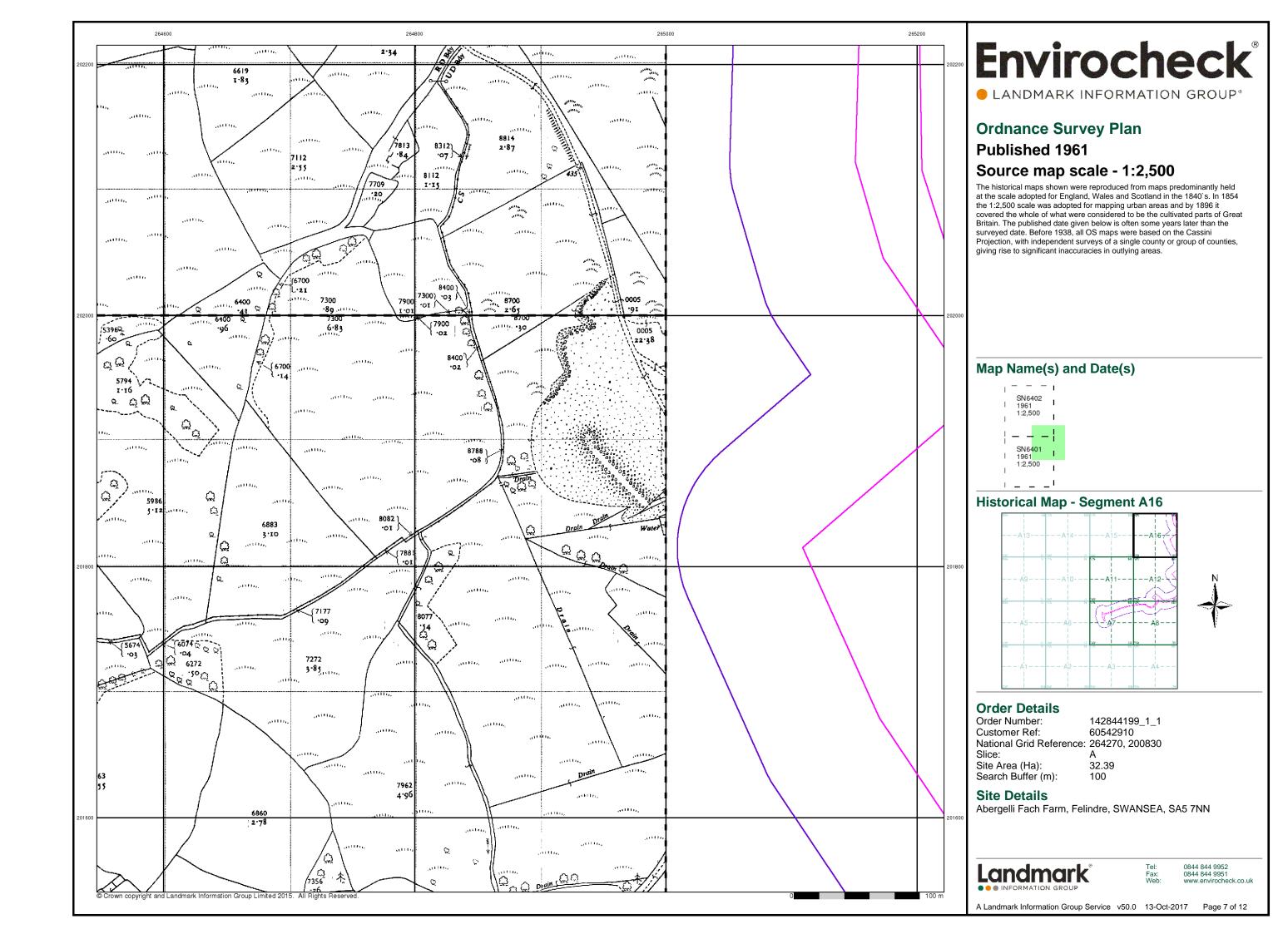


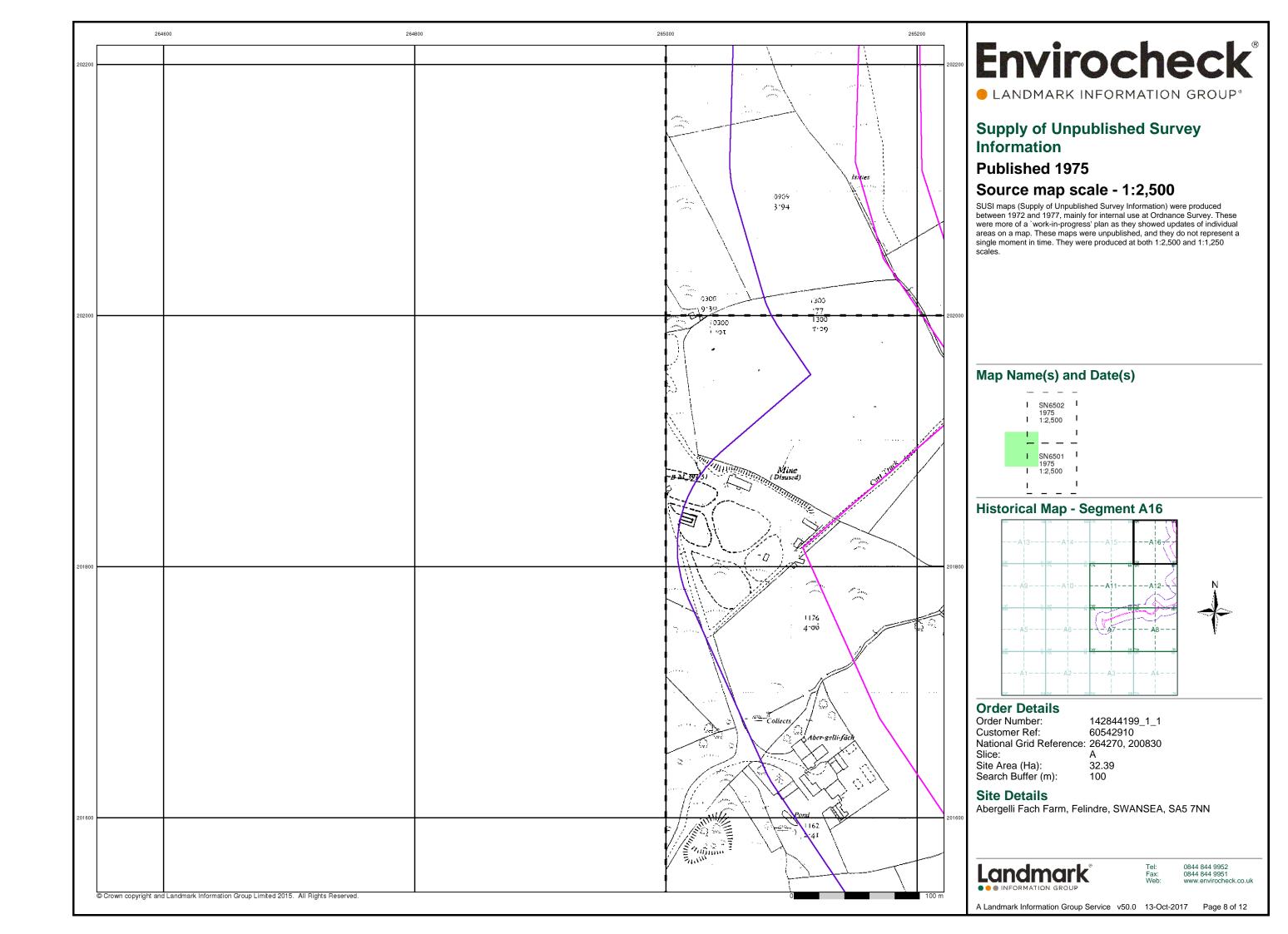


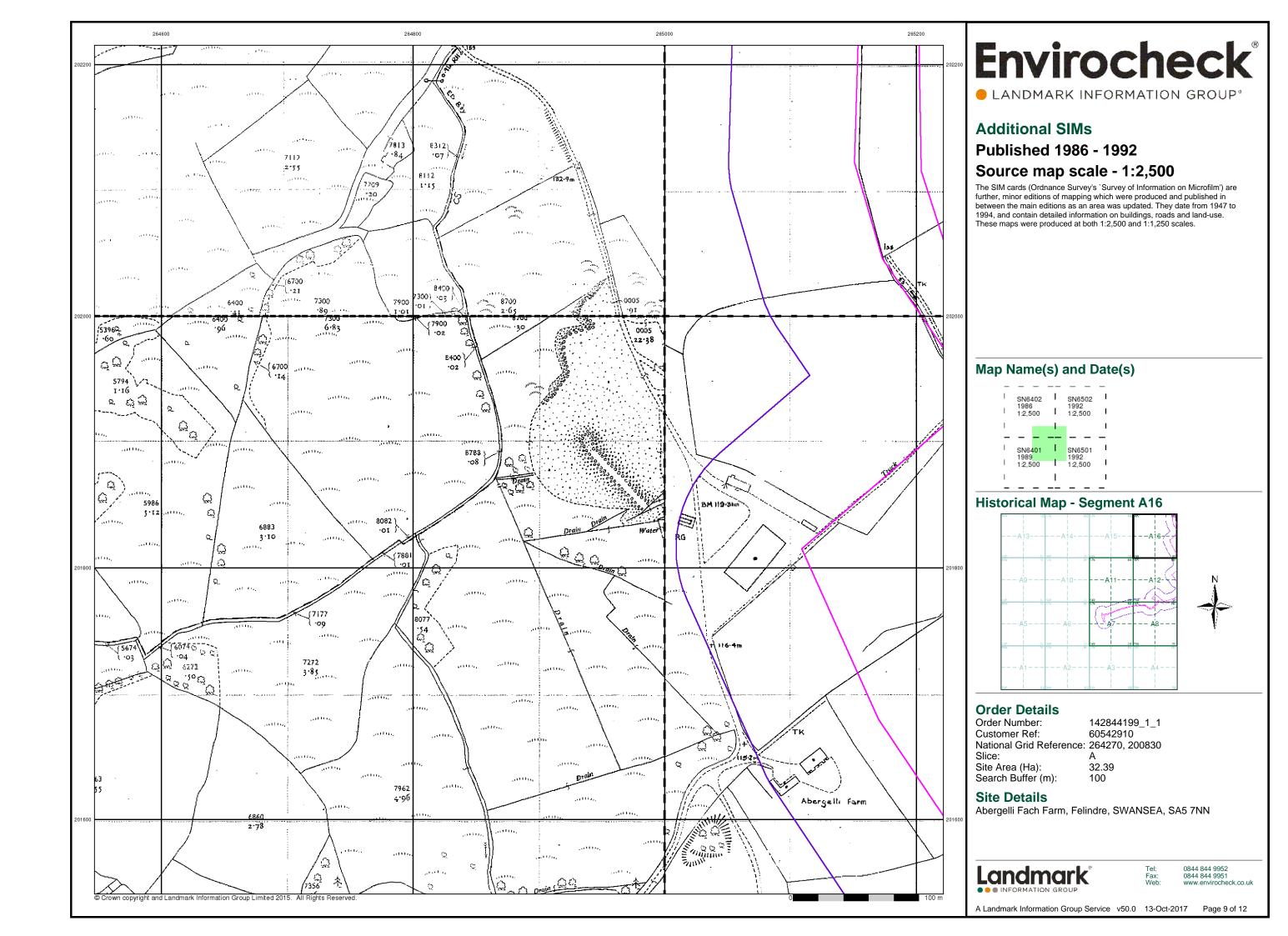


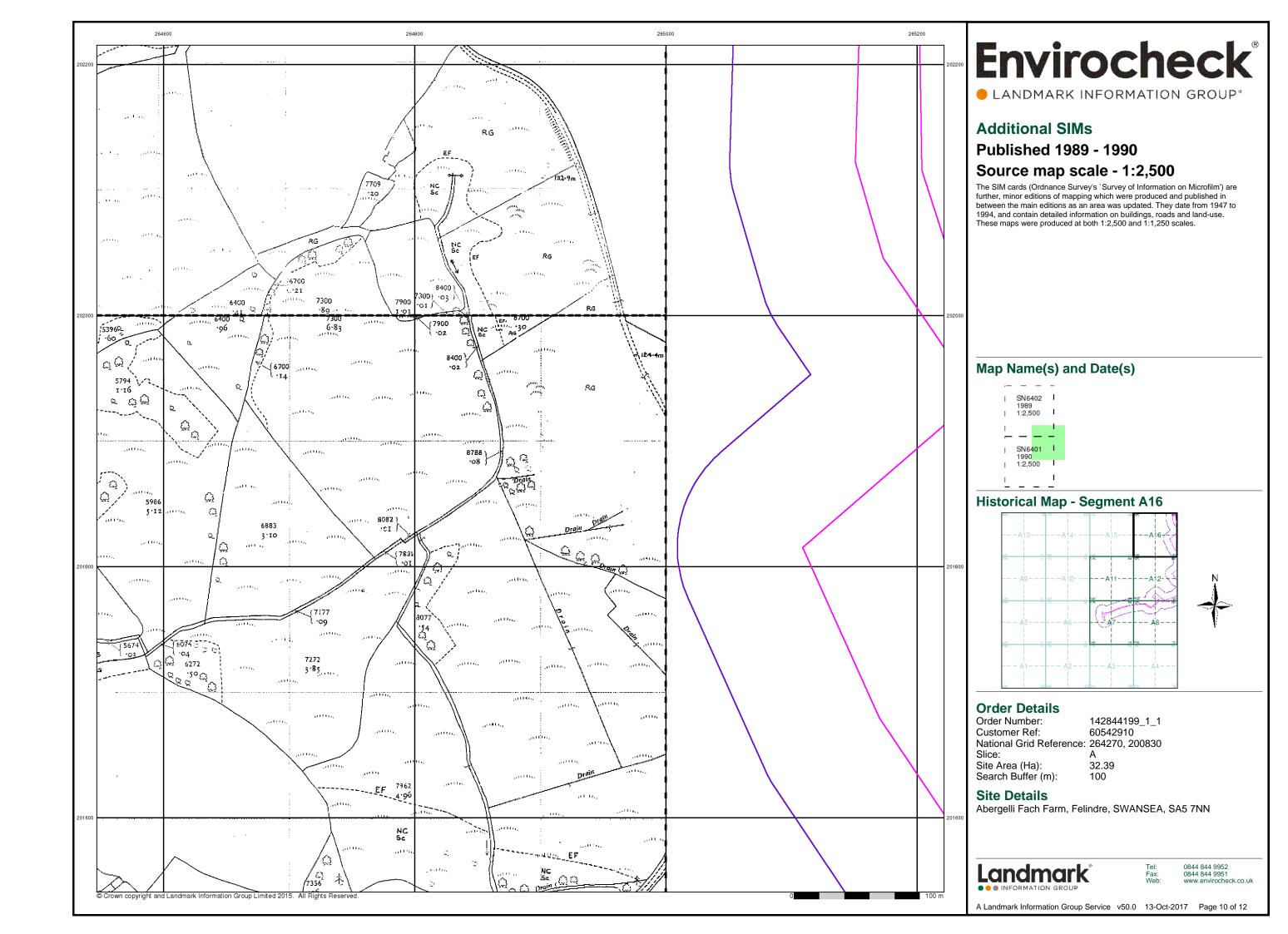


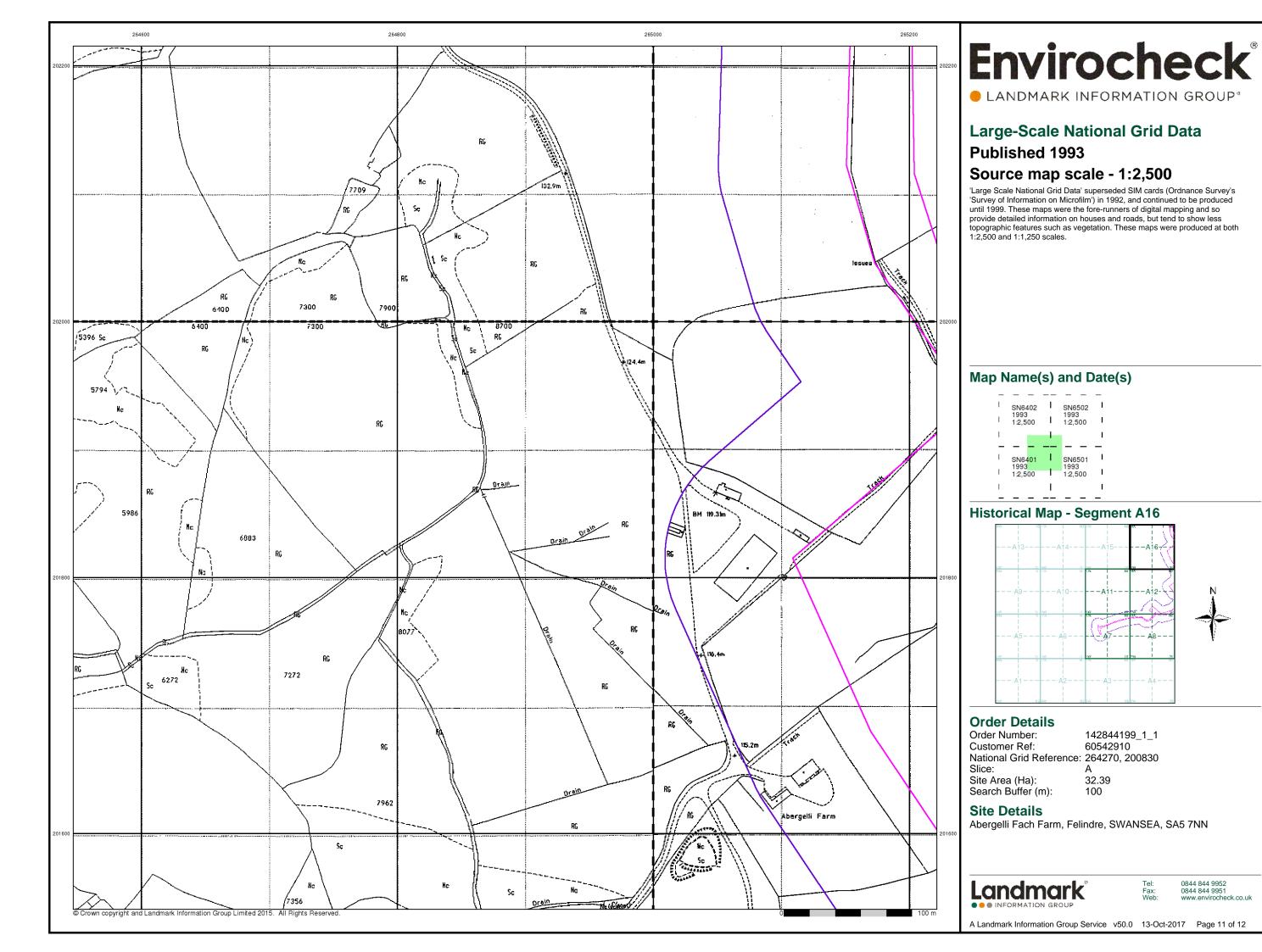


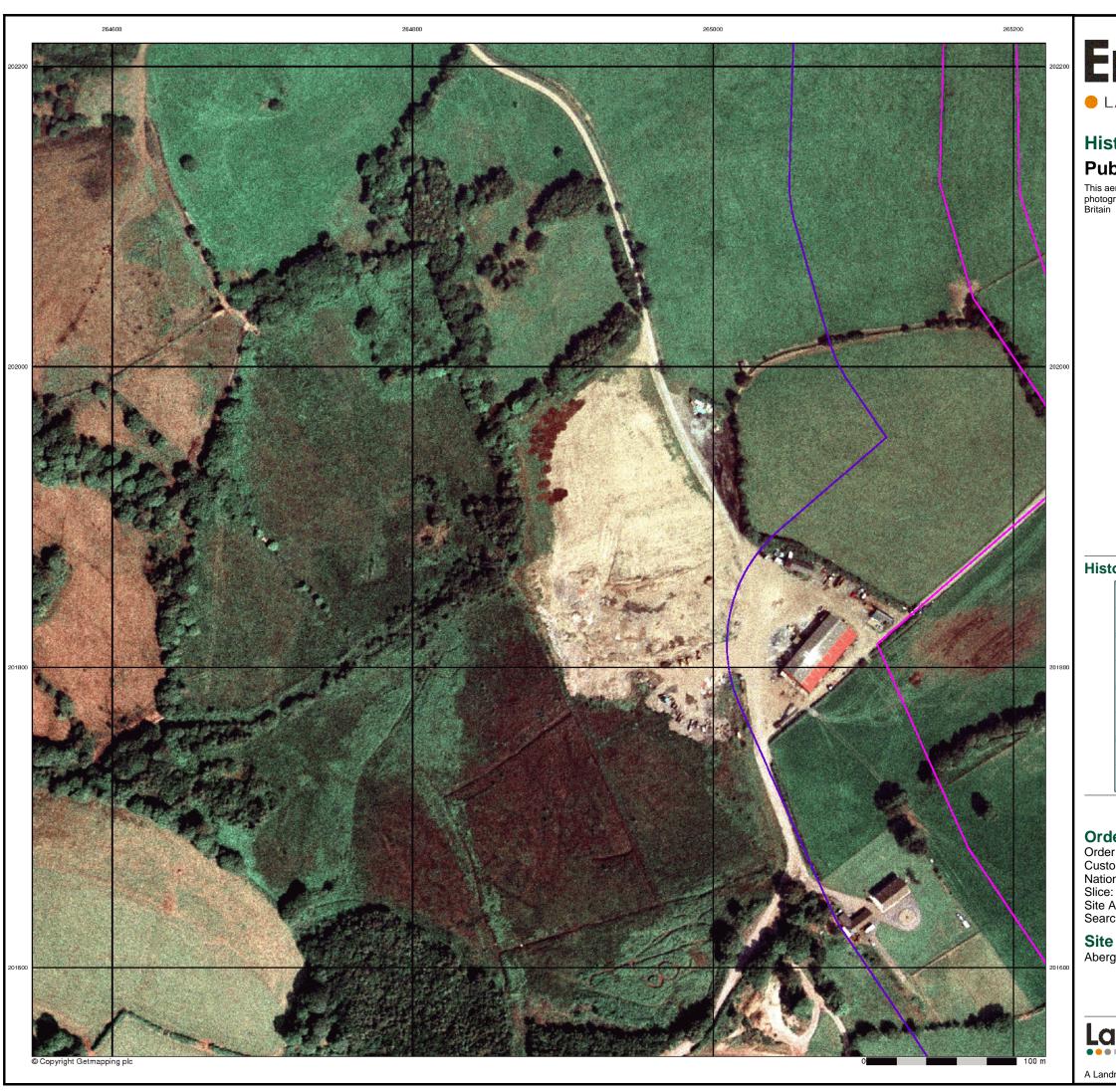










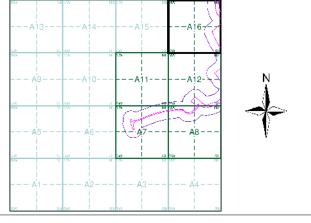


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#### **Historical Aerial Photography** Published 2000

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

#### **Historical Aerial Photography - Segment A16**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

32.39 100 Site Area (Ha): Search Buffer (m):

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 12

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN** 

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

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142844199 Glamorgan 1876-1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Geology 1:10,000 Maps Legends**

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                 | Rock Type          | Min and Max Age     |
|---------------|----------|---------------------------|--------------------|---------------------|
|               | WGR      | Worked Ground (Undivided) | Void               | Holocene - Holocene |
|               | MGR      | Made Ground (Undivided)   | Artificial Deposit | Holocene - Holocene |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age                |
|---------------|----------|---|---|--------------------------------|
|               | SUPNM    | Superficial Theme Not<br>Mapped [For Digital Map Use<br>Only] | Unknown/Unclassifie<br>d Entry                  | Not Supplied - Not<br>Supplied |
|               | ALV      | Alluvium  | Clay, Silt, Sand and<br>Gravel                  | Flandrian -<br>Pleistocene     |
|               | TILLD    | Till, Devensian   | Diamicton                                       | Devensian -<br>Ipswichian      |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                          | Sand and Gravel                                 | Devensian -<br>Ipswichian      |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Ryazanian      |
|               | RTDU     | River Terrace Deposits<br>(Undifferentiated)                  | Sand and Gravel                                 | Quaternary -<br>Ryazanian      |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                         | Min and Max Age                  |
|---------------|----------|---------------------|-----------------------------------|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | GDB      | Grovesend Formation | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | Fault    |                     |                                   |                                  |
|               | Rock     |                     |                                   |                                  |

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#### **Geology 1:10,000 Maps**

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a 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.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### **Geology 1:10,000 Maps Coverage**

Map ID: SN60SE Map Name: Map Date: 1972 Bedrock Geology: Available Superficial Geology: Available Artificial Geology: Available Faults: Landslip: **Rock Segments:** Map ID: Map Name:

Map Date:

Landslip:

**Rock Segments:** 

Available Available Available SS69NE 1975 Available Bedrock Geology: Superficial Geology: Available Artificial Geology: Available Available Not Available Available

Map Name: Map Date: Bedrock Geology: Superficial Geology: Artificial Geology: Faults: Landslip: **Rock Segments:** Map ID: Map Name: Map Date:

Map ID:

SS69NW 1969 Bedrock Geology: Available Superficial Geology: Available **Artificial Geology:** Available Faults: Available Landslip: Available **Rock Segments:** Available

SN60SW

Available

Available

Available

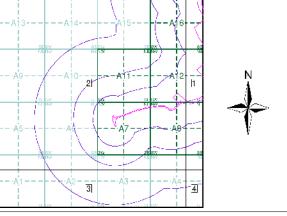
Available

Available

Available

1966

#### Geology 1:10,000 Maps - Slice A



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

32.39 Site Area (Ha): Search Buffer (m): 1000

#### **Site Details**

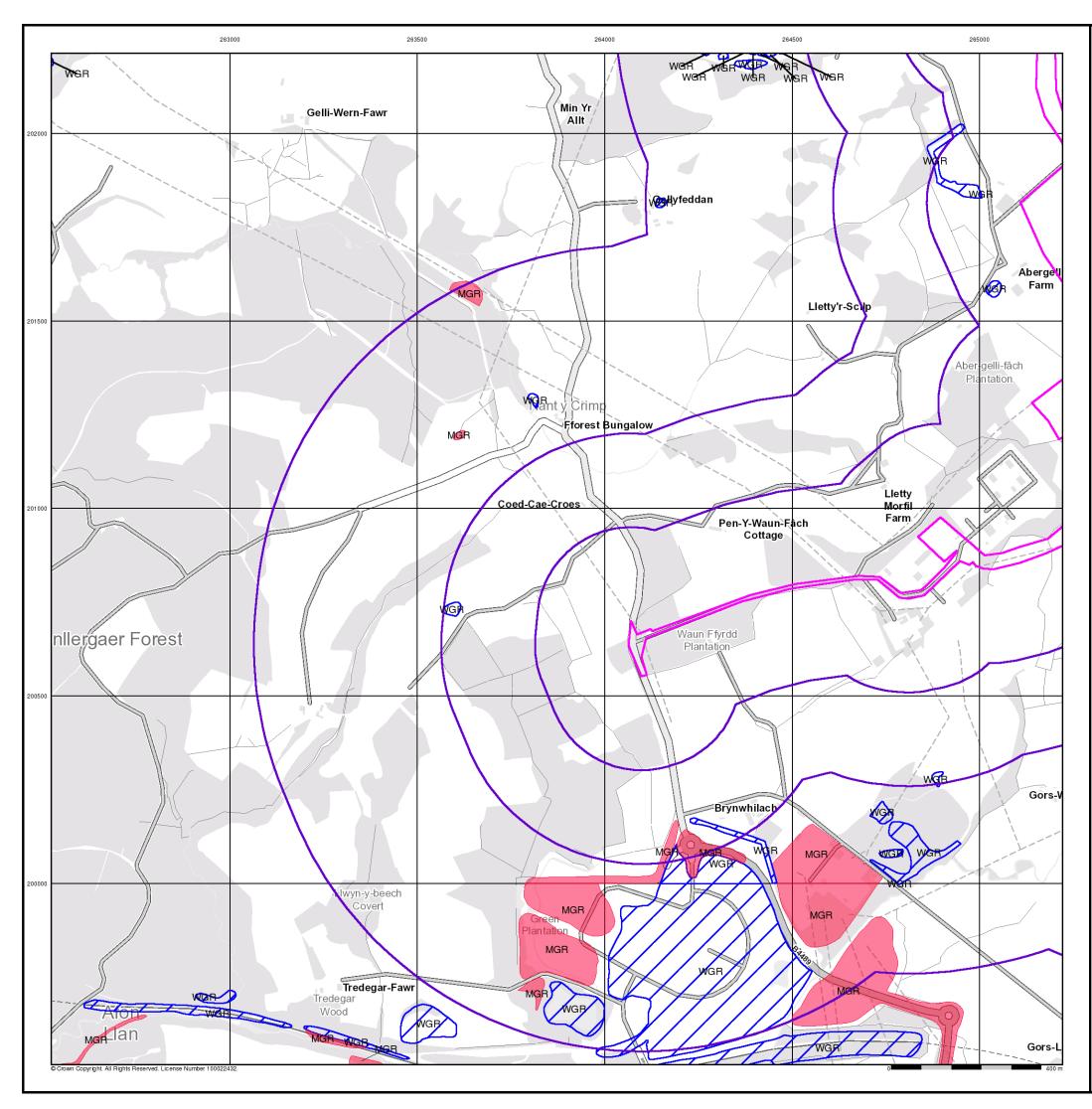
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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#### **Artificial Ground and Landslip**

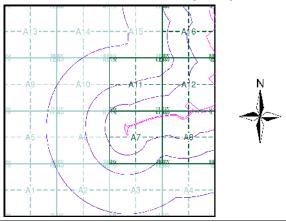
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions 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 guarries 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
- Landscaped ground areas where the surface has been reshaped.
- Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

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

#### **Artificial Ground and Landslip Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

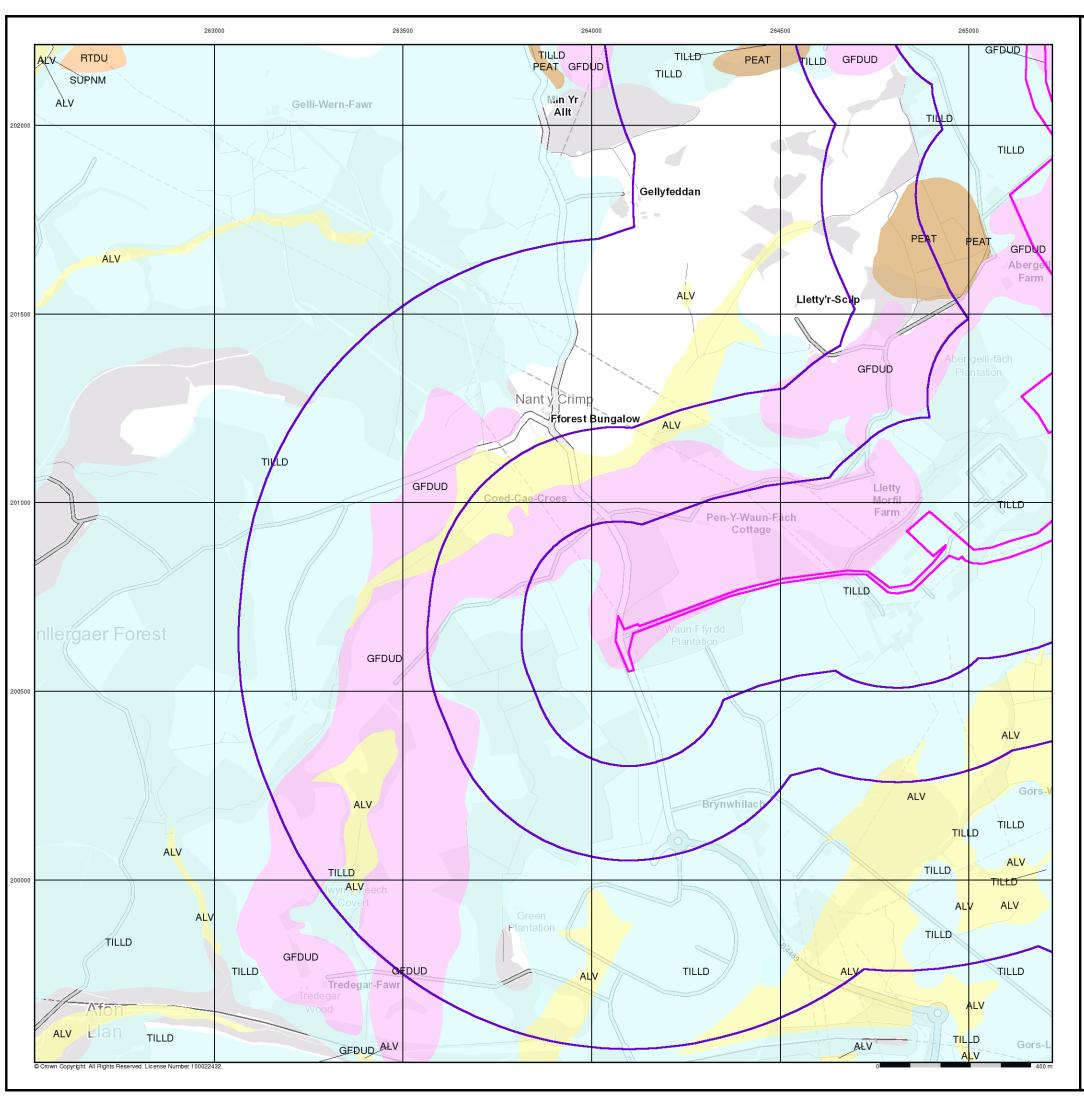
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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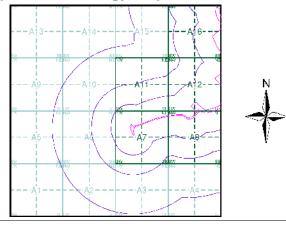
#### **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

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

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

#### **Superficial Geology Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

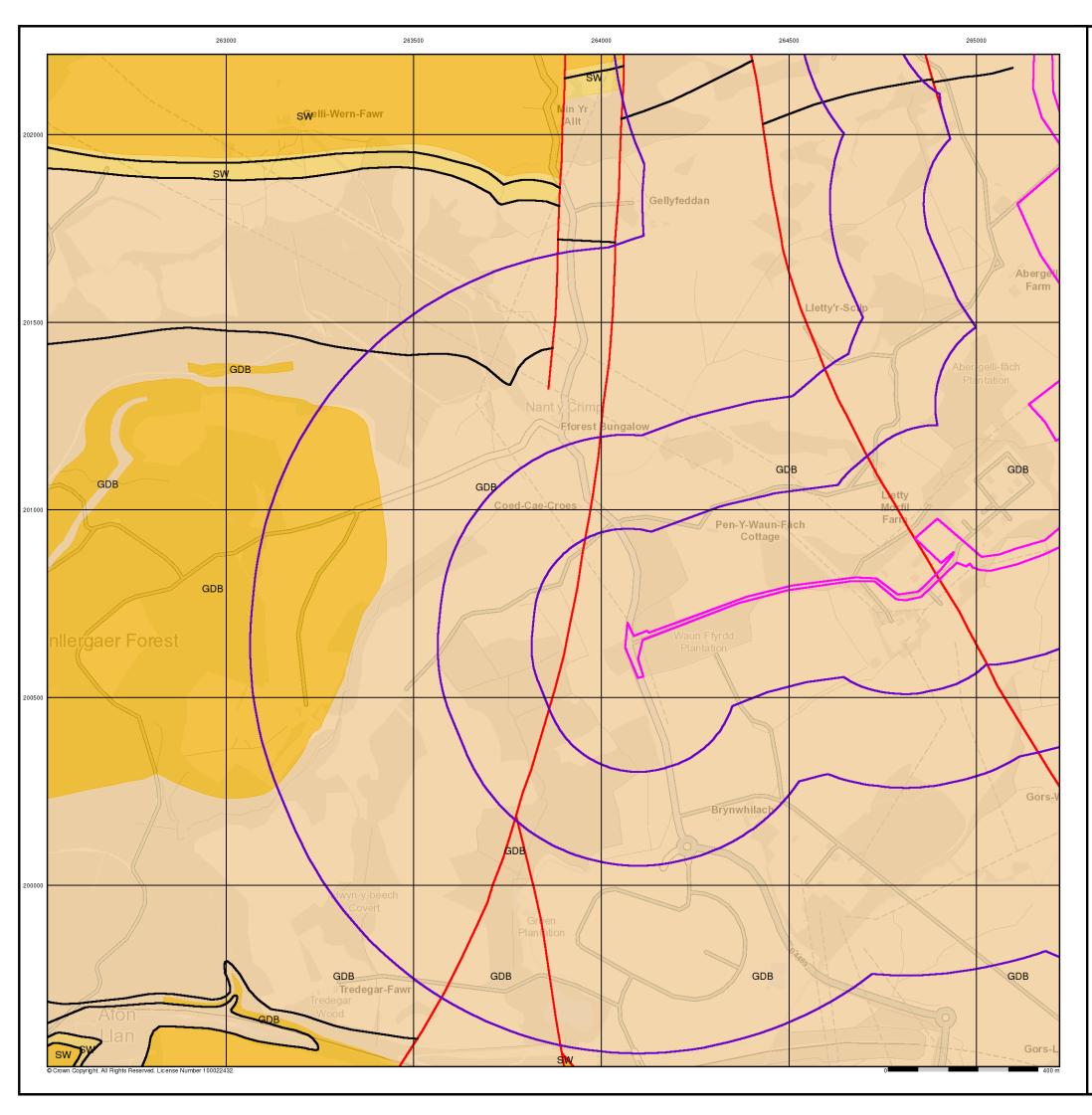
#### **Site Details**

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### **Bedrock and Faults**

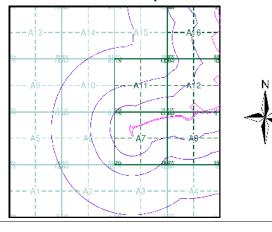
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits

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

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

### **Bedrock and Faults Map - Slice A**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): Search Buffer (m): 32.39 1000

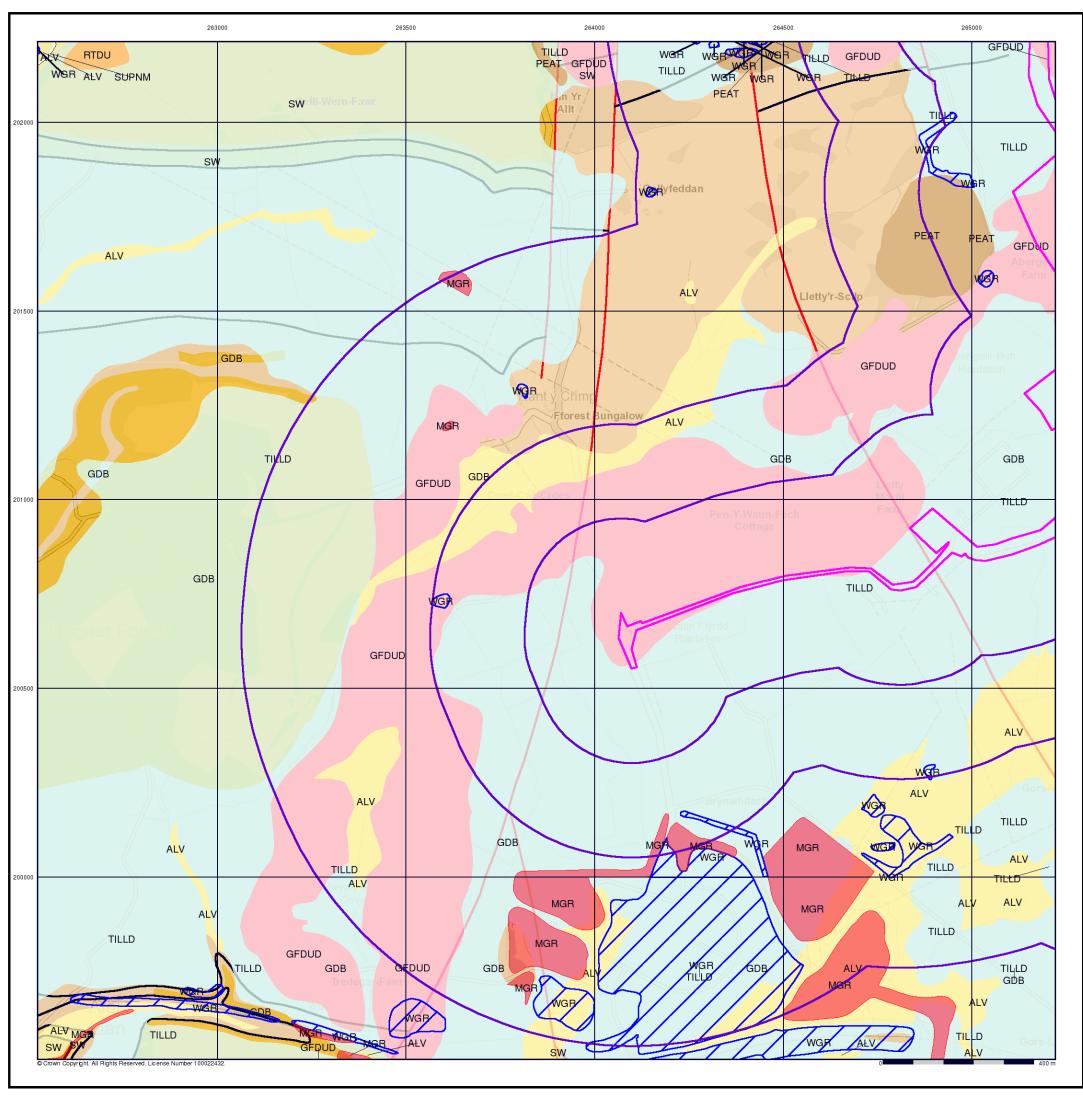
### **Site Details**

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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.

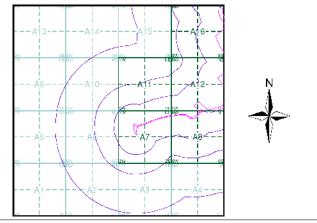
### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

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

### **Combined Geology Map - Slice A**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

### **Site Details**

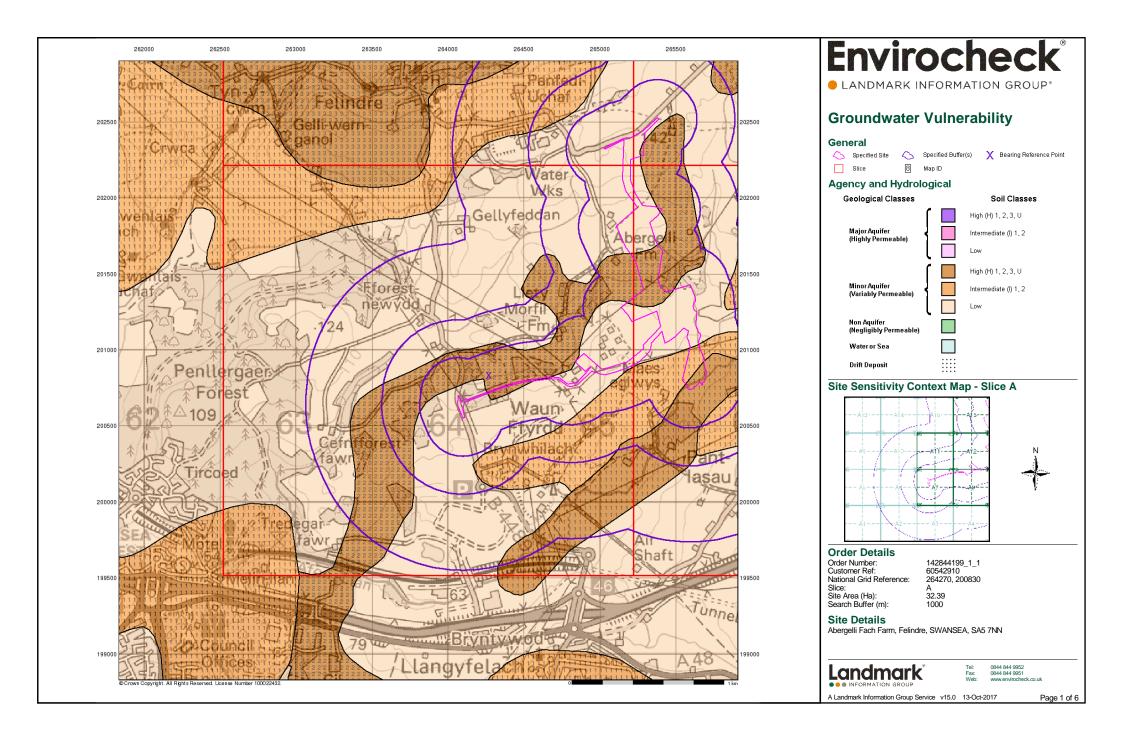
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

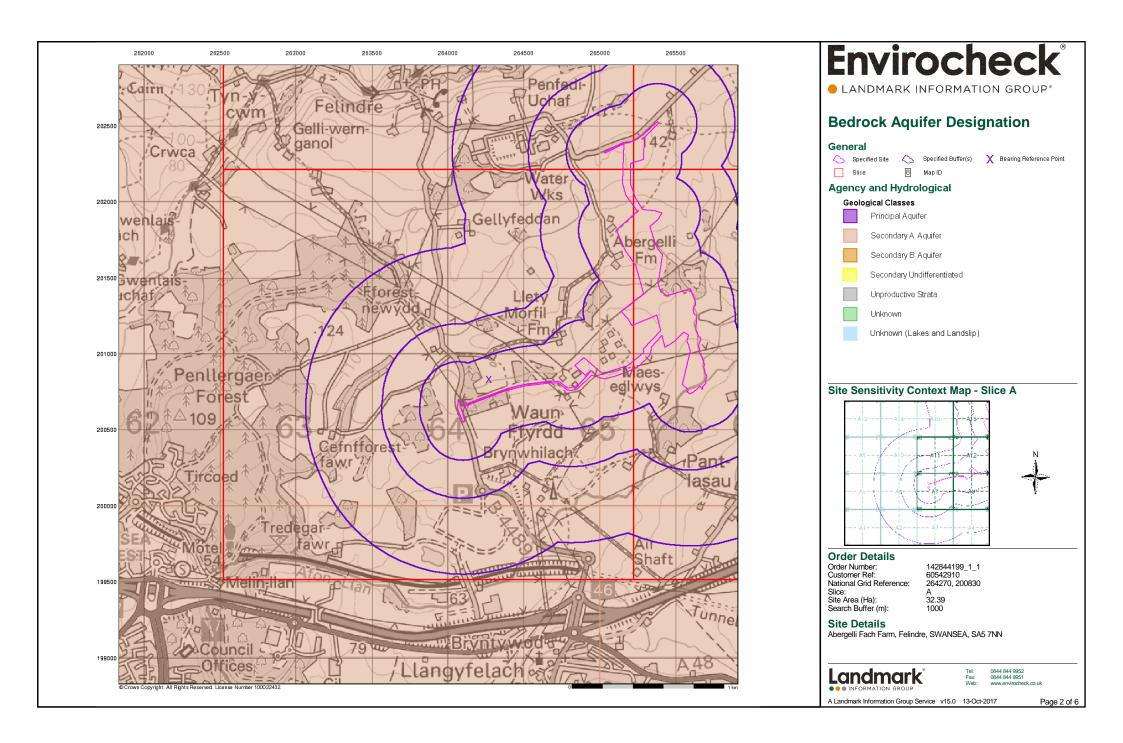


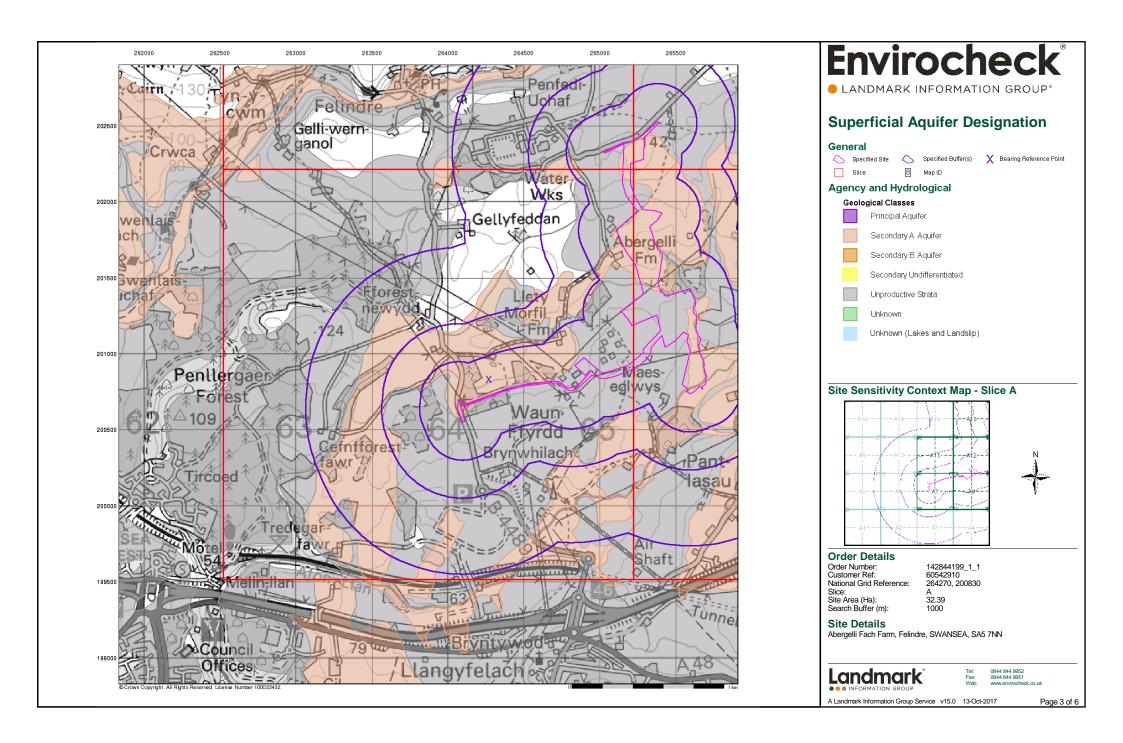
0844 844 9951 www.envirocheck.co.uk

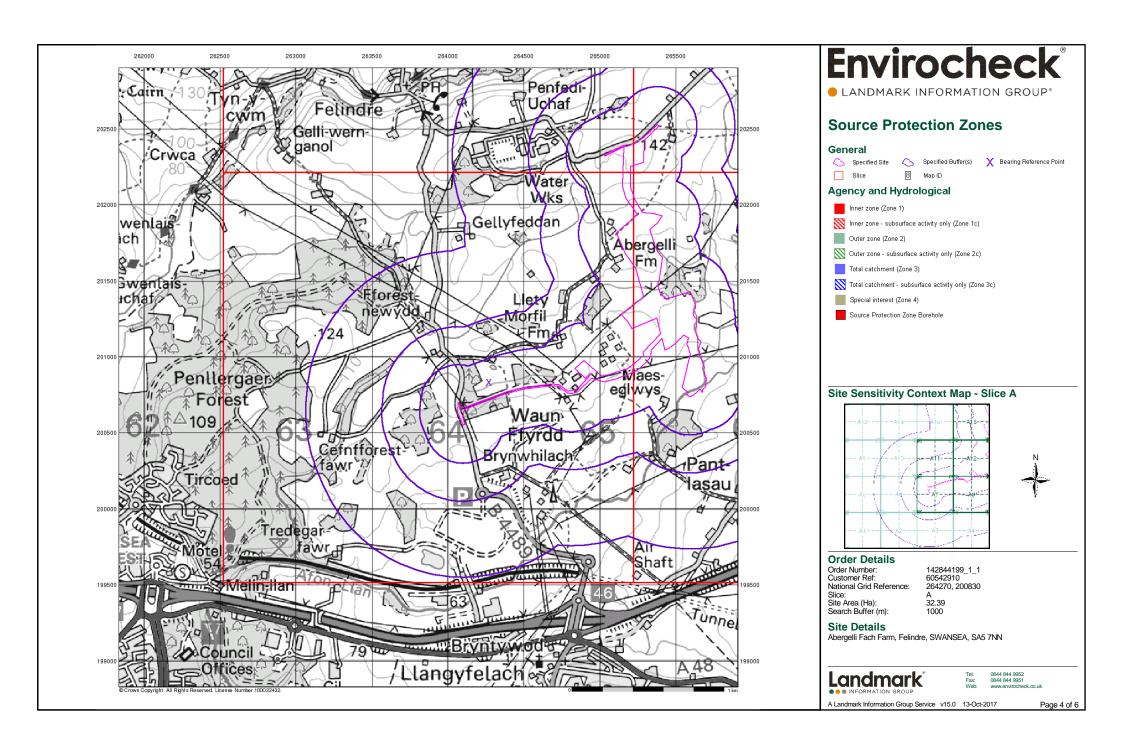
A Landmark Information Group Service v50.0 13-Oct-2017

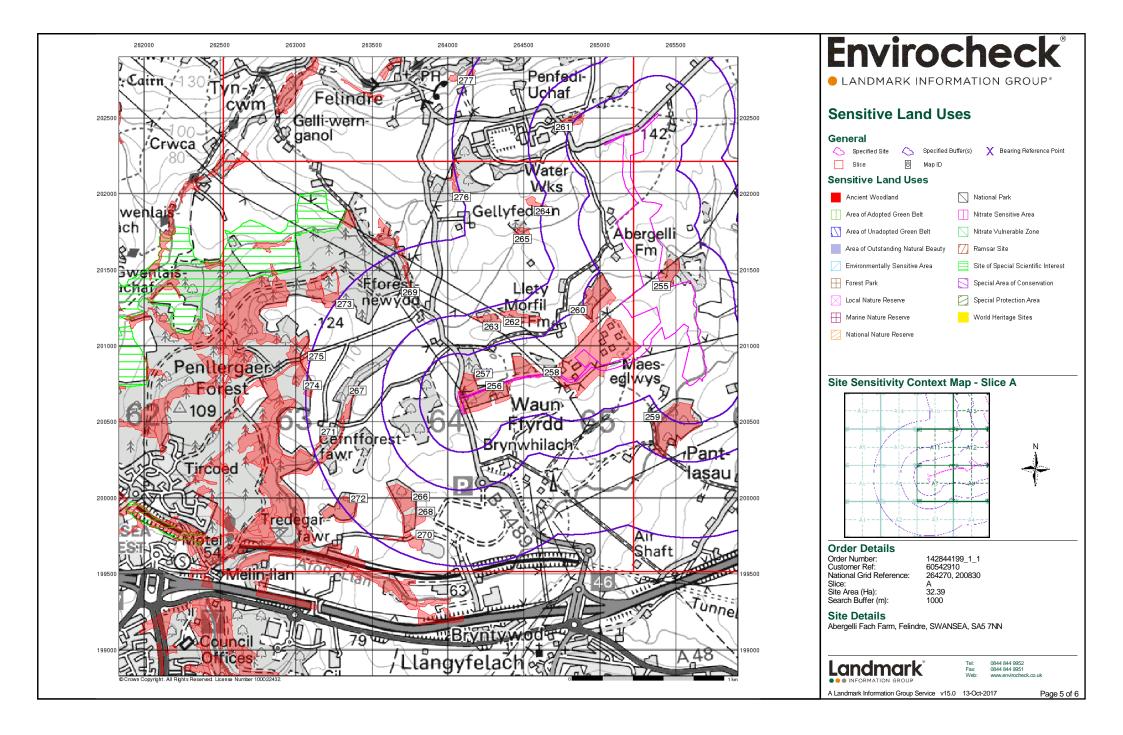
Page 5 of 5

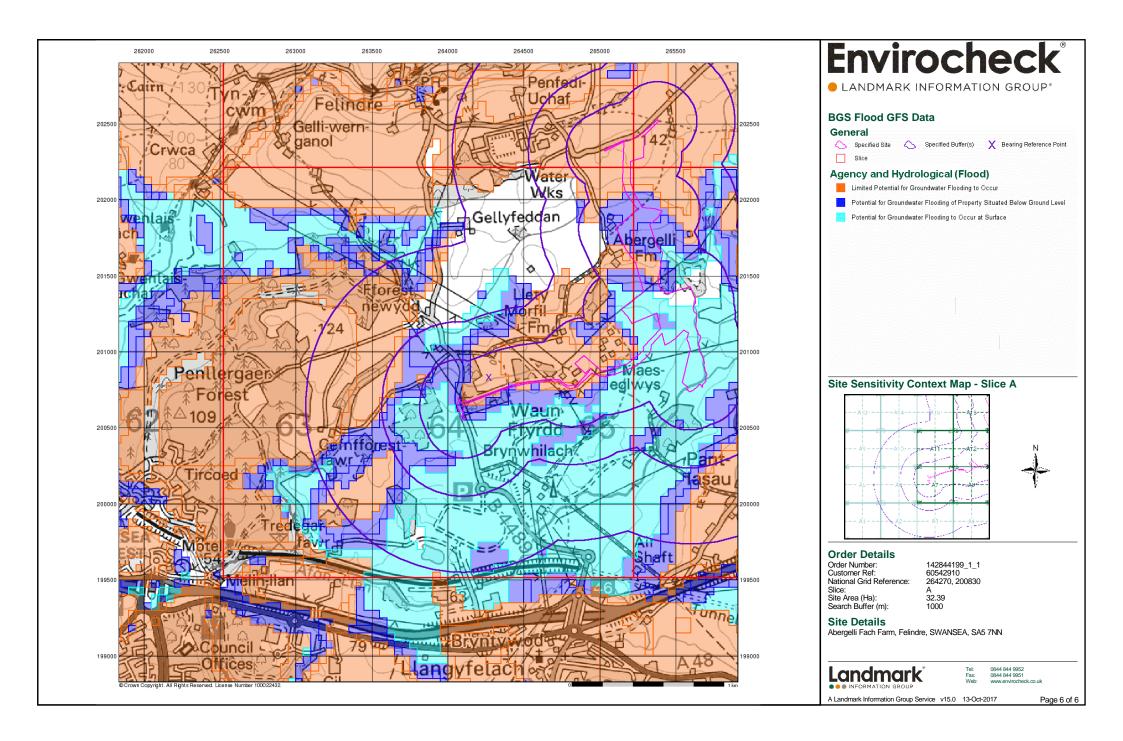














# **Envirocheck® Report:**

### **Datasheet**

### **Order Details:**

**Order Number:** 

142844199\_1\_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

264270, 200830

Slice:

Α

Site Area (Ha):

32.39

Search Buffer (m):

1000

### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

### **Prepared For:**

Abergelli Power Station Project







| Report Section        | Page Number |
|-----------------------|-------------|
| Summary               | -           |
| Agency & Hydrological | 1           |
| Waste                 | 36          |
| Hazardous Substances  | -           |
| Geological            | 40          |
| Industrial Land Use   | 47          |
| Sensitive Land Use    | 48          |
| Data Currency         | 50          |
| Data Suppliers        | 55          |
| Useful Contacts       | 56          |

#### 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 the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0



### **Summary**

| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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 8           | 2       | 1         |             | 8                              |
| Prosecutions Relating to Controlled Waters                    |                |         | n/a       | n/a         | n/a                            |
| Enforcement and Prohibition Notices                           |                |         |           |             |                                |
| Integrated Pollution Controls                                 |                |         |           |             |                                |
| Integrated Pollution Prevention And Control                   | pg 10          |         | 2         |             |                                |
| 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 11          | Yes     |           |             |                                |
| Pollution Incidents to Controlled Waters                      | pg 11          |         |           |             | 2                              |
| Prosecutions Relating to Authorised Processes                 |                |         |           |             |                                |
| Registered Radioactive Substances                             |                |         |           |             |                                |
| River Quality   | pg 11          |         | 1         |             |                                |
| River Quality Biology Sampling Points                         |                |         |           |             |                                |
| Substantiated Pollution Incident Register                     |                |         |           |             |                                |
| River Quality Chemistry Sampling Points                       |                |         |           |             |                                |
| Water Abstractions  | pg 11          |         | 1         |             | 2                              |
| Water Industry Act Referrals                                  |                |         |           |             |                                |
| Groundwater Vulnerability                                     | pg 12          | Yes     | n/a       | n/a         | n/a                            |
| Drift Deposits  | pg 12          | 2       | n/a       | n/a         | n/a                            |
| Bedrock Aquifer Designations                                  | pg 12          | Yes     | n/a       | n/a         | n/a                            |
| Superficial Aquifer Designations                              | pg 13          | Yes     | n/a       | n/a         | n/a                            |
| Source Protection Zones                                       |                |         |           |             |                                |
| Extreme Flooding from Rivers or Sea without Defences          | pg 13          | Yes     |           | n/a         | n/a                            |
| Flooding from Rivers or Sea without Defences                  | pg 13          | 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 13          | 9       | 52        | 61          | 75                             |



### **Summary**

| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Waste   |                |         |           |             |                                |
| BGS Recorded Landfill Sites   | pg 36          |         |           | 1           |                                |
| Historical Landfill Sites   | pg 36          |         | 1         | 3           |                                |
| Integrated Pollution Control Registered Waste Sites                 |                |         |           |             |                                |
| Licensed Waste Management Facilities (Landfill Boundaries)          | pg 37          |         | 2         |             |                                |
| Licensed Waste Management Facilities (Locations)                    | pg 37          |         | 2         |             |                                |
| Local Authority Landfill Coverage                                   | pg 37          | 1       | n/a       | n/a         | n/a                            |
| Local Authority Recorded Landfill Sites                             |                |         |           |             |                                |
| Potentially Infilled Land (Non-Water)                               | pg 37          |         |           | 1           | 4                              |
| Potentially Infilled Land (Water)                                   | pg 38          |         | 1         | 5           | 3                              |
| Registered Landfill Sites   | pg 38          |         | 2         | 2           |                                |
| 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<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Geological  |                |         |           |             |                                |
| BGS 1:625,000 Solid Geology                                       | pg 40          | Yes     | n/a       | n/a         | n/a                            |
| BGS Estimated Soil Chemistry                                      | pg 40          | Yes     | Yes       | Yes         | Yes                            |
| BGS Recorded Mineral Sites  | pg 42          |         | 1         | 2           | 4                              |
| BGS Urban Soil Chemistry  |                |         |           |             |                                |
| BGS Urban Soil Chemistry Averages                                 | pg 44          |         |           | Yes         |                                |
| CBSCB Compensation District                                       |                |         | n/a       | n/a         | n/a                            |
| Coal Mining Affected Areas  | pg 44          | Yes     | n/a       | n/a         | n/a                            |
| Mining Instability  | pg 44          | Yes     | n/a       | n/a         | n/a                            |
| Man-Made Mining Cavities  |                |         |           |             |                                |
| Natural Cavities  |                |         |           |             |                                |
| Non Coal Mining Areas of Great Britain                            |                |         |           | n/a         | n/a                            |
| Potential for Collapsible Ground Stability Hazards                | pg 44          | Yes     |           | n/a         | n/a                            |
| Potential for Compressible Ground Stability Hazards               | pg 44          | Yes     | Yes       | n/a         | n/a                            |
| Potential for Ground Dissolution Stability Hazards                |                |         |           | n/a         | n/a                            |
| Potential for Landslide Ground Stability Hazards                  | pg 45          | Yes     | Yes       | n/a         | n/a                            |
| Potential for Running Sand Ground Stability Hazards               | pg 45          | Yes     | Yes       | n/a         | n/a                            |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 45          | Yes     |           | n/a         | n/a                            |
| Radon Potential - Radon Affected Areas                            |                |         | n/a       | n/a         | n/a                            |
| Radon Potential - Radon Protection Measures                       |                |         | n/a       | n/a         | n/a                            |
| Industrial Land Use   |                |         |           |             |                                |
| Contemporary Trade Directory Entries                              | pg 47          |         |           |             | 1                              |
| Fuel Station Entries  |                |         |           |             |                                |
| Points of Interest - Commercial Services                          |                |         |           |             |                                |
| Points of Interest - Education and Health                         |                |         |           |             |                                |
| Points of Interest - Manufacturing and Production                 | pg 47          |         |           | 1           |                                |
| Points of Interest - Public Infrastructure                        | pg 47          |         |           | 1           | 4                              |
| Points of Interest - Recreational and Environmental               |                |         |           |             |                                |
| Gas Pipelines   | pg 47          | 3       |           |             |                                |
| Underground Electrical Cables                                     |                |         |           |             |                                |



# **Summary**

| Data Type                            | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|--------------------------------------|----------------|---------|-----------|-------------|--------------------------------|
| Sensitive Land Use                   |                |         |           |             |                                |
| Ancient Woodland                     | pg 48          | 4       | 3         | 3           | 13                             |
| Areas of Adopted Green Belt          |                |         |           |             |                                |
| Areas of Unadopted Green Belt        |                |         |           |             |                                |
| Areas of Outstanding Natural Beauty  |                |         |           |             |                                |
| Environmentally Sensitive Areas      |                |         |           |             |                                |
| Forest Parks                         |                |         |           |             |                                |
| Local Nature Reserves                |                |         |           |             |                                |
| Marine Nature Reserves               |                |         |           |             |                                |
| National Nature Reserves             |                |         |           |             |                                |
| National Parks                       |                |         |           |             |                                |
| Nitrate Sensitive Areas              |                |         |           |             |                                |
| Nitrate Vulnerable Zones             |                |         |           |             |                                |
| Ramsar Sites                         |                |         |           |             |                                |
| Sites of Special Scientific Interest |                |         |           |             |                                |
| Special Areas of Conservation        |                |         |           |             |                                |
| Special Protection Areas             |                |         |           |             |                                |
| World Heritage Sites                 |                |         |           |             |                                |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | /el (E)   | 0                                  | 1       | 265350<br>201150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | vel A7NW (SW)                                   | 0                                  | 1       | 264100<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 264250<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265100<br>200900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | vel A7NW  | 0                                  | 1       | 264100                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | A7NE  | 0                                  | 1       | 200800                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                   | A7NE  | 0                                  | 1       | 264350                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                   | (SE)  | 0                                  | 1       | 265000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 200750<br>264350           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265200                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (E)<br>A8NW                                     | 0                                  | 1       | 200950<br>264600<br>200800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 264400                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (E)   | 0                                  | 1       | 200800                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 264550                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (E)   | 0                                  | 1       | 264350                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (E)<br>A8NE                                     | 0                                  | 1       | 264950                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 200832<br>264250<br>200600 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (S)<br>A8NE<br>(E)                              | 0                                  | 1       | 200600<br>265000<br>200850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | vel A8NE  | 0                                  | 1       | 265050<br>200850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (E) A16SE (NE)                                  | 0                                  | 1       | 265150<br>201600           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265350<br>201600           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE<br>(NE)                                   | 0                                  | 1       | 265050<br>201850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16NE<br>(NE)                                   | 0                                  | 1       | 265150<br>202050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12NE<br>(NE)                                   | 0                                  | 1       | 265050<br>201500 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE<br>(NE)                                   | 0                                  | 1       | 265050<br>201700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 0                                  | 1       | 265300<br>201450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16SE<br>(NE)                                   | 0                                  | 1       | 265000<br>201550 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (NE)  | 0                                  | 1       | 265400<br>201600 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE<br>(NE)                                   | 0                                  | 1       | 265200<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SE<br>(NE)                                   | 0                                  | 1       | 265200<br>201700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12NE<br>(NE)                                   | 0                                  | 1       | 265050<br>201450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 0                                  | 1       | 265350<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 0                                  | 1       | 265400<br>201550 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16NE<br>(NE)                                   | 0                                  | 1       | 265000<br>202000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 1                                  | 1       | 265450<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A12SE<br>(E)                                    | 5                                  | 1       | 265050<br>200900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8NW<br>(E)                                     | 9                                  | 1       | 264750<br>200750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7NE<br>(SE)                                    | 11                                 | 1       | 264400<br>200750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A12SE<br>(E)                                    | 11                                 | 1       | 265000<br>200900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A12SE<br>(E)                                    | 13                                 | 1       | 265100<br>200950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7NW<br>(W)                                     | 16                                 | 1       | 264100<br>200832 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NE)  | 21                                 | 1       | 265400<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16NE<br>(NE)                                   | 22                                 | 1       | 265050<br>202000 |



| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|--|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | A15NE<br>(N)                                    | 29                                 | 1       | 264269<br>202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 37                                 | 1       | 265150<br>201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 38                                 | 1       | 265000<br>200800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 40                                 | 1       | 265050<br>201200           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el A8NE   | 41                                 | 1       | 264950                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (E)   | 41                                 | 1       | 265550                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 43                                 | 1       | 201700                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | (E)<br>el A12NE<br>(NE)                         | 45                                 | 1       | 201050<br>265050<br>201300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 46                                 | 1       | 201300<br>265100<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 46                                 | 1       | 264900<br>200750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 48                                 | 1       | 265450<br>201850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi | el A7NE   | 54                                 | 1       | 264269<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (NE)  | 58                                 | 1       | 265350<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi | el A8NW   | 59                                 | 1       | 264750<br>200700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | A12SE<br>(E)                                    | 71                                 | 1       | 265000<br>201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 74                                 | 1       | 265700<br>200700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi | el A12SE<br>(E)                                 | 75                                 | 1       | 264900<br>201050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi |   | 80                                 | 1       | 265050<br>201350           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | A12NE<br>(NE)                                   | 90                                 | 1       | 265000<br>201250           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | A12SE<br>(E)                                    | 92                                 | 1       | 264950<br>201050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 95                                 | 1       | 265000<br>201200           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 105                                | 1       | 264150<br>200832           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 113                                | 1       | 266100<br>200832 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16SE<br>(NE)                                   | 115                                | 1       | 264900<br>201850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 117                                | 1       | 265500<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SE<br>(NE)                                   | 121                                | 1       | 265000<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SW<br>(NE)                                   | 125                                | 1       | 264850<br>201100 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A16NE<br>(NE)                                   | 132                                | 1       | 265000<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 139                                | 1       | 265550<br>201600 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 139                                | 1       | 265550<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A12NW<br>(NE)                                   | 140                                | 1       | 264600<br>201250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A8NE<br>(E)                                     | 154                                | 1       | 264950<br>200650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SE<br>(NE)                                   | 162                                | 1       | 264900<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 168                                | 1       | 265550<br>201750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A12NE<br>(NE)                                   | 172                                | 1       | 265000<br>201500 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A12SW<br>(NE)                                   | 181                                | 1       | 264800<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 192                                | 1       | 265500<br>200550 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8SW<br>(SE)                                    | 195                                | 1       | 264600<br>200450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7NW<br>(W)                                     | 198                                | 1       | 263900<br>200832 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 199                                | 1       | 265800<br>201450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(S)                                     | 202                                | 1       | 264100<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(SW)                                    | 208                                | 1       | 264050<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 212                                | 1       | 265850<br>200650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16SW<br>(NE)                                   | 212                                | 1       | 264850<br>201850 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A6NE<br>(W)                                     | 220                                | 1       | 263850<br>200750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8NE<br>(E)                                     | 224                                | 1       | 265000<br>200600 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(SW)                                    | 225                                | 1       | 264000<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 227                                | 1       | 265900<br>200700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 228                                | 1       | 265650<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 241                                | 1       | 265650<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A6NE<br>(W)                                     | 242                                | 1       | 263850<br>200832 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A16NW<br>(NE)                                   | 249                                | 1       | 264850<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 254                                | 1       | 265900<br>200650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 255                                | 1       | 265000<br>202750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(S)                                     | 257                                | 1       | 264050<br>200300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 264                                | 1       | 265850<br>201500 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(SW)                                    | 271                                | 1       | 264000<br>200300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SE)  | 272                                | 1       | 265700<br>200200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 291                                | 1       | 265900<br>201450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (NE)  | 291                                | 1       | 265700<br>201900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 292                                | 1       | 265700<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 292                                | 1       | 265700<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8SE<br>(E)                                     | 304                                | 1       | 265200<br>200450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 311                                | 1       | 265900<br>201500 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7SW<br>(SW)                                    | 318                                | 1       | 264000<br>200250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SE<br>(N)                                    | 319                                | 1       | 264269<br>201100 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)   | 324                                | 1       | 265050<br>202800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW<br>(N)                                    | 329                                | 1       | 264200<br>201050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NE)  | 330                                | 1       | 265250<br>202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 339                                | 1       | 265700<br>202100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 341                                | 1       | 265750<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 343                                | 1       | 265650                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A11SW<br>(NW)                                   | 346                                | 1       | 200400<br>264100<br>201050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 346                                | 1       | 265200<br>202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW<br>(NW)                                   | 347                                | 1       | 264150<br>201050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A15NW<br>(N)                                    | 347                                | 1       | 263900<br>201900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (NE)  | 349                                | 1       | 265750<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 351                                | 1       | 265900<br>200500           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SE<br>(N)                                    | 357                                | 1       | 264400<br>201150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 364                                | 1       | 265850<br>200450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A6NE<br>(W)                                     | 365                                | 1       | 263700<br>200700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)   | 367                                | 1       | 265100<br>202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SE<br>(N)                                    | 368                                | 1       | 264269<br>201150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 371                                | 1       | 265750<br>200400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NE)  | 372                                | 1       | 265300<br>202900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW<br>(N)                                    | 376                                | 1       | 264200<br>201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 379                                | 1       | 265250<br>202900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A6NE<br>(W)                                     | 384                                | 1       | 263700<br>200832           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 390                                | 1       | 265800<br>200400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 391                                | 1       | 265900<br>200450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NE)  | 391                                | 1       | 265800<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | l (NE)  | 392                                | 1       | 265200<br>202900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | l (NE)  | 398                                | 1       | 265800                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  | ıl (E)  | 403                                | 1       | 202000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (NE)  | 412                                | 1       | 265150                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  | A6NE (W)  | 415                                | 1       | 202900<br>263650<br>200700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 418                                | 1       | 200700<br>265750<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 423                                | 1       | 265000<br>202800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NE)  | 424                                | 1       | 265750<br>202250           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 436                                | 1       | 265000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  |   | 447                                | 1       | 202900<br>263700<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level |   | 450                                | 1       | 264450                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)  | 450                                | 1       | 201250<br>265800<br>202150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 451                                | 1       | 265700<br>200300           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A6NE<br>(W)                                     | 464                                | 1       | 263600<br>200700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  |   | 466                                | 1       | 263600<br>200600           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A10SE<br>(W)                                    | 466                                | 1       | 263650<br>200900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  |   | 472                                | 1       | 263650<br>200400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  |   | 483                                | 1       | 263800<br>201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve  |   | 488                                | 1       | 265400<br>200050           |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater I  | Flooding Susceptibility   |   |                                    |         |                  |
|           | Flooding Type:   | Potential for Groundwater Flooding of Property Situated Below Ground Level  | (SE)  | 492                                | 1       | 265650<br>200250 |
|           | BGS Groundwater I  | Flooding Susceptibility   |   |                                    |         |                  |
|           | Flooding Type:   | Limited Potential for Groundwater Flooding to Occur   | A6SE<br>(SW)                                    | 492                                | 1       | 263650<br>200350 |
|           | Discharge Consent  | S   |   |                                    |         |                  |
| 1         | Operator: Property Type: Location:  Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Danny Leighton Sewage Disposal Works - Other Nat'L Grid Compressor Sta Swansea, Nat'L Grid Newb'D Compressor Sta, Felindre, Sa5 7lu Natural Resources Wales Not Supplied Bp0370301 1 2nd November 2007 2nd November 2007 2dth August 2010 Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River  Unnamed Land Drain Surrendered under EPR 2010 Located by supplier to within 10m | A12SE<br>(E)                                    | 0                                  | 2       | 265052<br>200870 |
|           | Discharge Consents   | S   |   |                                    |         |                  |
| 2         | Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status:                       | Danny Leighton Production & Distribution Of Electricity National Grid Site Llangyfelach, Felindre, Swansea Natural Resources Wales Not Supplied Bp0361101 1 22nd December 2006 22nd December 2006 16th June 2011 Trade Discharges - Site Drainage Freshwater Stream/River  Afon Llan Surrendered under EPR 2010 Located by supplier to within 10m   | A12SE<br>(E)                                    | 0                                  | 2       | 265183<br>200917 |
|           | Discharge Consent  | S   |   |                                    |         |                  |
| 3         | Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:  | Humphreys B Domestic Property (Single) Penywaun Fach Cottages Felindre Swa, Felindre Swansea. Natural Resources Wales River Loughor Bp0108201 1 14th November 1988 14th November 1988 10th October 1994 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 10m   | A11SE<br>(NE)                                   | 191                                | 2       | 264330<br>200950 |
|           | Discharge Consent  | s   |   |                                    |         |                  |
| 4         | Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:  | Watkins W Undefined Or Other Brynwilach Farm Llangyfelach Swanse, Llangyfelach Swansea Natural Resources Wales River Loughor Bp0071501 1 2nd December 1987 2nd December 1987 1st August 1994 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 10m  | A7SE<br>(S)                                     | 505                                | 2       | 264470<br>200200 |



| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 5         | Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:         | Welsh Development Agency Domestic Property (Single) Fforest Newydd Felindre Road Llangy, Felindre Road Llangyfelach Natural Resources Wales River Loughor BP0238701 1 1st August 1994 1st August 1994 Not Supplied Unspecified Freshwater Stream/River  Nant Y Crimp New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m  | A10NE<br>(NW)                                   | 574                                | 2       | 263830<br>201220 |
| 6         | -  | The Head Of Estates Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Industrial Landfill Tip Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m                      | A4NW<br>(SE)                                    | 715                                | 2       | 264878<br>200048 |
| 6         | Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | The Head Of Estates Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Surface Water Monitoring Point - Landfill Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m    | A4NW<br>(SE)                                    | 715                                | 2       | 264878<br>200048 |
| 6         | Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Senior Project Manager Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Surface Water Monitoring Point - Landfill Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m | A4NW<br>(SE)                                    | 715                                | 2       | 264878<br>200048 |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 6         | Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Senior Project Manager Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Industrial Landfill Tip Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m       | A4NW<br>(SE)                                    | 715                                | 2       | 264878<br>200048 |
| 7         | Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:                  | The Site Service Delivery Manager Production & Distribution Of Electricity Swansea North Substation Gorsllan, Llangyfelach, Swansea, Sa5 7pd Natural Resources Wales Not Supplied Bp0308001 1 4th July 2003 4th July 2003 Not Supplied Trade Discharges - Site Drainage Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m | A4NW<br>(SE)                                    | 787                                | 2       | 264787<br>199973 |
| 8         | ,  | National Grid Company Plc. Production & Distribution Of Electricity Swansea North Sub Stn. Adj. Natural Resources Wales River Loughor Bg0021701 1 27th February 1970 27th February 1970 6th June 1994 Trade Effluent Not Supplied  River Llan Consent expired Located by supplier to within 10m   | A4SW<br>(SE)                                    | 912                                | 2       | 264750<br>199850 |
| 9         | Name:<br>Location:<br>Authority:<br>Permit Reference:<br>Original Permit Ref:<br>Effective Date:<br>Status:<br>Application Type:<br>App. Sub Type:<br>Positional Accuracy:<br>Activity Code:   | Prevention And Control  National Grid Gas Plc Felindre, Gas Compressor Station, Gas Compressor Station, Heol Llangyfelach,Felindre,Swansea, SA5 7LX, West Glamorgan, SA5 7LX Natural Resources Wales WP3230TU Rp3232Id 29th March 2010 Effective Variation Minor Located by supplier to within 100m 1.1 A(1) (A) Combustion; Any Fuel Greater Or Equal To 50Mw Y  | A12SE<br>(E)                                    | 47                                 | 2       | 264950<br>200990 |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 10        | Name: Location:  Authority: Permit Reference: Original Permit Ref: Effective Date: Status: Application Type: App. Sub Type: Positional Accuracy: Activity Code:  | Prevention And Control  National Grid Gas Plc Gas Compressor Station, Heol Llangyfelach, Felindre, Swansea, West Glamorgan, SA5 7LX Natural Resources Wales RP3232LD Rp3232ld 2nd July 2007 Superseded By Variation Application New Manually positioned to the road within the address or location 1.1 A(1) (A) Combustion; Any Fuel Greater Or Equal To 50Mw Y | A7NW<br>(W)                                     | 126                                | 2       | 264096<br>200822 |
|           | Nearest Surface Wa   | ter Feature   | (NE)  | 0                                  | -       | 265246<br>201941 |
| 11        | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:   | to Controlled Waters  Not Given Swansea North Electricity Sub-Station, SWANSEA Environment Agency, Welsh Region Mud/Clay/Soil Accidental Spillage/Leakage 3rd December 1996 30660 Not Given Not Given Not Given Leakage Category 3 - Minor Incident Located by supplier to within 100m  | A4NW<br>(SE)                                    | 660                                | 3       | 264800<br>200100 |
| 12        | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:   | to Controlled Waters  Industrial Premises Steel Works, FELINDRE Environment Agency, Welsh Region Algae Not Supplied 9th June 1995 24511 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m  | A4SW<br>(S)                                     | 900                                | 3       | 264600<br>199800 |
|           | River Quality Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:   | Llan River Quality B Cuckoo Mill - Felin-Wen 3.2  Flow less than 0.31 cumecs River 2000   | A4NW<br>(SE)                                    | 30                                 | 3       | 264814<br>199929 |
| 13        | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr W Llewellyn 22/59/4/0027 100 Well In Enclosure 481 At Abergelli Farm, Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well In Enclosure 481 At Abergelli Farm; 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m      | A16SE<br>(NE)                                   | 56                                 | 3       | 265100<br>201700 |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | Water Abstractions   |   |   |                                    |         |                  |
| 14        | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:                    | Welsh Development Agency 22/59/4/0011 100 Spring At Fforest Newydd Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring At Fforest Newydd 01 January 31 December 26th March 1999 Not Supplied Located by supplier to within 100m  | A10NE<br>(NW)                                   | 645                                | 3       | 263790<br>201280 |
| 15        | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Brig Sir C Venables-Llewellyn Bart 22/59/4/0016 100 Spring In Field 830,Cefn Fforest Fawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field 830;Cefn Fforest Fawr Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m | A6SW<br>(W)                                     | 842                                | 3       | 263250<br>200420 |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:  | Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Sheet 35 West Glamorgan 1:100,000   | A7NE<br>(SW)                                    | 0                                  | 3       | 264236<br>200808 |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:  | Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000  | A7NE<br>(N)                                     | 0                                  | 3       | 264269<br>200832 |
|           | Groundwater Vulne  | ·   |   |                                    |         |                  |
|           | Soil Classification:  Map Sheet: Scale:  | Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Sheet 35 West Glamorgan 1:100,000  | A4NW<br>(SE)                                    | 0                                  | 3       | 264843<br>200090 |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:  | Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000  | A7SE<br>(S)                                     | 0                                  | 3       | 264397<br>200366 |
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:   | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000   | A7NE<br>(SE)                                    | 0                                  | 3       | 264319<br>200743 |
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:   | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000   | A11NW<br>(NW)                                   | 0                                  | 3       | 263873<br>201390 |
|           | Bedrock Aquifer De<br>Aquifer Designation:   | esignations<br>Secondary Aquifer - A  | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |



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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A   | A8NE<br>(E)                                     | 0                                  | 1       | 265000<br>200832 |
|           | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A   | A12NE<br>(NE)                                   | 0                                  | 1       | 265000<br>201475 |
|           | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A   | A8SE<br>(SE)                                    | 0                                  | 1       | 265000<br>200477 |
|           | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A   | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |
|           | Superficial Aquifer Designations Aquifer Designation: Unproductive Strata   | A8NE<br>(E)                                     | 0                                  | 1       | 265000<br>200832 |
|           | Superficial Aquifer Designations Aquifer Designation: Unproductive Strata   | A7NE<br>(SE)                                    | 0                                  | 1       | 264316<br>200739 |
|           | 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              | A4NW<br>(SE)                                    | 0                                  | 2       | 264838<br>200092 |
|           | 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                              | A4NW<br>(SE)                                    | 0                                  | 2       | 264824<br>200056 |
|           | Areas Benefiting from Flood Defences None   |   |                                    |         |                  |
|           | Flood Water Storage Areas None  |   |                                    |         |                  |
|           | Flood Defences None   |   |                                    |         |                  |
| 16        | Water Network Lines  Watercourse Form: Inland river Watercourse Length: 158.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1    | A8NE<br>(E)                                     | 0                                  | 4       | 265021<br>200809 |
| 17        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 101.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A12SE<br>(E)                                    | 0                                  | 4       | 265082<br>200925 |
| 18        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 388.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A12NE<br>(NE)                                   | 0                                  | 4       | 265100<br>201494 |
| 19        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 396.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A8NE<br>(E)                                     | 0                                  | 4       | 265156<br>200747 |



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| 20        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 132.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | (NE)  | 0                                  | 4       | 265246<br>201941 |
| 21        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 123.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A12SE<br>(E)                                    | 0                                  | 4       | 265180<br>200919 |
| 22        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A7NW<br>(SW)                                    | 0                                  | 4       | 264075<br>200691 |
| 23        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A16SE<br>(NE)                                   | 0                                  | 4       | 265107<br>201807 |
| 24        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 329.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A8NW<br>(E)                                     | 0                                  | 4       | 264640<br>200799 |
| 25        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 545.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A7NW<br>(SW)                                    | 1                                  | 4       | 264067<br>200682 |
| 26        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 290.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A12SE<br>(NE)                                   | 2                                  | 4       | 265098<br>201181 |
| 27        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 294.2  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A7NE<br>(SW)                                    | 2                                  | 4       | 264231<br>200817 |
| 28        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 202.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A7NE<br>(S)                                     | 2                                  | 4       | 264295<br>200614 |



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| 29        | Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                              | A7NE<br>(SE)                                    | 3                                  | 4       | 264394<br>200726 |
| 30        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NW<br>(E)                                     | 8                                  | 4       | 264603<br>200786 |
| 31        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | A8NW<br>(E)                                     | 15                                 | 4       | 264603<br>200786 |
| 32        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 234.7 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2            | A12SE<br>(E)                                    | 35                                 | 4       | 264920<br>201094 |
| 33        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A12SW<br>(E)                                    | 45                                 | 4       | 264867<br>201011 |
| 34        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 24.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | A12SW<br>(E)                                    | 45                                 | 4       | 264869<br>201012 |
| 35        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A7NE<br>(SE)                                    | 53                                 | 4       | 264395<br>200705 |
| 36        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 159.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A7NE<br>(SE)                                    | 59                                 | 4       | 264396<br>200699 |
| 37        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 22.3  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2       | A12SW<br>(E)                                    | 63                                 | 4       | 264873<br>201034 |



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| 38        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                 | A8NW<br>(E)                                     | 71                                 | 4       | 264797<br>200622 |
| 39        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2   | A12SE<br>(E)                                    | 79                                 | 4       | 264885<br>201053 |
| 40        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A12SE<br>(NE)                                   | 99                                 | 4       | 265052<br>201183 |
| 41        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 21.9 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1              | A12SE<br>(NE)                                   | 99                                 | 4       | 265077<br>201185 |
| 42        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 220.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7NW<br>(SW)                                    | 101                                | 4       | 263935<br>200688 |
| 43        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 201.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7NE<br>(S)                                     | 105                                | 4       | 264297<br>200613 |
| 44        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 397.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A12SW<br>(NE)                                   | 113                                | 4       | 264801<br>201178 |
| 45        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A12SE<br>(E)                                    | 113                                | 4       | 264910<br>201087 |
| 46        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 161.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A12SE<br>(E)                                    | 122                                | 4       | 264920<br>201094 |



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| 47        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | A16SE<br>(NE)                                   | 124                                | 4       | 264965<br>201642 |
| 48        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 237.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A12NW<br>(NE)                                   | 131                                | 4       | 264849<br>201234 |
| 49        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 93.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NW<br>(SE)                                    | 138                                | 4       | 264730<br>200559 |
| 50        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 286.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A7SW<br>(SW)                                    | 151                                | 4       | 263945<br>200497 |
| 51        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 87.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7NW<br>(SW)                                    | 158                                | 4       | 263912<br>200591 |
| 52        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 156.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A7NW<br>(SW)                                    | 158                                | 4       | 263885<br>200664 |
| 53        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 95.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7NW<br>(SW)                                    | 177                                | 4       | 263888<br>200622 |
| 54        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A7NW<br>(W)                                     | 178                                | 4       | 263903<br>200761 |
| 55        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 61.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7SW<br>(SW)                                    | 180                                | 4       | 263921<br>200510 |



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| 56        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A7NW<br>(W)                                     | 182                                | 4       | 263901<br>200766 |
| 57        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2          | A8NW<br>(SE)                                    | 193                                | 4       | 264708<br>200580 |
| 58        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                            | A8SW<br>(SE)                                    | 198                                | 4       | 264548<br>200490 |
| 59        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 106.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | A16SE<br>(NE)                                   | 200                                | 4       | 264965<br>201642 |
| 60        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 137.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | A16SE<br>(NE)                                   | 200                                | 4       | 264924<br>201739 |
| 61        | 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: Loughor Primacy: 2  | A16SW<br>(NE)                                   | 203                                | 4       | 264855<br>201607 |
| 62        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A8NW<br>(SE)                                    | 211                                | 4       | 264730<br>200559 |
| 63        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 32.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NW<br>(SE)                                    | 216                                | 4       | 264699<br>200545 |
| 64        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 122.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A12NW<br>(NE)                                   | 227                                | 4       | 264863<br>201531 |



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|-----------|--|---|------------------------------------|---------|------------------|
| 65        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.3  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A6NE<br>(W)                                     | 232                                | 4       | 263840<br>200727 |
| 66        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A6NE<br>(W)                                     | 234                                | 4       | 263839<br>200730 |
| 67        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A8NW<br>(SE)                                    | 234                                | 4       | 264694<br>200544 |
| 68        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 201.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A7SE<br>(SE)                                    | 237                                | 4       | 264518<br>200457 |
| 69        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A8NE<br>(E)                                     | 238                                | 4       | 265199<br>200616 |
| 70        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 102.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6SE<br>(SW)                                    | 244                                | 4       | 263861<br>200486 |
| 71        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2          | A16SW<br>(NE)                                   | 245                                | 4       | 264869<br>201865 |
| 72        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2   | A16SW<br>(NE)                                   | 247                                | 4       | 264868<br>201867 |
| 73        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 47.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A6NE<br>(W)                                     | 248                                | 4       | 263827<br>200750 |



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| 74        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A6NE<br>(W)                                     | 248                                | 4       | 263827<br>200750 |
| 75        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A7SW<br>(S)                                     | 248                                | 4       | 264119<br>200305 |
| 76        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A16SW<br>(NE)                                   | 250                                | 4       | 264866<br>201873 |
| 77        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 323.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | A7SW<br>(S)                                     | 251                                | 4       | 264102<br>200301 |
| 78        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A16SW<br>(NE)                                   | 251                                | 4       | 264803<br>201828 |
| 79        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 132.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A12SW<br>(NE)                                   | 253                                | 4       | 264599<br>201093 |
| 80        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A6NE<br>(SW)                                    | 267                                | 4       | 263804<br>200577 |
| 81        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(SW)                                    | 271                                | 4       | 263800<br>200576 |
| 82        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A8NE<br>(E)                                     | 273                                | 4       | 265196<br>200597 |



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| 83        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 42.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NE<br>(E)                                     | 273                                | 4       | 265177<br>200571 |
| 84        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NE<br>(E)                                     | 292                                | 4       | 265177<br>200571 |
| 85        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 88.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8NE<br>(E)                                     | 294                                | 4       | 265097<br>200550 |
| 86        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 249.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | A16SW<br>(NE)                                   | 297                                | 4       | 264855<br>201607 |
| 87        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A7SE<br>(S)                                     | 303                                | 4       | 264397<br>200439 |
| 88        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 441.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A15SE<br>(N)                                    | 307                                | 4       | 264435<br>201627 |
| 89        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7SE<br>(S)                                     | 311                                | 4       | 264401<br>200433 |
| 90        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.4  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2        | A7SE<br>(SE)                                    | 316                                | 4       | 264523<br>200467 |
| 91        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | A12NW<br>(NE)                                   | 318                                | 4       | 264863<br>201531 |



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| 92        | Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1     | A6NE<br>(SW)                                    | 321                                | 4       | 263753<br>200558 |
| 93        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 22.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(SW)                                    | 321                                | 4       | 263753<br>200558 |
| 94        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | A7SE<br>(SE)                                    | 322                                | 4       | 264518<br>200459 |
| 95        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 76.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7SE<br>(SE)                                    | 324                                | 4       | 264506<br>200450 |
| 96        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A6SE<br>(SW)                                    | 332                                | 4       | 263753<br>200521 |
| 97        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 76.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6SE<br>(SW)                                    | 333                                | 4       | 263753<br>200517 |
| 98        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 156.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A12NW<br>(NE)                                   | 341                                | 4       | 264774<br>201411 |
| 99        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A6NE<br>(SW)                                    | 343                                | 4       | 263731<br>200552 |
| 100       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 147.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A6NE<br>(SW)                                    | 343                                | 4       | 263723<br>200569 |



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| 101       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 469.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6SE<br>(SW)                                    | 346                                | 4       | 263767<br>200445 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 102       | Watercourse Form: Inland river Watercourse Length: 2.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A7SE<br>(SE)                                    | 349                                | 4       | 264456<br>200413 |
| 103       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 138.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7SE<br>(SE)                                    | 349                                | 4       | 264456<br>200413 |
| 104       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A7SE<br>(SE)                                    | 350                                | 4       | 264453<br>200411 |
| 105       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 107.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A8SE<br>(E)                                     | 355                                | 4       | 265173<br>200475 |
| 106       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 55.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A8SE<br>(SE)                                    | 381                                | 4       | 265118<br>200465 |
| 107       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 492.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8SE<br>(SE)                                    | 382                                | 4       | 265118<br>200465 |
| 108       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A6NE<br>(SW)                                    | 387                                | 4       | 263689<br>200540 |
| 109       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A12NW<br>(NE)                                   | 389                                | 4       | 264773<br>201408 |



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| 110       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 136.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(SW)                                    | 391                                | 4       | 263686<br>200538 |
| 111       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 838.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1 | A11SW<br>(NW)                                   | 394                                | 4       | 264107<br>201115 |
| 112       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A3NW<br>(S)                                     | 394                                | 4       | 264123<br>200159 |
| 113       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.6  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A3NW<br>(S)                                     | 396                                | 4       | 264181<br>200165 |
| 114       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 90.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A3NW<br>(S)                                     | 399                                | 4       | 264180<br>200162 |
| 115       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 60.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A3NW<br>(S)                                     | 400                                | 4       | 264124<br>200153 |
| 116       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A6NE<br>(W)                                     | 416                                | 4       | 263651<br>200675 |
| 117       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(W)                                     | 418                                | 4       | 263648<br>200678 |
| 118       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 136.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(W)                                     | 421                                | 4       | 263650<br>200717 |



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| 119       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 840.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | A4NE<br>(SE)                                    | 426                                | 4       | 264926<br>200065 |
| 120       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 73.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A11SW<br>(N)                                    | 456                                | 4       | 264187<br>201182 |
| 121       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 692.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A10SE<br>(W)                                    | 457                                | 4       | 263733<br>201011 |
| 122       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 11.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | A7SE<br>(S)                                     | 457                                | 4       | 264476<br>200278 |
| 123       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A7SE<br>(S)                                     | 459                                | 4       | 264471<br>200270 |
| 124       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A3NW<br>(S)                                     | 460                                | 4       | 264134<br>200094 |
| 125       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 185.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1 | A11SW<br>(N)                                    | 464                                | 4       | 264165<br>201180 |
| 126       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.5  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | A3NW<br>(S)                                     | 468                                | 4       | 264079<br>200084 |
| 127       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 25.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | A7SE<br>(S)                                     | 468                                | 4       | 264455<br>200238 |



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| 128       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 273.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A10SE<br>(NW)                                   | 469                                | 4       | 263797<br>201081 |
| 129       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 75.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A3NW<br>(S)                                     | 469                                | 4       | 264075<br>200084 |
| 130       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 30.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | A7SE<br>(S)                                     | 478                                | 4       | 264445<br>200214 |
| 131       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A6NE<br>(W)                                     | 489                                | 4       | 263580<br>200568 |
| 132       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 20.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6NE<br>(W)                                     | 492                                | 4       | 263576<br>200572 |
| 133       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 88.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A3NW<br>(SW)                                    | 492                                | 4       | 263949<br>200082 |
| 134       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A6NE<br>(W)                                     | 493                                | 4       | 263572<br>200608 |
| 135       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 65.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A3NE<br>(S)                                     | 493                                | 4       | 264437<br>200186 |
| 136       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1    | A3NW<br>(S)                                     | 494                                | 4       | 264002<br>200068 |



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| 137       | Water Network Lines  Watercourse Form: Inland river Watercourse Length: 46.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1     | A3NW<br>(S)                                     | 495                                | 4       | 264000<br>200067 |
| 138       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 352.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1      | A3NE<br>(S)                                     | 512                                | 4       | 264403<br>200134 |
| 139       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | A3NW<br>(SW)                                    | 521                                | 4       | 263874<br>200082 |
| 140       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A3NW<br>(S)                                     | 532                                | 4       | 263965<br>200037 |
| 141       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 271.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A3NW<br>(S)                                     | 535                                | 4       | 263960<br>200036 |
| 142       | 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: Loughor Primacy: 1   | A3NE<br>(S)                                     | 538                                | 4       | 264415<br>200112 |
| 143       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 163.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A11NE<br>(N)                                    | 538                                | 4       | 264431<br>201409 |
| 144       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A2NE<br>(SW)                                    | 572                                | 4       | 263823<br>200051 |
| 145       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A8SE<br>(SE)                                    | 576                                | 4       | 265110<br>200253 |



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| 146       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 192.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A2NE<br>(SW)                                    | 581                                | 4       | 263672<br>200157 |
| 147       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A11NE<br>(N)                                    | 589                                | 4       | 264248<br>201341 |
| 148       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                            | A2NE<br>(SW)                                    | 606                                | 4       | 263814<br>200017 |
| 149       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A2NE<br>(SW)                                    | 606                                | 4       | 263814<br>200017 |
| 150       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A2NE<br>(SW)                                    | 612                                | 4       | 263781<br>200029 |
| 151       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1            | A11NE<br>(N)                                    | 617                                | 4       | 264429<br>201410 |
| 152       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 137.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A11NE<br>(N)                                    | 620                                | 4       | 264297<br>201392 |
| 153       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 115.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A11NE<br>(N)                                    | 623                                | 4       | 264281<br>201383 |
| 154       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 17.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A11NE<br>(N)                                    | 623                                | 4       | 264281<br>201383 |



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| 155       | Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                               | A2NE<br>(SW)                                    | 626                                | 4       | 263776<br>200016 |
| 156       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 268.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A11NE<br>(N)                                    | 627                                | 4       | 264297<br>201392 |
| 157       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 61.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | A2NE<br>(SW)                                    | 650                                | 4       | 263763<br>199995 |
| 158       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | A10NE<br>(NW)                                   | 680                                | 4       | 263706<br>201293 |
| 159       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 303.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A2NE<br>(SW)                                    | 690                                | 4       | 263820<br>199921 |
| 160       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A2NE<br>(SW)                                    | 690                                | 4       | 263790<br>199935 |
| 161       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | A2NE<br>(SW)                                    | 690                                | 4       | 263784<br>199938 |
| 162       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 27.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A2NE<br>(SW)                                    | 690                                | 4       | 263820<br>199921 |
| 163       | 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: Loughor Primacy: 1   | A10NE<br>(NW)                                   | 697                                | 4       | 263706<br>201293 |



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| 164       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 358.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A11NW<br>(NW)                                   | 700                                | 4       | 263921<br>201383 |
| 165       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A15SE<br>(N)                                    | 701                                | 4       | 264432<br>201623 |
| 166       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 136.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A2NE<br>(SW)                                    | 703                                | 4       | 263764<br>199933 |
| 167       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 605.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1     | A4NW<br>(SE)                                    | 704                                | 4       | 264882<br>200046 |
| 168       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 216.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A10NE<br>(NW)                                   | 718                                | 4       | 263703<br>201316 |
| 169       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A11NE<br>(N)                                    | 737                                | 4       | 264265<br>201497 |
| 170       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 89.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A11NE<br>(N)                                    | 741                                | 4       | 264264<br>201500 |
| 171       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6SW<br>(W)                                     | 742                                | 4       | 263331<br>200520 |
| 172       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 157.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A10SW<br>(W)                                    | 745                                | 4       | 263468<br>201143 |



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| 173       | Water Network Lines  Watercourse Form: Inland river Watercourse Length: 66.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1     | A10NE<br>(NW)                                   | 750                                | 4       | 263539<br>201228 |
| 174       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A6SW<br>(W)                                     | 760                                | 4       | 263314<br>200513 |
| 175       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | A6SW<br>(W)                                     | 760                                | 4       | 263314<br>200513 |
| 176       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                                 | A6SW<br>(W)                                     | 781                                | 4       | 263305<br>200452 |
| 177       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 211.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | A6SW<br>(W)                                     | 783                                | 4       | 263304<br>200447 |
| 178       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | A6SW<br>(W)                                     | 785                                | 4       | 263301<br>200452 |
| 179       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 204.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A6SW<br>(W)                                     | 786                                | 4       | 263301<br>200447 |
| 180       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 264.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A15NW<br>(N)                                    | 795                                | 4       | 264056<br>201939 |
| 181       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 159.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A2NW<br>(SW)                                    | 812                                | 4       | 263389<br>200156 |



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| 182       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 65.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A10NW<br>(NW)                                   | 816                                | 4       | 263491<br>201274 |
| 183       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A2SE<br>(SW)                                    | 825                                | 4       | 263766<br>199797 |
| 184       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A15SE<br>(N)                                    | 828                                | 4       | 264248<br>201586 |
| 185       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 206.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A4NW<br>(SE)                                    | 829                                | 4       | 264779<br>199931 |
| 186       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | A15SE<br>(N)                                    | 832                                | 4       | 264249<br>201591 |
| 187       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 76.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | A3SE<br>(S)                                     | 839                                | 4       | 264457<br>199791 |
| 188       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A10NW<br>(NW)                                   | 863                                | 4       | 263492<br>201340 |
| 189       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 402.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A10NW<br>(NW)                                   | 871                                | 4       | 263491<br>201349 |
| 190       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 440.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A4SE<br>(SE)                                    | 871                                | 4       | 264924<br>199835 |



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| 191       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: 59.8  Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | A3SE<br>(S)                                     | 915                                | 4       | 264484<br>199720 |
| 192       | OS Water Network Lines  Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                   | A2NW<br>(SW)                                    | 916                                | 4       | 263369<br>199998 |
| 193       | OS Water Network Lines  Watercourse Form: Lake Watercourse Leel: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                    | A3SW<br>(S)                                     | 917                                | 4       | 263941<br>199649 |
| 194       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 115.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A5SE<br>(W)                                     | 927                                | 4       | 263162<br>200422 |
| 195       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 175.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A10NE<br>(NW)                                   | 929                                | 4       | 263645<br>201525 |
| 196       | 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: Loughor Primacy: 1  | A2NW<br>(SW)                                    | 940                                | 4       | 263332<br>200008 |
| 197       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 356.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A5SE<br>(SW)                                    | 945                                | 4       | 263185<br>200286 |
| 198       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 419.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A2NW<br>(SW)                                    | 951                                | 4       | 263380<br>199929 |
| 199       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 57.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A3SW<br>(S)                                     | 952                                | 4       | 263932<br>199614 |



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| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
| 200       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1  | A14SE<br>(NW)                                   | 974                                | 4       | 263675<br>201589 |
| 201       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1      | A3SE<br>(S)                                     | 975                                | 4       | 264502<br>199663 |
| 202       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1    | A15SW<br>(N)                                    | 981                                | 4       | 264129<br>201823 |
| 203       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | A15SW<br>(N)                                    | 984                                | 4       | 264126<br>201828 |
| 204       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 128.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A15SW<br>(N)                                    | 987                                | 4       | 264123<br>201832 |
| 205       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 375.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A3SE<br>(S)                                     | 992                                | 4       | 264480<br>199633 |
| 206       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1       | A3SE<br>(S)                                     | 995                                | 4       | 264482<br>199632 |
| 207       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 205.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A14SE<br>(NW)                                   | 997                                | 4       | 263818<br>201664 |
| 208       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1       | A3SE<br>(S)                                     | 998                                | 4       | 264480<br>199629 |



# **Agency & Hydrological**

| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
| 209       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 172.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | A3SE<br>(S)                                     | 998                                | 4       | 264470<br>199624 |
| 210       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 203.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Gors Catchment Name: Loughor Primacy: 1  | A3SE<br>(S)                                     | 998                                | 4       | 264480<br>199629 |
| 211       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 290.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | A2SE<br>(S)                                     | 999                                | 4       | 263868<br>199580 |
| 212       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 108.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1     | A3SE<br>(S)                                     | 1000                               | 4       | 264476<br>199625 |

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| Map<br>ID |   | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|--|---|------------------------------------|---------|------------------|
| 213       | BGS Recorded Lan<br>Site Name:<br>Location:<br>Authority:<br>Ground Water:<br>Surface Water:<br>Geology:<br>Positional Accuracy:<br>Boundary Accuracy:  | Gorswen Farm Pontdassau, LLANGYFELACH, Glamorgan British Geological Survey, National Geoscience Information Service No threat to ground water Threat to surface water N/A Positioned by the supplier   | A8NE<br>(E)                                     | 300                                | -       | 265177<br>200550 |
| 214       | Historical Landfill S<br>Licence Holder:<br>Location:<br>Name:<br>Operator Location:<br>Boundary Accuracy:<br>Provider Reference:<br>First Input Date:<br>Last Input Date:<br>Last Input Date:<br>Specified Waste<br>Type:<br>EA Waste Ref:<br>Regis Ref:<br>WRC Ref:<br>BGS Ref:<br>Other Ref: | Abergelli Fach Farm Landfill Extension<br>Felindre<br>Abergelli Fach Farm Landfill Extension<br>Not Supplied<br>As Supplied  | A16SE<br>(NE)                                   | 92                                 | 2       | 265002<br>201603 |
| 215       | Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:  | Not Supplied<br>Pontdassau, Llangyfelach, Glamorgan<br>Gorswen Farm<br>Not Supplied<br>As Supplied   | A8NE<br>(E)                                     | 294                                | 2       | 265177<br>200568 |
| 216       | Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:  | British Steel Pant-Iasau, Swansea British Steel Corporation, Velindre Not Supplied As Supplied EAHLD14861 31st December 1980 31st May 1994 Deposited Waste included Industrial and Household Waste  0 Not Supplied 6855/0005 Not Supplied Not Supplied | A8SW<br>(SE)                                    | 309                                | 2       | 264757<br>200273 |
| 217       | Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:  | 3MS Felindre Gors Wen Not Supplied As Supplied   | A8SE<br>(SE)                                    | 402                                | 2       | 265156<br>200403 |





| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 218       | Name:<br>Licence Number:<br>Location:<br>Licence Holder:<br>Authority:<br>Site Category:<br>Max Input Rate:<br>Licence Status:<br>Issued:  | Abergelli Fach Farm Landfill Boundaries) Abergelli Fach Farm Landfill Extension 34165 Abergelli Fach Farm, Felindre, SA5 7NN Llewellyn William Bryn Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Not Supplied Inactive 6th September 1999 Positioned by the supplier As Supplied   | A16SE<br>(NE)                                   | 92                                 | 2       | 265002<br>201603 |
| 219       | Name:<br>Licence Number:<br>Location:<br>Licence Holder:<br>Authority:<br>Site Category:<br>Max Input Rate:<br>Licence Status:<br>Issued:  | Abergelli Fach Farm 34108 Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Llewellyn Bryn Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Not Supplied Closure 29th September 1994 Positioned by the supplier As Supplied  | A16SW<br>(NE)                                   | 121                                | 2       | 264870<br>201864 |
| 220       | Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: | nagement Facilities (Locations)  34165 Abergelli Fach Farm, Felindre, SA5 7NN Llewellyn William Bryn Not Supplied Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Expired 6th September 1999 10th October 2003 Not Supplied Located by supplier to within 10m                       | A16SE<br>(NE)                                   | 90                                 | 2       | 265020<br>201808 |
| 221       | Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: | nagement Facilities (Locations)  34108 Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Llewellyn Bryn Not Supplied Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Closed 29th September 1994 Not Supplied Located by supplier to within 10m | A16NE<br>(NE)                                   | 121                                | 2       | 265014<br>201890 |
|           | Local Authority Lan<br>Name:   | dfill Coverage City and County of Swansea - Has no landfill data to supply  |   | 0                                  | 5       | 264269<br>200832 |
| 222       | Potentially Infilled L<br>Bearing Ref:<br>Use:<br>Date of Mapping:   | .and (Non-Water)<br>SE<br>Unknown Filled Ground (Pit, quarry etc)<br>1991   | A8SE<br>(SE)                                    | 465                                | 8       | 264886<br>200301 |
| 223       | Potentially Infilled L<br>Bearing Ref:<br>Use:<br>Date of Mapping:   | .and (Non-Water)<br>SE<br>Unknown Filled Ground (Pit, quarry etc)<br>1991   | A4NW<br>(SE)                                    | 644                                | 8       | 264670<br>200129 |
| 224       | Potentially Infilled L<br>Bearing Ref:<br>Use:<br>Date of Mapping:   | .and (Non-Water)<br>NW<br>Unknown Filled Ground (Pit, quarry etc)<br>1991   | A10NE<br>(NW)                                   | 645                                | 8       | 263807<br>201287 |
| 225       | Potentially Infilled L<br>Bearing Ref:<br>Use:<br>Date of Mapping:   | and (Non-Water) S Unknown Filled Ground (Pit, quarry etc) 1995  | A3SE<br>(S)                                     | 808                                | 8       | 264296<br>199769 |





| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
| 226       | Potentially Infilled L<br>Bearing Ref:<br>Use:<br>Date of Mapping:   | and (Non-Water) N Unknown Filled Ground (Pit, quarry etc) 1991   | A15SW<br>(N)                                    | 955                                | 8       | 264154<br>201825 |
| 227       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1951  | A7SW<br>(S)                                     | 235                                | 8       | 264179<br>200331 |
| 228       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921  | A16NW<br>(NE)                                   | 296                                | 8       | 264825<br>201895 |
| 229       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1935  | A8SW<br>(SE)                                    | 346                                | 8       | 264854<br>200344 |
| 230       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921  | A7SE<br>(S)                                     | 475                                | 8       | 264471<br>200246 |
| 231       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884  | A3NE<br>(S)                                     | 482                                | 8       | 264342<br>200133 |
| 232       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921  | A3NW<br>(S)                                     | 493                                | 8       | 264016<br>200066 |
| 233       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884  | A8SE<br>(SE)                                    | 572                                | 8       | 264946<br>200204 |
| 234       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1935  | A4NW<br>(SE)                                    | 604                                | 8       | 264820<br>200155 |
| 235       | Potentially Infilled L<br>Use:<br>Date of Mapping:   | and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884  | A3NW<br>(S)                                     | 625                                | 8       | 264176<br>199932 |
| 236       | Site Location:  Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate:  Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: | W B Llewellyn SWW 180L Abergelli Fach Farm Landfill, Felindre, SWANSEA, West Glamorgan, SA5 7NN 264970 201770 Abergelli Fach Farm, Felindre, SWANSEA, West Glamorgan, SA5 7NN Environment Agency Wales, South West Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) No known restriction on source of waste Site not yet started 6th September 1999 3/94 Not Given Manually positioned to the address or location | A16SE<br>(NE)                                   | 147                                | 3       | 264970<br>201770 |



# **Envirocheck**®

| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
| 237       | Registered Landfill Licence Holder: Licence Reference: Site Location:  | Sites  B Llewellyn 3/94 Abergelli Fach Farm Landfill, Felindre, SWANSEA, West Glamorgan, SA5   | A16SE<br>(NE)                                   | 154                                | 3       | 264960<br>201850 |
|           | Licence Easting:<br>Licence Northing:<br>Operator Location:<br>Authority:<br>Site Category:<br>Max Input Rate:   | Abergelii Facti Farii Landiii, Feilidie, SWANSEA, West Glamorgali, SAS 7NN 264960 201850 As Site Address Environment Agency Wales, South West Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year)  |   |                                    |         |                  |
|           | Waste Source<br>Restrictions:<br>Status:<br>Dated:<br>Preceded By<br>Licence:  | No known restriction on source of waste  Operational as far as is knownOperational 29th September 1994 Not Given   |   |                                    |         |                  |
|           | Boundary Accuracy:<br>Authorised Waste   | Max.Waste Permitted By Licence<br>Sw Wales Cat. A 'Non-Decomp'   |   |                                    |         |                  |
|           | Prohibited Waste   | Tarmac<br>Waste N.O.S.   |   |                                    |         |                  |
| 238       | Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Accuracy: Authorised Waste | British Steel Tinplate 1/80; 2/84 Velindre Works, Velindre, SWANSEA, West Glamorgan, SA5 7LP 264900 200300 PO Box 101, Velindre, SWANSEA, West Glamorgan, SA5 5WW Environment Agency Wales, South West Area Landfill Undefined Waste produced/controlled by licence holder  Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 1st June 1980 Not Given  Not Given  Approximate location provided by supplier | A8SE<br>(SE)                                    | 468                                | 3       | 264900<br>200300 |
| 238       | Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Accuracy: Authorised Waste | B.S.C. Tinplate Group 2/89 Velindre Works, Velindre, SWANSEA, West Glamorgan, SA5 7LP 264900 200300 As Site Address Environment Agency Wales, South West Area Landfill Undefined No known restriction on source of waste  Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Not Supplied Not Given  Not Given  Approximate location provided by supplier  | A8SE<br>(SE)                                    | 468                                | 3       | 264900<br>200300 |





| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | BGS 1:625,000 Solid<br>Description:  | d Geology<br>South Wales Upper Coal Measures Formation   | A7NE  | 0                                  | 1       | 264269           |
|           | BGS Estimated Soil   | Chemistry  | (N)   |                                    |         | 200832           |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel                                   | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                                  | A7NE<br>(SE)                                    | 0                                  | 1       | 264316<br>200739 |
|           | Concentration:   |  |   |                                    |         |                  |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg                                   | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  1.8 - 2.2 mg/kg  60 - 90 mg/kg  <100 mg/kg  15 - 30 mg/kg | A11SE<br>(N)                                    | 202                                | 1       | 264269<br>201000 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg                                   | A11SW<br>(NW)                                   | 245                                | 1       | 264000<br>201142 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg  1.8 - 2.2 mg/kg  60 - 90 mg/kg  <100 mg/kg 15 - 30 mg/kg  | A11SW<br>(NW)                                   | 444                                | 1       | 264068<br>201156 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg   <1.8 mg/kg  60 - 90 mg/kg  <100 mg/kg 30 - 45 mg/kg      | A8SE<br>(SE)                                    | 559                                | 1       | 265009<br>200194 |

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| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | BGS Estimated Soil                              | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic         | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg | A3NW<br>(S)                                     | 583                                | 1       | 264013<br>199975 |
|           | Concentration: Cadmium Concentration:           | <1.8 mg/kg  |   |                                    |         |                  |
|           | Chromium Concentration:                         | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration: | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                              | Chemistry   |   |                                    |         |                  |
|           | Source:   | British Geological Survey, National Geoscience Information Service                              | A11NE   | 619                                | 1       | 264490           |
|           | Soil Sample Type:<br>Arsenic                    | Sediment<br>15 - 25 mg/kg   | (N)   |                                    |         | 201451           |
|           | Concentration:<br>Cadmium<br>Concentration:     | 1.8 - 2.2 mg/kg   |   |                                    |         |                  |
|           | Chromium Concentration:                         | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel                   | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | Concentration:                                  |   |   |                                    |         |                  |
|           | <b>BGS Estimated Soil</b>                       |   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic         | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg | A10SW<br>(W)                                    | 673                                | 1       | 263449<br>201000 |
|           | Concentration:<br>Cadmium                       | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:                                  |   |   |                                    |         |                  |
|           | Chromium Concentration:                         | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration: | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                              | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic         | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg | A11NE<br>(N)                                    | 703                                | 1       | 264295<br>201500 |
|           | Concentration:<br>Cadmium                       | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Chromium                      | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Concentration:<br>Lead Concentration:<br>Nickel | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | Concentration:                                  | To to myrky   |   |                                    |         |                  |
|           | BGS Estimated Soil                              | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic         | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg | A2NE<br>(SW)                                    | 730                                | 1       | 263784<br>199893 |
|           | Concentration:<br>Cadmium                       | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Chromium<br>Concentration:    | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration: Nickel Concentration:       | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                              | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:                    | British Geological Survey, National Geoscience Information Service Sediment                     | A6NW<br>(W)                                     | 765                                | 1       | 263304<br>200549 |
|           | Arsenic Concentration:                          | 25 - 35 mg/kg   |   |                                    |         |                  |
|           | Cadmium Concentration:                          | <1.8 mg/kg  |   |                                    |         |                  |
|           | Chromium Concentration:                         | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel                   | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |



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| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | BGS Estimated Soil   | -  | 4.01.1147                                       | 04.4                               |         | 000500           |
|           | Source: Soil Sample Type: Arsenic Concentration:                           | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg  | A2NW<br>(SW)                                    | 814                                | 1       | 263500<br>200000 |
|           | Cadmium Concentration:   | 3.0 - 6.0 mg/kg  |   |                                    |         |                  |
|           | Chromium Concentration:  | 60 - 90 mg/kg  |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration:                            | <100 mg/kg<br>30 - 45 mg/kg  |   |                                    |         |                  |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic<br>Concentration:                  | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg  | A2NW<br>(SW)                                    | 900                                | 1       | 263349<br>200053 |
|           | Cadmium Concentration:   | <1.8 mg/kg   |   |                                    |         |                  |
|           | Chromium Concentration:  | 60 - 90 mg/kg  |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration:                            | <100 mg/kg<br>30 - 45 mg/kg  |   |                                    |         |                  |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic                                    | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg  | A2NW<br>(SW)                                    | 908                                | 1       | 263377<br>200000 |
|           | Concentration:<br>Cadmium  | 3.0 - 6.0 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Chromium<br>Concentration:                               | 60 - 90 mg/kg  |   |                                    |         |                  |
|           | Lead Concentration: Nickel Concentration:                                  | <100 mg/kg<br>15 - 30 mg/kg  |   |                                    |         |                  |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:   | British Geological Survey, National Geoscience Information Service Sediment  | A10NW<br>(NW)                                   | 983                                | 1       | 263500<br>201500 |
|           | Arsenic Concentration: Cadmium   | 25 - 35 mg/kg<br>1.8 - 2.2 mg/kg   |   |                                    |         |                  |
|           | Concentration:   | 60 - 90 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Lead Concentration:                                      |  |   |                                    |         |                  |
|           | Nickel<br>Concentration:   | 15 - 30 mg/kg  |   |                                    |         |                  |
|           | BGS Recorded Mine  | eral Sites   |   |                                    |         |                  |
| 239       | Site Name: Location: Source: Reference: Type: Status: Operator:            | Aber-Gelli-Fach Gravel Pit , Clydach, Neath, West Glamorgan British Geological Survey, National Geoscience Information Service 154049 Opencast Ceased Not Supplied | A16SE<br>(NE)                                   | 161                                | 1       | 265036<br>201591 |
|           | Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Not Supplied<br>Quaternary<br>Glaciofluvial Deposits, Devensian<br>Sand and Gravel<br>Located by supplier to within 10m  |   |                                    |         |                  |
|           | BGS Recorded Mine  |  |   |                                    |         |                  |
| 240       | Site Name: Location: Source: Reference: Type: Status:                      | Bryn-Whilach Plantation Gravel Pit , Clydach, Neath, West Glamorgan British Geological Survey, National Geoscience Information Service 154061 Opencast Ceased      | A8SE<br>(SE)                                    | 456                                | 1       | 264893<br>200311 |
|           | Operator: Operator Location: Periodic Type: Geology:                       | Not Supplied Not Supplied Quaternary Till, Devensian   |   |                                    |         |                  |
|           | Commodity:   | Sand and Gravel Located by supplier to within 10m  |   |                                    |         |                  |



# Geological

| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
| 241       | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:                      | Waen Ffyrdd Plantation Sand Pit , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153916 Opencast Ceased Not Supplied Not Supplied Quaternary Glaciofluvial Deposits, Devensian Sand                         | A6NE<br>(W)                                     | 474                                | 1       | 263598<br>200743 |
|           |  | Located by supplier to within 10m  |   |                                    |         |                  |
| 242       | Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:  | Llidiard -Y-Cleders , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153915 Opencast Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Sandstone Located by supplier to within 10m         | A10NE<br>(NW)                                   | 648                                | 1       | 263805<br>201290 |
| 243       | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Bryn-Whilach , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153918 Underground Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Coal - Deep Located by supplier to within 10m           | A4NW<br>(SE)                                    | 676                                | 1       | 264757<br>200086 |
| 244       | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Paral Sites  Nant-Y-Ganol Wood Sand Pit , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153919 Opencast Ceased Not Supplied Not Supplied Quaternary Till, Devensian Sand Located by supplier to within 10m | A3SE<br>(S)                                     | 800                                | 1       | 264288<br>199775 |
| 245       | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Gelli-Feddan , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153914 Opencast Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Sandstone Located by supplier to within 10m                | A15SW<br>(N)                                    | 956                                | 1       | 264154<br>201828 |
|           | BGS Measured Urba  | an Soil Chemistry  |   |                                    |         |                  |

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|               |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|---------------|--|--|---|------------------------------------|---------|------------------|
| BGS           | S Urban Soil Che                                 | emistry Averages   |   |                                    |         |                  |
| Sour<br>Sam   |  | British Geological Survey, National Geoscience Information Service<br>Swansea<br>368   | A8SW<br>(SE)                                    | 438                                | 1       | 264800<br>200200 |
|               | enic Minimum centration:                         | 8.00 mg/kg   |   |                                    |         |                  |
|               | enic Average centration:                         | 79.00 mg/kg  |   |                                    |         |                  |
| Cond          | centration:                                      | 2161.00 mg/kg  |   |                                    |         |                  |
| Cond          | mium Minimum centration:                         |  |   |                                    |         |                  |
| Cond          | centration:                                      | 2.90 mg/kg   |   |                                    |         |                  |
| Cond          | mium Maximum centration:                         |  |   |                                    |         |                  |
| Cond          | omium Minimum centration:                        |  |   |                                    |         |                  |
| Cond          | omium Average centration:                        |  |   |                                    |         |                  |
|               | omium Maximum centration:                        | 562.00 mg/kg   |   |                                    |         |                  |
|               | d Minimum centration:                            | 23.00 mg/kg  |   |                                    |         |                  |
|               | d Average centration:                            | 413.00 mg/kg   |   |                                    |         |                  |
| Lead          | d Maximum centration:                            | 10000.00 mg/kg   |   |                                    |         |                  |
| Nick          | centration:                                      | 8.00 mg/kg   |   |                                    |         |                  |
|               | cel Average centration:                          | 52.00 mg/kg  |   |                                    |         |                  |
|               | cel Maximum centration:                          | 384.00 mg/kg   |   |                                    |         |                  |
| Coa           | I Mining Affecte                                 | d Areas  |   |                                    |         |                  |
| Desc          | cription:  | In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report. | A7NE<br>(N)                                     | 0                                  | 6       | 264269<br>200832 |
| Minir<br>Sour | ing Instability ng Evidence: rce: ndary Quality: | Inconclusive Coal Mining Ove Arup & Partners As Supplied   | A7NE<br>(N)                                     | 0                                  | -       | 264269<br>200832 |
|               |  | eas of Great Britain   |   |                                    |         |                  |
| No F          | Hazard   |  |   |                                    |         |                  |
|               | •  | sible Ground Stability Hazards   | A 7 N I F                                       |                                    | 4       | 264269           |
| Sour          | ard Potential:<br>rce:                           | Very Low<br>British Geological Survey, National Geoscience Information Service   | A7NE<br>(N)                                     | 0                                  | 1       | 200832           |
|               | •  | sible Ground Stability Hazards   | AGNIT   |                                    | 4       | 265000           |
| Sour          | ard Potential:<br>rce:                           | Very Low<br>British Geological Survey, National Geoscience Information Service   | A8NE<br>(E)                                     | 0                                  | 1       | 265000<br>200832 |
|               | ential for Collaps<br>ard Potential:             | sible Ground Stability Hazards<br>No Hazard  | A8SE  | 0                                  | 1       | 265021           |
| Sour          | rce:   | British Geological Survey, National Geoscience Information Service   | (SE)  |                                    | ı       | 200490           |
|               | ard Potential:                                   | sible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service  | A16SE<br>(NE)                                   | 94                                 | 1       | 265000<br>201563 |
|               | •  | sible Ground Stability Hazards   |   |                                    |         |                  |
| Haza<br>Sour  | ard Potential:<br>rce:                           | No Hazard<br>British Geological Survey, National Geoscience Information Service  | A16SW<br>(NE)                                   | 110                                | 1       | 264796<br>201551 |
|               | ard Potential:                                   | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service  | A8SE<br>(SE)                                    | 0                                  | 1       | 265021<br>200490 |
| Pote          | ential for Compre<br>ard Potential:              | essible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service  | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |
|               |  | essible Ground Stability Hazards   | (14)  |                                    |         | 200032           |
| Pote          |  | No Hazard  | A8NE  | 0                                  | 1       | 265000           |
|               | ard Potential:<br>rce:                           | British Geological Survey, National Geoscience Information Service   | (E)   |                                    |         | 200832           |

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|   | Details   | (Compass Direction) | Distance<br>From Site | Contact | NGR              |
|---|---|---------------------|-----------------------|---------|------------------|
|   | Potential for Compressible Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: High Source: High British Geological Survey, National Geoscience Information Service  | A16SW<br>(NE)       | 110                   | 1       | 264796<br>201551 |
|   | Potential for Ground Dissolution Stability Hazards  | ()                  |                       |         | 20.00.           |
|   | Hazard Potential: No Hazard   | A7NE                | 0                     | 1       | 264269           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (N)                 |                       |         | 200832           |
|   | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard  | A8NE                | 0                     | 1       | 265000           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (E)                 |                       | •       | 200832           |
|   | Potential for Landslide Ground Stability Hazards  |                     |                       |         |                  |
| ļ | Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service   | A7NE<br>(N)         | 0                     | 1       | 264269<br>200832 |
|   | Potential for Landslide Ground Stability Hazards  |                     |                       |         |                  |
|   | Hazard Potential: Very Low  | A8NE                | 0                     | 1       | 265000           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (E)                 |                       |         | 200832           |
|   | Potential for Landslide Ground Stability Hazards Hazard Potential: Low  | A11SW               | 224                   | 1       | 264082           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (NW)                |                       |         | 201139           |
|   | Potential for Running Sand Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service   | A7NE<br>(N)         | 0                     | 1       | 264269<br>200832 |
|   | Potential for Running Sand Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: Low   | A8SE                | 0                     | 1       | 265021           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (SE)                |                       |         | 200490           |
|   | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low  | A8NE                | 0                     | 1       | 265000           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (E)                 |                       | '       | 200832           |
|   | Potential for Running Sand Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service   | A4NE<br>(SE)        | 55                    | 1       | 265198<br>200041 |
|   | Potential for Running Sand Ground Stability Hazards   | (02)                |                       |         | 200041           |
|   | Hazard Potential: No Hazard   | A11SW               | 224                   | 1       | 264082           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (NW)                |                       |         | 201139           |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   | (NIT)               | 0                     | 4       | 265222           |
|   | Hazard Potential: No Hazard Source: No Hazard British Geological Survey, National Geoscience Information Service                              | (NE)                | 0                     | 1       | 265222<br>201889 |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service  | A8NW                | 0                     | 1       | 264571<br>200797 |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   | (E)                 |                       |         | 200797           |
|   | Hazard Potential: Very Low  | A7NE                | 0                     | 1       | 264269           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (N)                 |                       |         | 200832           |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   | 4015                |                       | ,       | 005000           |
|   | Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service   | A8NE<br>(E)         | 0                     | 1       | 265000<br>200832 |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: No Hazard   | A16SE               | 109                   | 1       | 265000           |
|   | Source: British Geological Survey, National Geoscience Information Service  Potential for Shrinking or Swelling Clay Ground Stability Hazards | (NE)                |                       |         | 201820           |
|   | Hazard Potential: No Hazard   | A16SE               | 110                   | 1       | 264933           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (NE)                |                       | •       | 201823           |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   |                     |                       |         |                  |
|   | Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service  | A7NW<br>(W)         | 185                   | 1       | 263932<br>200865 |
|   | Potential for Shrinking or Swelling Clay Ground Stability Hazards   | (,                  |                       |         |                  |
|   | Hazard Potential: No Hazard   | A16NW               | 200                   | 1       | 264682           |
|   | Source: British Geological Survey, National Geoscience Information Service  | (N)                 |                       |         | 202113           |
|   | Radon Potential - Radon Affected Areas  Affected Area: The property is in a Lower probability radon area (less than 1% of hor                 | mes are A8NE        | 0                     | 1       | 26/000           |
|   |   |                     | . U                   | 1       | 264998           |

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# **Geological**

| Map<br>ID |                                | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--------------------------------|---|---|------------------------------------|---------|------------------|
|           | Radon Potential - R            | Radon Potential - Radon Affected Areas  |   |                                    |         |                  |
|           | Affected Area:<br>Source:      | The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |
|           | Radon Potential - R            | adon Protection Measures  |   |                                    |         |                  |
|           | Protection Measure:<br>Source: | No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service                                | A8NE<br>(E)                                     | 0                                  | 1       | 264998<br>200832 |
|           | Radon Potential - R            | Radon Potential - Radon Protection Measures   |   |                                    |         |                  |
|           | Protection Measure:<br>Source: | No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service                                | A7NE<br>(N)                                     | 0                                  | 1       | 264269<br>200832 |

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### **Industrial Land Use**

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Contemporary Trad   | le Directory Entries  |   |                                    |         |                  |
| 246       | Name:<br>Location:<br>Classification:<br><b>Status:</b><br>Positional Accuracy:                       | National Grid Co Plc<br>Llangyfelach, Swansea, SA5 7PD<br>Electricity Companies<br>Inactive<br>Automatically positioned to the address        | A4NW<br>(S)                                     | 725                                | -       | 264584<br>200006 |
|           | Points of Interest -  | Manufacturing and Production  |   |                                    |         |                  |
| 247       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | W J & H N Watkins Llangyfelach, Swansea, SA5 7PE Farming Livestock Farming Positioned to address or location                                  | A7SE<br>(S)                                     | 443                                | 7       | 264396<br>200216 |
|           | Points of Interest -  | Public Infrastructure   |   |                                    |         |                  |
| 248       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | Tip SA6 Infrastructure and Facilities Refuse Disposal Facilities Positioned to an adjacent address or location                                | A8SE<br>(SE)                                    | 446                                | 7       | 265047<br>200367 |
|           | Points of Interest -  | Public Infrastructure   |   |                                    |         |                  |
| 249       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | Tip SA6 Infrastructure and Facilities Refuse Disposal Facilities Positioned to an adjacent address or location                                | A8SE<br>(SE)                                    | 513                                | 7       | 264914<br>200257 |
|           | Points of Interest -  | Public Infrastructure   |   |                                    |         |                  |
| 250       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | Sludge Bed<br>SA5<br>Infrastructure and Facilities<br>Waste Storage, Processing and Disposal<br>Positioned to an adjacent address or location | A15NE<br>(N)                                    | 595                                | 7       | 264445<br>202215 |
|           | Points of Interest -  | Public Infrastructure   |   |                                    |         |                  |
| 250       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | Sludge Bed<br>SA5<br>Infrastructure and Facilities<br>Waste Storage, Processing and Disposal<br>Positioned to an adjacent address or location | A15NE<br>(N)                                    | 654                                | 7       | 264391<br>202185 |
|           | Points of Interest -  | Public Infrastructure   |   |                                    |         |                  |
| 251       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:                                | Sludge Bed<br>SA5<br>Infrastructure and Facilities<br>Waste Storage, Processing and Disposal<br>Positioned to an adjacent address or location | A15NE<br>(N)                                    | 722                                | 7       | 264316<br>202210 |
|           | Gas Pipelines   |   |   |                                    |         |                  |
| 252       | Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Felindre to Three Cocks<br>Owned By National Grid<br>1200<br>132<br>Active<br>107292.6<br>Feeder 28                                    | A12SE<br>(E)                                    | 0                                  | 8       | 264942<br>201070 |
|           | Gas Pipelines   |   |   |                                    |         |                  |
| 253       | Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28   | A12SE<br>(E)                                    | 0                                  | 8       | 264951<br>201074 |
|           | Gas Pipelines   |   |   |                                    |         |                  |
| 254       | Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Felindre to Cilfrew Owned By National Grid 1200 132  Active 17048.8 Feeder 28  | A12SE<br>(E)                                    | 0                                  | 8       | 264961<br>201078 |

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### **Sensitive Land Use**

| Map<br>ID | Details   |   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Ancient Woodland  |   |   |                                    |         |                  |
| 255       | Name:<br>Reference:<br>Area(m²):<br>Type:                     | Not Supplied<br>7060<br>16001.14<br>Ancient and Semi-Natural Woodland           | (NE)  | 0                                  | 2       | 265404<br>201393 |
| 256       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>891<br>63487.78<br>Restored Ancient Woodland Site               | A7NE<br>(S)                                     | 0                                  | 2       | 264307<br>200736 |
| 257       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>38034<br>9098.78<br>Plantation on Ancient Woodland              | A7NE<br>(SW)                                    | 0                                  | 2       | 264231<br>200817 |
| 258       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>50394<br>151288.84<br>Ancient Woodland Site of Unknown Category | A8NW<br>(E)                                     | 0                                  | 2       | 264685<br>200828 |
| 259       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>7241<br>63268.23<br>Restored Ancient Woodland Site              | (E)   | 118                                | 2       | 265347<br>200531 |
| 260       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied 7316 21495.34 Restored Ancient Woodland Site                       | A12NW<br>(NE)                                   | 129                                | 2       | 264855<br>201236 |
| 261       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>882<br>7755.99<br>Ancient and Semi-Natural Woodland             | (N)   | 207                                | 2       | 264759<br>202440 |
| 262       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>893<br>13199.98<br>Restored Ancient Woodland Site               | A11SE<br>(NE)                                   | 331                                | 2       | 264425<br>201157 |
| 263       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>892<br>8694.62<br>Restored Ancient Woodland Site                | A11SE<br>(N)                                    | 373                                | 2       | 264288<br>201127 |
| 264       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>880<br>5527.37<br>Ancient and Semi-Natural Woodland             | A16NW<br>(N)                                    | 463                                | 2       | 264626<br>201887 |
| 265       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>878<br>4775.36<br>Ancient and Semi-Natural Woodland             | A15SE<br>(N)                                    | 576                                | 2       | 264490<br>201703 |
| 266       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>823<br>23816.66<br>Ancient and Semi-Natural Woodland            | A2NE<br>(SW)                                    | 609                                | 2       | 263821<br>200009 |
| 267       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>824<br>11771.55<br>Ancient and Semi-Natural Woodland            | A6NW<br>(W)                                     | 666                                | 2       | 263402<br>200706 |
| 268       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>1547<br>14539.56<br>Restored Ancient Woodland Site              | A2NE<br>(SW)                                    | 688                                | 2       | 263856<br>199909 |

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### **Sensitive Land Use**

| Map<br>ID | Details   |   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 269       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>879<br>19270.88<br>Ancient and Semi-Natural Woodland  | A10NE<br>(NW)                                   | 727                                | 2       | 263752<br>201353 |
| 270       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>1544<br>10745.69<br>Ancient and Semi-Natural Woodland | A2SE<br>(S)                                     | 832                                | 2       | 263849<br>199758 |
| 271       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>850<br>7545.69<br>Ancient and Semi-Natural Woodland   | A6SW<br>(W)                                     | 871                                | 2       | 263216<br>200437 |
| 272       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>822<br>25579.56<br>Ancient and Semi-Natural Woodland  | A2NW<br>(SW)                                    | 883                                | 2       | 263411<br>199998 |
| 273       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>875<br>10841.26<br>Ancient and Semi-Natural Woodland  | A10NW<br>(NW)                                   | 945                                | 2       | 263321<br>201276 |
| 274       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>845<br>3001.65<br>Ancient and Semi-Natural Woodland   | A5NE<br>(W)                                     | 960                                | 2       | 263107<br>200740 |
| 275       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>849<br>8416.92<br>Ancient and Semi-Natural Woodland   | A9SE<br>(W)                                     | 962                                | 2       | 263136<br>200932 |
| 276       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>881<br>5855.63<br>Ancient and Semi-Natural Woodland   | A15NW<br>(N)                                    | 972                                | 2       | 264092<br>201981 |
| 277       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>883<br>5980.93<br>Ancient and Semi-Natural Woodland   | (N)   | 972                                | 2       | 264122<br>202749 |

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| Agency & Hydrological   | Version                  | Update Cycle          |
|---|--------------------------|-----------------------|
| Contaminated Land Register Entries and Notices                    |                          |                       |
| City and County of Swansea - Environmental Health Department      | January 2015             | Annual Rolling Update |
| Carmarthenshire County Council - Environmental Health Department  | October 2014             | Annual Rolling Update |
| Discharge Consents  |                          |                       |
| Environment Agency - Welsh Region                                 | August 2014              | Quarterly             |
| Natural Resources Wales   | August 2017              | Quarterly             |
| Enforcement and Prohibition Notices                               |                          |                       |
| Environment Agency - Welsh Region                                 | March 2013               | As notified           |
| Integrated Pollution Controls                                     |                          |                       |
| Environment Agency - Welsh Region                                 | October 2008             | Not Applicable        |
| Integrated Pollution Prevention And Control                       |                          |                       |
| Natural Resources Wales   | August 2017              | Quarterly             |
| Environment Agency - Welsh Region                                 | July 2017                | Quarterly             |
| Local Authority Integrated Pollution Prevention And Control       |                          |                       |
| Swansea Bay Port Health Authority                                 | April 2014               | Annually              |
| City and County of Swansea - Environmental Health Department      | June 2014                | Annual Rolling Update |
| Carmarthenshire County Council - Environmental Health Department  | March 2015               | Annual Rolling Update |
| Local Authority Pollution Prevention and Controls                 |                          | 5 .                   |
| Swansea Bay Port Health Authority                                 | April 2014               | Annually              |
| City and County of Swansea - Environmental Health Department      | June 2014                | Annual Rolling Update |
| Carmarthenshire County Council - Environmental Health Department  | March 2015               | Annual Rolling Update |
| Local Authority Pollution Prevention and Control Enforcements     |                          |                       |
| Swansea Bay Port Health Authority                                 | April 2014               | Annually              |
| City and County of Swansea - Environmental Health Department      | June 2014                | Annual Rolling Update |
| Carmarthenshire County Council - Environmental Health Department  | September 2013           | Annual Rolling Update |
| Nearest Surface Water Feature                                     |                          |                       |
| Ordnance Survey   | May 2017                 |                       |
| Pollution Incidents to Controlled Waters                          | -                        |                       |
| Environment Agency - Welsh Region                                 | December 1998            | Not Applicable        |
| Prosecutions Relating to Authorised Processes                     |                          | 11                    |
| Environment Agency - Welsh Region                                 | March 2013               | As notified           |
| Natural Resources Wales   | March 2013               | As notified           |
| Prosecutions Relating to Controlled Waters                        |                          |                       |
| Environment Agency - Welsh Region                                 | March 2013               | As notified           |
| Natural Resources Wales   | March 2013               | As notified           |
| Registered Radioactive Substances                                 |                          | 7.10.110.111.00       |
| Natural Resources Wales   | January 2015             | As notified           |
| Environment Agency - Welsh Region                                 | January 2015             | As notined            |
| River Quality   | Garradry 2010            |                       |
| Environment Agency - Head Office                                  | November 2001            | Not Applicable        |
|   | November 2001            | 1401 Αρρίισαδίο       |
| Substantiated Pollution Incident Register Natural Resources Wales | August 2018              | Quarterly             |
| Environment Agency Wales - South West Area                        | August 2018<br>July 2017 | Quarterly             |
|   | July 2017                | Quarterly             |
| Water Abstractions  | lub. 2047                | Out to the sile of    |
| Environment Agency - Welsh Region                                 | July 2017                | Quarterly             |
| Natural Resources Wales   | July 2017                | Quarterly             |
| Water Industry Act Referrals                                      |                          |                       |
| Natural Resources Wales   | August 2017              | Quarterly             |
| Environment Agency - Welsh Region                                 | July 2017                | Quarterly             |
| Groundwater Vulnerability   |                          |                       |
| Environment Agency - Head Office                                  | April 2015               | Not Applicable        |

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| Agency & Hydrological   | Version       | Update Cycle   |  |
|---|---------------|----------------|--|
| Drift Deposits  |               |                |  |
| Environment Agency - Head Office                                    | January 1999  | Not Applicable |  |
| Bedrock Aquifer Designations  |               |                |  |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |  |
| Superficial Aquifer Designations                                    |               |                |  |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |  |
| Source Protection Zones   |               |                |  |
| Natural Resources Wales   | November 2016 | As notified    |  |
| Extreme Flooding from Rivers or Sea without Defences                |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flooding from Rivers or Sea without Defences                        |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Areas Benefiting from Flood Defences                                |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flood Water Storage Areas   |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flood Defences  |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| OS Water Network Lines  |               |                |  |
| Ordnance Survey   | July 2017     | 6 Weekly       |  |
| Surface Water 1 in 30 year Flood Extent                             |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water 1 in 100 year Flood Extent                            |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water 1 in 1000 year Flood Extent                           |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water Suitability   |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| BGS Groundwater Flooding Susceptibility                             |               |                |  |
| British Geological Survey - National Geoscience Information Service | May 2013      | Annually       |  |

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| Waste  | Version                        | Update Cycle                              |
|--|--------------------------------|---|
| BGS Recorded Landfill Sites  |                                |   |
| British Geological Survey - National Geoscience Information Service  | June 1996                      | Not Applicable                            |
| Historical Landfill Sites  |                                |   |
| Natural Resources Wales  | May 2017                       | Quarterly                                 |
| Integrated Pollution Control Registered Waste Sites  |                                |   |
| Environment Agency - Welsh Region  | October 2008                   | Not Applicable                            |
| Licensed Waste Management Facilities (Landfill Boundaries)   |                                |   |
| Environment Agency Wales - South West Area   | May 2017                       | Quarterly                                 |
| Natural Resources Wales  | May 2017                       | Quarterly                                 |
| Licensed Waste Management Facilities (Locations)   |                                |   |
| Natural Resources Wales  | August 2017                    | Quarterly                                 |
| Environment Agency Wales - South West Area   | July 2017                      | Quarterly                                 |
| Local Authority Landfill Coverage  |                                | N . A . E . I .                           |
| Carmarthenshire County Council City and County of Swanson Environmental Health Department  | May 2000                       | Not Applicable                            |
| City and County of Swansea - Environmental Health Department   | May 2000                       | Not Applicable                            |
| Local Authority Recorded Landfill Sites  | Ma 0000                        | Not Applicable                            |
| Carmarthenshire County Council City and County of Swansea - Environmental Health Department  | May 2000                       | Not Applicable                            |
|  | May 2000                       | Not Applicable                            |
| Potentially Infilled Land (Non-Water) Landmark Information Group Limited   | December 1999                  | Not Applicable                            |
| ·  | December 1999                  | Not Applicable                            |
| Potentially Infilled Land (Water)  | December 1999                  | Not Applicable                            |
| Landmark Information Group Limited   | December 1999                  | Not Applicable                            |
| Registered Landfill Sites  | Manah 2002                     | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Registered Waste Transfer Sites  | Manuels 0000                   | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Registered Waste Treatment or Disposal Sites   | March 2002                     | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Hazardous Substances   | Version                        | Update Cycle                              |
| Control of Major Accident Hazards Sites (COMAH)  |                                |   |
| Health and Safety Executive  | September 2017                 | Bi-Annually                               |
| Explosive Sites  |                                |   |
| Health and Safety Executive  | March 2017                     | Bi-Annually                               |
| Notification of Installations Handling Hazardous Substances (NIHHS)  |                                |   |
| Health and Safety Executive  | November 2000                  | Not Applicable                            |
| Planning Hazardous Substance Enforcements  |                                |   |
| Carmarthenshire County Council - Area Planning Office (East Area)  | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Area Planning Office (South Area)   | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Environment Department (West Area)  | February 2016                  | Annual Rolling Updat                      |
| City and County of Swansea - Planning Department   | January 2016                   | Annual Rolling Updat                      |
| Planning Hazardous Substance Consents  | F                              |   |
|  | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Area Planning Office (East Area)  | · ·                            | Assertal Dell's and Line                  |
| Carmarthenshire County Council - Area Planning Office (East Area)  Carmarthenshire County Council - Area Planning Office (South Area)  Carmarthenshire County Council - Environment Department (West Area) | February 2016<br>February 2016 | Annual Rolling Updat Annual Rolling Updat |

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| Geological  | Version      | Update Cycle   |
|---|--------------|----------------|
| BGS 1:625,000 Solid Geology   |              |                |
| British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Estimated Soil Chemistry  |              |                |
| British Geological Survey - National Geoscience Information Service | October 2015 | As notified    |
| BGS Recorded Mineral Sites  |              |                |
| British Geological Survey - National Geoscience Information Service | April 2017   | Bi-Annually    |
| BGS Urban Soil Chemistry Averages                                   |              |                |
| British Geological Survey - National Geoscience Information Service | October 2015 | As notified    |
| CBSCB Compensation District   |              |                |
| Cheshire Brine Subsidence Compensation Board (CBSCB)                | August 2011  | Not Applicable |
| Coal Mining Affected Areas  |              |                |
| The Coal Authority - Property Searches                              | March 2014   | As notified    |
| Mining Instability  |              |                |
| Ove Arup & Partners   | October 2000 | 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 | June 2015    | Annually       |
| Potential for Compressible Ground Stability Hazards                 |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Ground Dissolution Stability Hazards                  |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Landslide Ground Stability Hazards                    |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Running Sand Ground Stability Hazards                 |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards   |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Radon Potential - Radon Affected Areas                              |              |                |
| British Geological Survey - National Geoscience Information Service | July 2011    | As notified    |
| Radon Potential - Radon Protection Measures                         |              |                |
| British Geological Survey - National Geoscience Information Service | July 2011    | As notified    |

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| Industrial Land Use  | Version           | Update Cycle   |
|--|-------------------|----------------|
| Contemporary Trade Directory Entries   |                   |                |
| Thomson Directories  | September 2017    | Quarterly      |
| Fuel Station Entries   |                   |                |
| Catalist Ltd - Experian  | August 2017       | Quarterly      |
| Gas Pipelines  |                   |                |
| National Grid  | July 2014         | Quarterly      |
| Points of Interest - Commercial Services   | 0 1 1 227         |                |
| PointX   | September 2017    | Quarterly      |
| Points of Interest - Education and Health  | Contombor 2017    | Quartarly      |
| PointX   | September 2017    | Quarterly      |
| Points of Interest - Manufacturing and Production                                    | Camba mah an 2047 | O a wt a wh .  |
| PointX   | September 2017    | Quarterly      |
| Points of Interest - Public Infrastructure   | 0 1 1 0047        | O constant     |
| PointX   | September 2017    | Quarterly      |
| Points of Interest - Recreational and Environmental                                  | 0                 | 2000           |
| PointX   | September 2017    | Quarterly      |
| Underground Electrical Cables  |                   | 5.4            |
| National Grid  | December 2015     | Bi-Annually    |
| Sensitive Land Use   | Version           | Update Cycl    |
| Ancient Woodland   |                   |                |
| Natural Resources Wales  | May 2017          | Bi-Annually    |
| Areas of Adopted Green Belt  |                   |                |
| City and County of Swansea   | May 2017          | As notified    |
| Areas of Outstanding Natural Beauty  |                   |                |
| Natural Resources Wales  | August 2017       | Bi-Annually    |
| Environmentally Sensitive Areas  |                   |                |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | January 2017      | Annually       |
| Forest Parks   |                   |                |
| Forestry Commission  | April 1997        | Not Applicable |
| Local Nature Reserves  |                   |                |
| Carmarthenshire County Council   | August 2017       | Bi-Annually    |
| City and County of Swansea   | August 2017       | Bi-Annually    |
| Marine Nature Reserves   |                   |                |
| Natural Resources Wales  | August 2017       | Bi-Annually    |
| National Nature Reserves   |                   |                |
| Natural Resources Wales  | August 2017       | Bi-Annually    |
| National Parks   |                   |                |
| Natural Resources Wales  | August 2017       | Annually       |
| Nitrate Vulnerable Zones   |                   |                |
| Natural Resources Wales  | June 2017         | Bi-Annually    |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | October 2005      |                |
| Ramsar Sites   |                   |                |
| Natural Resources Wales  | August 2017       | Bi-Annually    |
| Sites of Special Scientific Interest   |                   |                |
| Natural Resources Wales  | August 2017       | Bi-Annually    |
| Natural Necodifice Walco   |                   |                |
|  |                   |                |
| Special Areas of Conservation Natural Resources Wales                                | August 2017       | Bi-Annually    |
| Special Areas of Conservation  | August 2017       | Bi-Annually    |

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### **Data Suppliers**

A selection of organisations who provide data within this report

| Data Supplier                          | Data Supplier Logo   |
|--|--|
| Ordnance Survey                        | Map data   |
| Environment Agency                     | Environment<br>Agency  |
| Scottish Environment Protection Agency | SEPA   |
| The Coal Authority                     | The Coal<br>Authority  |
| British Geological Survey              | British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL       |
| Centre for Ecology and Hydrology       | Centre for Ecology & Hydrology  NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                | Cyfoeth Naturiol Naturiol Natural Resources Wules                    |
| Scottish Natural Heritage              | scottish<br>NATURAL<br>HERITAGE<br>단장소리                              |
| Natural England                        | NATURAL<br>ENGLAND   |
| Public Health England                  | Public Health<br>England   |
| Ove Arup                               | ARUP   |
| Peter Brett Associates                 | peterbrett   |



### **Useful Contacts**

| Contact | Name and Address  | Contact Details  |
|---------|---|--|
| 1       | British Geological Survey - Enquiry Service  British Geological Survey, Kingsley Dunham 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<br>Email: enquiries@naturalresourceswales.gov.uk  |
| 3       | Environment Agency - National Customer Contact<br>Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY                                   | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk   |
| 4       | Ordnance Survey  Adanac Drive, Southampton, Hampshire, SO16 0AS   | Telephone: 023 8079 2000<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk         |
| 5       | City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE                                    | Telephone: 01792 636000 extn 5651<br>Fax: 01792 635719   |
| 6       | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG   | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com       |
| 7       | PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY   | Website: www.pointx.co.uk  |
| 8       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9966<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk        |
| -       | Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ           | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>Website: www.ukradon.org                    |
| -       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk |

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

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### Geology 1:50,000 Maps Legends

#### **Artificial Ground and Landslip**

| Map<br>Colour  | Lex Code | Rock Name                        | Rock Type                       | Min and Max Age        |
|----------------|----------|----------------------------------|---------------------------------|------------------------|
|                | WMGR     | Infilled Ground                  | Artificial Deposit              | Cenozoic -<br>Cenozoic |
| $\overline{Z}$ | MGR      | Made Ground (Undivided)          | Artificial Deposit              | Holocene -<br>Holocene |
|                | WGR      | Worked Ground<br>(Undivided)     | Void                            | Holocene -<br>Holocene |
|                | LSGR     | Landscaped Ground<br>(Undivided) | Artificially Modified<br>Ground | Holocene -<br>Holocene |

| c | Map<br>Colour | Lex Code | Rock Name     | Rock Type | Min and Max Age |
|---|---------------|----------|---------------|-----------|-----------------|
|   |               |          | Faults        |           |                 |
|   |               |          | Rock Segments |           |                 |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age            |
|---------------|----------|---|---|----------------------------|
|               | ALV      | Alluvium  | Clay, Silt, Sand<br>and Gravel                  | Flandrian -<br>Flandrian   |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | TILLD    | Till, Devensian                                     | Diamicton                                       | Devensian -<br>Devensian   |
|               | HMGDD    | Hummocky (Moundy)<br>Glacial Deposits,<br>Devensian | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | GFSDD    | Glaciofluvial Sheet<br>Deposits, Devensian          | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | GFICD    | Glaciofluvial Ice Contact<br>Deposits, Devensian    | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quatemary -<br>Quaternary  |
|               | RTDU     | River Terrace Deposits (Undifferentiated)           | Sand and Gravel                                 | Quaternary -<br>Quaternary |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                               | Min and Max Age                  |
|---------------|----------|---------------------|---|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                               | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | GDB      | Grovesend Formation | Sandstone                               | Westphalian D -<br>Westphalian D |

# **Envirocheck**®

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#### Geology 1:50,000 Maps

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

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

#### Geology 1:50,000 Maps Coverage

Map ID: Map ID: Map Sheet No: Map Name: Ammanford 1977 Map Date: Map Date: Superficial Geology Available Artificial Geology: Not Supplied Landslip: Available Landslin: Not Supplied

Map ID:
Map Sheet No:
Map Name:
Map Date:
Bedrock Geology:
Superficial Geology:
Artificial Geology:
Faults:
Landslip:
Rock Segments:

Swansea

Available

Available

Available

Not Supplied

Not Supplied

2011

Geology 1:50,000 Maps - Slice A



#### Order Details:

 Order Number:
 142844199\_1\_1

 Customer Reference:
 60542910

 National Grid Reference:
 264270, 200830

 Slice:
 A

 Site Area (Ha):
 32.39

 Search Buffer (m):
 1000

#### Site Details:

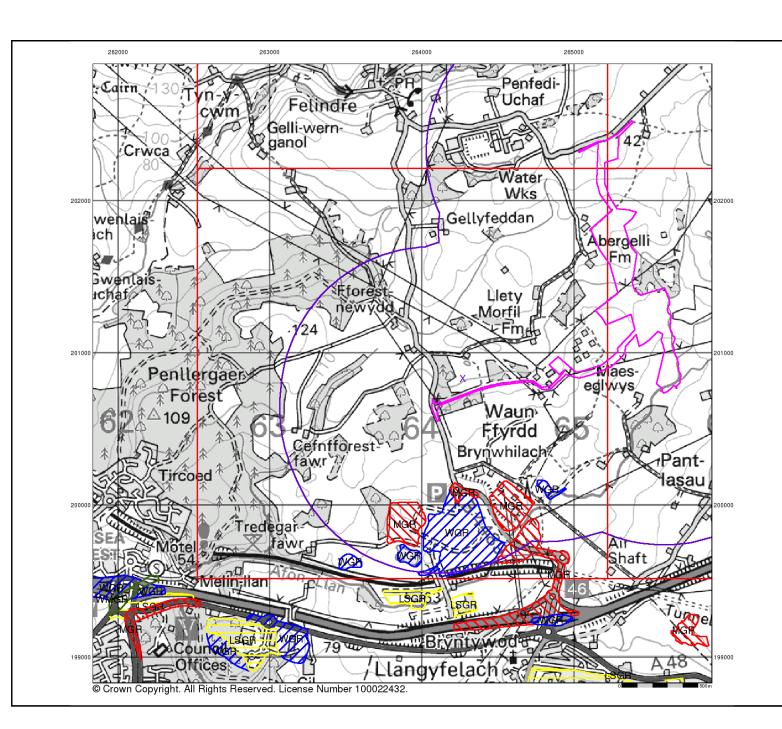
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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

v15.0 13-Oct-2017

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#### **Artificial Ground and Landslip**

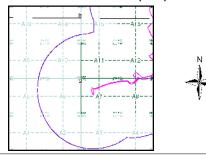
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions 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
- 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.
- Mass movement (landslip) deposits on BGS geological maps are primarily supprificial deposits that have proved down slope under growth to form

superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### Artificial Ground and Landslip Map - Slice A



### Order Details:

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

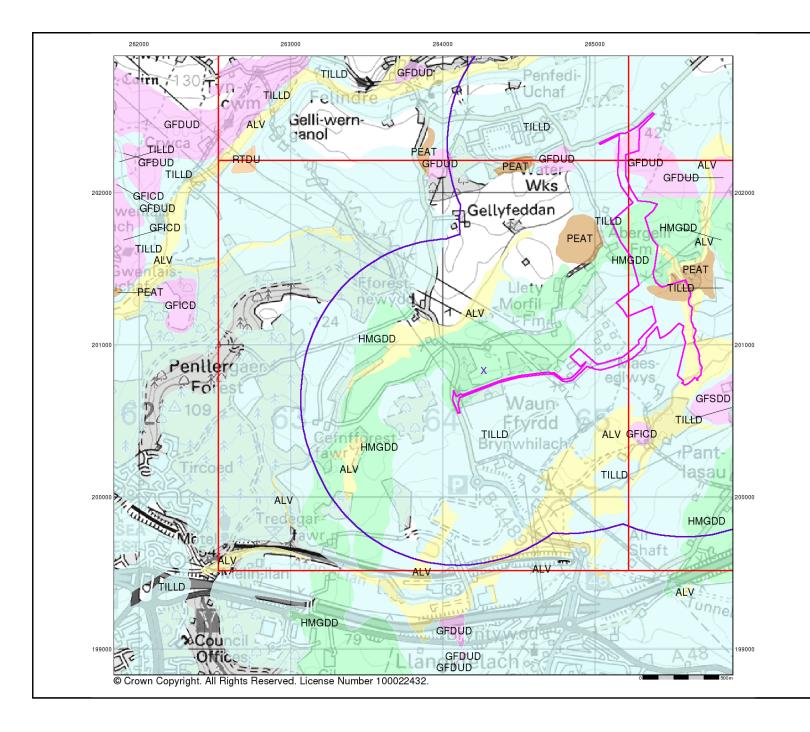
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



rel: 0844 844 9952 rax: 0844 844 9951 Veb: www.envirocheck.c

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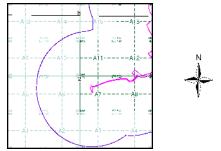
#### **Superficial Geology**

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

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

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

#### Superficial Geology Map - Slice A



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

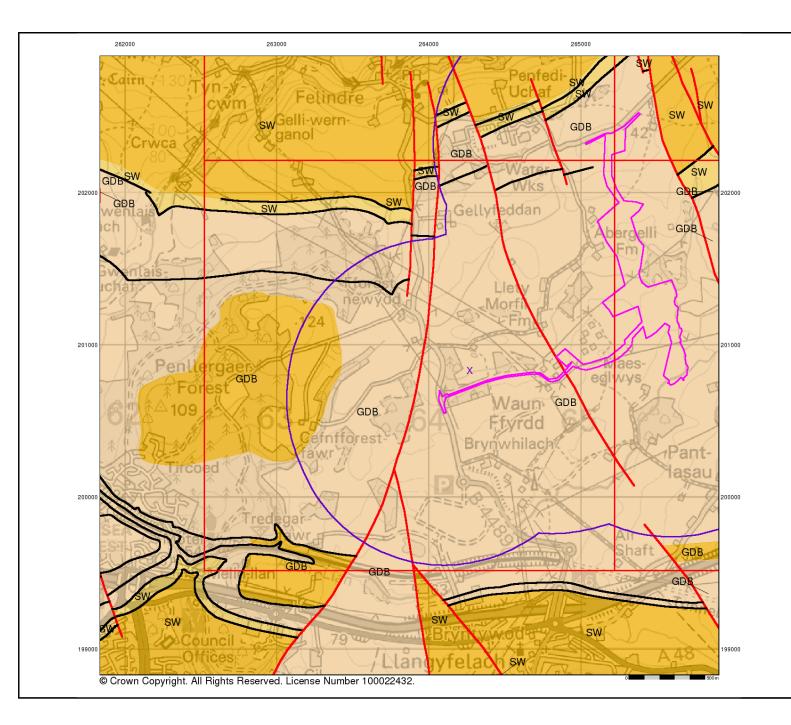
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

: 0844 844 9952 c 0844 844 9951 b: www.envirocheck.co

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Page 3 of 5



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#### **Bedrock and Faults**

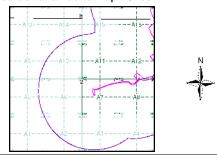
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

#### Bedrock and Faults Map - Slice A



#### **Order Details:**

Order Number: Customer Reference: 142844199\_1\_1 60542910 National Grid Reference: 264270, 200830 A 32.39 Site Area (Ha): Search Buffer (m): 1000

Site Details:

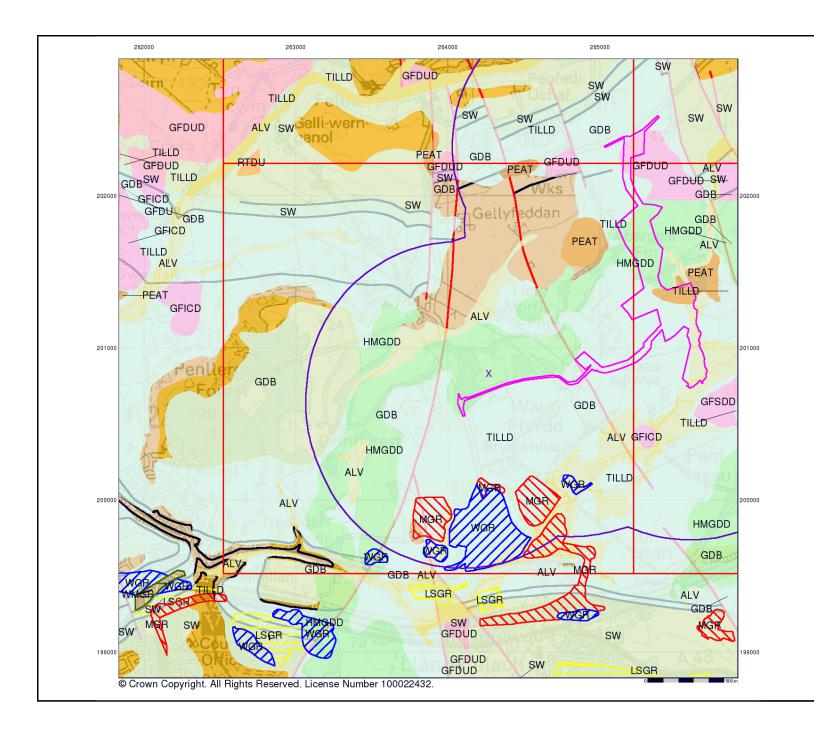
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Combined Surface Geology**

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

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

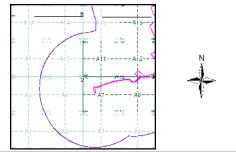
#### **Additional Information**

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

#### Contact

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

#### Combined Geology Map - Slice A



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 1000

#### Site Details:

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



iel: 0844 844 9952 ax: 0844 844 9951 Veb: www.envirocheck.

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# **Historical Mapping Legends**

#### Gravel Pit Other Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Bench Mark Site of Antiquities Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Raised Road Sunken Road Railway over Road over Railway Ri∨er Railway over Level Crossing Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Rural District Boundary RD. Bdy.

····· Civil Parish Boundary

**Ordnance Survey County Series 1:10,560** 

#### Ordnance Survey Plan 1:10,000

| Exemp             | Chalk Pit, Clay Pit or Quarry        | 000000                  | Gravel Pit                         |
|-------------------|--------------------------------------|-------------------------|------------------------------------|
|                   | Sand Pit                             |                         | Disused Pit or Quarry              |
| (0000000)         | Refuse or Slag Heap                  |                         | Lake, Loch<br>or Pond              |
|                   | Dunes                                |                         | Boulders                           |
| <b>*</b> * * /    | Coniferous<br>Trees                  | 600                     | Non-Coniferous<br>Trees            |
| <b>ф</b>          | Orchard Ω n _                        | Scrub                   | ∖Y₁₁ Coppice                       |
| ਜ ਜ<br>ਜ          | Bracken willing                      | Heath                   | , , , , , , Rough<br>Grassland     |
| <u> </u>          | Marsh wY///                          | Reeds                   | 스크스 Saltings                       |
|                   | Direct                               | tion of Flow of         | f Water                            |
|                   | Building                             | 1/                      | Shingle                            |
|                   | 4                                    | <i>#</i>                |                                    |
|                   | Glasshouse                           |                         | Sand                               |
| 25.25             | Olassiiouse                          | Pylon                   |                                    |
|                   |                                      | - Fyloli                | Electricity                        |
| <b></b>           | Sloping Masonry                      |                         | Transmission                       |
| LILLEI            | 5.5pg55)                             | Pole                    | Line                               |
|                   |                                      |                         | _                                  |
|                   |                                      |                         |                                    |
| Cutting           | **************                       |                         |                                    |
| "                 |                                      |                         | " Multiple Track                   |
|                   | ////                                 | \\                      | ⊨ Standard Gauge                   |
| Road ' '<br>Under | ''∏''' Road // Leve<br>Over Cross    | el \\ Foot<br>ing Bridg | 3                                  |
|                   |                                      |                         | Siding, Tramway<br>or Mineral Line |
|                   |                                      |                         | → Narrow Gauge                     |
|                   | Geographical Co                      | unty                    |                                    |
|                   | — — Administrative Co                |                         | Borough                            |
|                   | Municipal Boroug Burgh or District   |                         | tural District,                    |
|                   | Borough, Burgh of Shown only when no |                         |                                    |
|                   | Civil Parish<br>Shown alternately w  | hen coincidence         | of boundaries occurs               |
| BP, BS            | Boundary Post or Stone               | Pol Sta                 | Police Station                     |
| Ch                | Church                               | PO                      | Post Office                        |
| сн                | Club House                           | PC                      | Public Convenience                 |
| F E Sta           | Fire Engine Station                  | PH                      | Public House                       |
| FB<br>Fn          | Foot Bridge                          | SB<br>Spr               | Signal Box                         |
| GP                | Fountain<br>Guide Post               | Spr<br>TCB              | Spring<br>Telephone Call Box       |
| MP                | Mile Post                            | TCP                     | Telephone Call Post                |
|                   |                                      |                         |                                    |

#### 1:10,000 Raster Mapping

|                           | Gravel Pit  |                                       | Refuse tip<br>or slag heap  |
|---------------------------|---|---------------------------------------|---|
|                           | Rock  | 3 3 3                                 | Rock<br>(scattered)   |
|                           | Boulders  |                                       | Boulders<br>(scattered)   |
|                           | Shingle   | Mud                                   | Mud   |
| Sand                      | Sand  |                                       | Sand Pit  |
| mmi                       | Slopes  |                                       | Top of cliff  |
|                           | General detail  |                                       | Underground<br>detail   |
|                           | - Overhead detail   |                                       | Narrow gauge railway  |
|                           | Multi-track<br>railway  |                                       | Single track<br>railway   |
|                           | County boundary<br>(England only)   | • • • • • •                           | Civil, parish or community boundary   |
|                           | District, Unitary,<br>Metropolitan,<br>London Borough<br>boundary   |                                       | Constituency<br>boundary  |
| ۵ <sup>0</sup>            | Area of wooded vegetation   | ۵ <sup>۵</sup>                        | Non-coniferous<br>trees   |
| ۵<br>۵                    | Non-coniferous<br>trees (scattered)   | **                                    | Coniferous<br>trees   |
| <b>*</b>                  | Coniferous<br>trees (scattered)   | Ö̈                                    | Positioned<br>tree  |
| ф ф<br>ф ф                | Orchard   | * *                                   | Coppice or Osiers   |
| ωTi,                      | Rough<br>Grassland  | www.                                  | Heath   |
| On_                       | Scrub   | <u>→\\</u> /\r<br>\\\                 | Marsh, Salt<br>Marsh or Reeds   |
| recovered the second      |   |                                       |   |
| 6                         | Water feature   | <b>←</b>                              | Flow arrows   |
| MHW(S)                    | Water feature  Mean high water (springs)  | MLW(S)                                | Flow arrows  Mean low water (springs)   |
| MHW(S)                    | Mean high   | MLW(S)                                | Mean low  |
| MHW(S)  ← ← ← BM 123.45 m | Mean high water (springs) Telephone line  | ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← | Mean low<br>water (springs)<br>Electricity<br>transmission line   |
| <b>-•</b> •-              | Mean high water (springs)  Telephone line (where shown)  Bench mark   | <b></b>                               | Mean low<br>water (springs)<br>Electricity<br>transmission line<br>(with poles)<br>Triangulation                                  |
| <b>-•</b> •-              | Mean high water (springs)  Telephone line (where shown)  Bench mark (where shown)  Point feature (e.g. Guide Post | <b>→ - →</b> -                        | Mean low<br>water (springs)<br>Electricity<br>transmission line<br>(with poles)<br>Triangulation<br>station<br>Pylon, flare stack |

Building

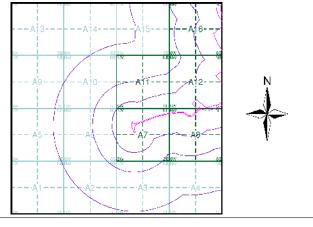
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#### **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date        | Pg |
|----------------------|----------|-------------|----|
| Glamorganshire       | 1:10,560 | 1883 - 1884 | 3  |
| Glamorganshire       | 1:10,560 | 1900        | 4  |
| Glamorganshire       | 1:10,560 | 1921        | 5  |
| Glamorganshire       | 1:10,560 | 1935 - 1936 | 6  |
| Glamorganshire       | 1:10,560 | 1938 - 1951 | 7  |
| Glamorganshire       | 1:10,560 | 1951 - 1953 | 8  |
| Ordnance Survey Plan | 1:10,000 | 1964        | 9  |
| Ordnance Survey Plan | 1:10,000 | 1968        | 10 |
| Ordnance Survey Plan | 1:10,000 | 1976        | 11 |
| Swansea              | 1:10,000 | 1976        | 12 |
| Ordnance Survey Plan | 1:10,000 | 1980 - 1982 | 13 |
| Ordnance Survey Plan | 1:10,000 | 1989        | 14 |
| Ordnance Survey Plan | 1:10,000 | 1991 - 1995 | 15 |
| 10K Raster Mapping   | 1:10,000 | 1999        | 16 |
| 10K Raster Mapping   | 1:10,000 | 2006        | 17 |
| VectorMap Local      | 1:10,000 | 2017        | 18 |

#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 18

# **Russian Military Mapping Legends**

#### 1:5,000 and 1:10,000 mapping

#### a. Not drawn to scale b. Drawn to scale Military and Government and Industrial Buildings Administrative Buildings Military and Subway Entrance Communication Areas Prominent Fireproof Fireproof Building Non-fireproof Building Non-fireproof Building (non-dwelling) Factory, mill, Factory, mill, and flour mill. and flour mill. with chimneys without chimneys $\Gamma \mathcal{C}$ Hydroelectric Power Station. drawn to scale Power Station Radio Station, Telephone Station, drawn to scale Abandoned Open-pit Salt Mine Open-pit Mine **b** or Quarry аш нефть а нефть Oil Deposit or Well Oil Seepage a 🛦 (+7.0) omean скл. гор. Tailings Pile Fuel Storage Tanks Natural Gas Tank +1.2 🏡 67.8 **☆** + 2.0 Burial Triangulation Point Bench Mark Drill Hole Mound on Burial Mound cm. Tunnel тун. nsamo Double-track (Culvert) Single-track Railroad Railroad and Station Building ель береза ₹ 4 20 0.25 сосна € 24 0.30 Mixed Forest Coniferous Forest **Deciduous Forest**

Йй(Y)

K K (K)

Лл(L)

M m (m)

H H (N)

O o (o)

C c (s)

T T (T)

**y** y (u)

Фф(F)

X x (KH)

Цц(тѕ)

B B (V)

Γr (G)

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E e (E)

Ë ë (YO)

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ъ (-)

ы (Y)

Ээ(E)

Щ щ (SHCH)

Юю (YU or IU) A (YA or IA)

Heavy (Index)

Contour Line

Contour Line

and Value

Deciduous

#### 1:25,000 mapping

| a. Not draw                    | yn to scale b. Drawn to sca   | ale              |  | a. Not drav            | n to s       | cale b. Drawn to sca                          | lle  |  |
|--------------------------------|---|------------------|--|------------------------|--------------|---|--|--|
|                                | Sovernment and<br>Administrative Buildings                              |                  | Military and<br>Industrial Buildings                           | 4                      |              | vernment and<br>ninistrative Buildings        |  | flilitary and<br>ndustrial Buildings                         |
|                                | filitary and<br>Communication Areas                                     |                  | Subway Entrance  | 1                      |              | aryand<br>nmunication Areas                   | M S  | Subway Entrance  |
| a<br>b                         | Fireproof Building  |                  | Prominent Fireproof<br>Building                                |                        |              | ly Demolished<br>dings                        | 3883 C   | emolished Buildings  |
| a<br>b                         | Non-fireproof Building  | □ a<br>□ b       | Non-fireproof Building (non-dwelling)                          |                        | Fire         | t-Up Area with<br>proof Buildings<br>dominant | <i>/////////////////////////////////////</i>   | Built-Up Area with<br>Ion-Fireproof Buildings<br>Predominant |
|                                | Factory, mill, and flour mill,  |                  | Factory, mill, and flour mill,                                 | a b                    | Indi<br>Buil | vidual Fireproof<br>ding                      | STATE OF THE PARTY | Prominent Industrial<br>Building                             |
| a l                            | with chimneys   | a l              | without chimneys   |                        |              | vidual Dwelling,<br>proof                     |  | Ruins ofan Individual<br>Owelling                            |
| - L - 20                       | Power Station,<br>drawn to scale  | Section 2        | 9C Hydroelectric<br>Power Station                              | <b>i</b> <sup>®</sup>  |              | ु бум.<br>Гостоння М⊞                         | <b>□</b> ckun  |  |
| 5                              | Radio Station,<br>drawn to scale  |                  | Telephone Station,<br>drawn to scale                           | Factory<br>Mill Chim   | ney          | Factory or Mill<br>with Chimney               | Factory or M<br>without Chim   |  |
|                                | 0 la d d  |                  |  | 🗴 кам.                 | уг.          | *   |  | ο.4. Δ.  |
| & E3                           | Abandoned Open-pit Mine or Quarry                                       | a III            | ov. Open-pit Salt Mine   | Operatii<br>Shaft or N |              | Non-Operating<br>Shaft or Mine                | Salt Mine  | Tailings Pile  |
| a b 🙃                          | a∎  | нефть            | а 🤊 нефть  | 00 -                   | 1.7          | CA. nec. kam.                                 | ₽  | •  |
| Contraction of the second      | 9-1,5   | Dр               | 11111111111111111111111111111111111111                         | Pit                    |              | Stone Quarry                                  | Gas Pump of<br>Service Stati   |  |
| Pit                            | Oil Depos   | sit or Well      | Oil Seepage  |                        |              | $\checkmark$                                  |  | - Natarai Cas Tarik  |
| b a                            | Δ   | ě ě _            | •                        | 8                      |              |   | ×  | <b>■</b> 6.mp.   |
| yphilite.                      | omsan (50 ckn.  | -                | <b>⊕ газг</b> .  | Oil or Nat<br>Gas Deri |              | Small Hydroelectric<br>Power Station          | Power Statio   | on Transformer<br>Station                                    |
| Tailings F                     | Pile Fuel Store   | ige Tanks        | Natural Gas Tank   | · 6                    | )            |   | <b>∆</b> 95.7  | ∆ 92.6   |
| ⊗ 125.4<br>125.1               | ⊙ бу <b>р</b> .   | <b>☆</b> +2.0    | +1.2 🏡 67.8  | Cemete                 |              | Burial Mound                                  | Triangulation F  |  |
| Bench Ma                       | ark Drill Hole  | Burial<br>Mound  | Triangulation Point<br>on Burial Mound                         |                        | •            | (height in metres)                            | on Burial Mou  | und Point  |
|                                |   |                  |  | <b>□ 52.</b> /         |              | <b>9</b> 7/./                                 | ×  | I  |
| Fill 🕵                         | раз. Cut  | Small            | ст. Tunnel<br>тун. Pipe  | Bench M                | ark          | Bench Mark<br>(monumented)                    | Telegraph<br>Office  | Telephone<br>Station   |
| Sing                           | gle-track Railroad  | Bridge<br>Railro | Double-track ( <sup>Culvert</sup> )<br>ad and Station Building | 4                      |              | \$  | <b>†</b>   | <b>\$</b>  |
| сосна                          | ₹ <sup>24</sup> / <sub>0.30</sub>                                       | 4 12 0 20        | ель<br>береза ₹ \$ 20<br>0.25                                  | Radio Sta              | tion         | Radio Tower                                   | Airfield or<br>Seaplane Ba   | Landing Strip<br>ise   |
| Conifero                       | ous Forest Deciduo  | us Forest        | Mixed Forest   | Cut                    | Fill         | Km Post Plantings                             |  | Width of Road  |
|                                | 6 6 6   |                  | a a  | Tel                    | egraph       | n/Telephone Lines                             | -  | Steep Grade  |
| Lawns                          | Citrus Orchard  | Wet Gr           | Scattered  |                        | Main         | Highway                                       | Highway under<br>Construction  | Improved Dirt Road<br>(former truck road)                    |
|                                |   |                  | Vegetation   | Small<br>Bridge        | cm.          | Pipe<br>(Culvert) Tunnel                      |  | nantled Railroad   |
| 243,8<br>186,0                 | Values for prominent e<br>Numbers for spot elev-<br>contour lines, etc. |                  | h soundings,   | 1                      |              | ack Railroad with<br>Class Station            |  | Under Construction   |
| 0,2                            | Velocity of the current,  | width of rive    | r bed, depth of river  |                        |              | ashe.   |  |  |
| 180 180<br>12 12               | Fractional terms: lengt<br>fords and condition of t                     | h and capac      | ity of bridges; depth of<br>om; height of forest and           | Shor                   |              | River or Ditch with                           | of aure  | Water Gauge  |
|                                | the diameter of trees   |                  |  | Embanki                |              | Embankment                                    |  | Water Level Mark   |
| Russia                         | n Alphabet (Forreferen  | ce and phone     | etic interpretation of map text)                               | ⊙ K. 125,0 (2          | coa.)        | ■ edxp.                                       | 156,2 📍 K.A.   | 20   |
| <b>Аа</b> (А)<br><b>Бб</b> (В) |   | Пп(P)<br>Рр(R)   | Чч (СН)<br>Шш (SH)   | Well                   |              | Water Reservoir or<br>Rain Water Pit          |  | Isobath with value   |

o 347.1

Spot Elevation

Value

Half Contour

Line

#### **Key to Numbers on Mapping**

#### SS69NW\_Swansea

| No. | Description           |
|-----|-----------------------|
| 23  | Factory (Metal Goods) |

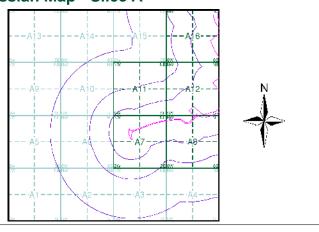
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#### **Historical Mapping & Photography included:**

|          |  | _  |
|----------|--|--|
| Scale    | Date   | Pg   |
| 1:10,560 | 1883 - 1884  | 3  |
| 1:10,560 | 1900   | 4  |
| 1:10,560 | 1921   | 5  |
| 1:10,560 | 1935 - 1936  | 6  |
| 1:10,560 | 1938 - 1951  | 7  |
| 1:10,560 | 1951 - 1953  | 8  |
| 1:10,000 | 1964   | 9  |
| 1:10,000 | 1968   | 10   |
| 1:10,000 | 1976   | 11   |
| 1:10,000 | 1976   | 12   |
| 1:10,000 | 1980 - 1982  | 13   |
| 1:10,000 | 1989   | 14   |
| 1:10,000 | 1991 - 1995  | 15   |
| 1:10,000 | 1999   | 16   |
| 1:10,000 | 2006   | 17   |
| 1:10,000 | 2017   | 18   |
|          | 1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 | 1:10,560 1883 - 1884 1:10,560 1900 1:10,560 1921 1:10,560 1935 - 1936 1:10,560 1938 - 1951 1:10,560 1951 - 1953 1:10,000 1964 1:10,000 1976 1:10,000 1976 1:10,000 1980 - 1982 1:10,000 1989 1:10,000 1999 1:10,000 1999 1:10,000 2006 |

#### Russian Map - Slice A



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

32.39 Site Area (Ha): Search Buffer (m): 1000

#### **Site Details**

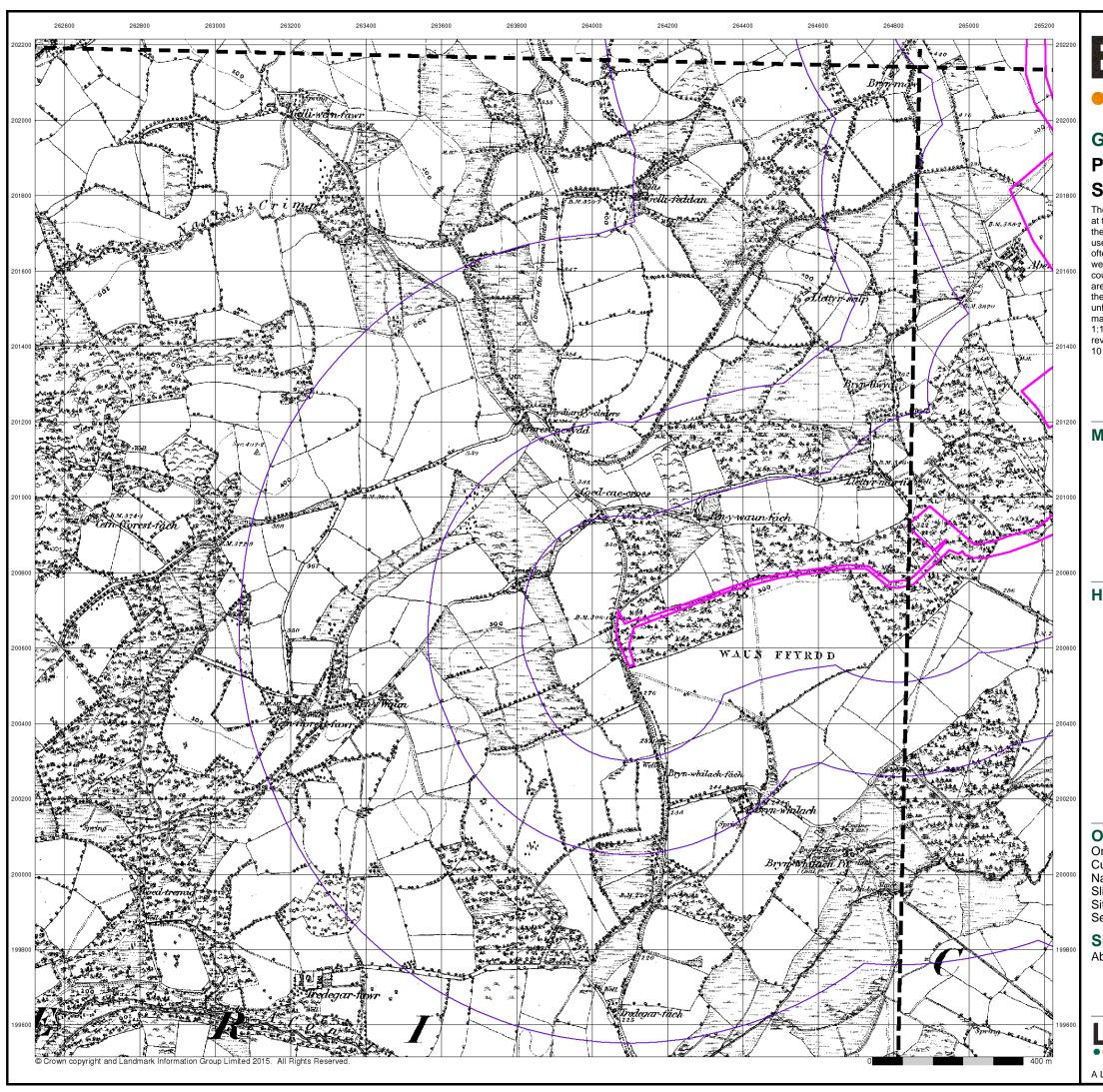
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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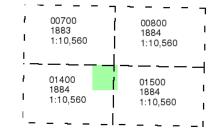
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## Glamorganshire

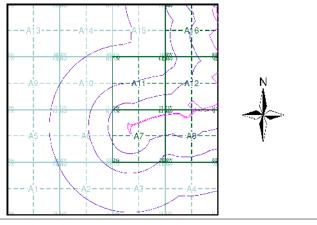
## Published 1883 - 1884 Source map scale - 1:10,560

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m):

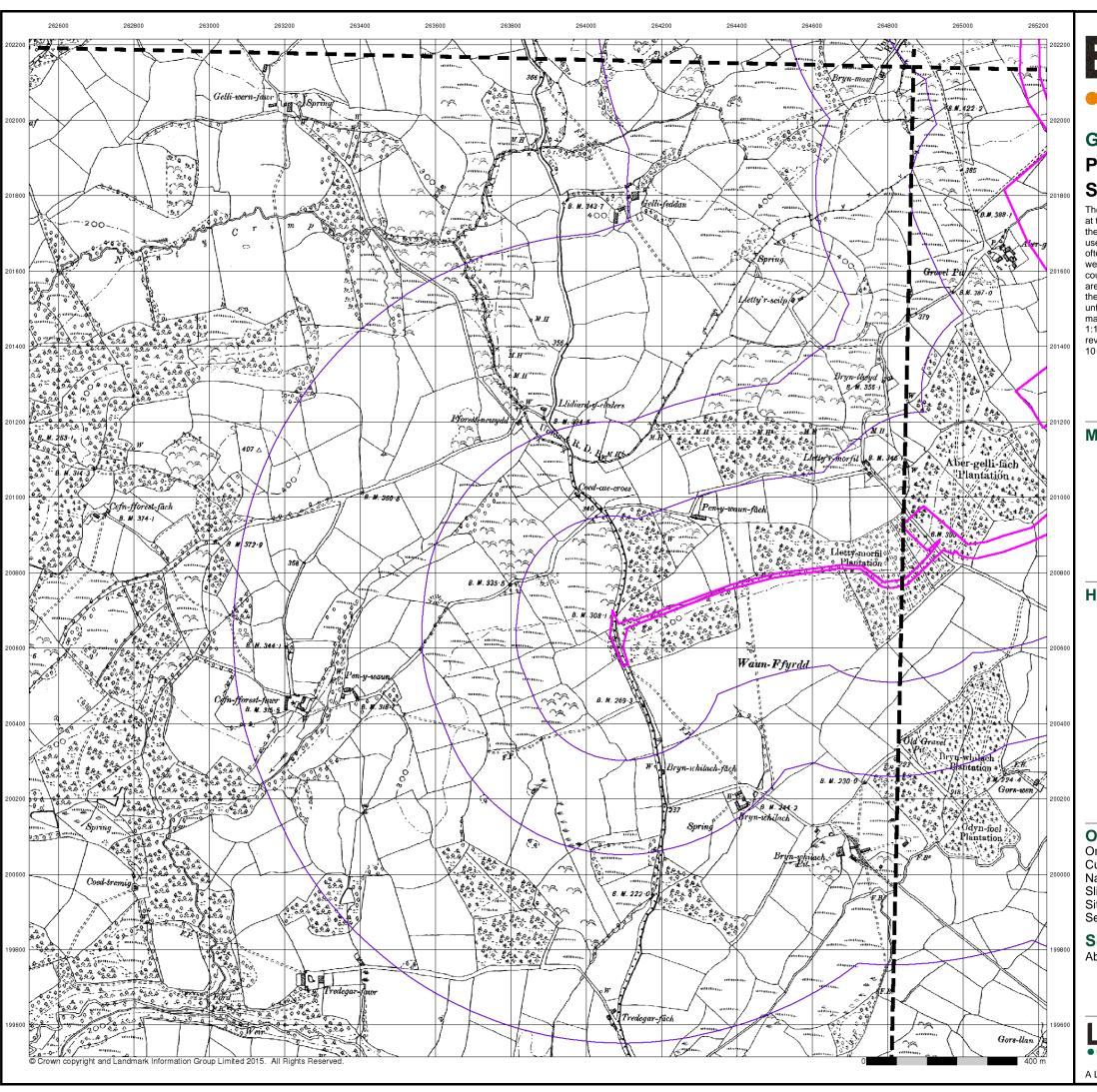
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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# Glamorganshire

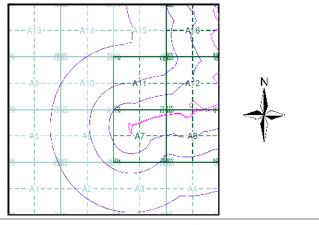
## Published 1900 Source map scale - 1:10,560

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

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

|       |                  | 7 ~ 7            |
|-------|------------------|------------------|
| ł     | 007SE            | 008SW            |
| - 1   | 1900<br>1:10,560 | 1900<br>1:10,560 |
| . ! . |                  | <u>i</u> .       |
|       |                  | <b></b>          |
| - 1   | 014NE            | 015NW            |
| - 1   | 1900<br>1:10,560 | 1900             |
|       | 1.10,500         | 1:10,560         |
| ١_    |                  | Τ .              |

#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

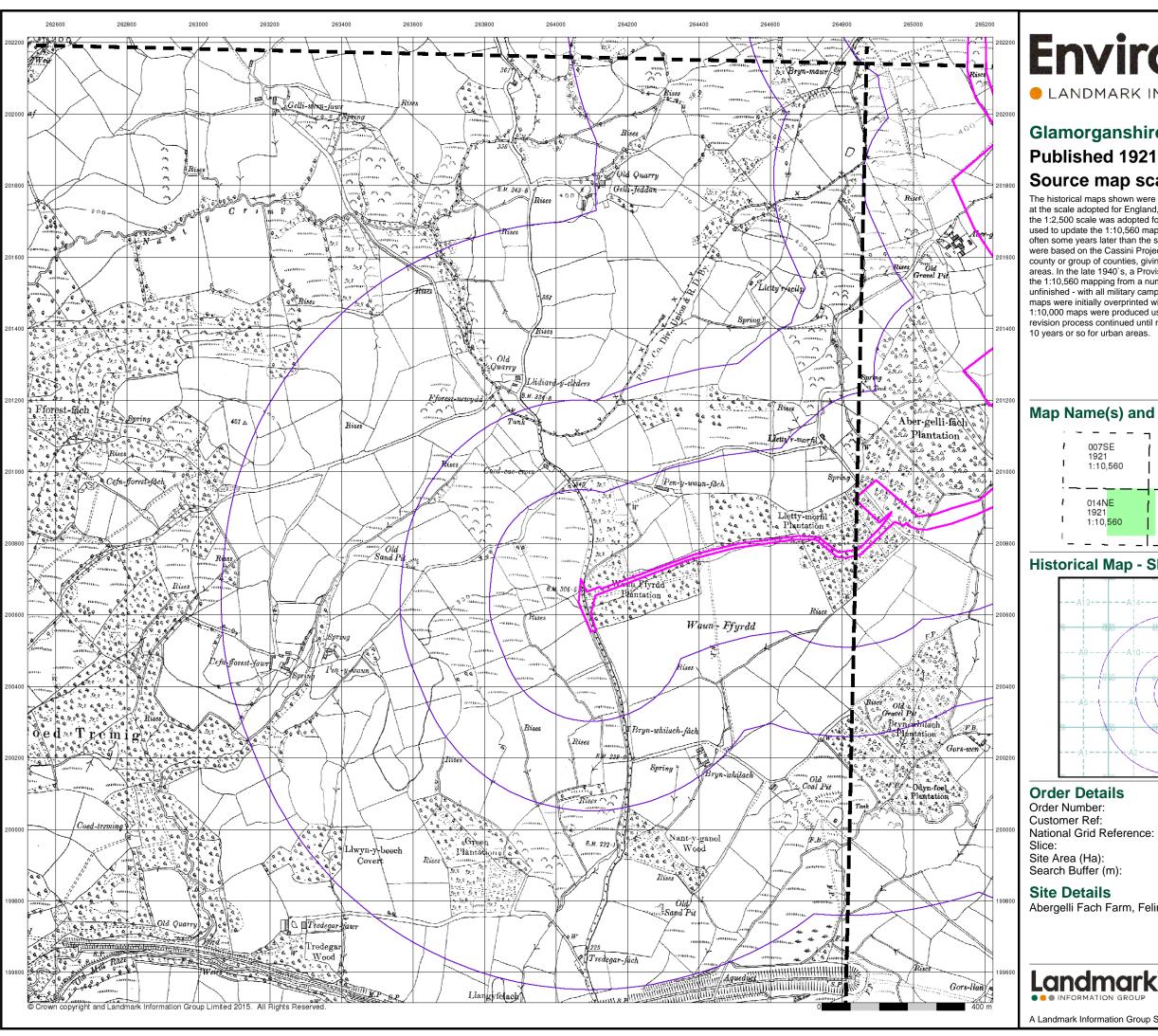
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 18



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# Glamorganshire

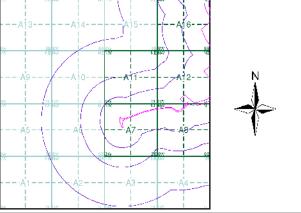
# Source map scale - 1:10,560

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

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

|     |               | 7 ~ 7            |
|-----|---------------|------------------|
| - 1 | 007SE<br>1921 | 008SW            |
| I   | 1:10,560      | 1921<br>1:10,560 |
| 1   |               | i i              |
|     |               |                  |
| 1   | 014NE<br>1921 | 015NW            |
| - 1 | 1:10,560      | 1921             |
|     | 1.10,500      | 1:10,560         |
| - 1 |               | Τ .              |

#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m): 1000

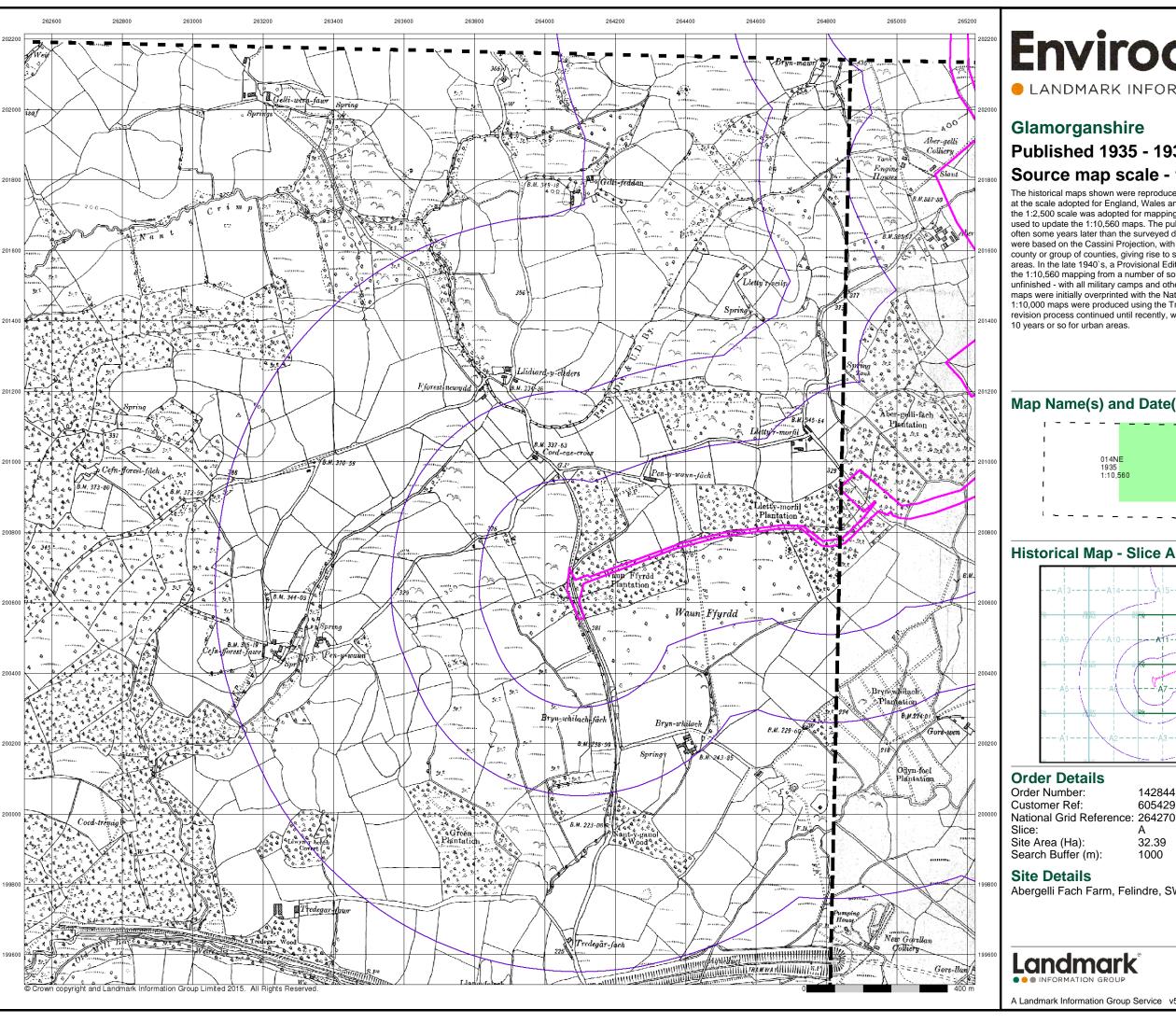
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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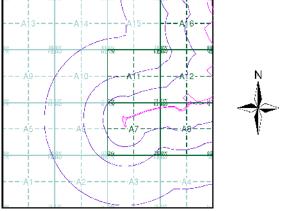
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## Published 1935 - 1936 Source map scale - 1:10,560

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

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





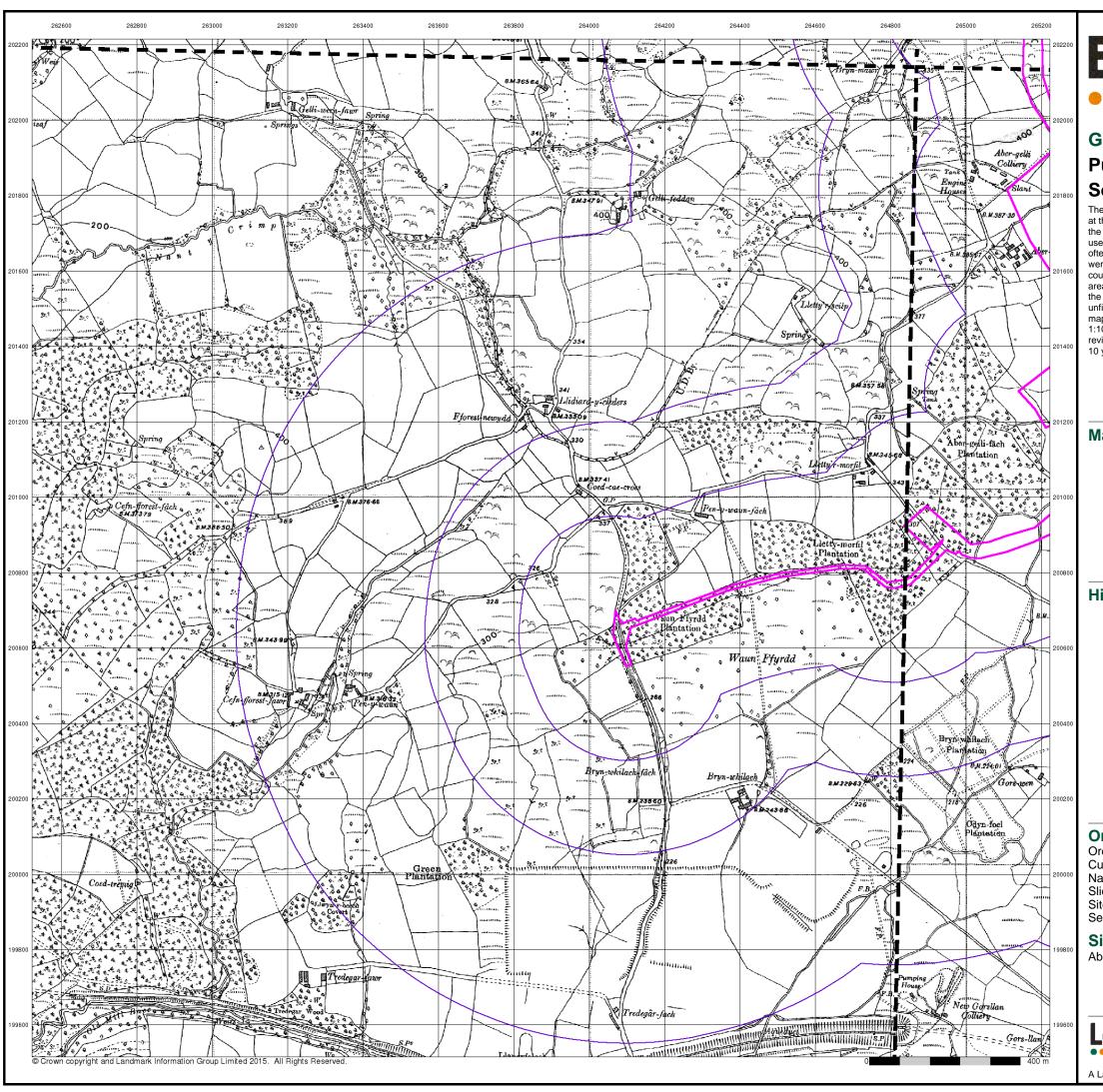
142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

32.39 1000

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## Glamorganshire

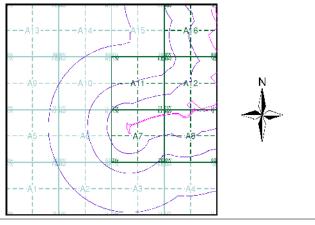
## **Published 1938 - 1951** Source map scale - 1:10,560

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

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

|     |                  | 7 ~              | _ ¬ |
|-----|------------------|------------------|-----|
| - 1 | 007SE            | 008SW            |     |
| - 1 | 1938<br>1:10,560 | 1938<br>1:10,560 |     |
| - 1 | ,                | 1.10,500         | - 1 |
|     | ~ — — —          | <del></del>      | · — |
| - 1 | 014NE            | 015NW            | •   |
| - 1 | 1951<br>1:10,560 | 1938             | ı   |
|     | 1.10,500         | 1:10,560         | I   |
| '_  |                  | _ [ _            |     |

#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

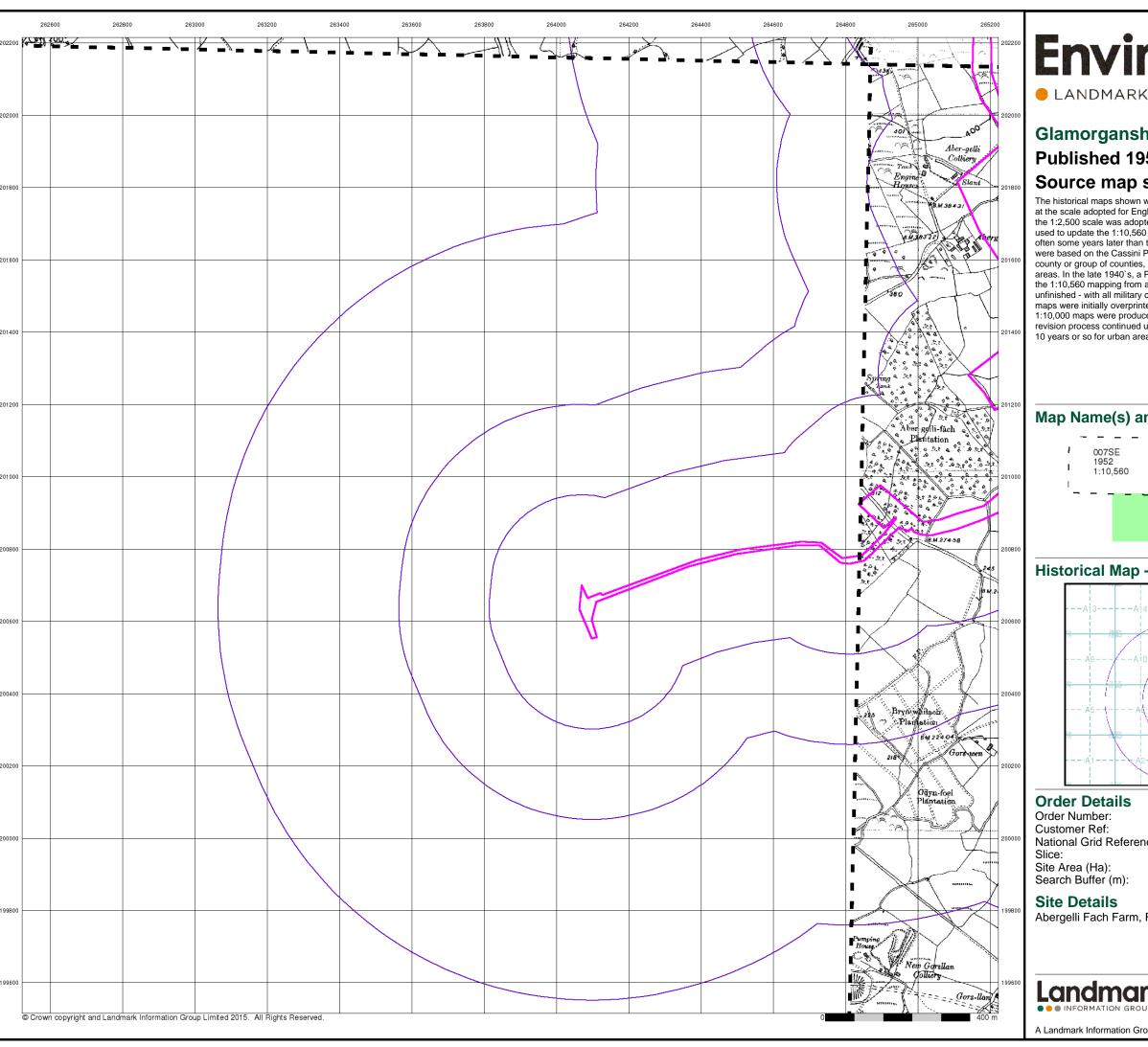
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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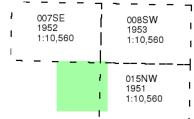
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## Glamorganshire

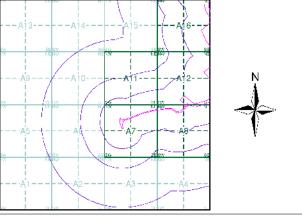
## **Published 1951 - 1953** Source map scale - 1:10,560

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

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



#### **Historical Map - Slice A**



142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

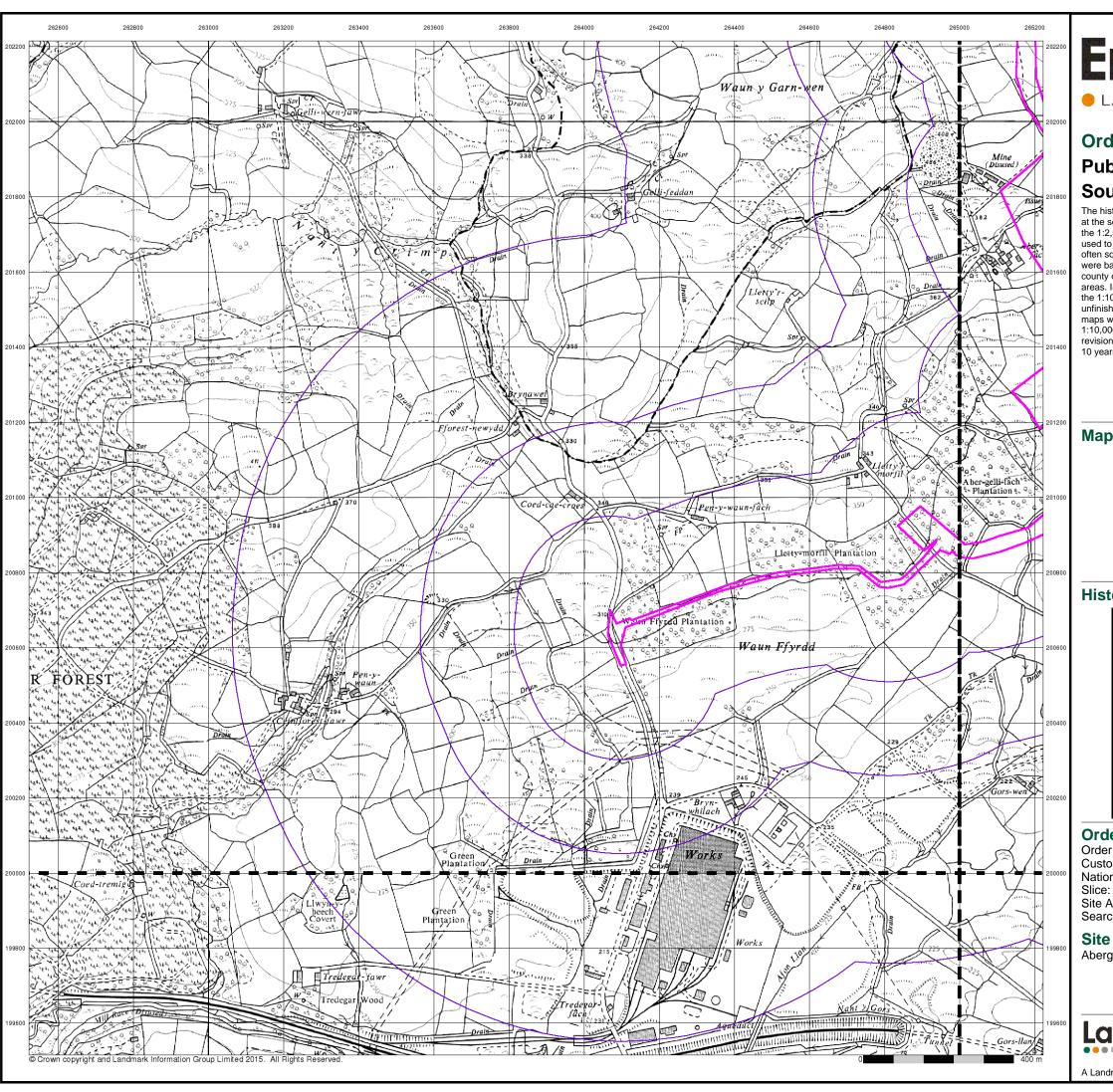
32.39 1000

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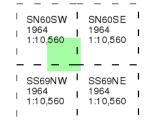


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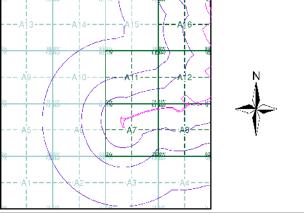
# Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

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Site Area (Ha): 32.39 Search Buffer (m): 1000

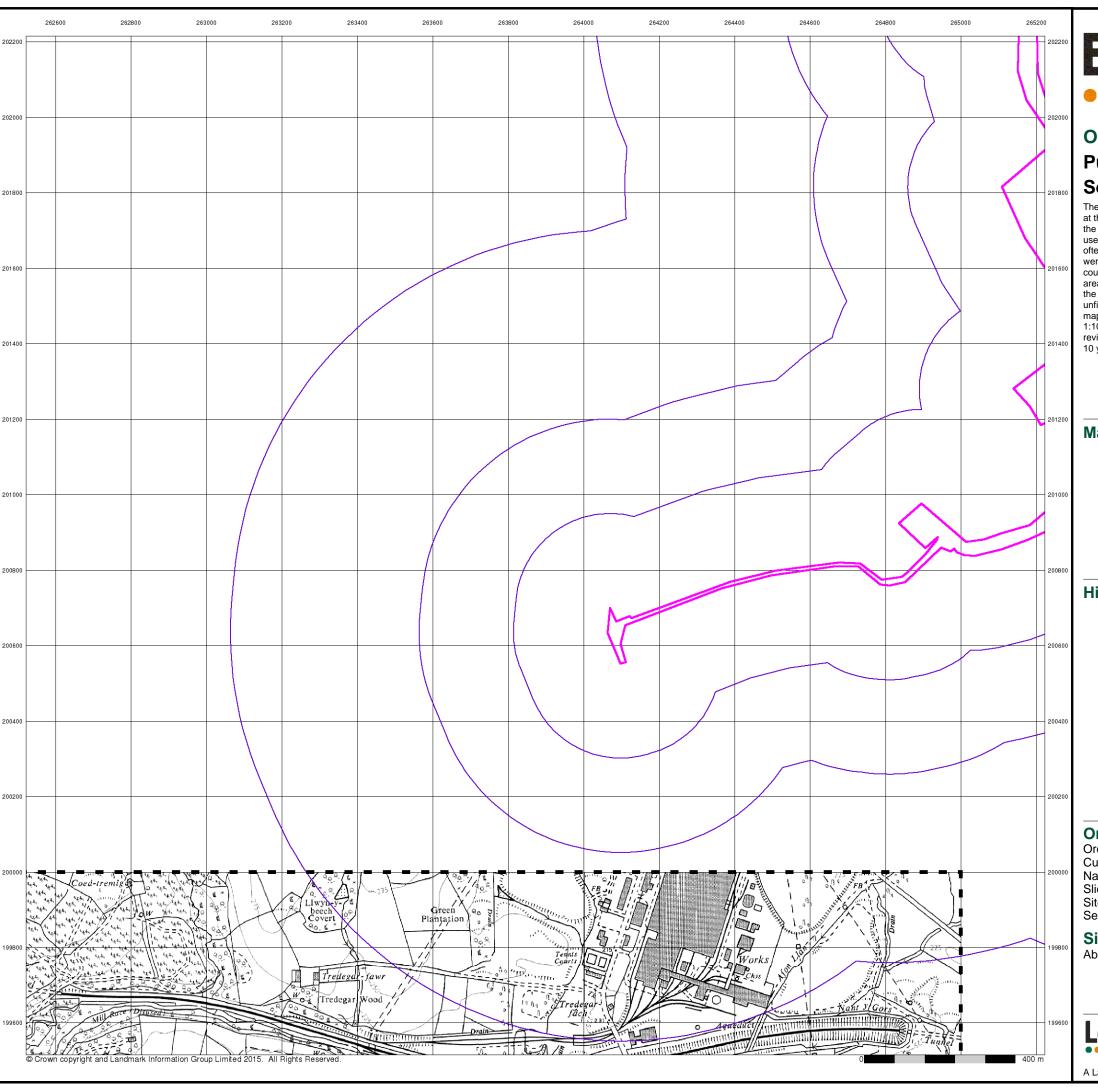
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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

A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 18

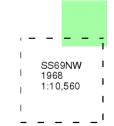


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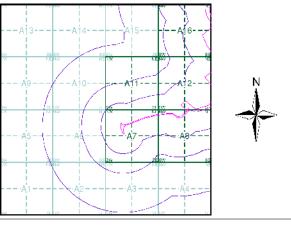
## **Ordnance Survey Plan Published 1968** Source map scale - 1:10,000

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

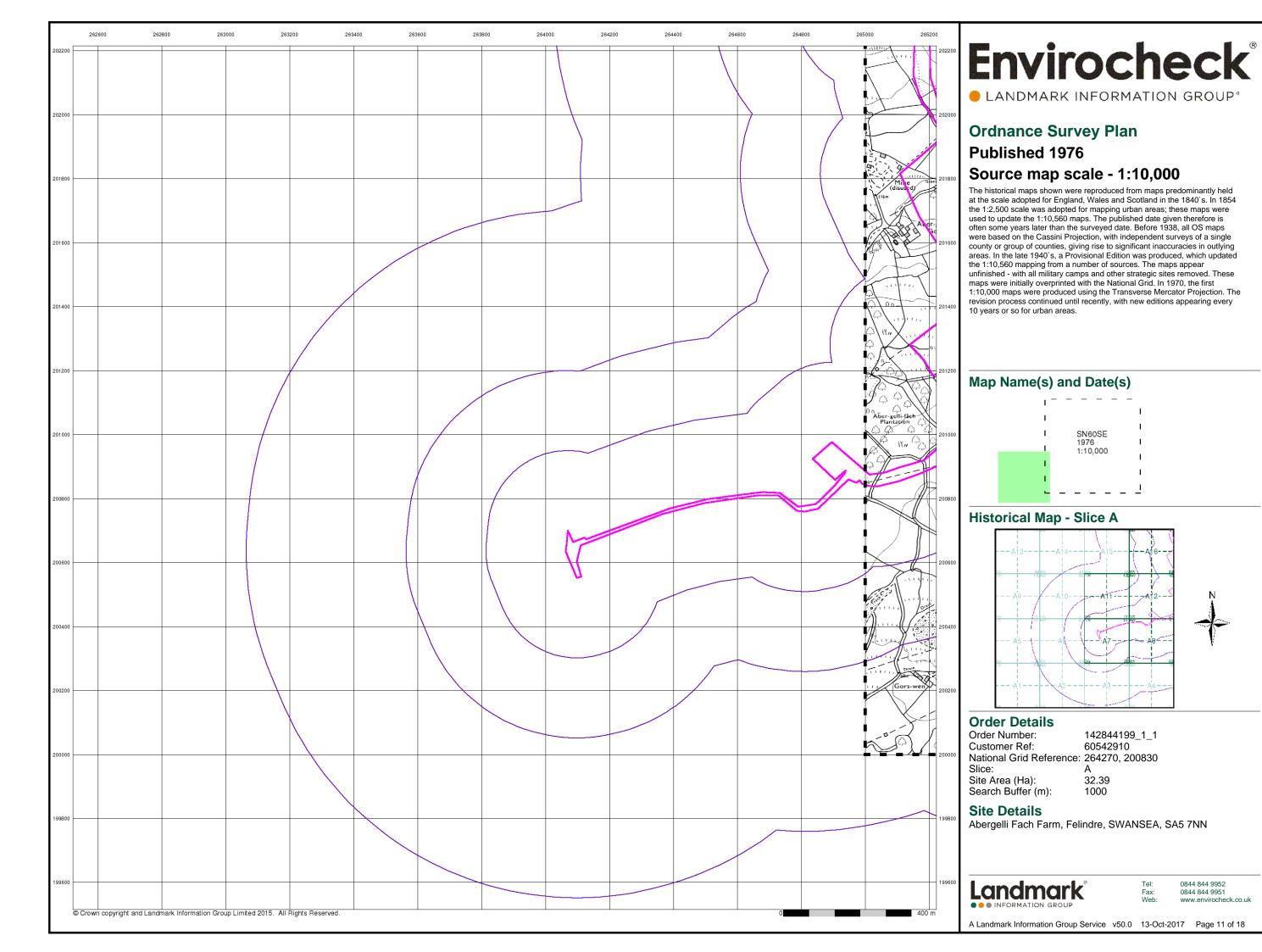
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

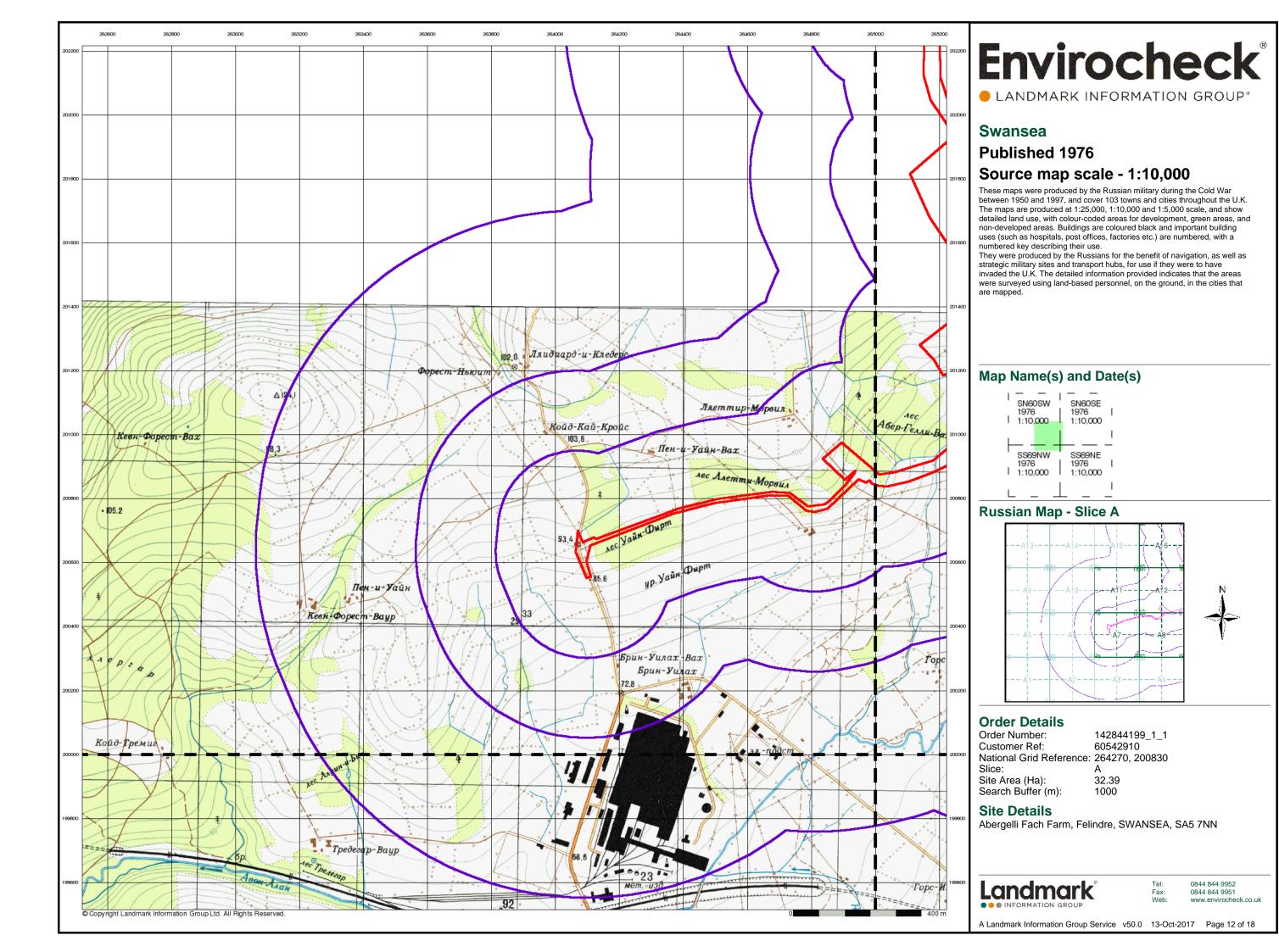


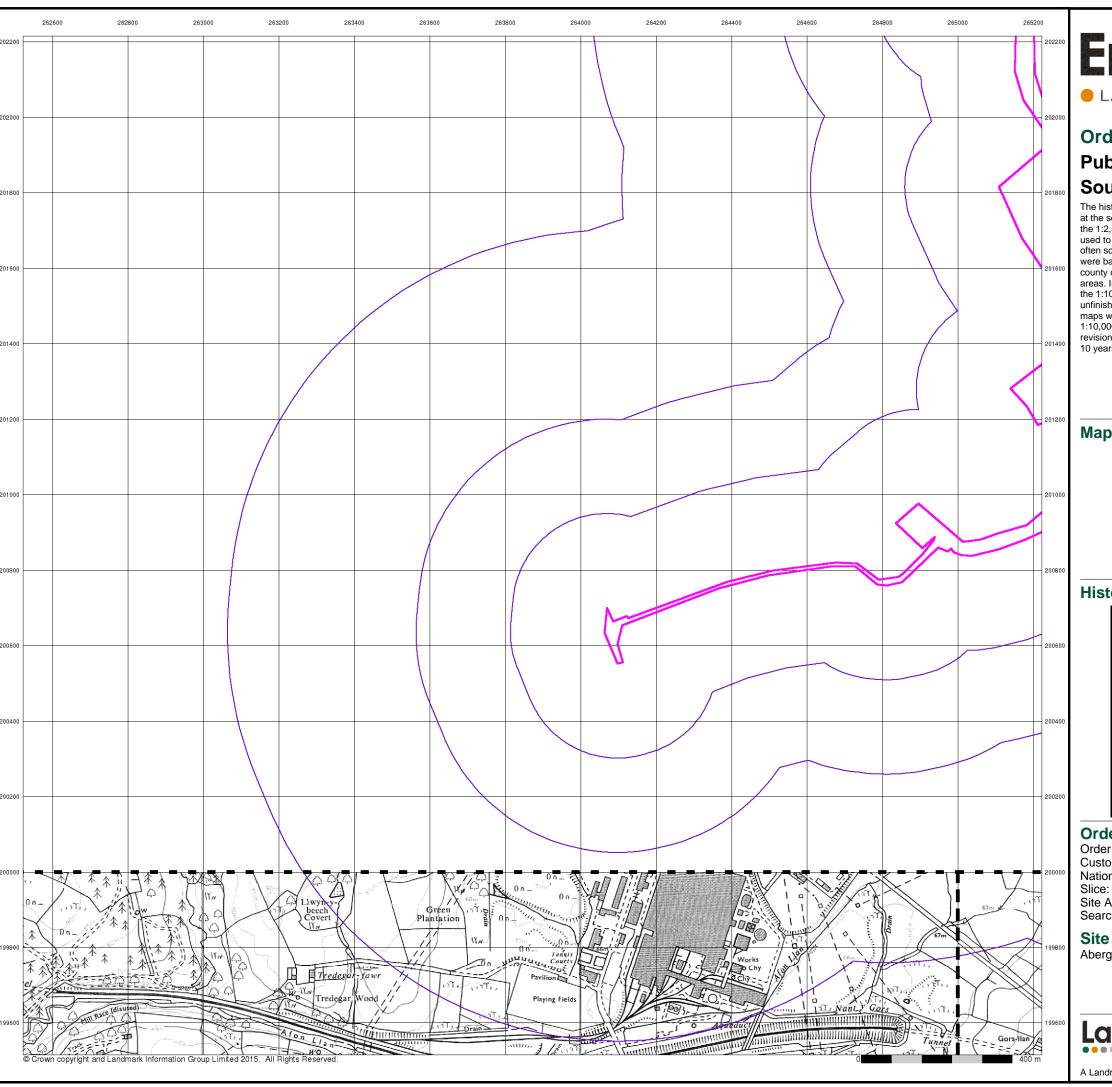
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A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 18



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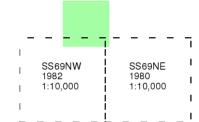


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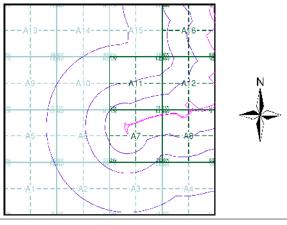
## **Ordnance Survey Plan** Published 1980 - 1982 Source map scale - 1:10,000

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

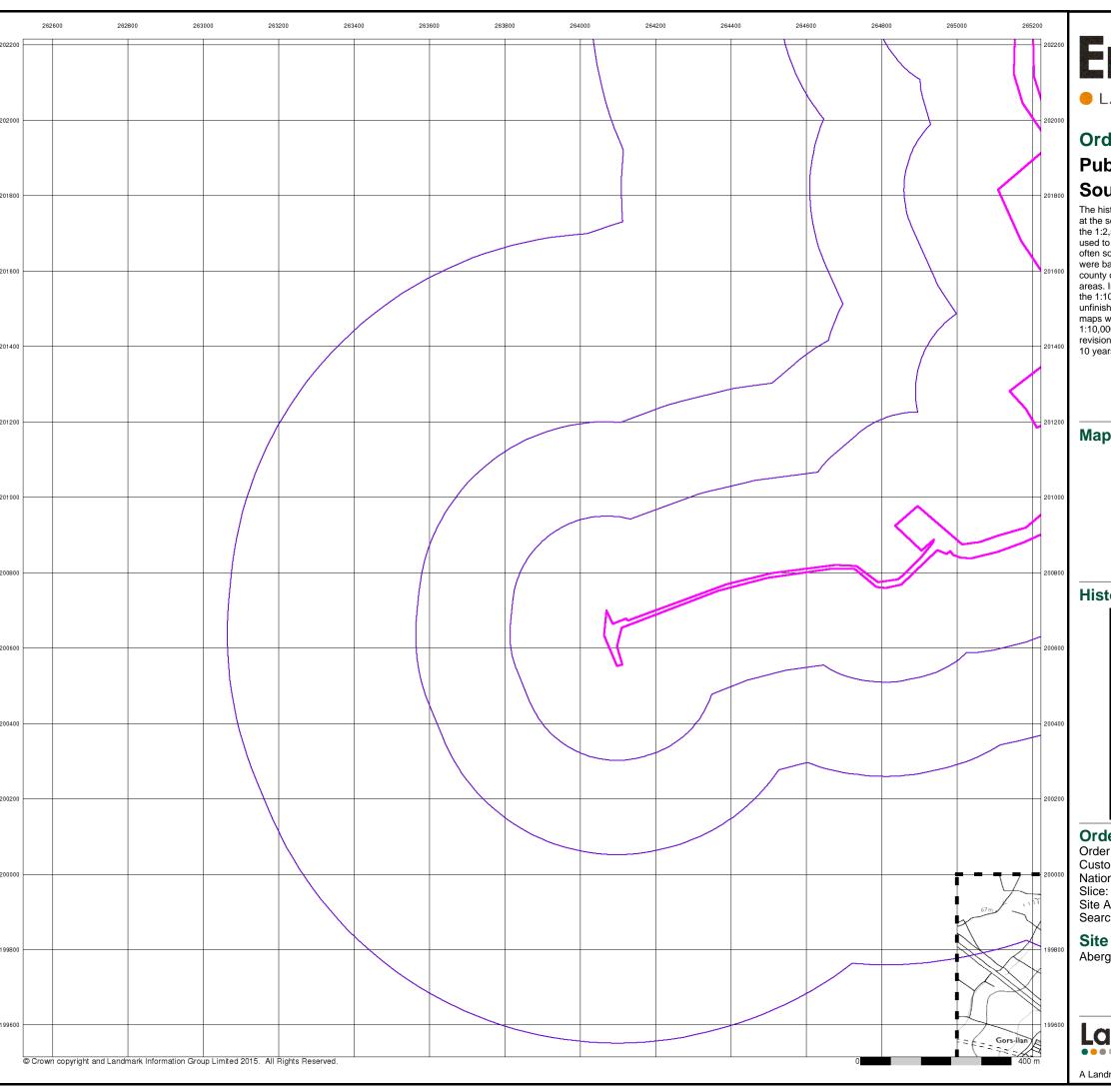
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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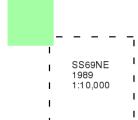


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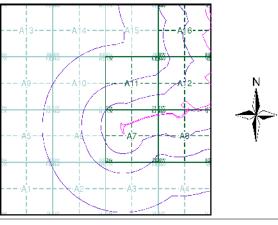
# **Ordnance Survey Plan** Published 1989 Source map scale - 1:10,000

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39 1000

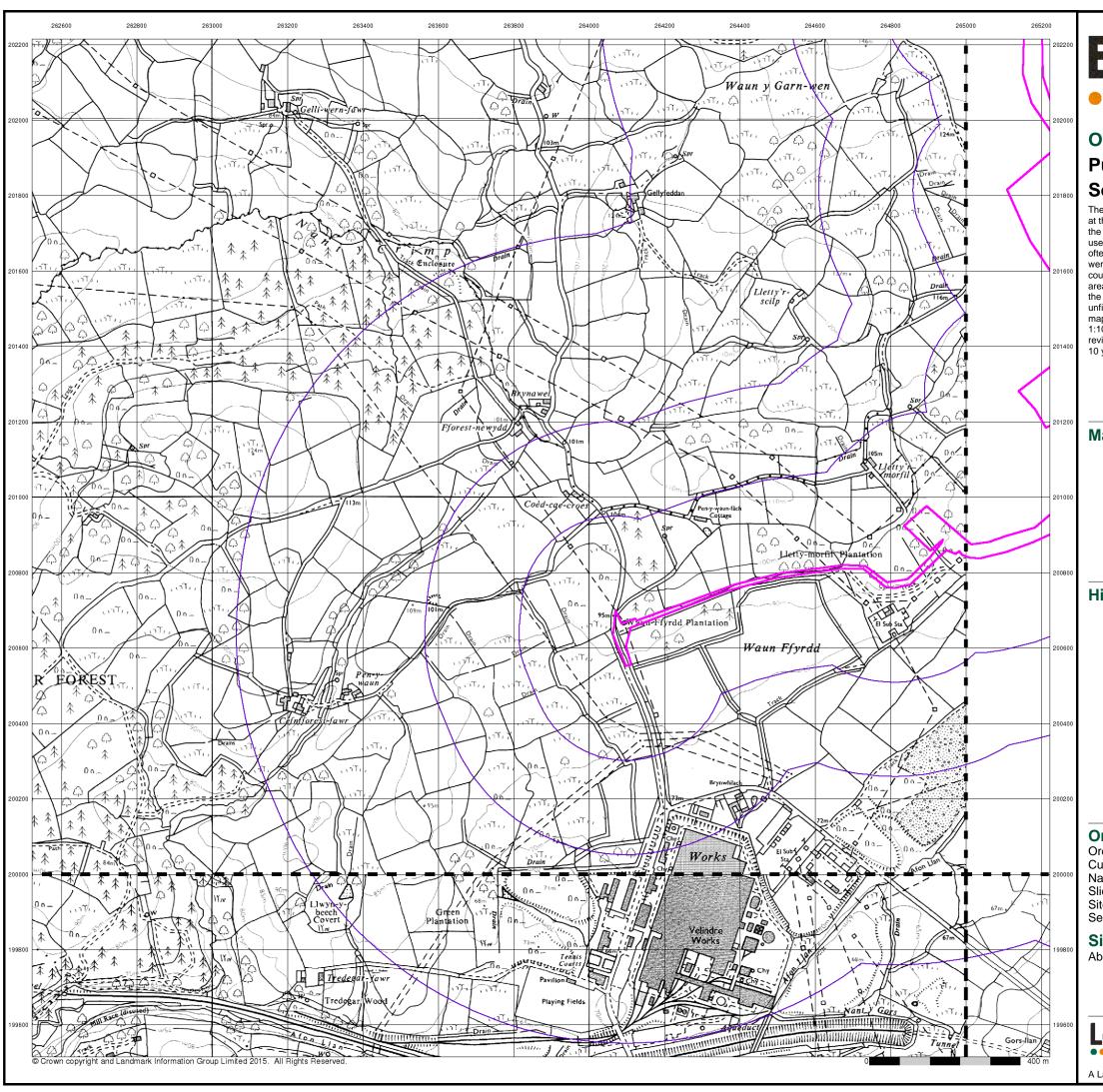
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 14 of 18

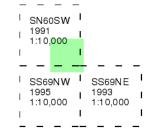


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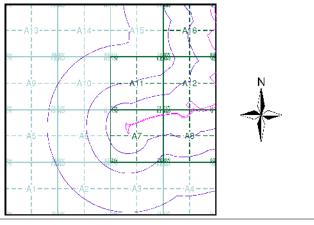
## **Ordnance Survey Plan Published 1991 - 1995** Source map scale - 1:10,000

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

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



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

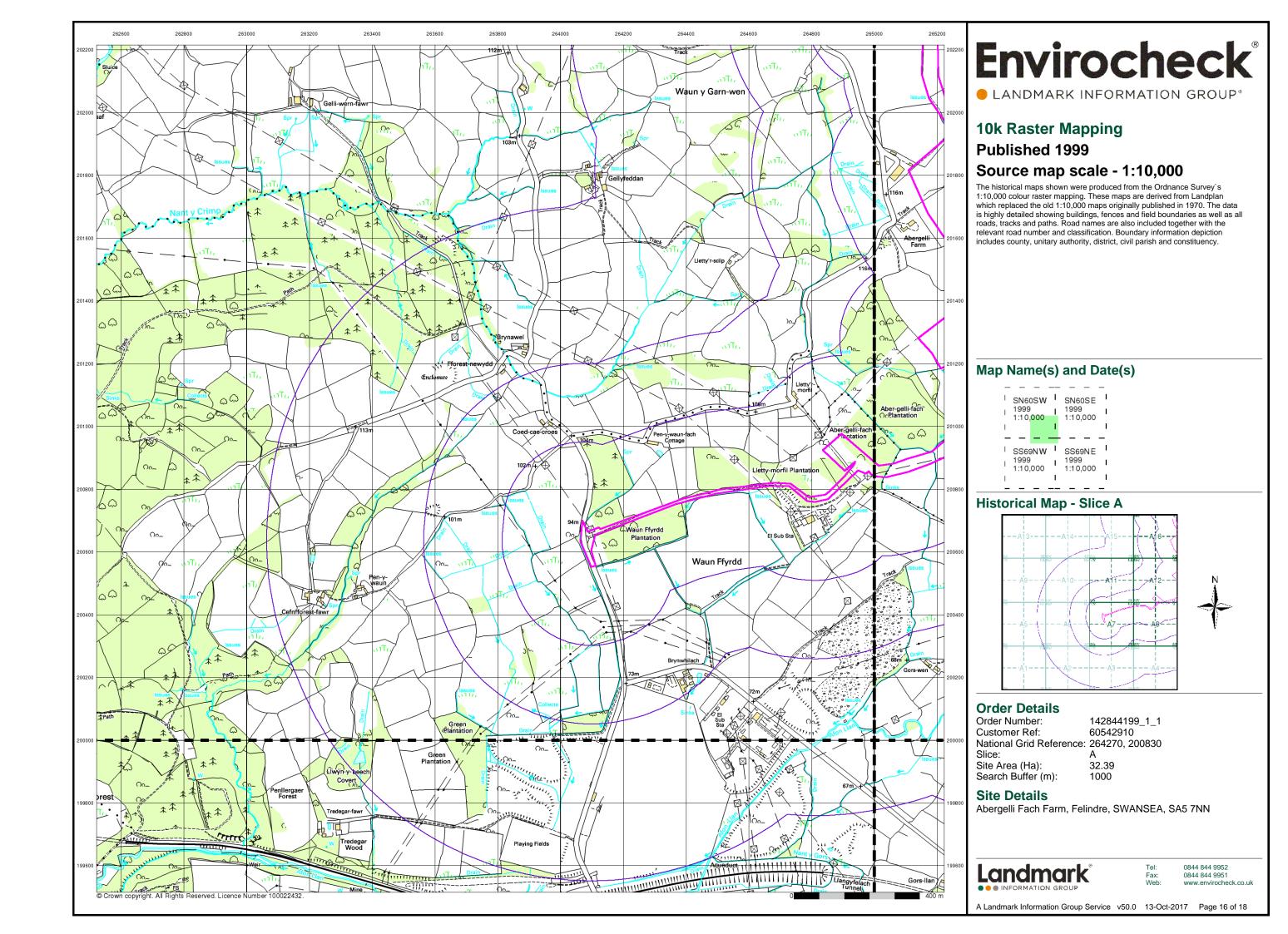
#### **Site Details**

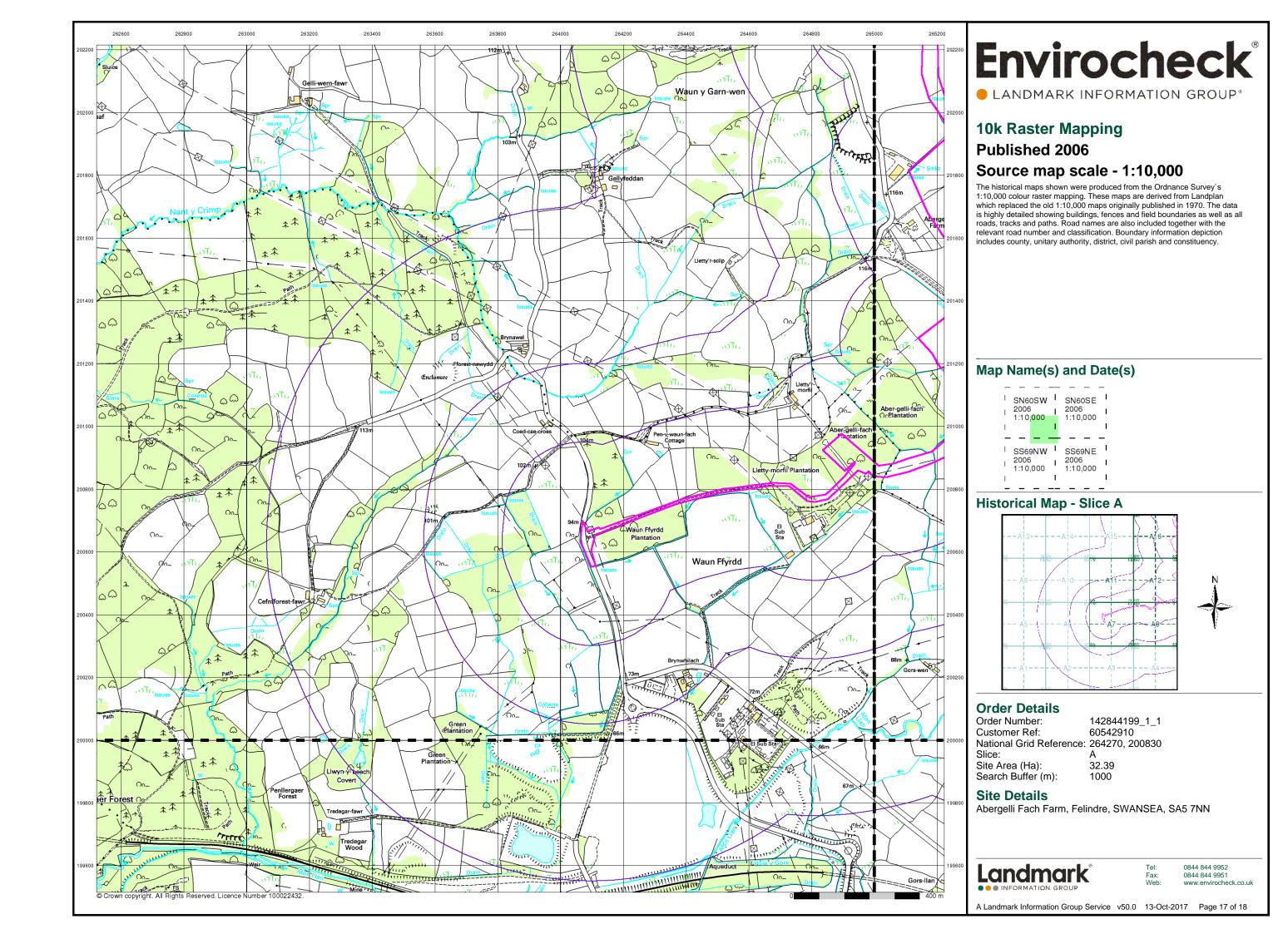
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

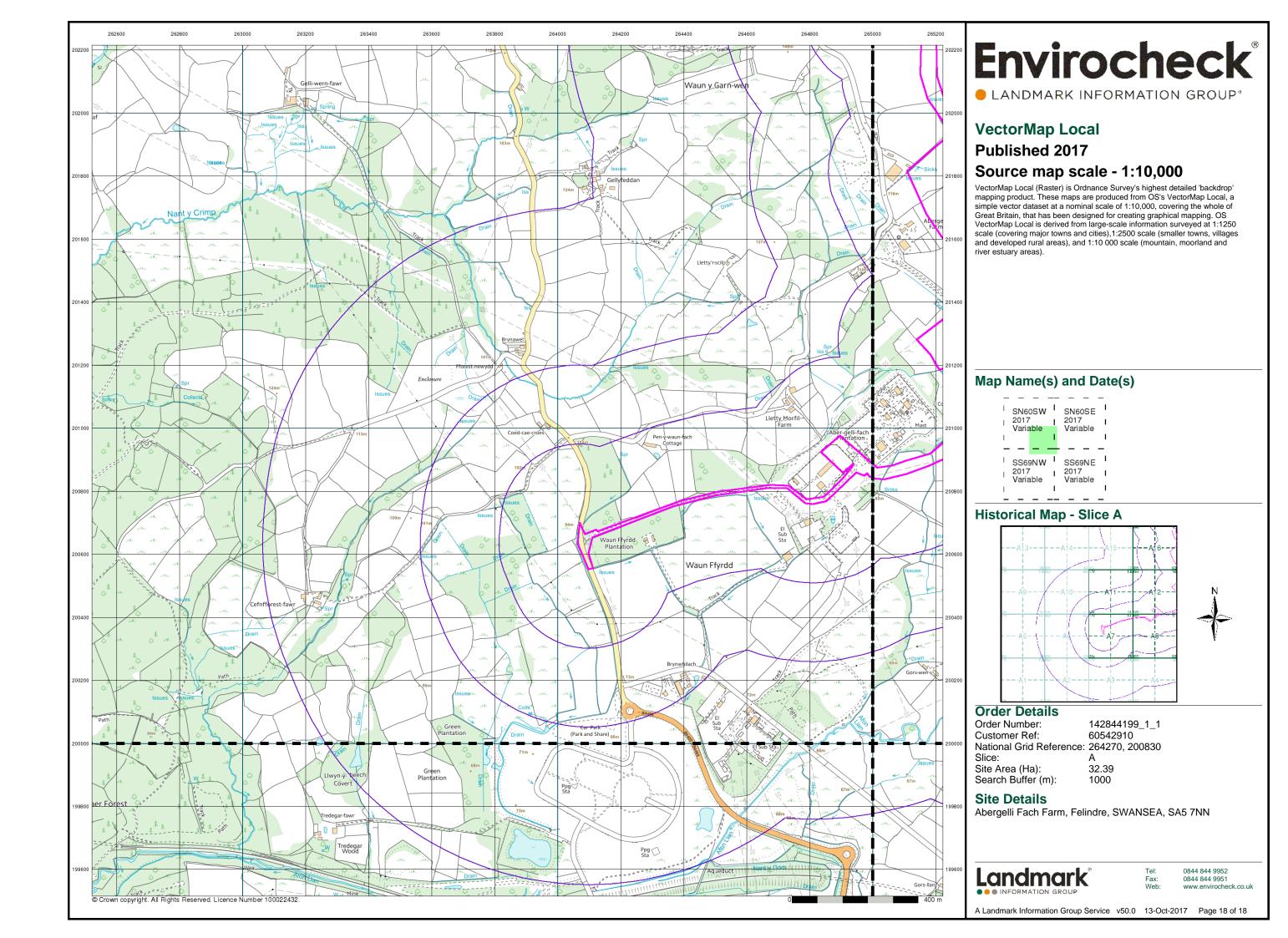


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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

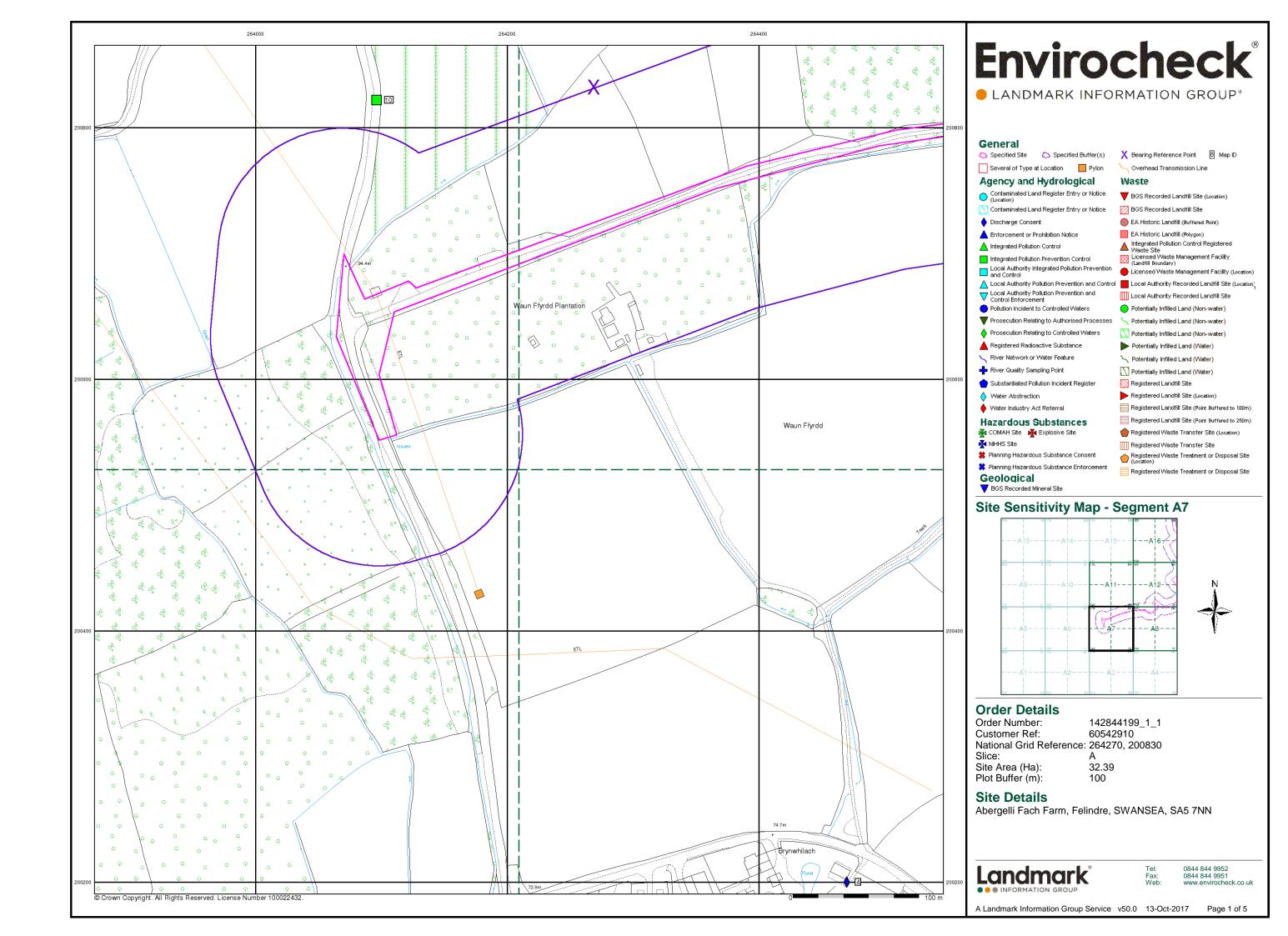
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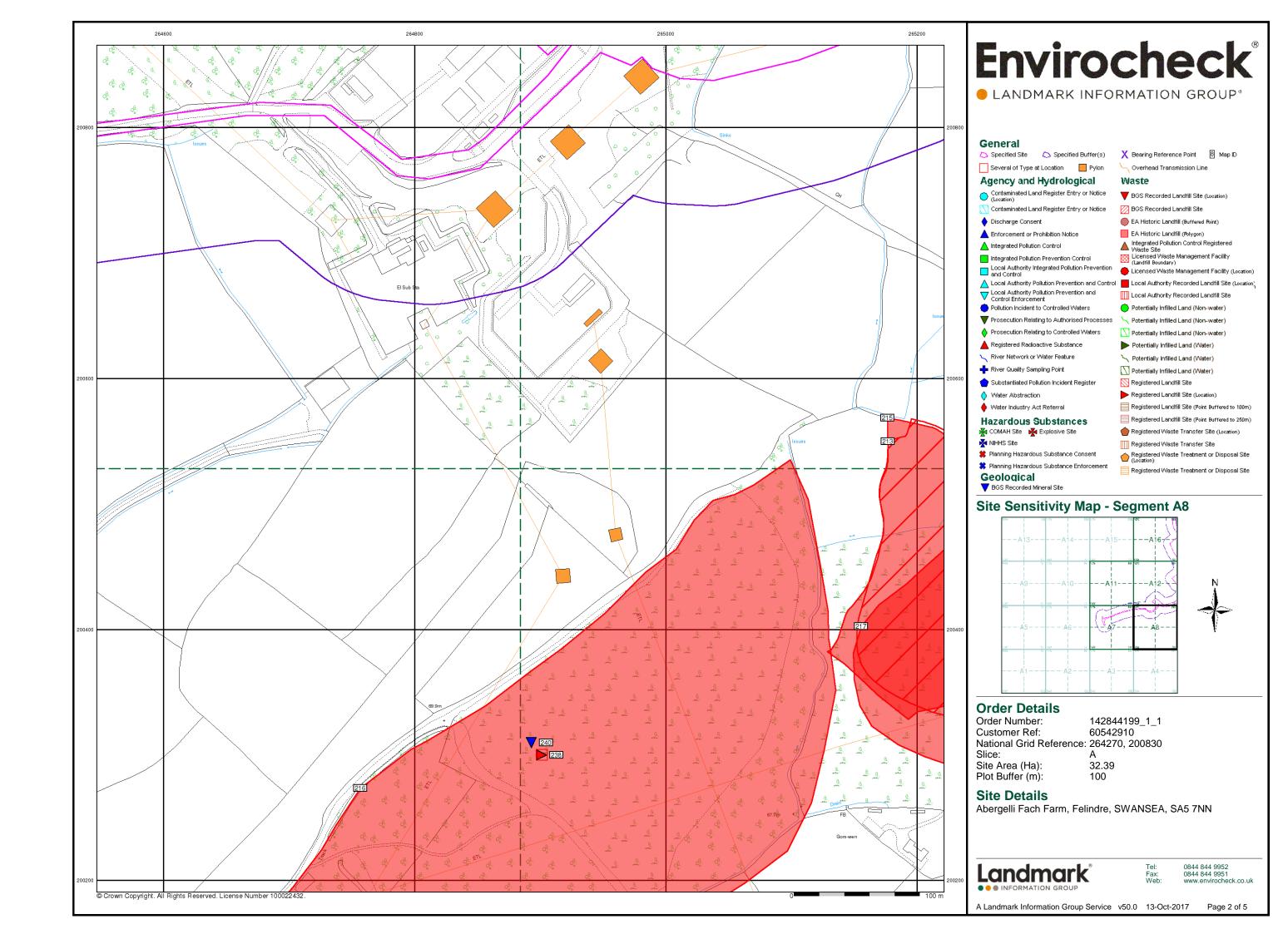
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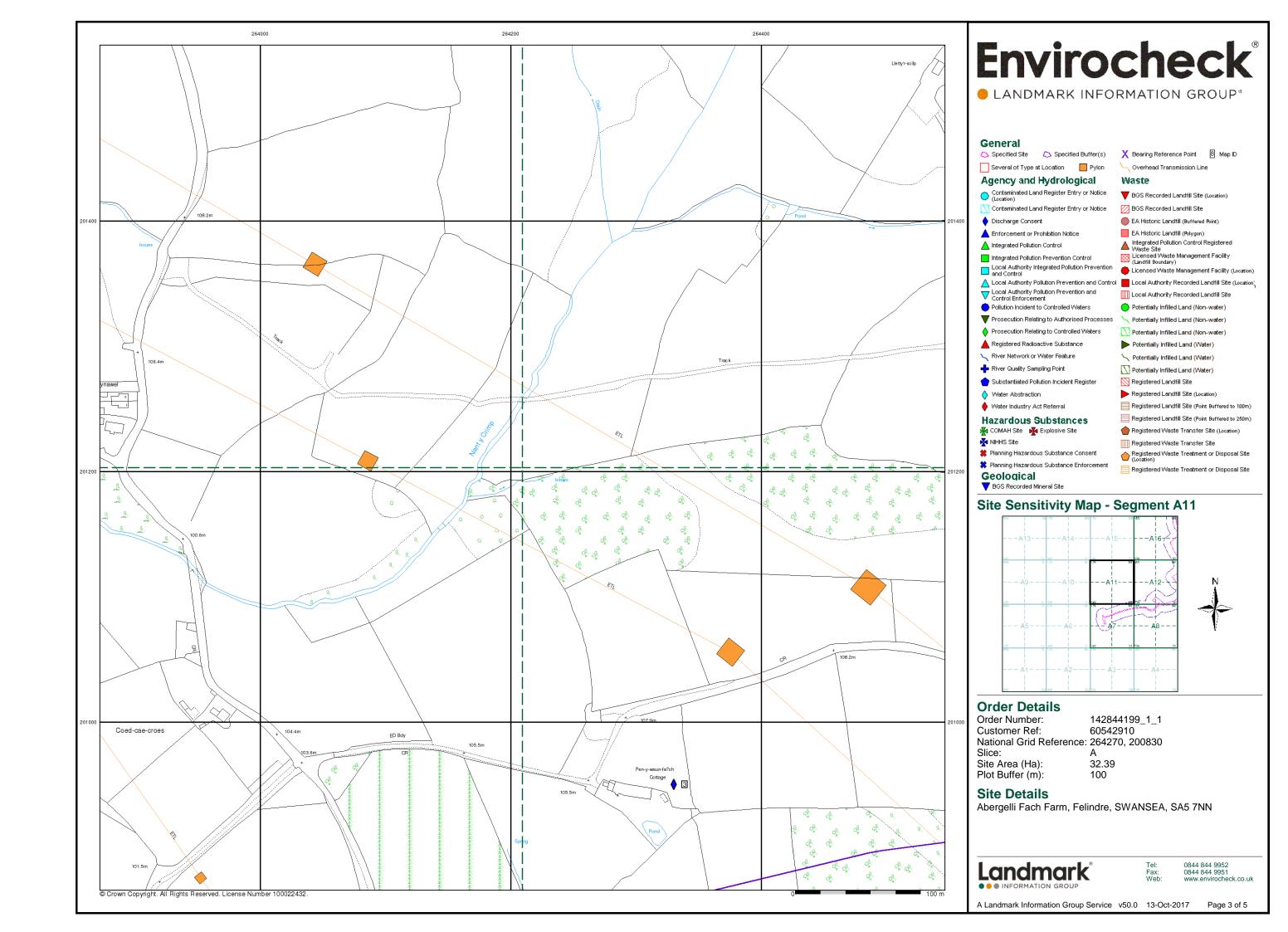
Abergelli F Felindre SWANSEA SA5 7NN

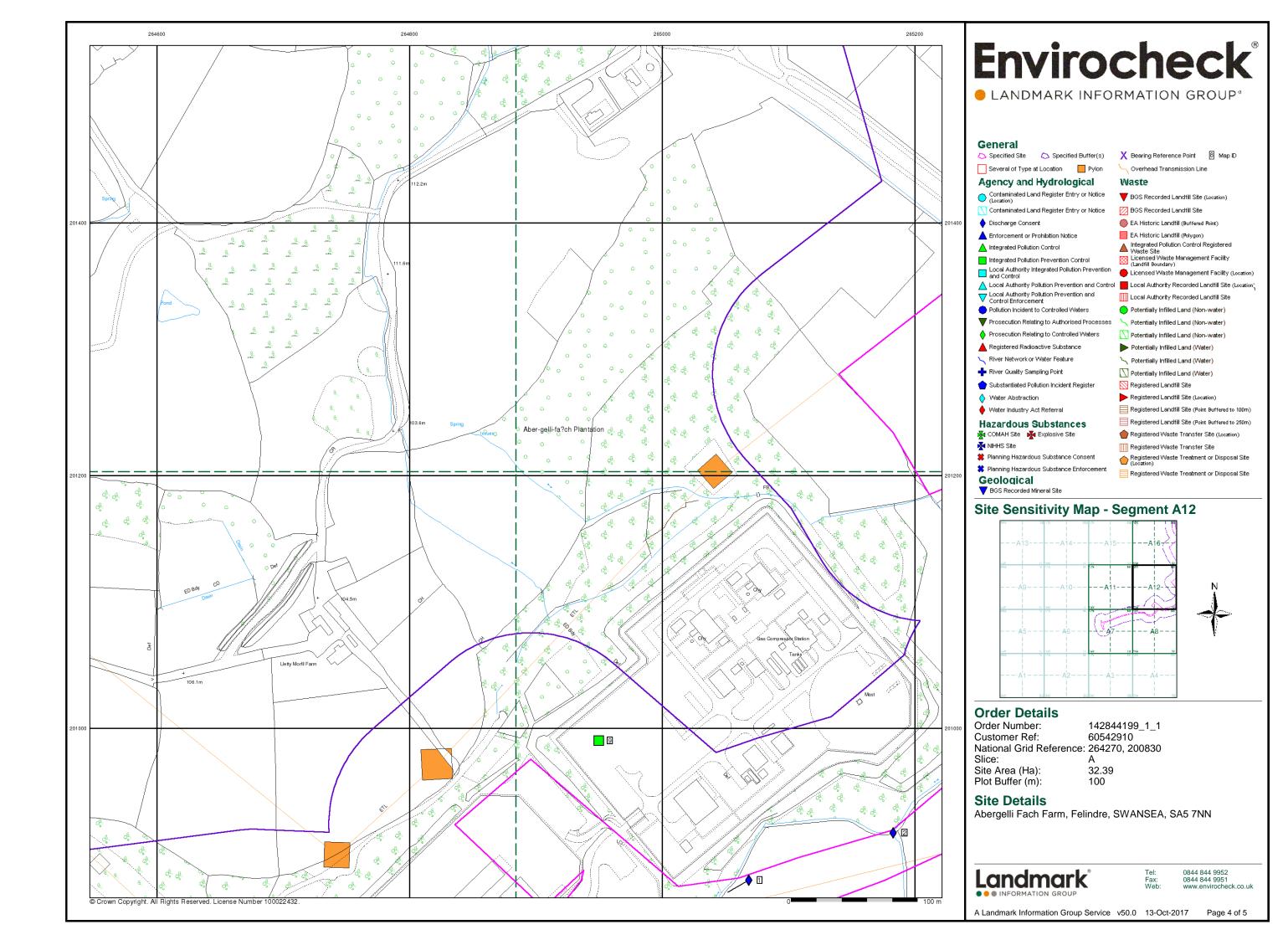
File Name Map Series Published Source Sca Survey Dat Revision D: Addition D Edition Dat Published Date 142844199 Glamorgan 1935-1936 1:10,560 1876-1875 1936-1935 1935-1935 1951 142844199 Glamorgan 1938-1951 1:10,560 1875-1876-1876-1875 1948-1938 1935-1913 1876-1876 1913-1913-1914-1913 1921-1921-1921-1921 142844199 Glamorgan 1921 1:10,560 142844199 Glamorgan 1900 1:10,560 1876-1876 1897-1897-1896-1897 1900-1900-1900-1900 142844199 Glamorgan 1883-1884 1:10,560 1876-1878-1877-1877 1883-1884-1884-1884 142844199 Glamorgan 1951-1953 1:10,560 1876-1875-1876 1948-1948 1936-1913 1951-1952-1953 142844199 Ordnance ! 1968 1:10,560 1967 1968 142844199 Ordnance 11980-1982 1:10,000 1977-1977 1980-1977 1982-1980 142844199 Ordnance ! 1976 1:10,000 1974 1975 1976 142844199 Ordnance ! 1964 1:10,560 1962-1960-1961-1961 1964-1964-1964 142844199 Ordnance 11991-1995 1:10,000 1990-1977 1994-1992 1991-1995-1993 1989 142844199 Ordnance ! 1989 1:10,000 1985 1988 142844199 Swansea 1976 1:10,000 14284419910K Raster 1999 1:10,000 142844195 10K Raster 2006 1:10,000 142844199 VectorMar 2017 Variable

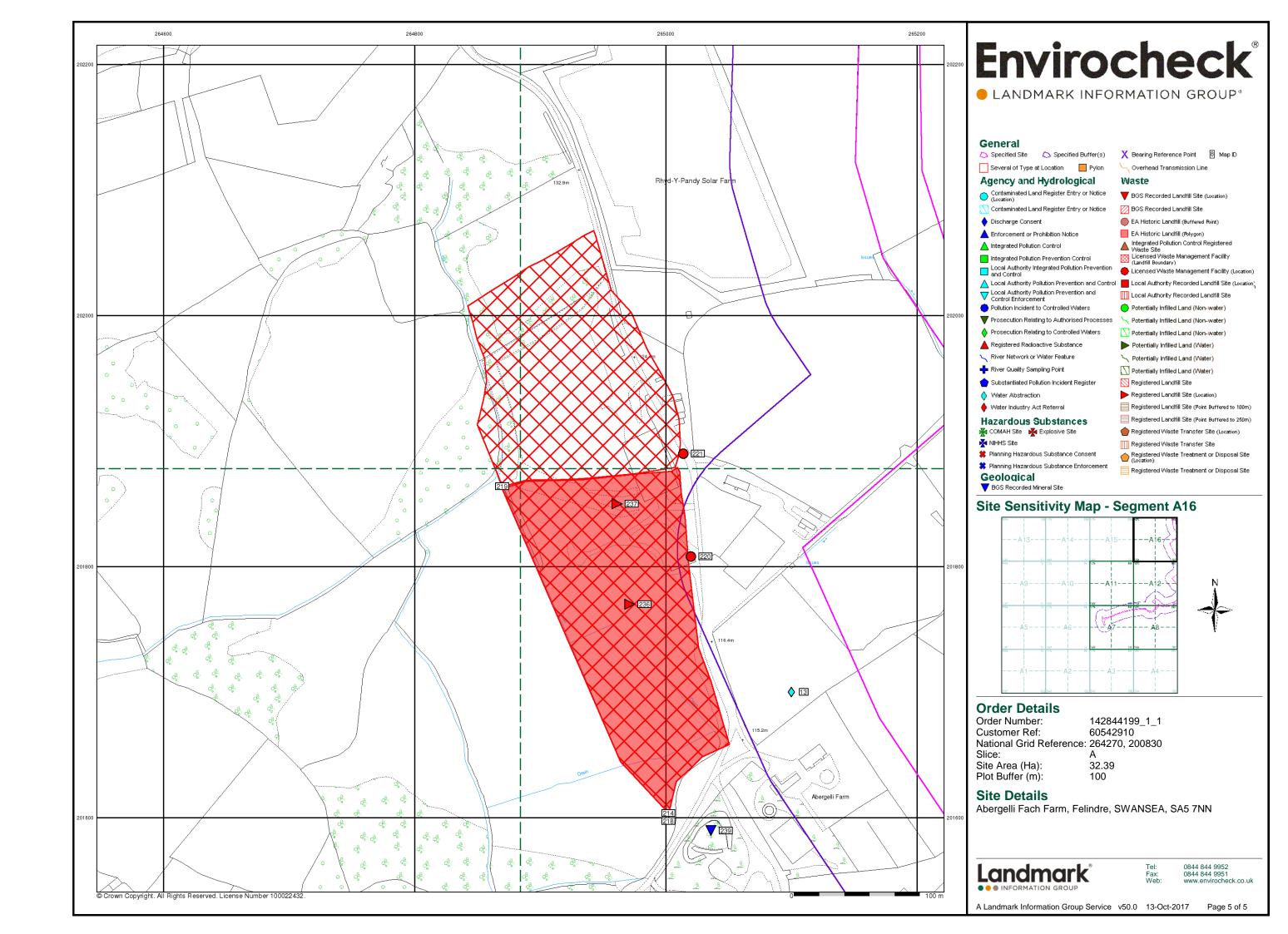
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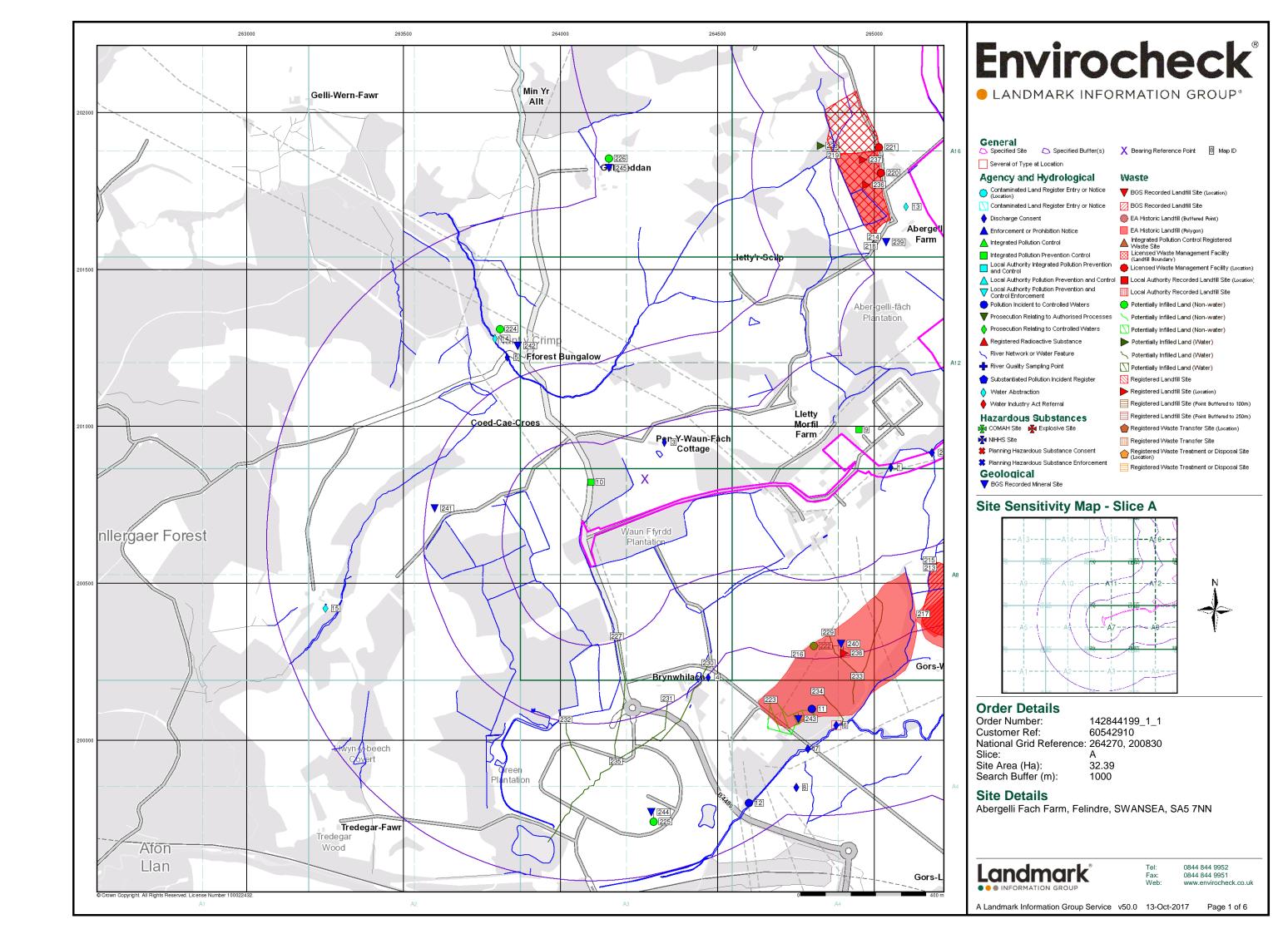


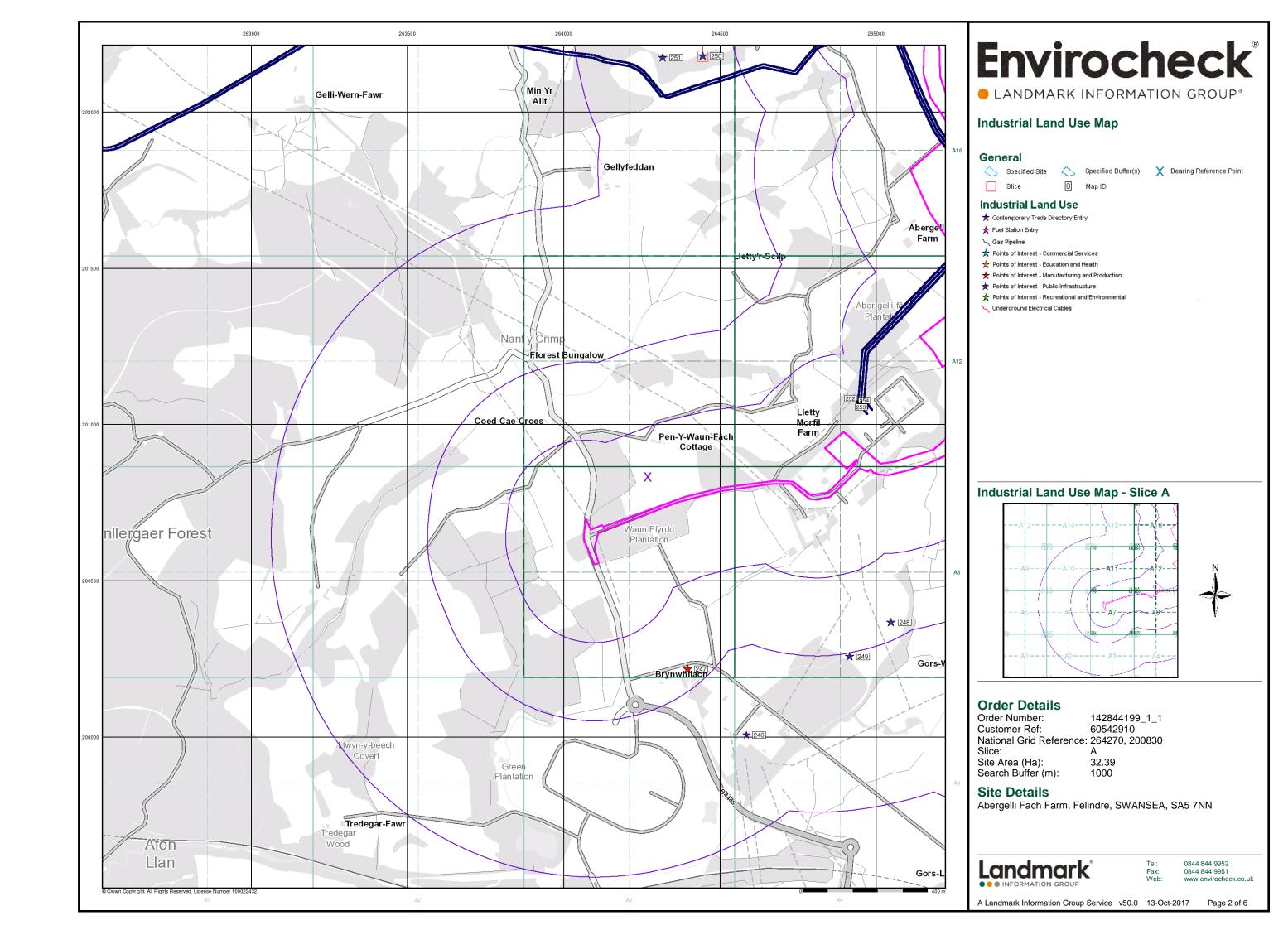


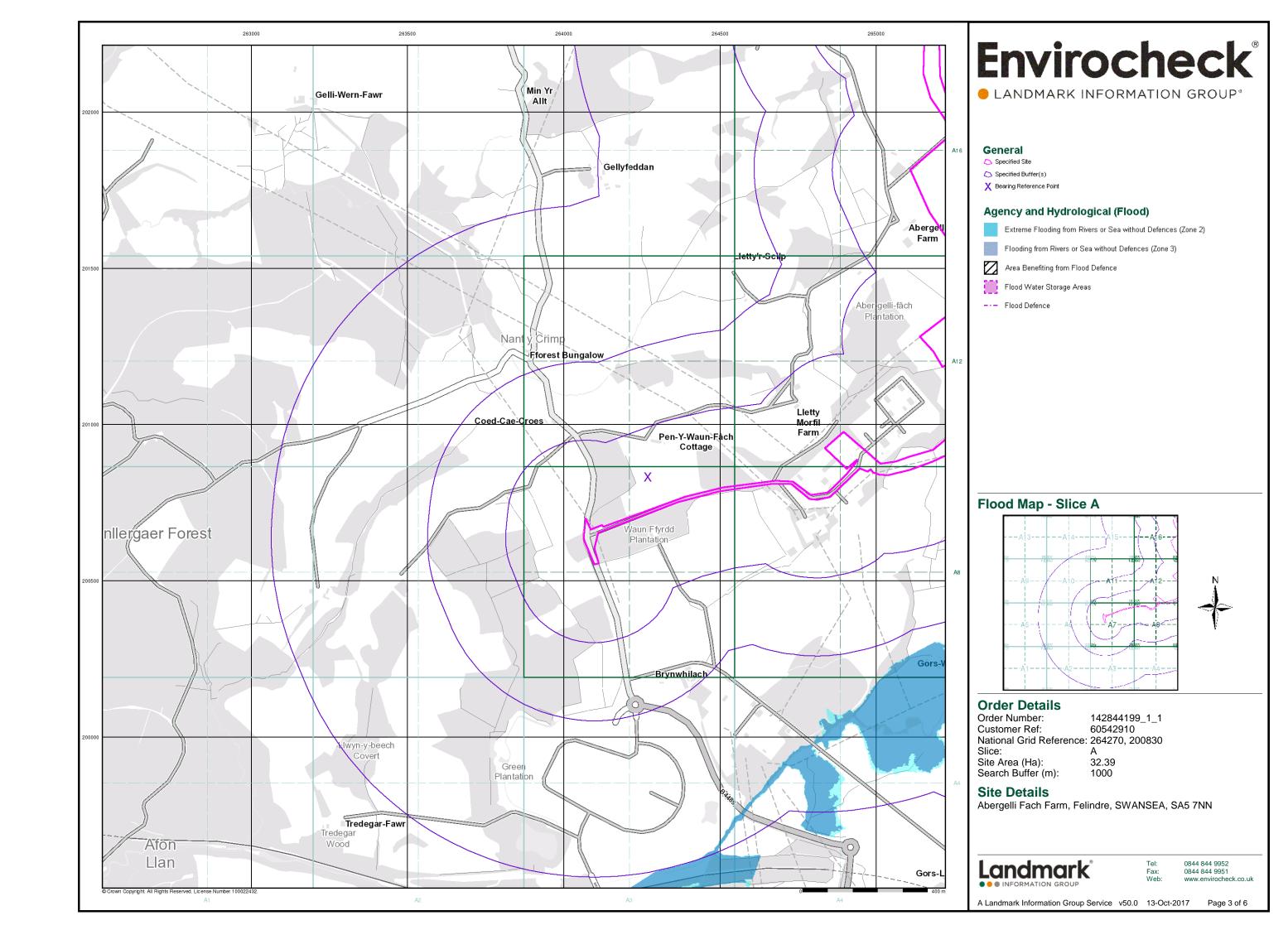


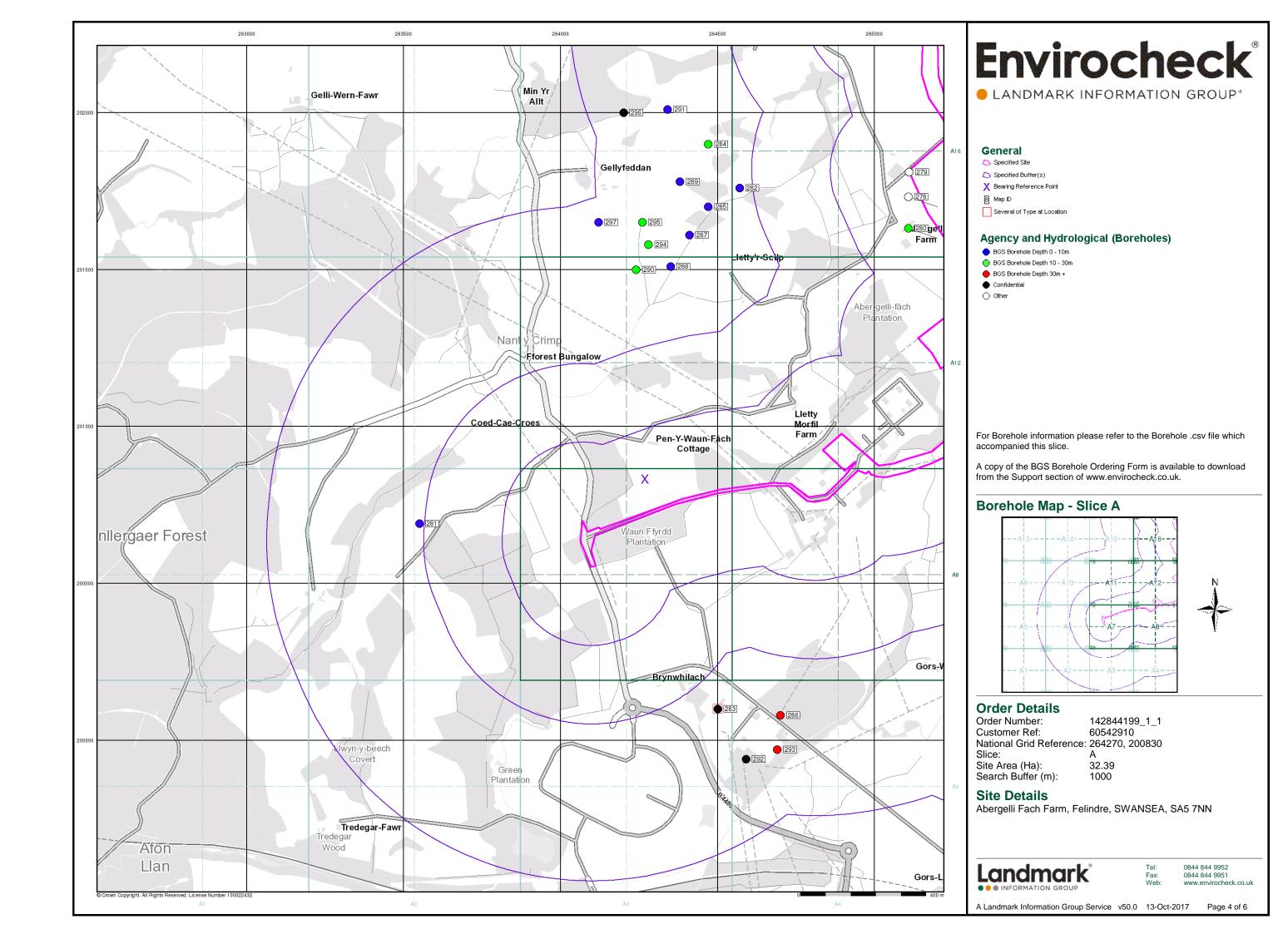


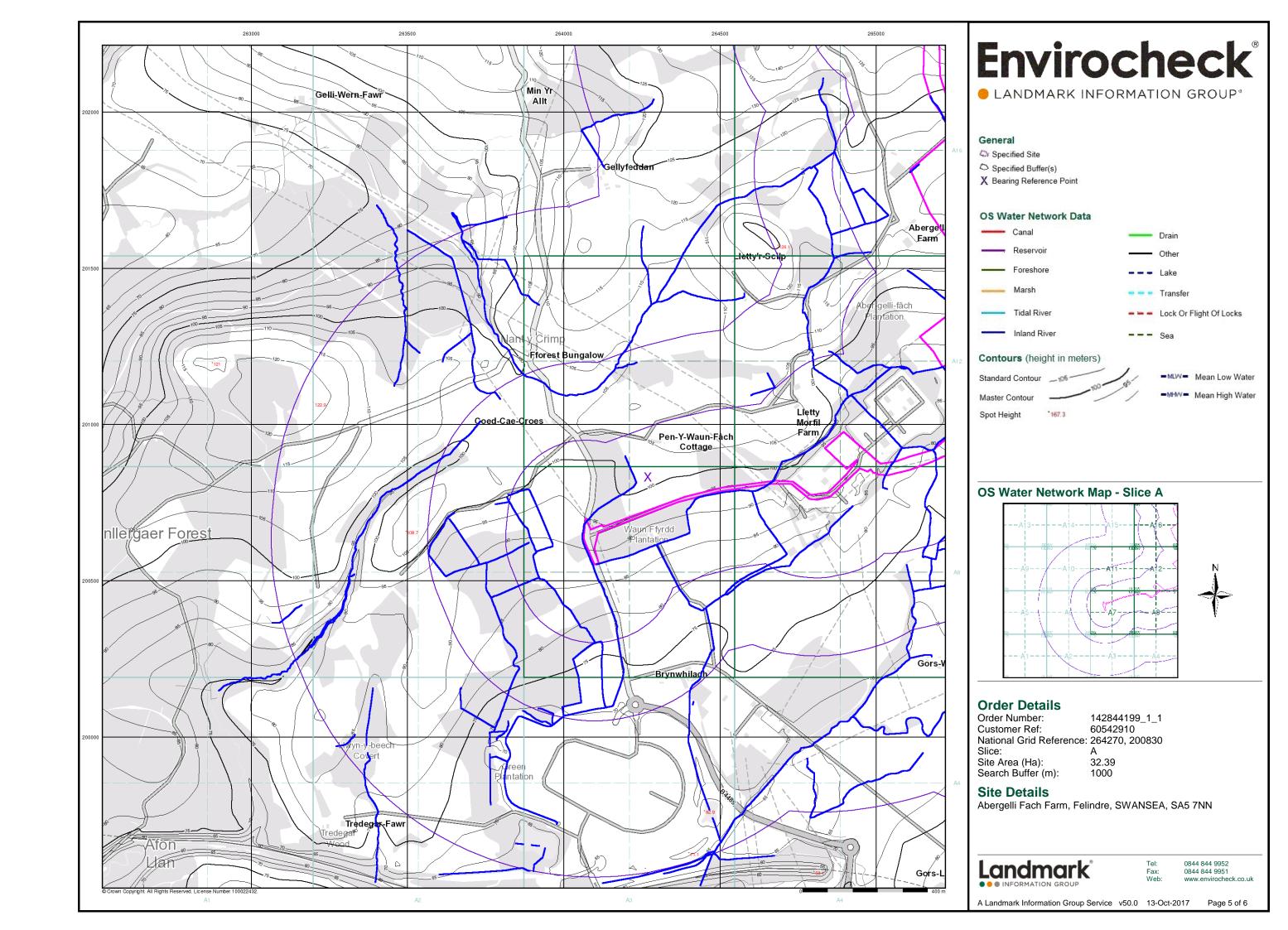


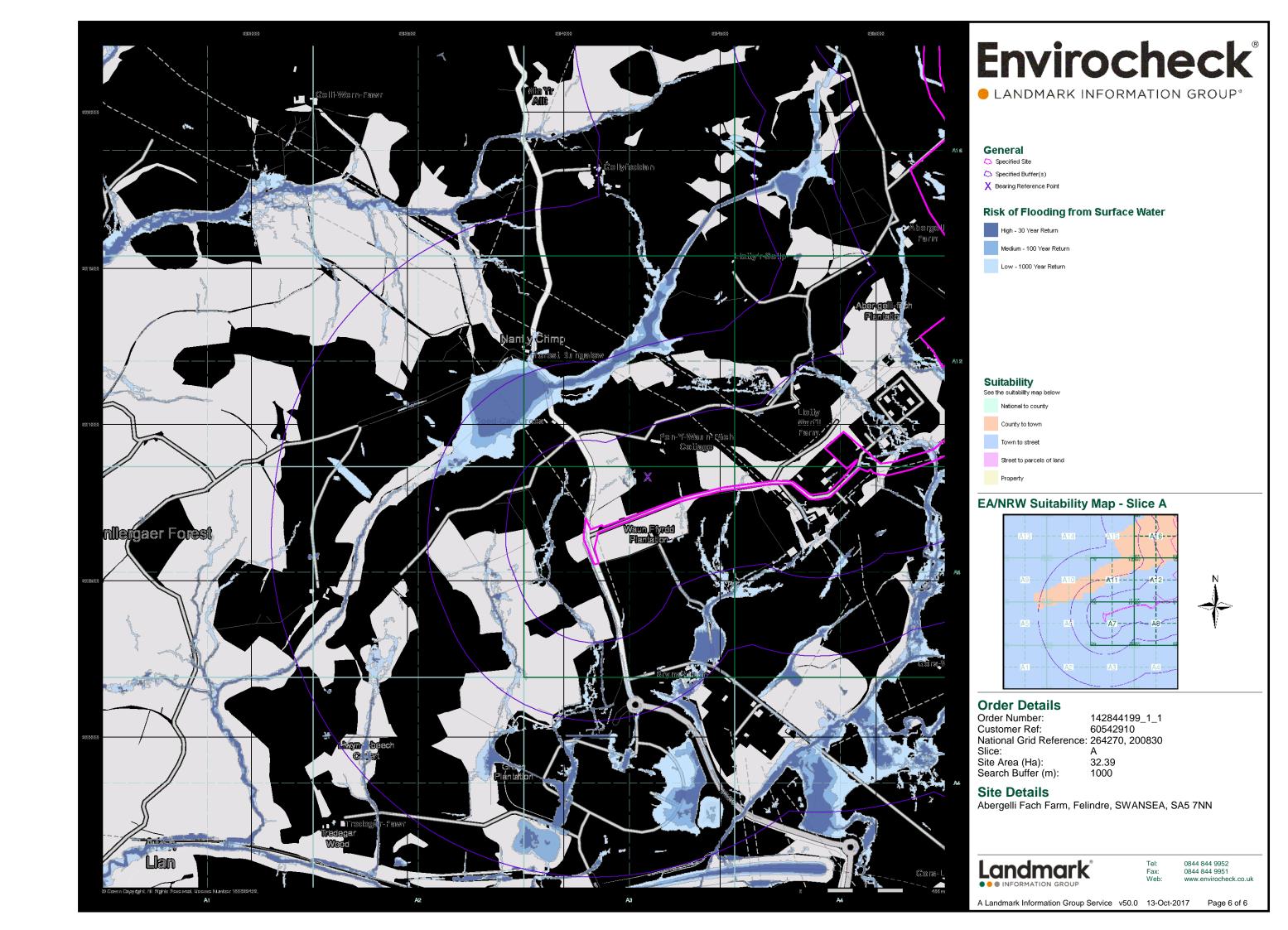


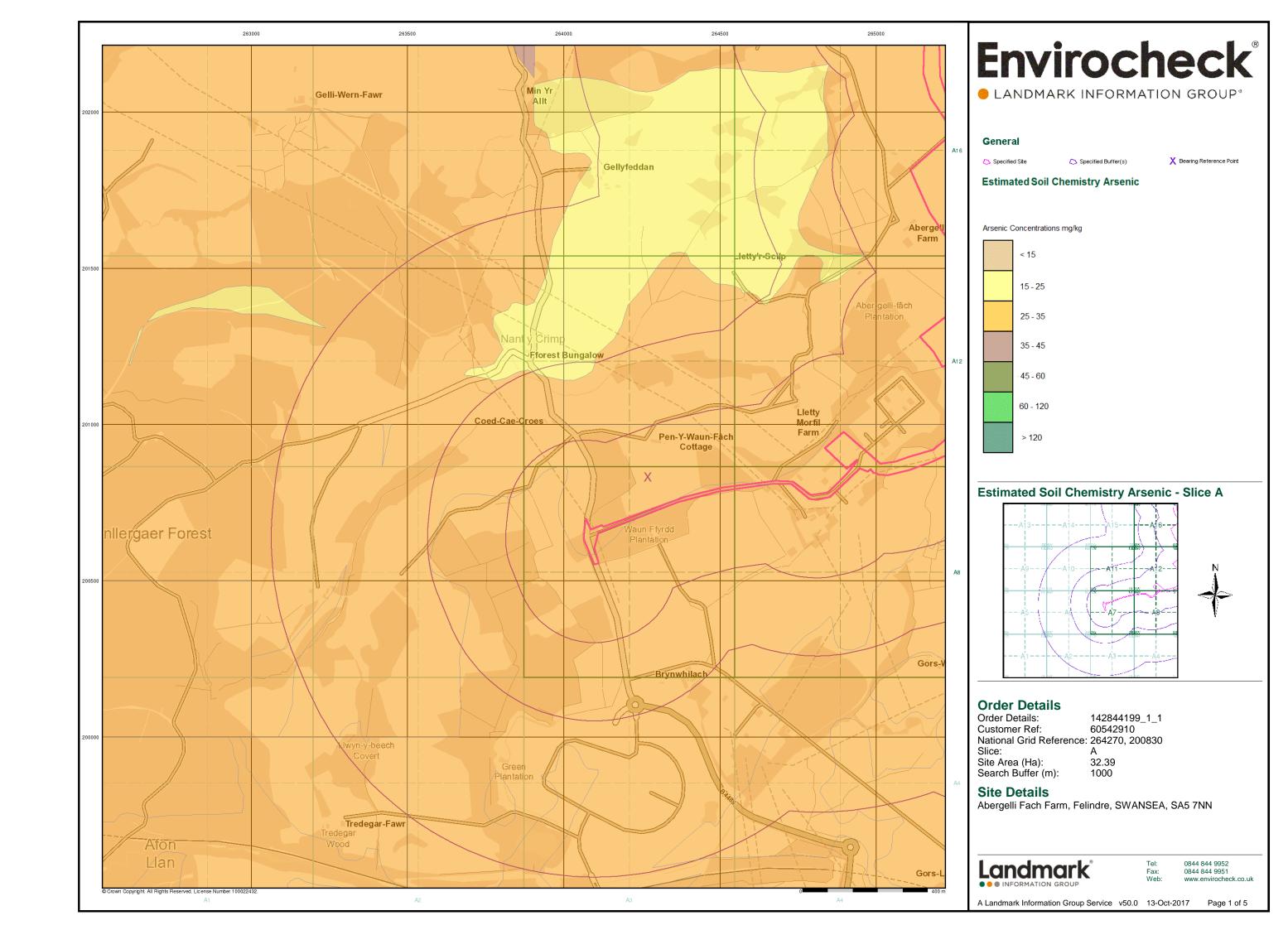


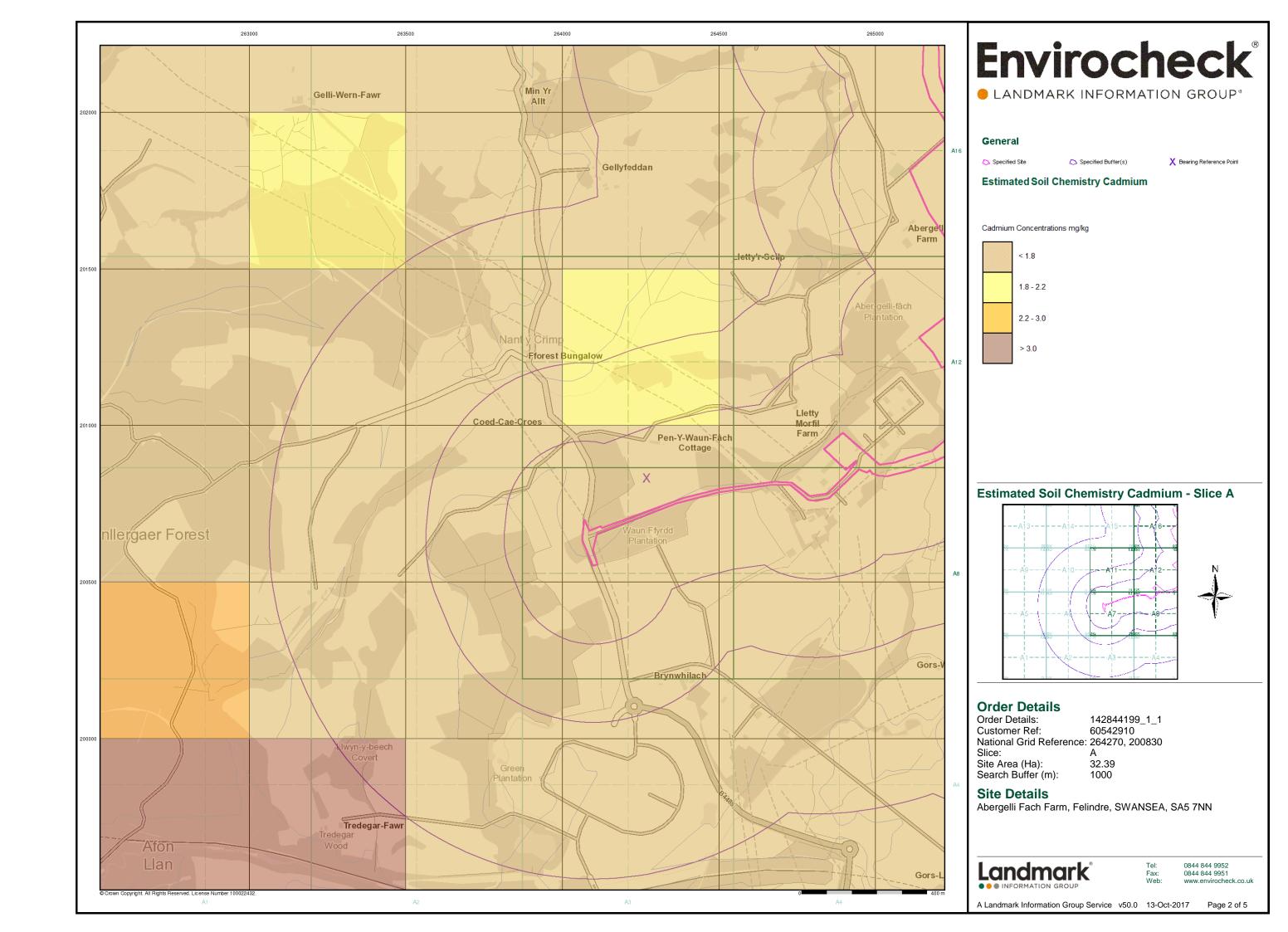


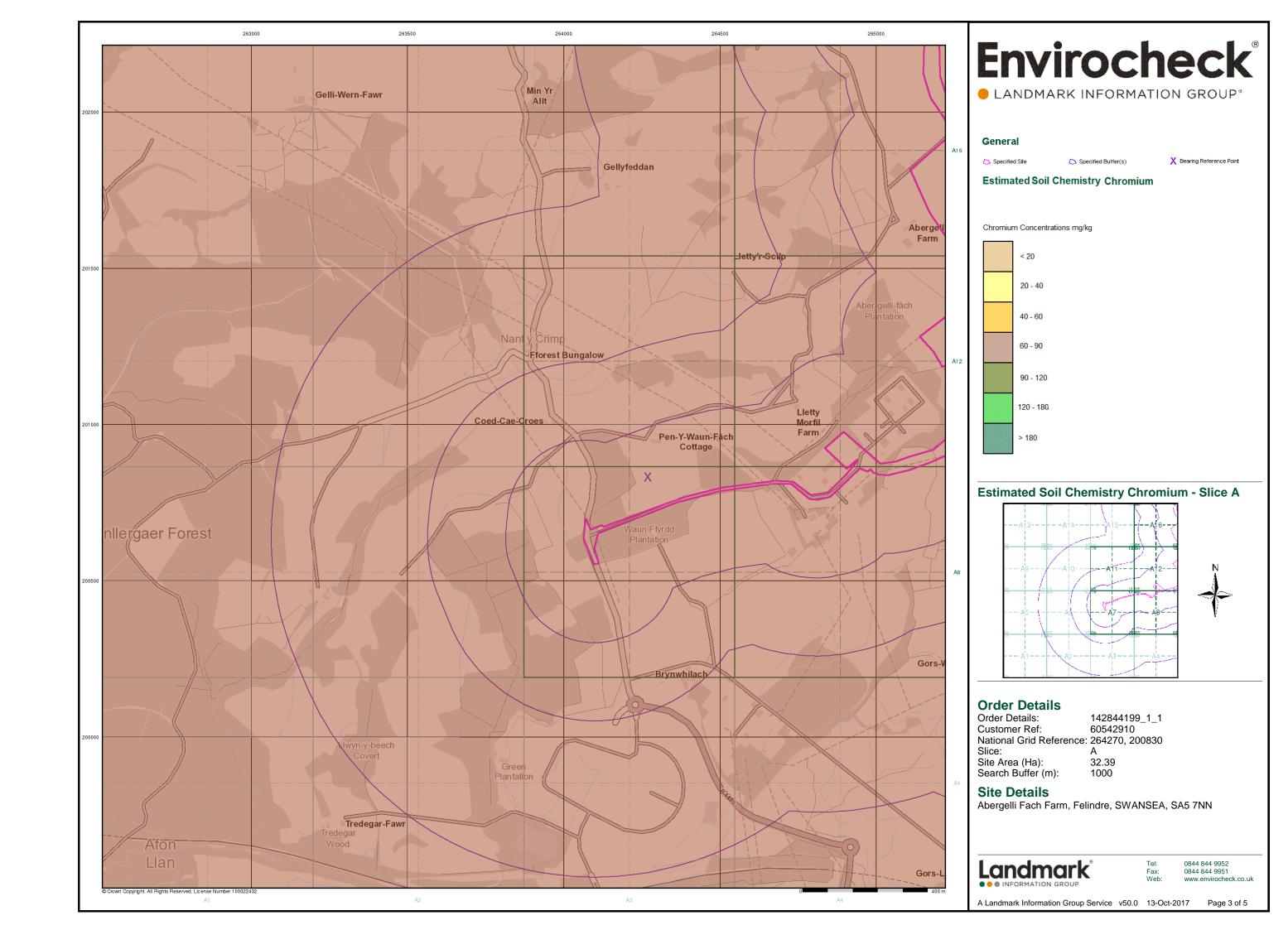


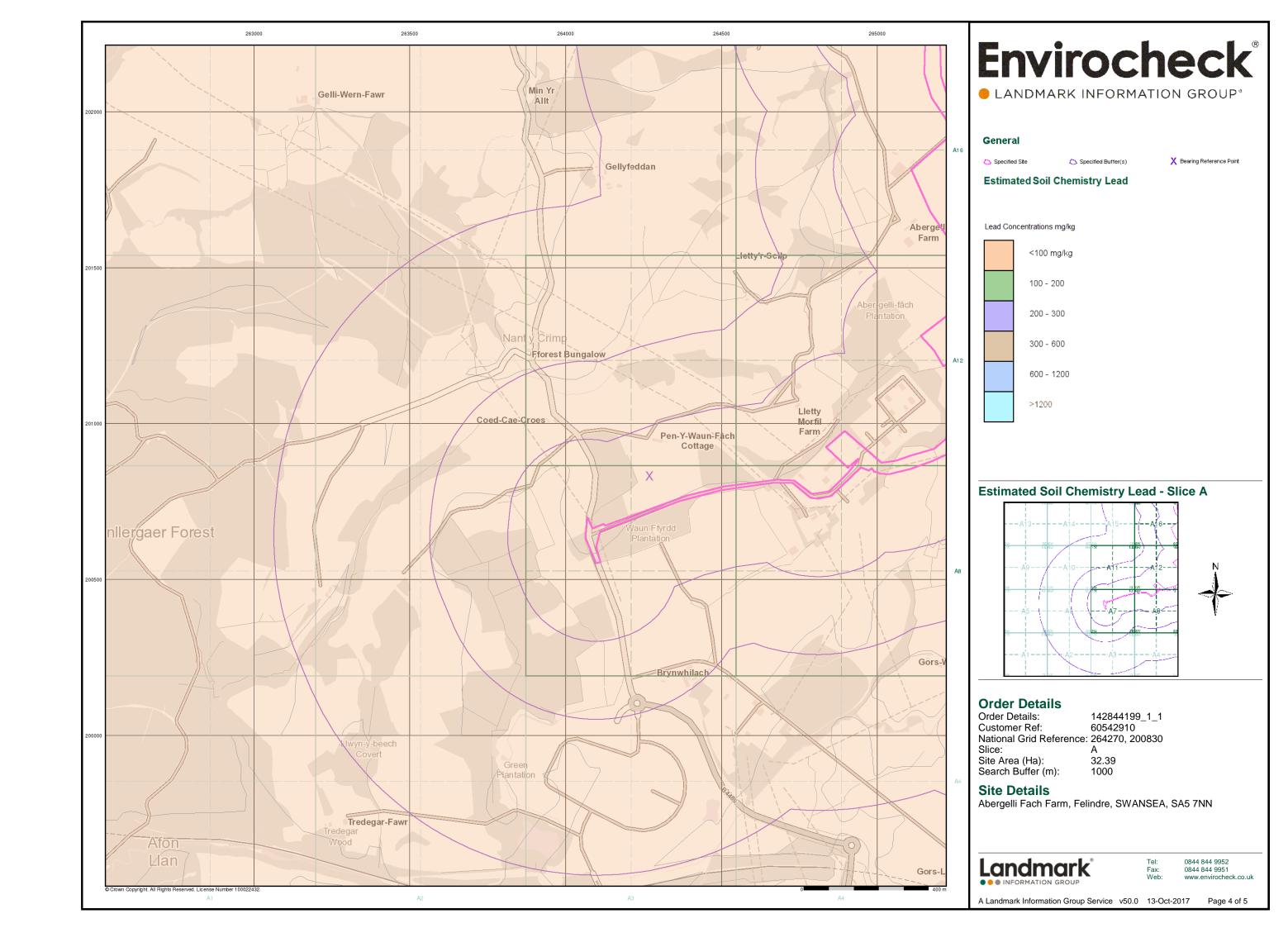


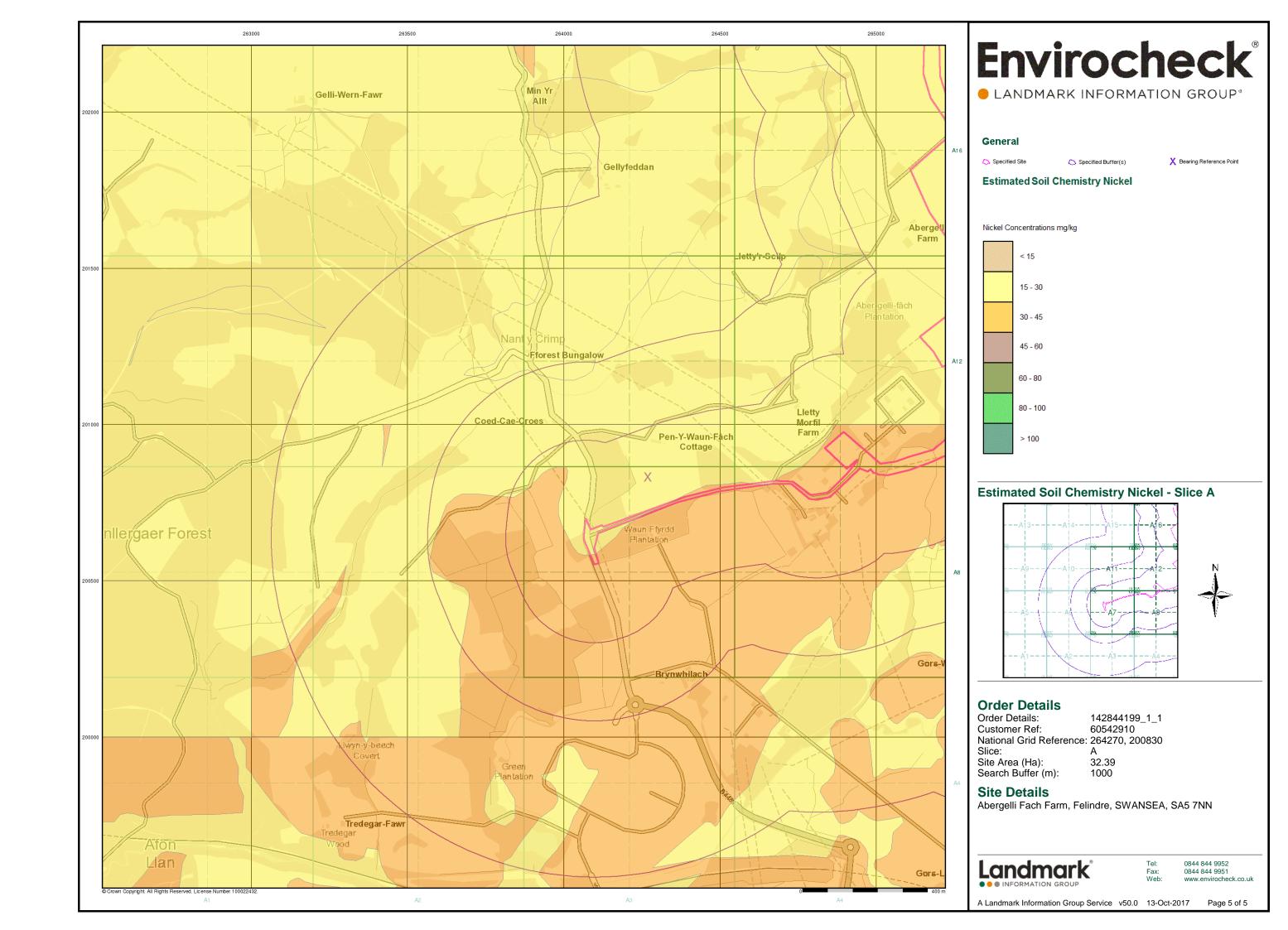












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice: A

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche BGS Boreholes

| Map ID: | Easting: | Northing: | Distance: | Quadr | ant FQuadrant | t f Beari | ing Re BGS Refere | Drilled Len Borehole N  |
|---------|----------|-----------|-----------|-------|---------------|-----------|-------------------|-------------------------|
| 278     | 265200   | 201700    | 0         | A16   | SE            | NE        | Sn60se16          | Not SupplicAbergelli S  |
| 279     | 265110   | 201810    | 2         | A16   | SE            | NE        | Sn60se15          | Not SupplicAbergelli C  |
| 280     | 265200   | 201600    | 20        | A16   | SE            | NE        | Sn60se24          | 16 Abergelli-F          |
| 281     | 263550   | 200690    | 517       | A6    | NE            | W         | Sn60sw96          | 9 Pen-Y-Waι             |
| 282     | 264570   | 201760    | 542       | A16   | SW            | N         | Sn60sw68          | 7.92 Abergelli. E       |
| 283     | 264500   | 200100    | 599       | А3    | NE            | S         | Sn60sw78          | Not SupplicSwansea N    |
| 283     | 264500   | 200100    | 599       | А3    | NE            | S         | Sn60sw79          | Not SupplicSwansea N    |
| 283     | 264500   | 200100    | 599       | А3    | NE            | S         | Sn60sw80          | Not SupplicSwansea N    |
| 283     | 264500   | 200100    | 599       | А3    | NE            | S         | Sn60sw81          | Not SupplicSwansea N    |
| 283     | 264500   | 200100    | 599       | А3    | NE            | S         | Sn60sw82          | Not SupplicSwansea N    |
| 284     | 264470   | 201900    | 645       | A15   | NE            | N         | Sn60sw67          | 11.58 Abergelli. E      |
| 285     | 264470   | 201700    | 650       | A15   | SE            | N         | Sn60sw69          | 4.78 Abergelli. E       |
| 286     | 264700   | 200080    | 688       | A4    | NW            | SE        | Sn60sw48          | 130.4 Bryn-Whila        |
| 287     | 264410   | 201610    | 729       | A15   | SE            | N         | Sn60sw70          | 6.4 Abergelli. E        |
| 288     | 264350   | 201510    | 730       | A11   | NE            | N         | Sn60sw71          | 8.53 Abergelli. E       |
| 289     | 264380   | 201780    | 730       | A15   | SE            | N         | Sn60sw75          | 7.32 Abergelli. E       |
| 290     | 264240   | 201500    | 746       | A11   | NE            | N         | Sn60sw72          | 12.19 Abergelli. E      |
| 291     | 264340   | 202010    | 758       | A15   | NE            | N         | Sn60sw66          | 9.45 Abergelli. E       |
| 292     | 264590   | 199940    | 780       | A4    | NW            | S         | Ss69nw152         | Not SupplicLlanelli-Sw  |
| 293     | 264690   | 199970    | 798       | A4    | NW            | SE        | Ss69nw369         | 130.48 Bryn-Whila       |
| 294     | 264280   | 201580    | 814       | A15   | SE            | N         | Sn60sw73          | 10.97 Abergelli. E      |
| 295     | 264260   | 201650    | 866       | A15   | SE            | N         | Sn60sw74          | 14.25 Abergelli. E      |
| 296     | 264200   | 202000    | 891       | A15   | NW            | N         | Sn60sw1           | Not SupplicCil-Faen, 2! |
| 297     | 264120   | 201650    | 921       | A15   | SW            | N         | Sn60sw76          | 7.92 Abergelli. E       |

#### eck.co.uk.

Link to Borehole Scan:

Not Available

Not Available

http://scans.bgs.ac.uk/sobi\_scans/boreholes/256144/

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Not Available

Not Available

Not Available

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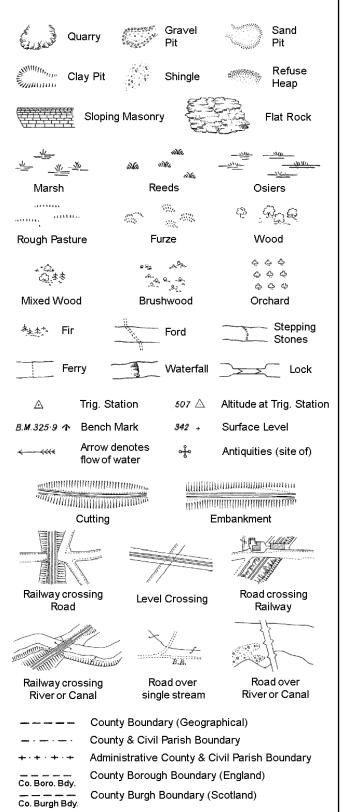
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### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

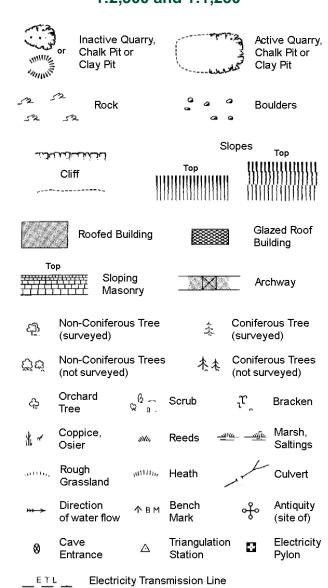
Trough Well

S.P

Sl.

 $T_T$ 

#### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



| E T L | Electricity Transmission Line |
|-------|-------------------------------|
|       |                               |

County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

### 1:1,250

| المأعلان               | للنبلين                   |                                |                               | opes   | Тор                     |
|------------------------|---------------------------|--------------------------------|-------------------------------|--|-------------------------|
|                        | Cliff<br>                 |                                | Тор                           | ))))))<br>                                     | <b>}}}}}</b>            |
| 525                    | Rock                      |                                | 7,3                           | Rock (s  | scattered)              |
| $\triangle_{a}$        | Boulders                  |                                | <i>\triangle</i>              | Boulde   | rs (scattered)          |
| $\triangle$            | Positioned                | Boulder                        |                               | Scree  |                         |
| C 53                   | Non-Conifo<br>(surveyed)  | erous Tree                     | \$                            | Conifer<br>(surve)                             | rous Tree<br>yed)       |
| C ) C 1                | Non-Conife<br>(not surve  | erous Trees<br>/ed)            | , ¥*                          |  | rous Trees<br>rveyed)   |
| 45                     | Orchard<br>Tree           | Q a.                           | Scrub                         | 'n,  | Bracken                 |
|                        | Coppice,<br>Osier         | siVe,                          | Reeds 🗝                       | । <u>।ए                                   </u> | Marsh, Saltings         |
|                        | Rough<br>Grassland        | mmm,                           | Heath                         | 1  | Culvert                 |
| ***                    | Direction<br>of water flo | ww                             | Triangulation<br>Station      | ુ નુ   | Antiquity<br>(site of)  |
| E <u>T</u> L           | . Electric                | ity Transmis                   | ssion Line                    | $\boxtimes$                                    | Electricity<br>Pylon    |
| \                      | 231.6úm E                 | ench Mark                      |                               |  | ngs with<br>ng Seed     |
| 63.36.2                | Roofe                     | ed Building                    |                               | 251  | Blazed Roof<br>Building |
|                        |                           | Civil parish                   | /community b                  | oundar   | у                       |
|                        |                           | District box                   | undary                        |  |                         |
| _ •                    |                           | County box                     | undarv                        |  |                         |
| ٥                      |                           | Boundary                       | =                             |  |                         |
| ٥                      |                           | Boundary r                     | mereing symb<br>ear in oppose |  |                         |
| Bks                    | Barracks                  |                                | Р                             | Pillar, P                                      | ole or Post             |
| Bty                    | Battery                   |                                | PO                            | Post 01  | ffice                   |
| Cemy                   | Cemetery                  |                                | PC                            | Public (                                       | Convenience             |
| Chy                    | Chimney                   |                                | Pp                            | Pump   |                         |
| Cis                    | Cistern                   |                                | Ppg Sta                       |  | ng Station              |
| Dismtd Ri<br>El Gen St | •                         | tled Railway<br>ity Generating | PW<br>Sewage P                |  | fWorship<br>Sewage      |
|                        | Station                   |                                | _                             |  | Pumping Station         |
| EIP                    |                           | Pole, Pillar                   | SB, S Br                      | _  | Box or Bridge           |
|                        | a Electricity             | Sub Station                    | SP, SL                        | Signal   | Post or Light           |
| FB                     | Filter Bed                |                                | Spr                           | Spring   |                         |

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

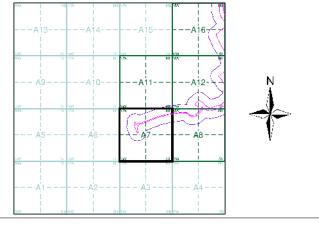
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1876 - 1877 | 2  |
| Glamorganshire                           | 1:2,500 | 1898        | 3  |
| Glamorganshire                           | 1:2,500 | 1916        | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1959 - 1962 | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1962        | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1973        | 8  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 9  |
| Additional SIMs                          | 1:2,500 | 1989 - 1990 | 10 |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 11 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 12 |

#### **Historical Map - Segment A7**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tr

Wd Pp

Site Area (Ha): 32.39 Search Buffer (m): 100

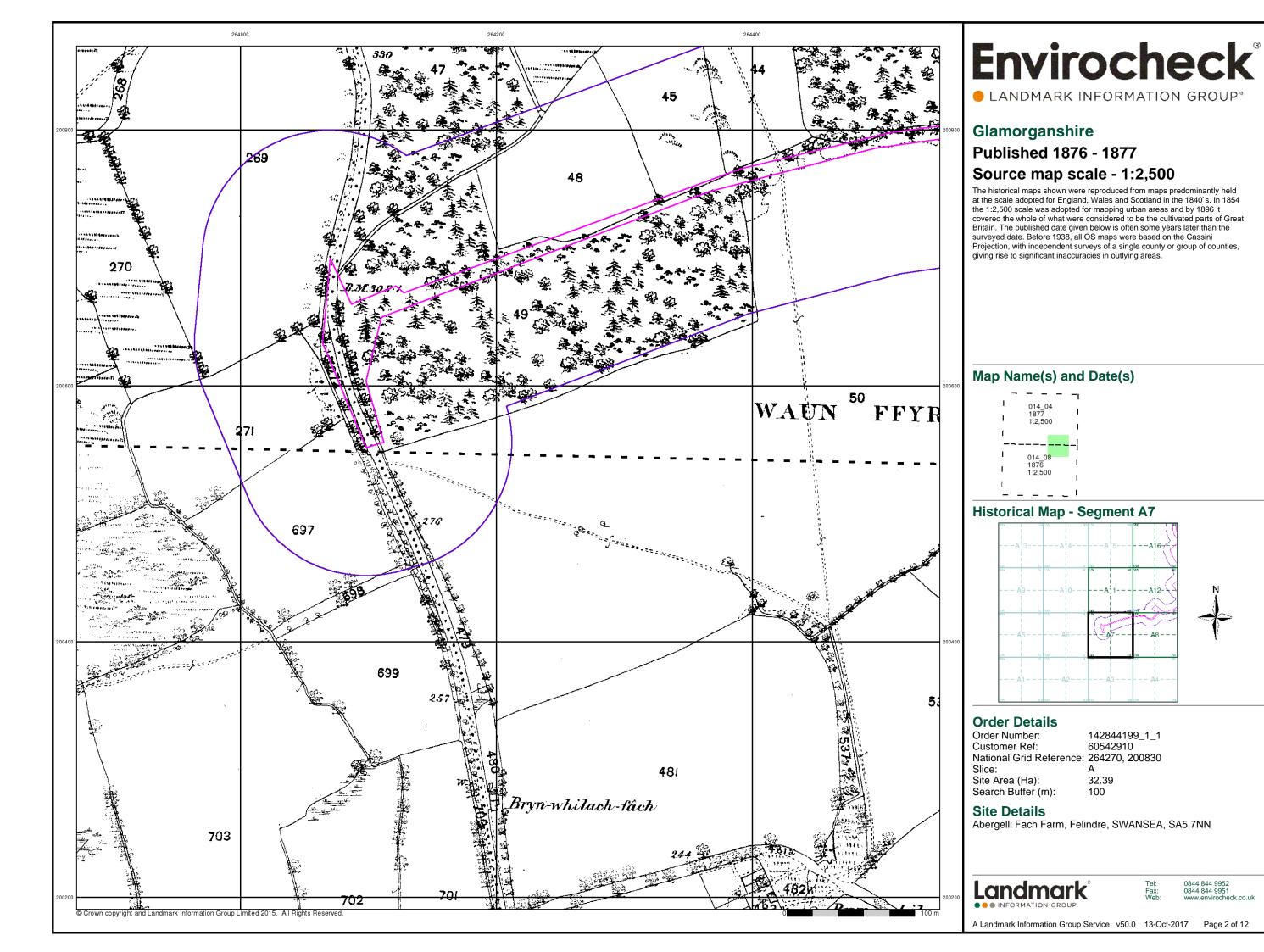
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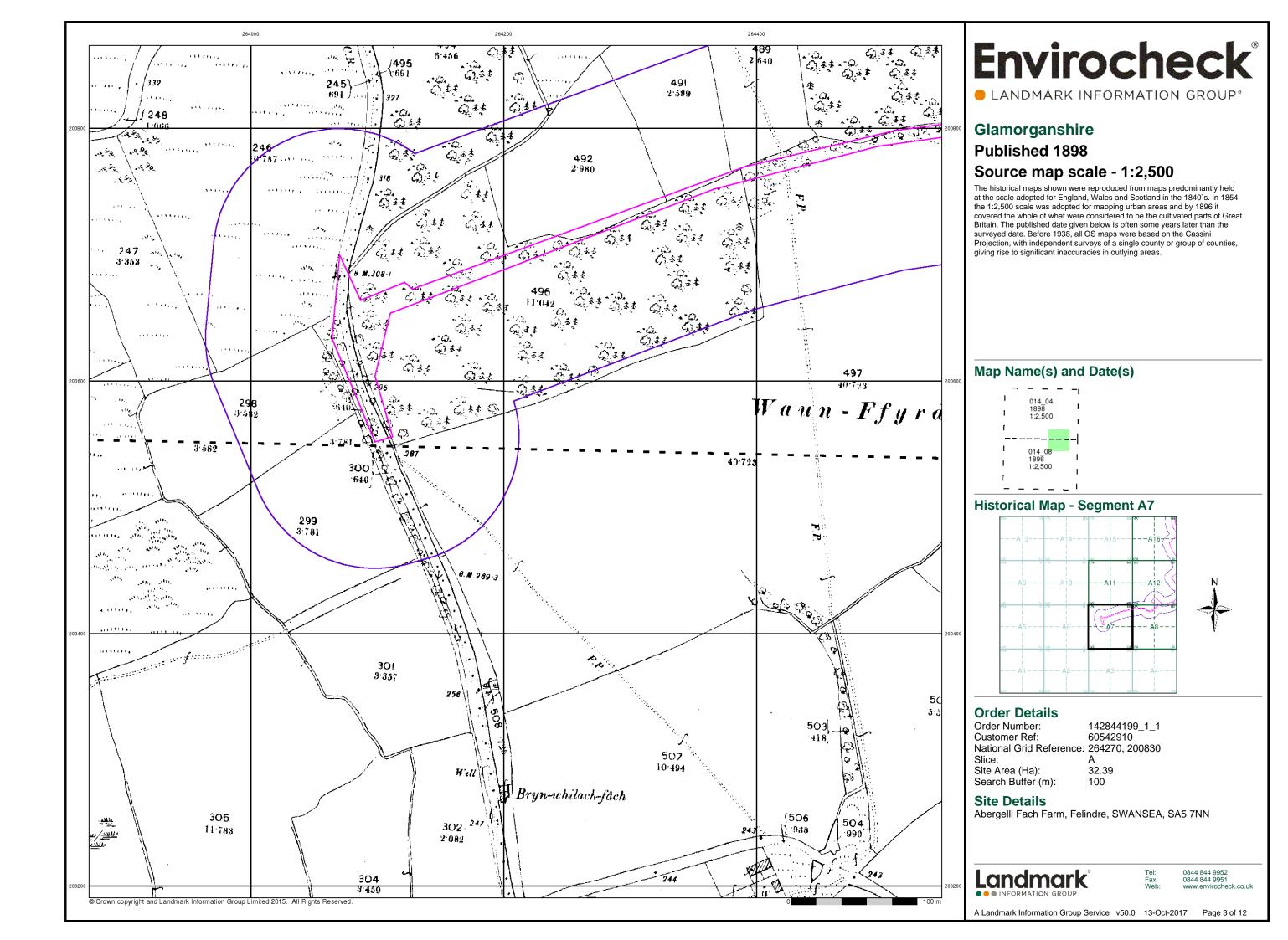
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

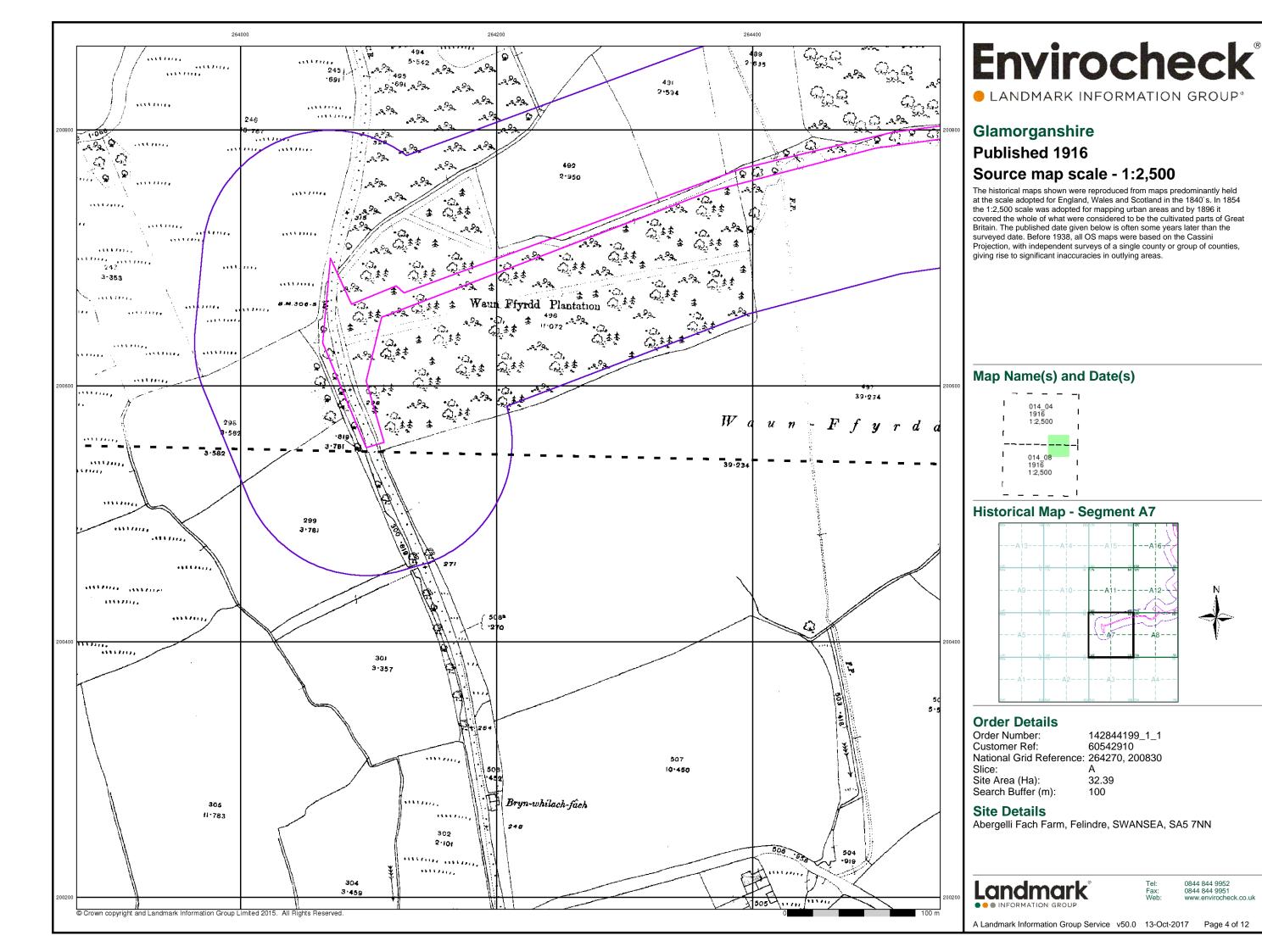


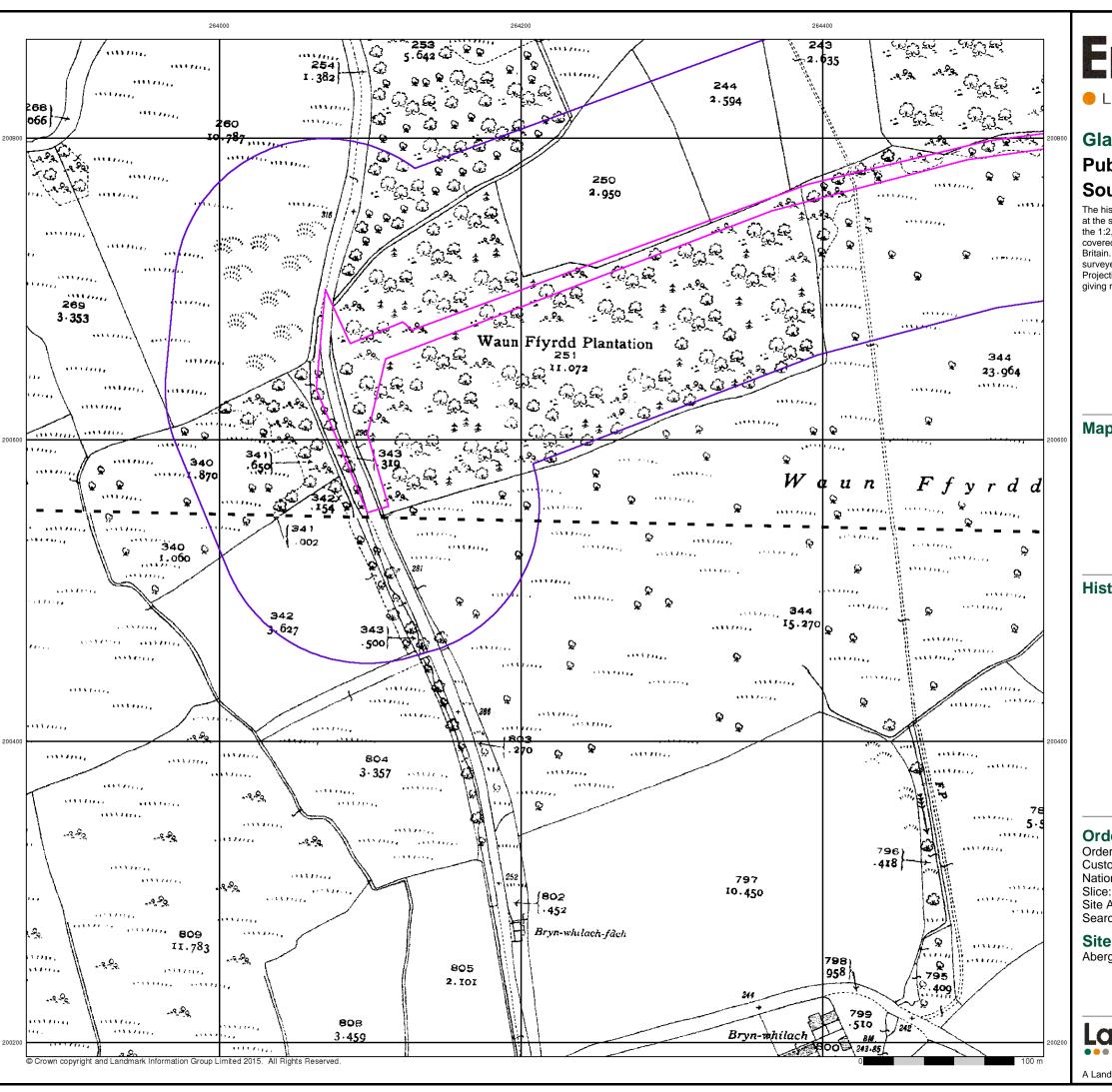
0844 844 9952 0844 844 9951

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12









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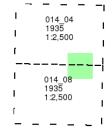
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#### **Published 1935**

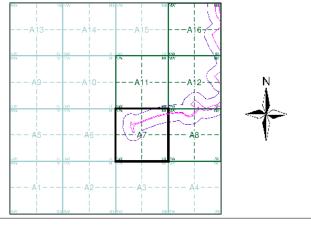
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered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

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



#### **Historical Map - Segment A7**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m): 100

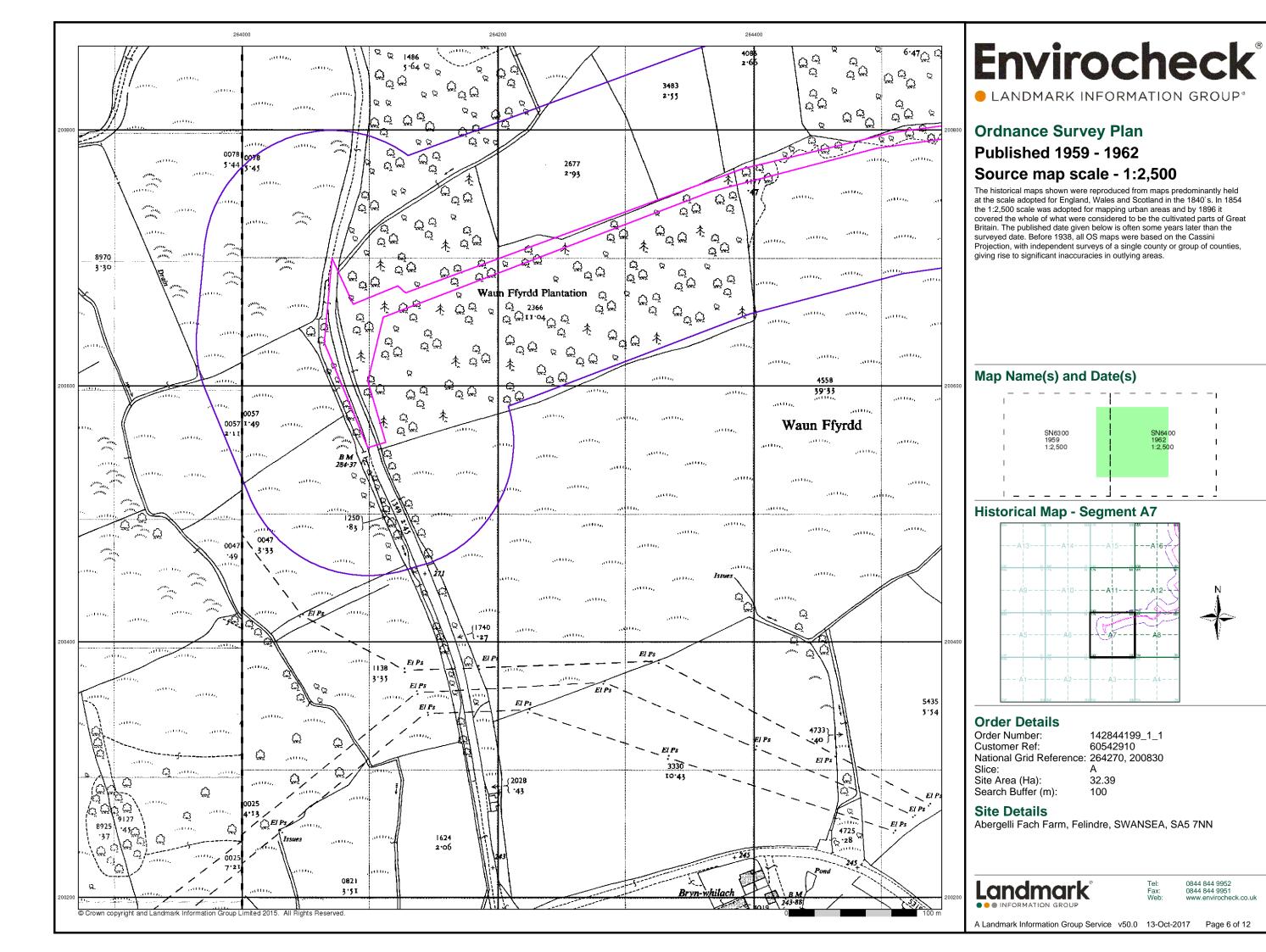
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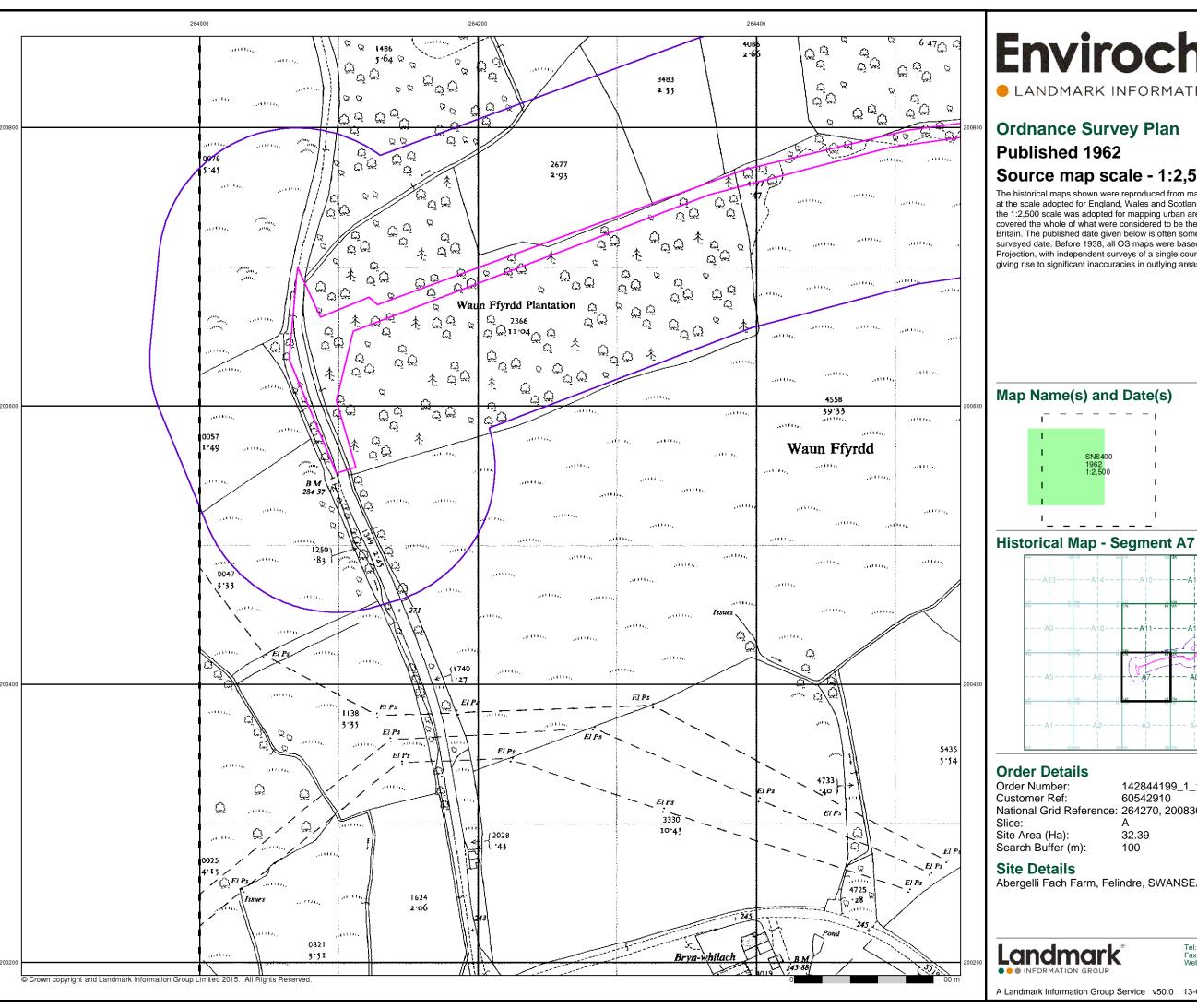
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 5 of 12





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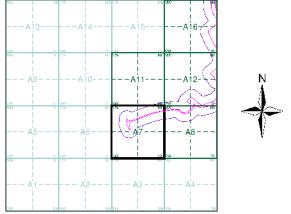
### **Ordnance Survey Plan**

#### Source map scale - 1:2,500

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





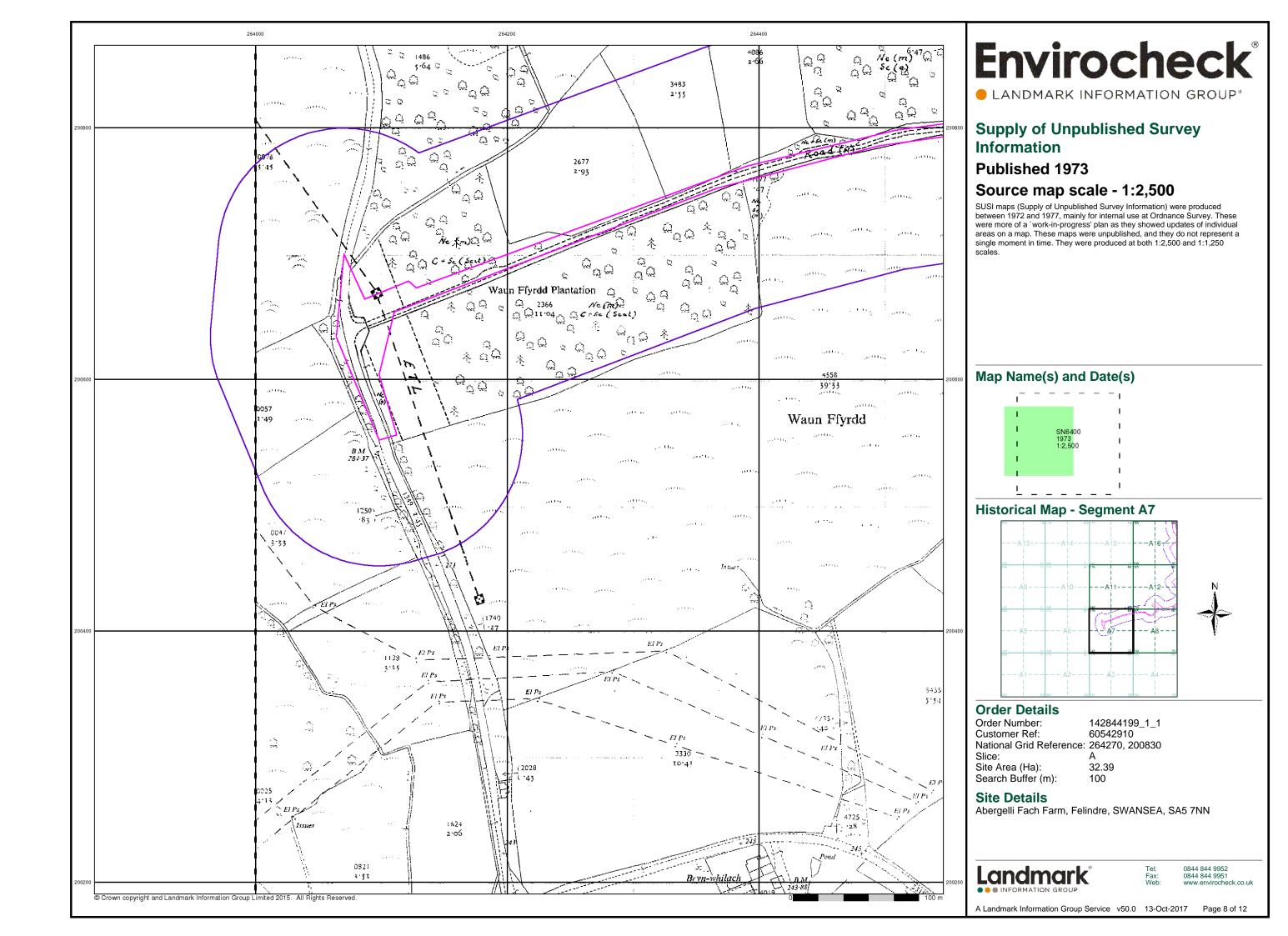
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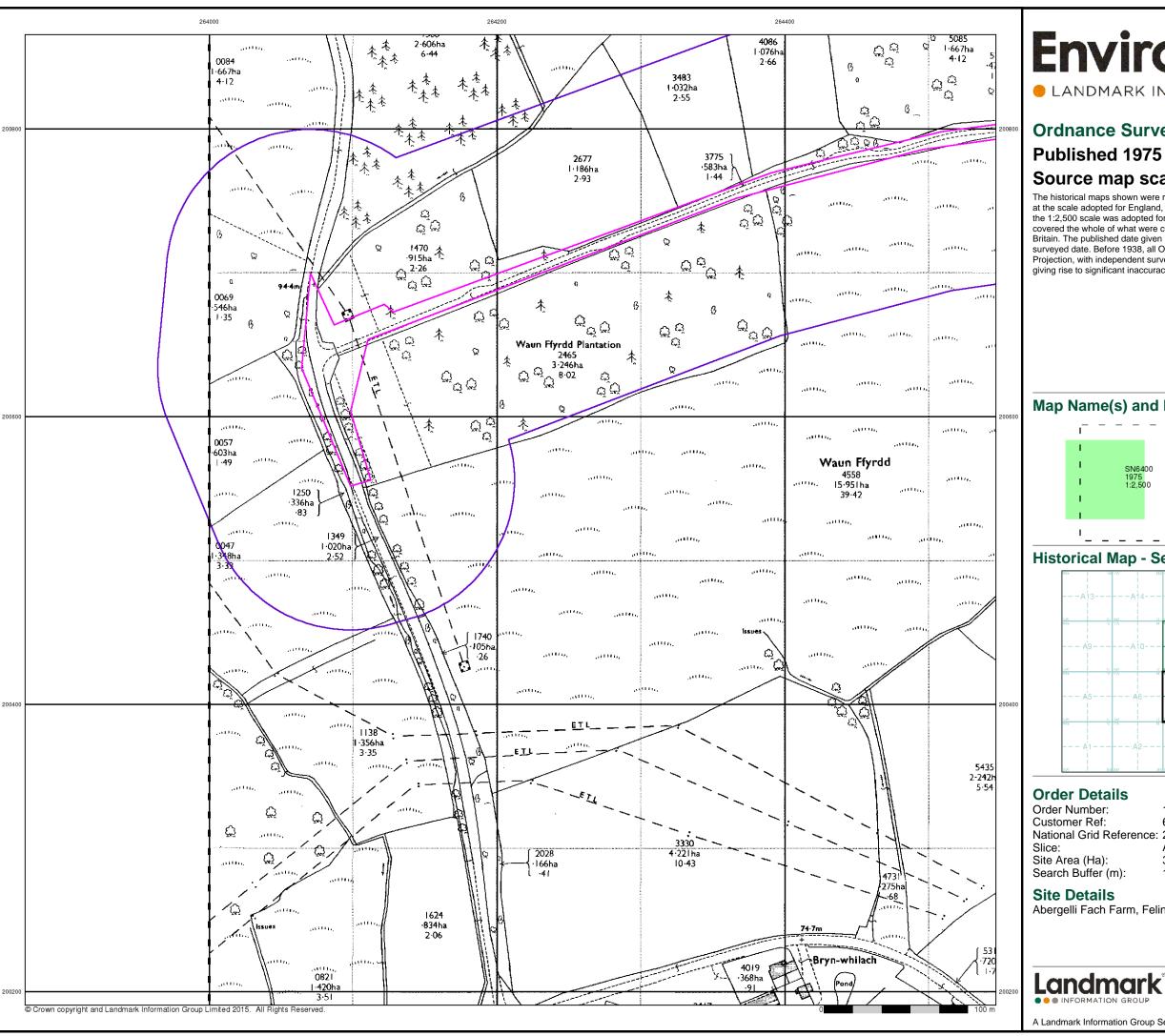
32.39

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 7 of 12





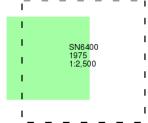
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### **Ordnance Survey Plan**

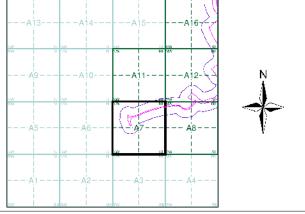
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#### Map Name(s) and Date(s)



#### **Historical Map - Segment A7**



142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

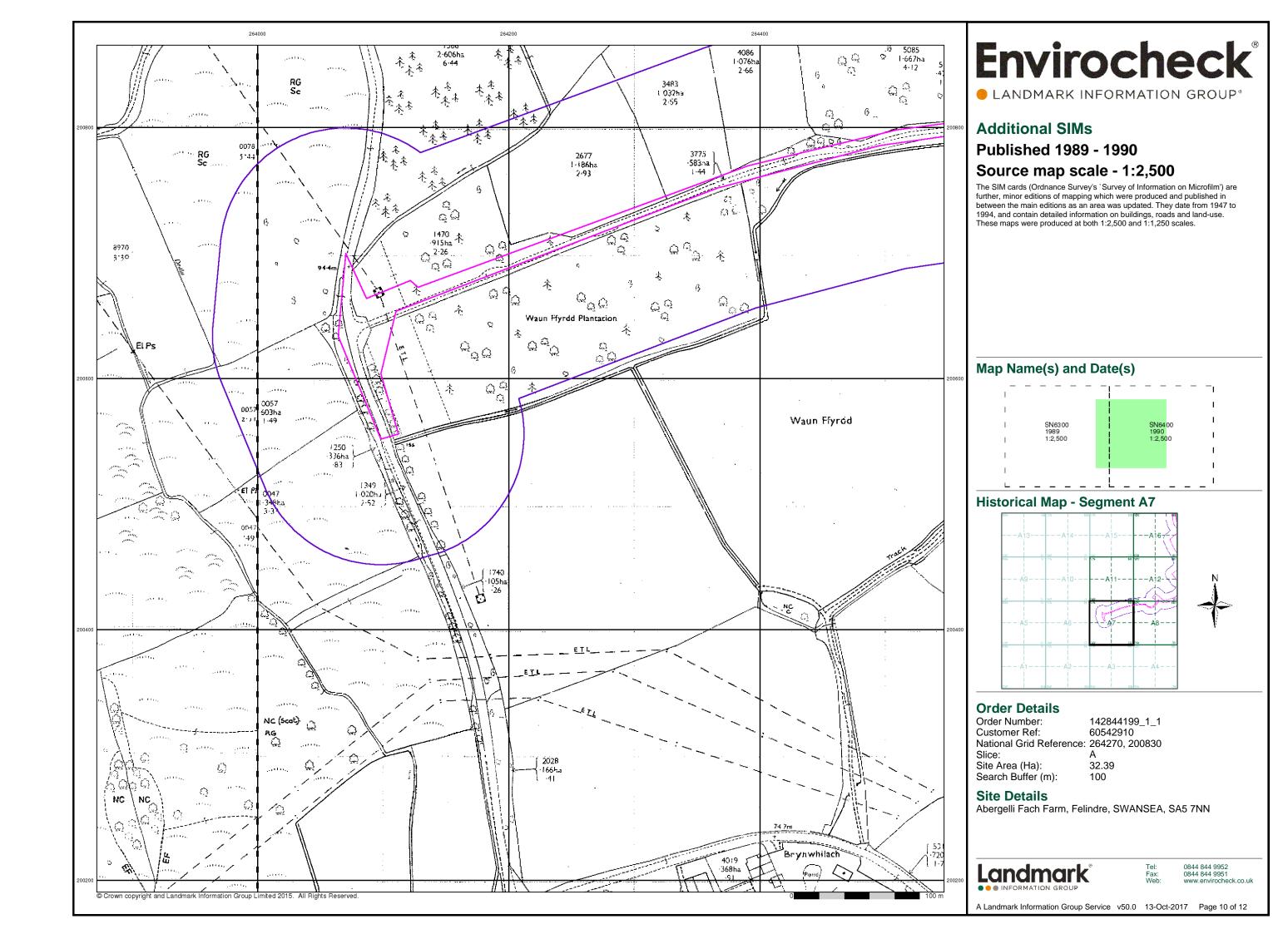
32.39 100

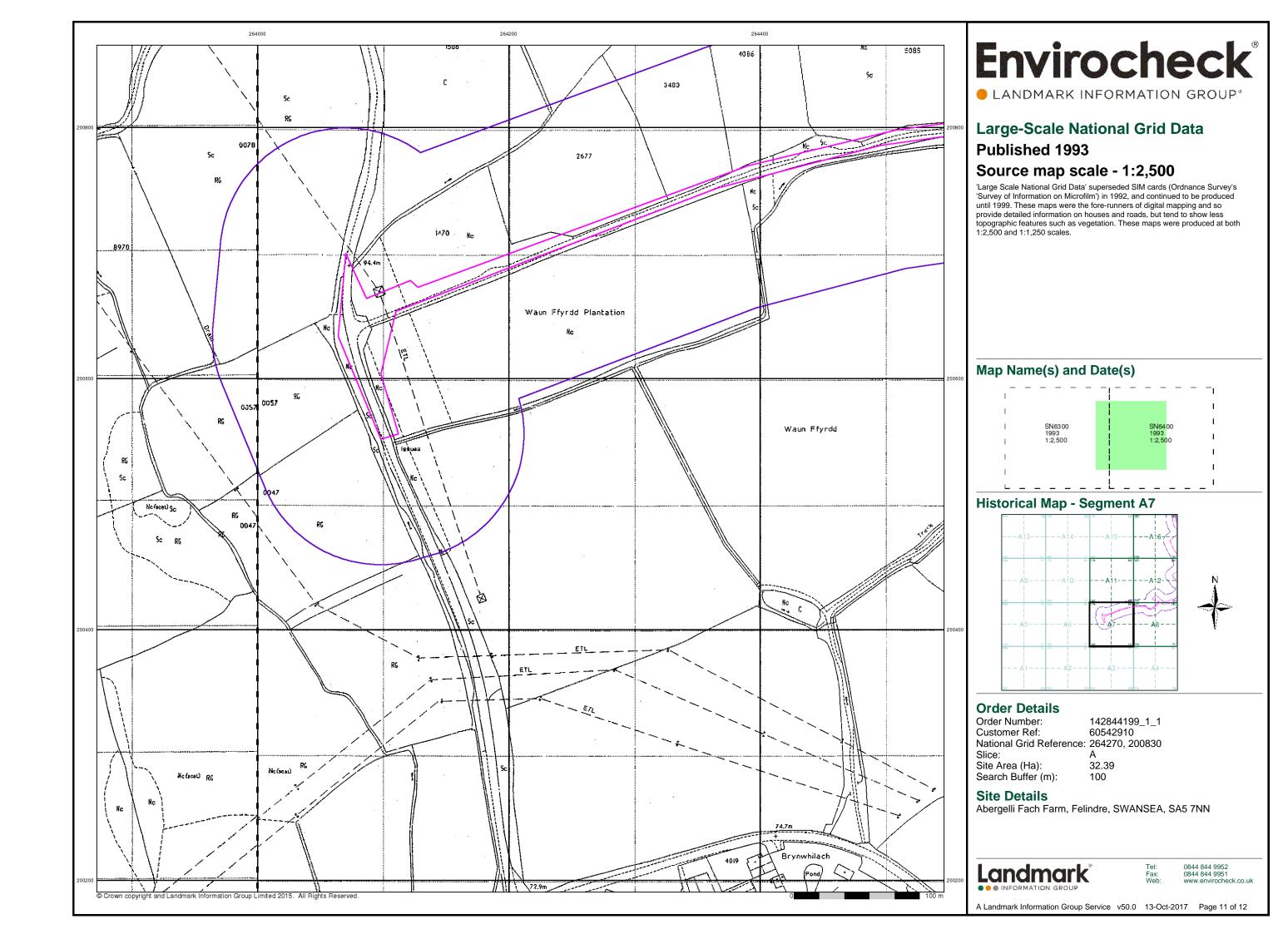
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 12





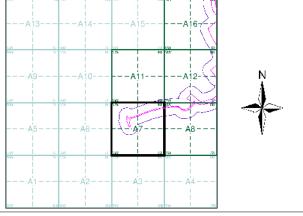


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### **Historical Aerial Photography** Published 2000

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

#### **Historical Aerial Photography - Segment A7**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 12

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National Grid I 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

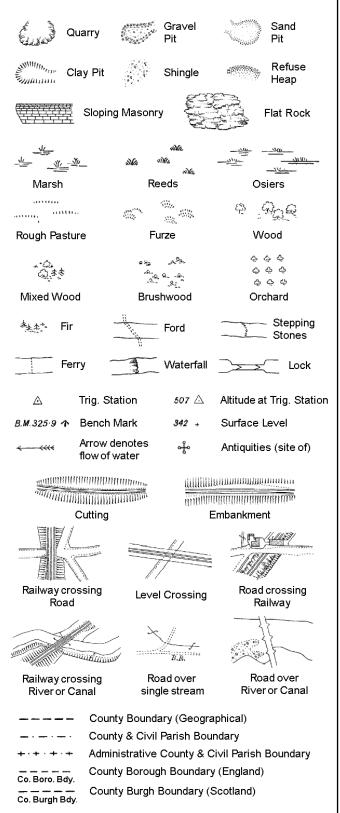
Abergelli Fach Felindre SWANSEA SA5 7NN

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142844199_1_Supply of L
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142844199_1_Large-Scale
142844199_1_Large-Scale
                            1993 1:2,500
142844199_1_ Large-Scale
                            1993 1:2,500
142844199_1_Large-Scale
                            1993 1:2,500
142844199_1_ Large-Scale
                            1993 1:2,500
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### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

Bridle Road

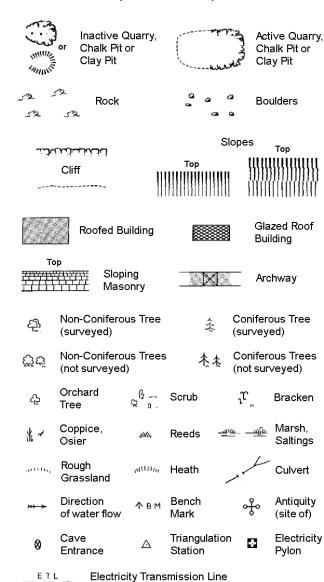
Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



|        |                      | Symbol mark<br>nereing cha |           | where boundary         |
|--------|----------------------|----------------------------|-----------|------------------------|
| вн     | Beer House           |                            | Р         | Pillar, Pole or Post   |
| BP, BS | <b>Boundary Post</b> | or Stone                   | PO        | Post Office            |
| Cn, C  | Capstan, Crane       |                            | PC        | Public Convenience     |
| Chy    | Chimney              |                            | PH        | Public House           |
| D Fn   | Drinking Fount       | ain                        | Pp        | Pump                   |
| EIP    | Electricity Pillar   | or Post                    | SB, S Br  | Signal Box or Bridge   |
| FAP    | Fire Alarm Pillar    |                            | SP, SL    | Signal Post or Light   |
| FB     | Foot Bridge          |                            | Spr       | Spring                 |
| GP     | Guide Post           |                            | Tk        | Tank or Track          |
| Н      | Hydrant or Hyd       | raulic                     | TCB       | Telephone Call Box     |
| LC     | Level Crossing       |                            | TCP       | Telephone Call Post    |
| MH     | Manhole              |                            | Tr        | Trough                 |
| MP     | Mile Post or Mod     | oring Post                 | WrPt, WrT | Water Point, Water Tap |
| MS     | Mile Stone           |                            | W         | Well                   |

Wd Pp

Wind Pump

County Boundary (Geographical) County & Civil Parish Boundary

Admin. County or County Bor. Boundary

Civil Parish Boundary

London Borough Boundary

L B Bdy

NTL

Normal Tidal Limit

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough

Well

S.P

Sl.

 $T_{T}$ 

### 1:1,250

|                           | ~~~~                    |                     | SI                            | opes                      | Тор                     |
|---------------------------|-------------------------|---------------------|-------------------------------|---------------------------|-------------------------|
|                           | لكنات                   |                     | Тор                           | 111111                    | 11111111111             |
| (                         | Cliff                   | 111                 |                               |                           | )))))))))               |
| ,                         |                         | 111                 |                               | 111111                    | [[[]]]                  |
|                           |                         |                     |                               |                           |                         |
| 75 E                      | Rock                    |                     | 7,5                           | Rock (se                  | cattered)               |
|                           | Boulders                |                     | <i>△</i>                      | Boulder                   | s (scattered)           |
|                           | Positioned              | Boulder             |                               | Scree                     |                         |
| දුමු                      | Non-Conif<br>(surveyed  | erous Tree<br>)     | #                             | Conifero                  | ous Tree<br>ed)         |
| Öά                        | Non-Conif<br>(not sur∨e | erous Trees<br>yed) | * **                          | Coniferon (not sur        | ous Trees<br>veyed)     |
| දා                        | Orchard<br>Tree         | Q a.                | Scrub                         | ıτ,                       | Bracken                 |
| * ~                       | Coppice,<br>Osier       | sNu,                | Reeds 🛥                       | 11cc — <u>11</u> 5cc      | Marsh,<br>Saltings      |
| artti,                    | Rough<br>Grassland      | <i>1</i> 1111111,   | Heath .                       | 1                         | Culvert                 |
| <del>&gt;&gt;&gt; →</del> | Direction of water flo  | Δ<br>ow             | Triangulation<br>Station      | n of                      | Antiquity<br>(site of)  |
| E <u>TL</u> _             | _ Electric              | ity Transmi         | ssion Line                    | $\boxtimes$               | Electricity<br>Pylon    |
| \ <del>€</del> \ 8₩       | 291.60m E               | Bench Mark          |                               | Buildin<br>Buildin        | gs with<br>g Seed       |
|                           | Roofe                   | ed Building         |                               | ∞ 1                       | lazed Roof<br>uilding   |
|                           |                         | Civil parish        | n/community b                 | ooundarv                  |                         |
|                           |                         | District bo         | •                             | · · · · · · · · · · · · · |                         |
|                           |                         |                     | •                             |                           |                         |
| _ ·                       |                         | County bo           |                               |                           |                         |
| ٥                         |                         | Boundary            | oost/stone                    |                           |                         |
| مر                        | ,                       |                     | mereing symb<br>pear in oppos |                           |                         |
| Bks                       | Barracks                |                     | Р                             | Pillar. Po                | le or Post              |
| Bty                       | Battery                 |                     | PO                            | Post Off                  |                         |
| Cemy                      | Cemetery                |                     | PC                            | Public C                  | onvenience              |
| Chy                       | Chimney                 |                     | Pp                            | Pump                      |                         |
| Cis                       | Cistern                 |                     | Ppg Sta                       | Pumping                   | g Station               |
| Dismtd R                  | ly Disman               | tled Railway        | PW                            | Place of                  | Worship                 |
| El Gen S                  | ta Electric<br>Station  | ity Generating      | Sewage F                      |                           | ewage<br>umping Station |
| EIP                       | Electricity             | Pole, Pillar        | SB, S Br                      | Signal B                  | ox or Bridge            |
| El Sub St                 | ta Electricity          | Sub Station         | SP, SL                        | Signal P                  | ost or Light            |
| FB                        | Filter Bed              |                     | Spr                           | Spring                    |                         |
| E= / D ==                 | F4-1 2                  | Data Litera Die     |                               |                           |                         |

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

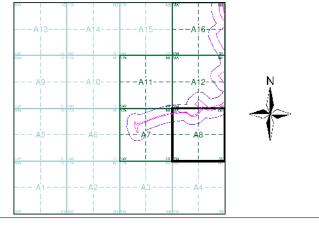
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LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1876 - 1877 | 2  |
| Glamorganshire                           | 1:2,500 | 1898 - 1899 | 3  |
| Glamorganshire                           | 1:2,500 | 1916 - 1918 | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1962        | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1962        | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1973 - 1975 | 8  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 9  |
| Additional SIMs                          | 1:2,500 | 1990        | 10 |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 11 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 12 |

#### **Historical Map - Segment A8**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Tank or Track

Works (building or area)

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Tr

Wd Pp

32.39 Site Area (Ha): Search Buffer (m): 100

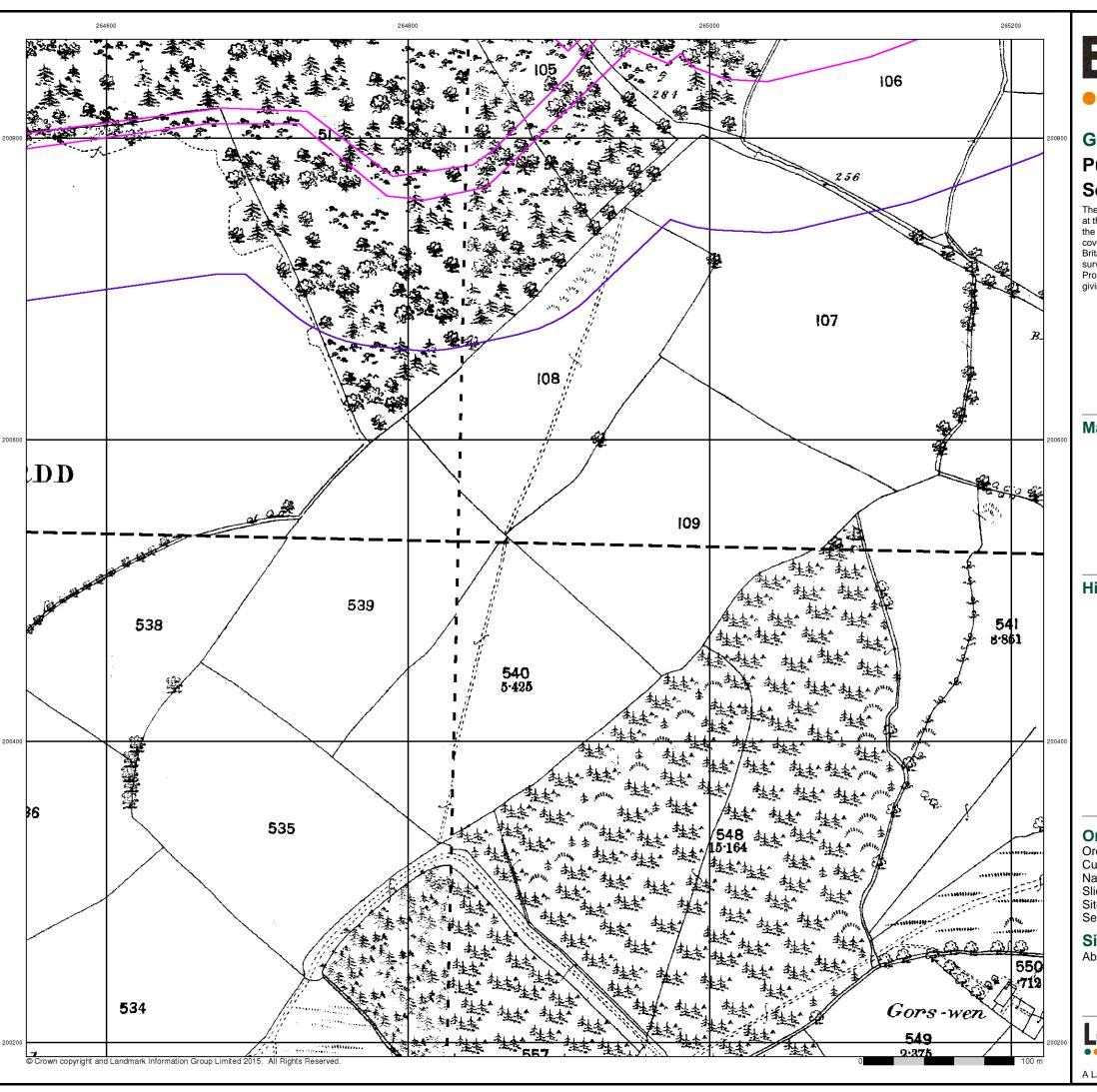
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12



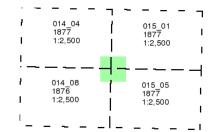
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#### **Glamorganshire**

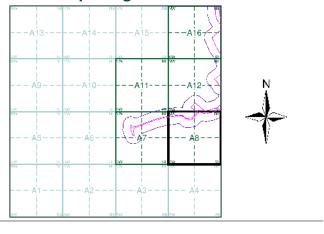
### **Published 1876 - 1877** Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A8**



#### **Order Details**

142844199\_1\_1 60542910 Order Number: Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

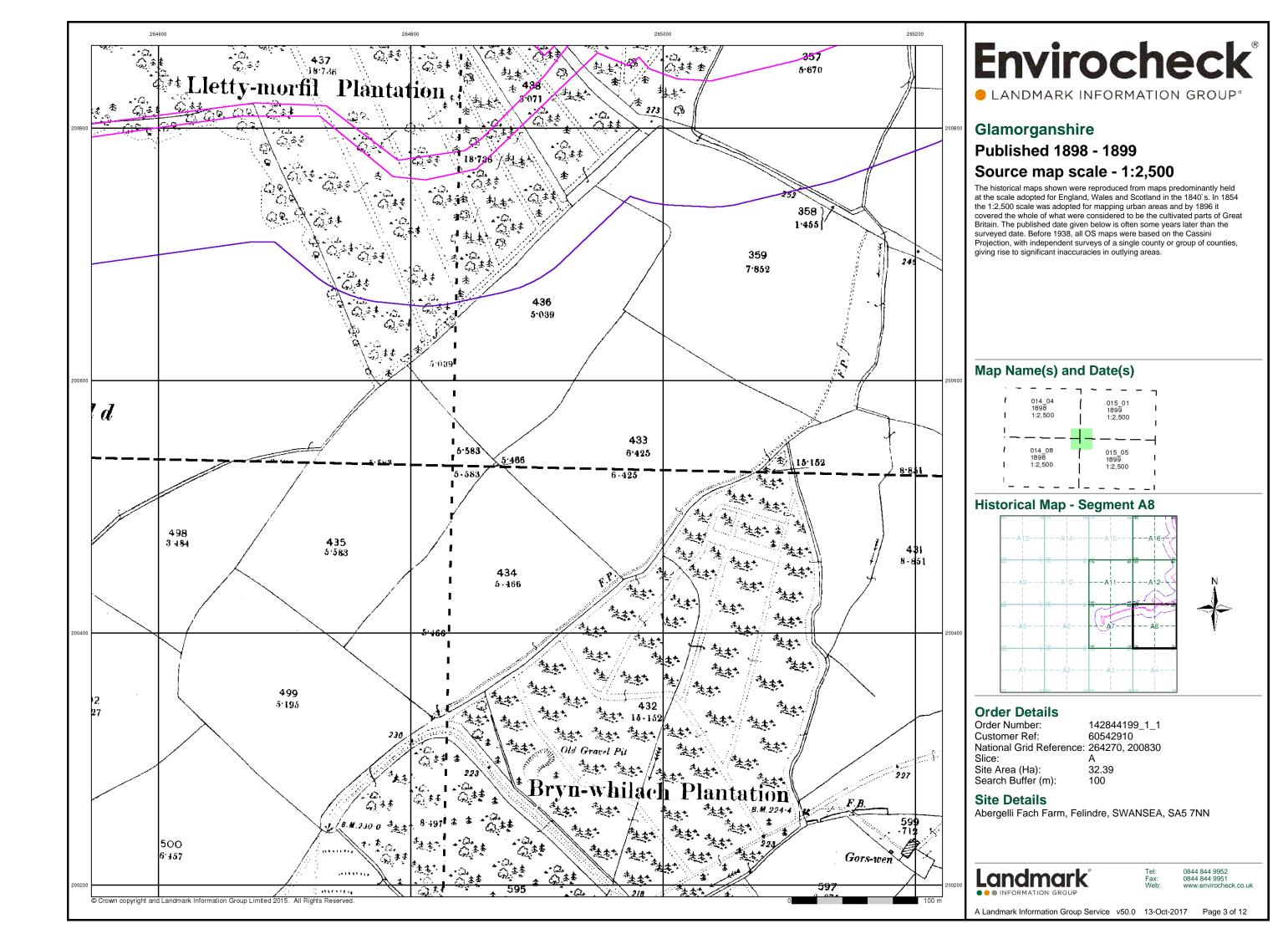
#### **Site Details**

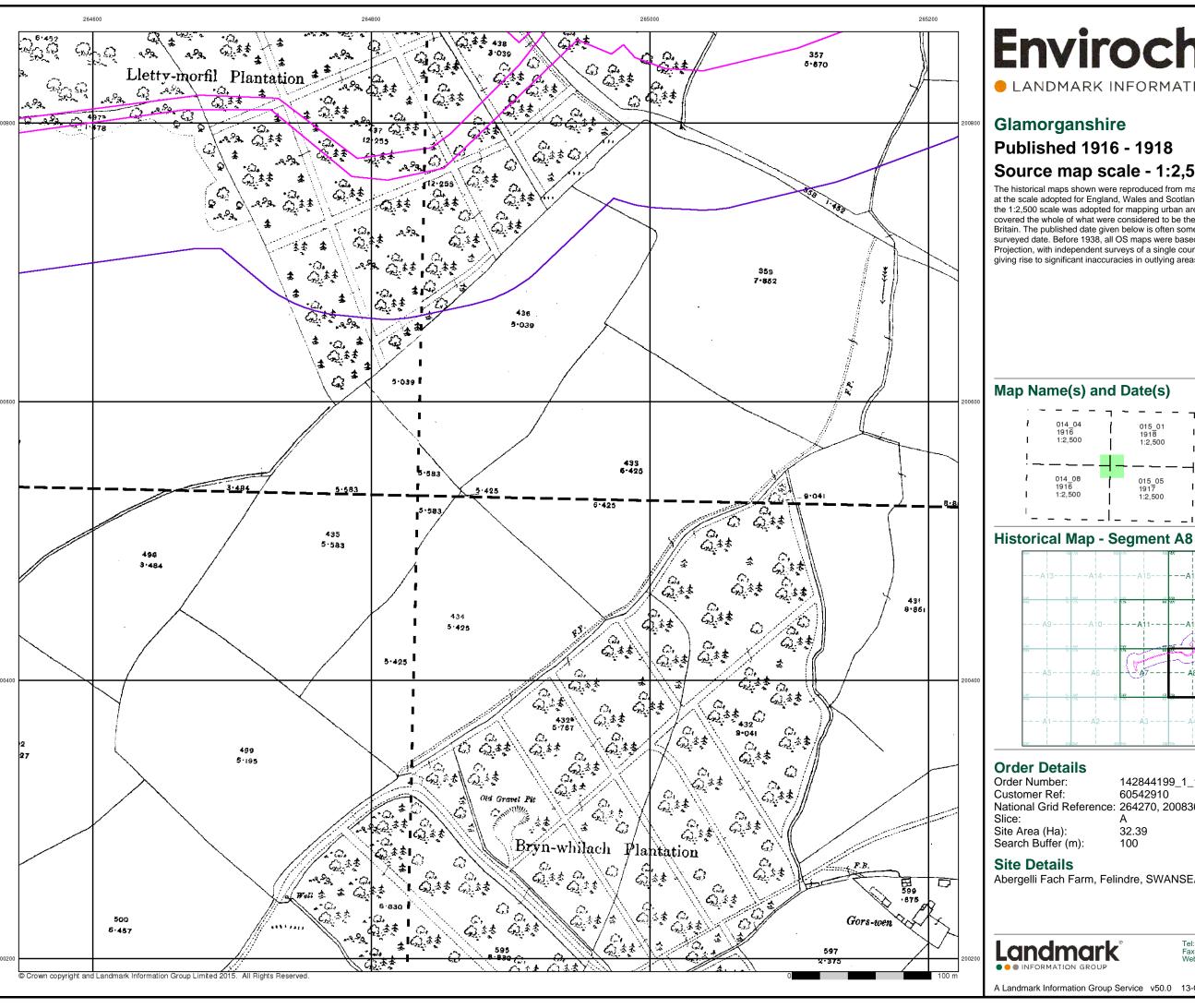
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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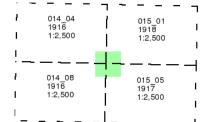


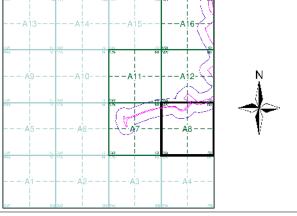
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### Source map scale - 1:2,500

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

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



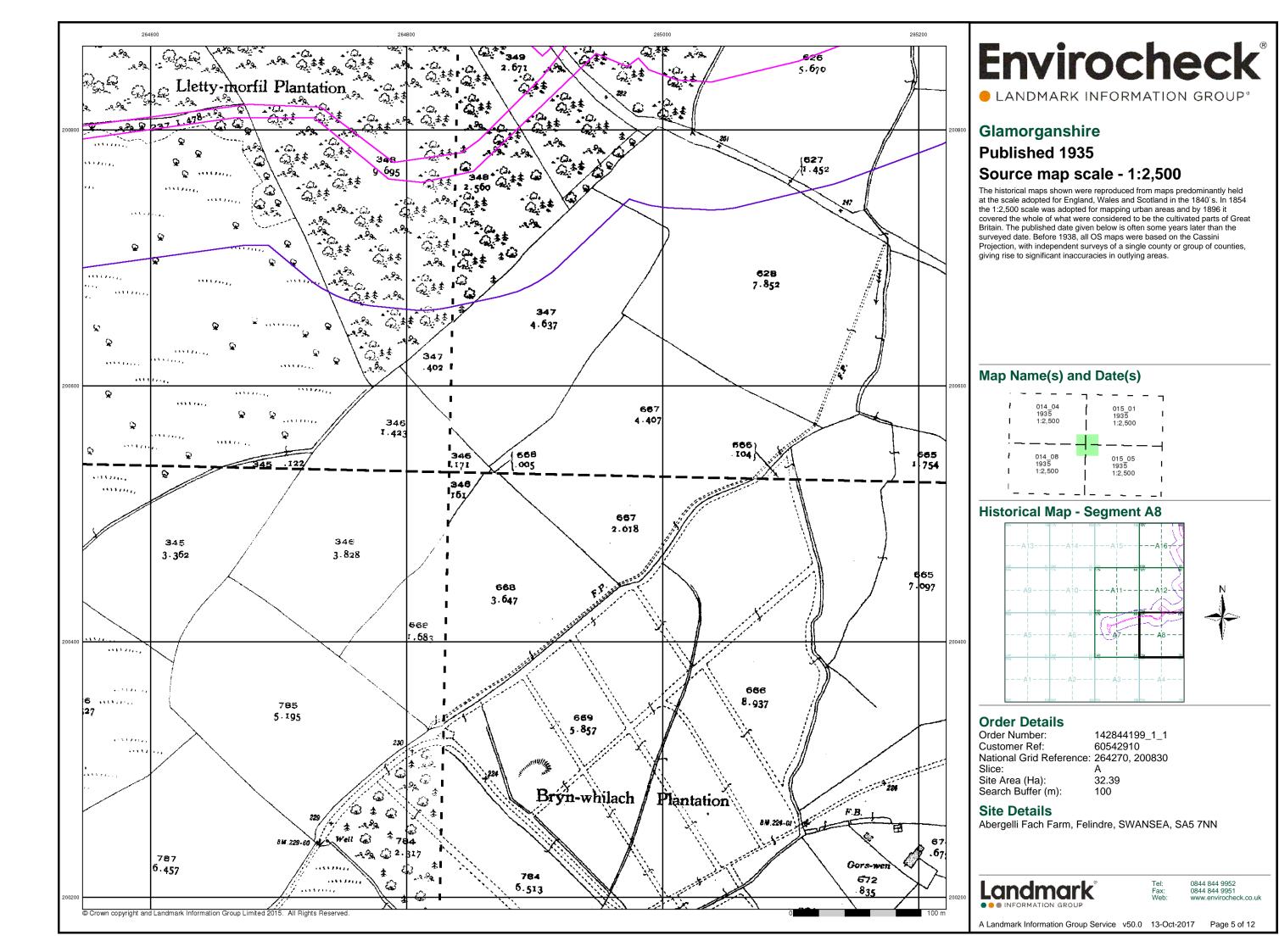


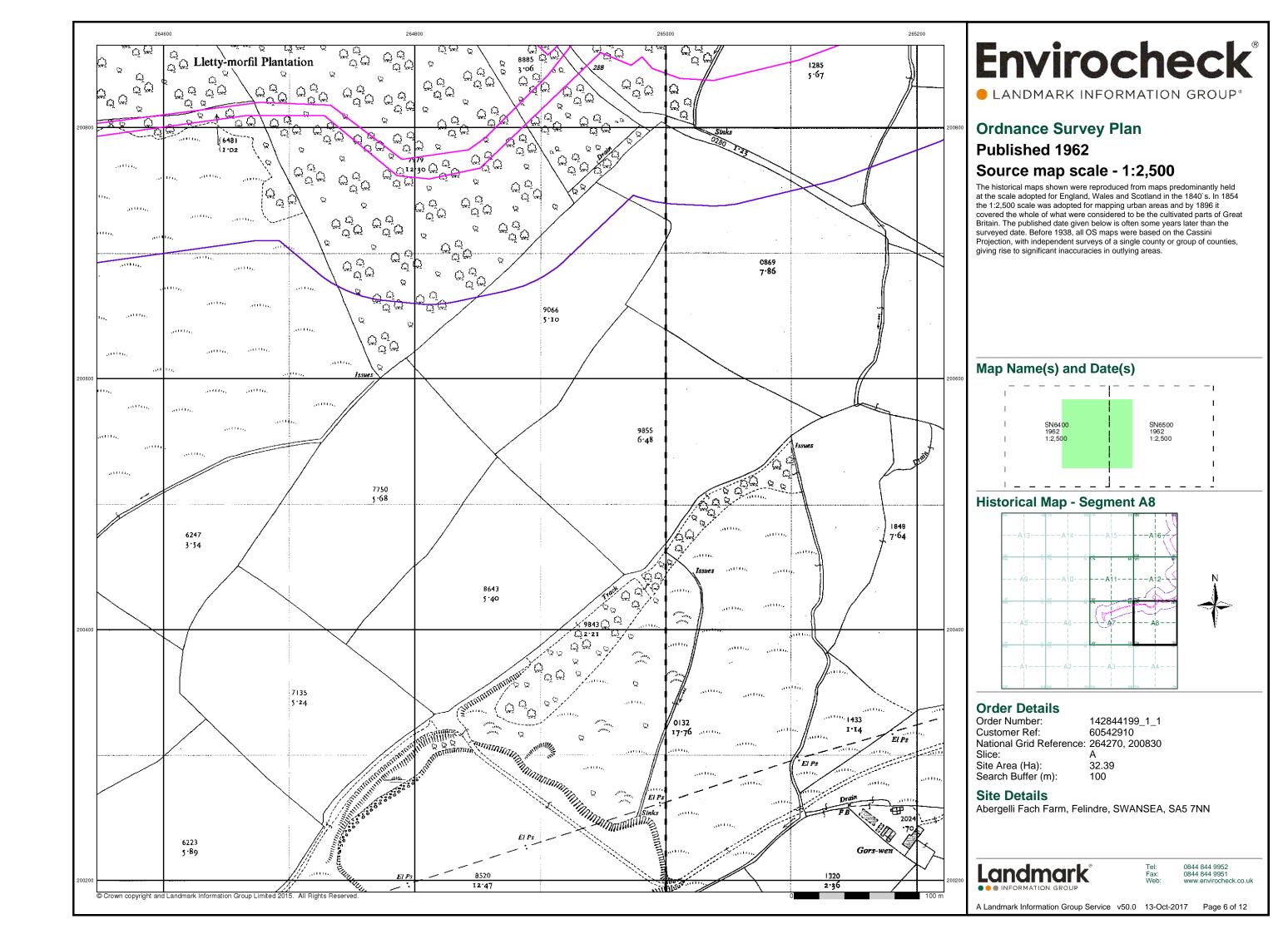
142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

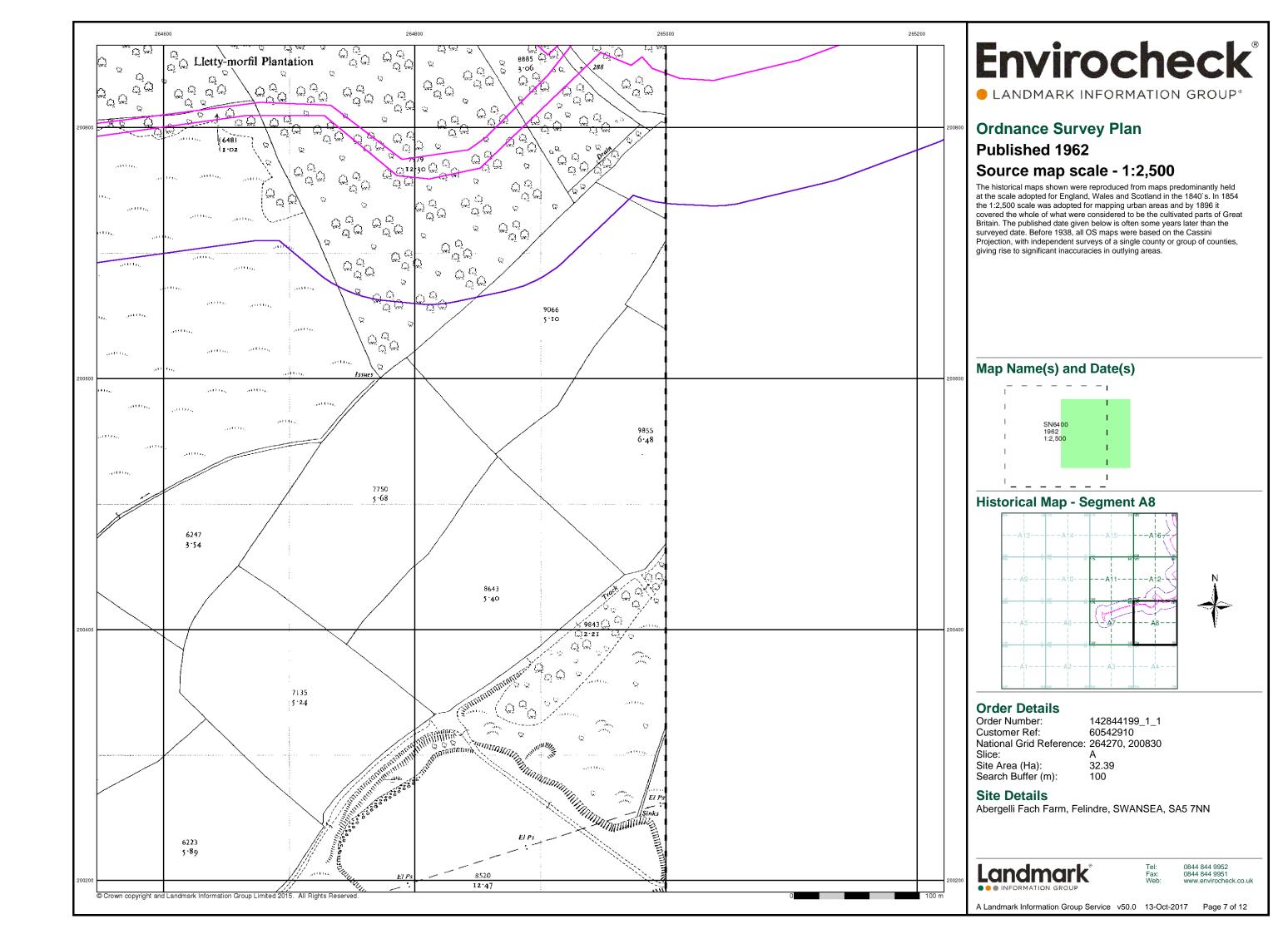
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

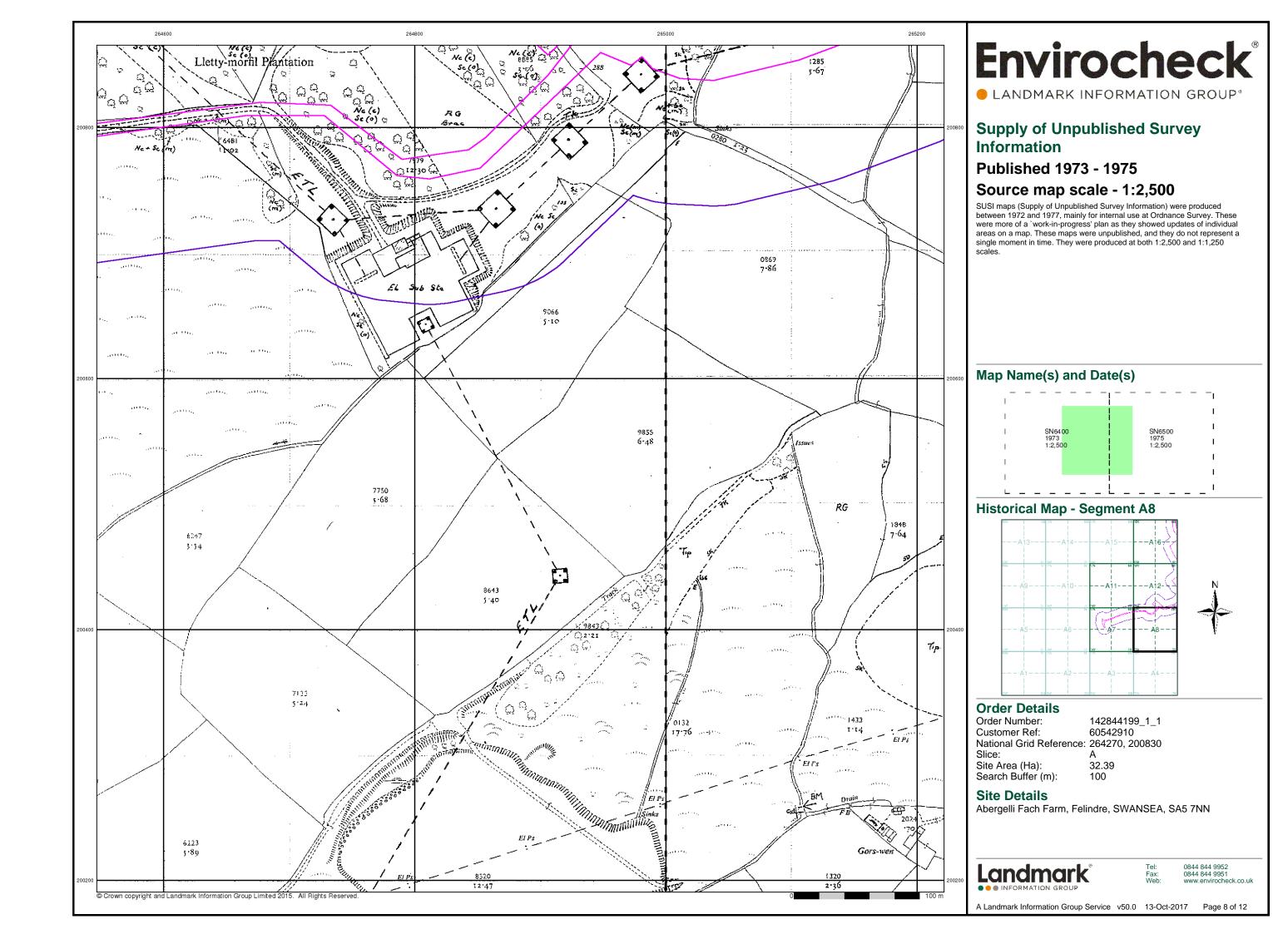
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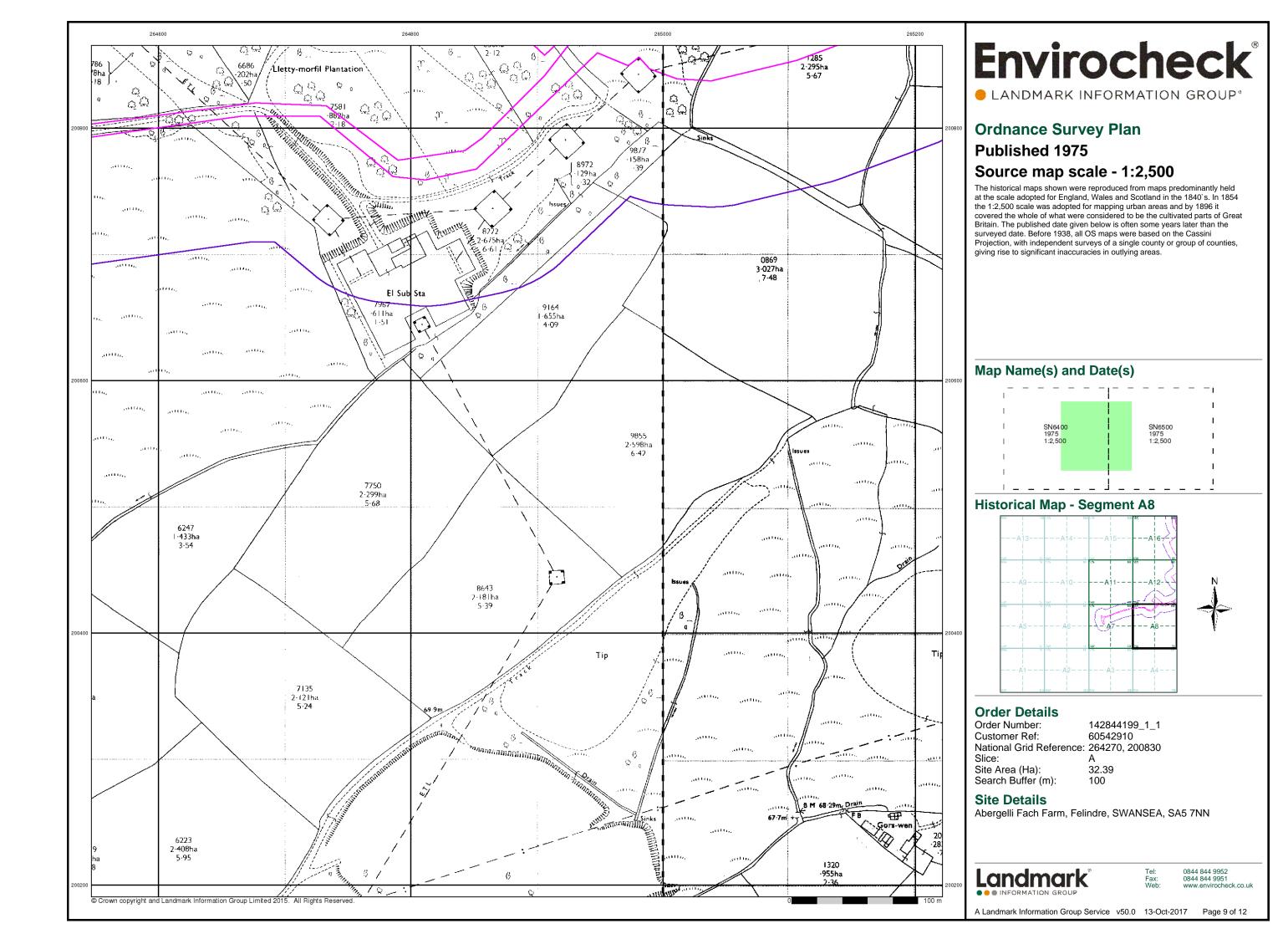
A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 12

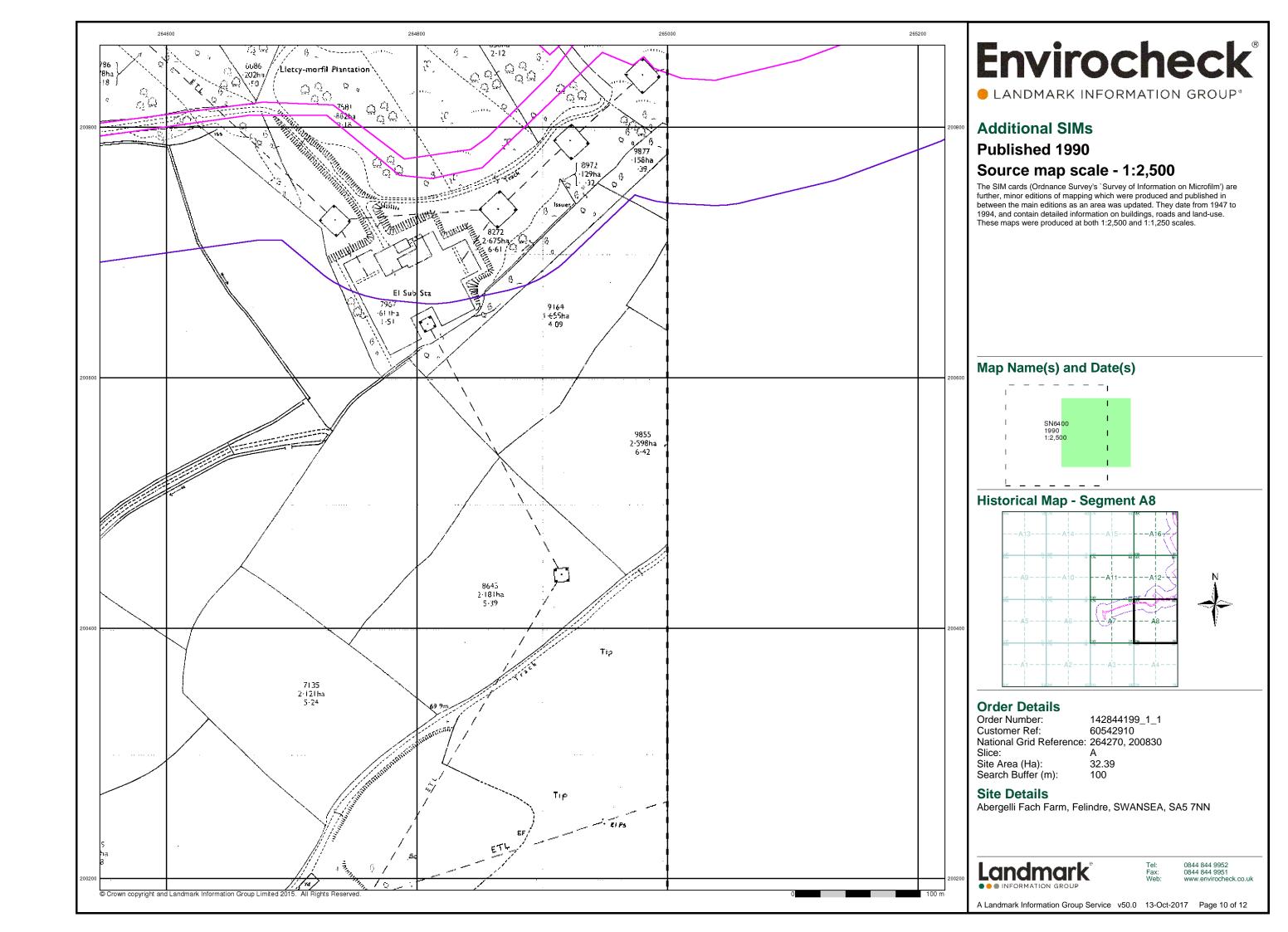


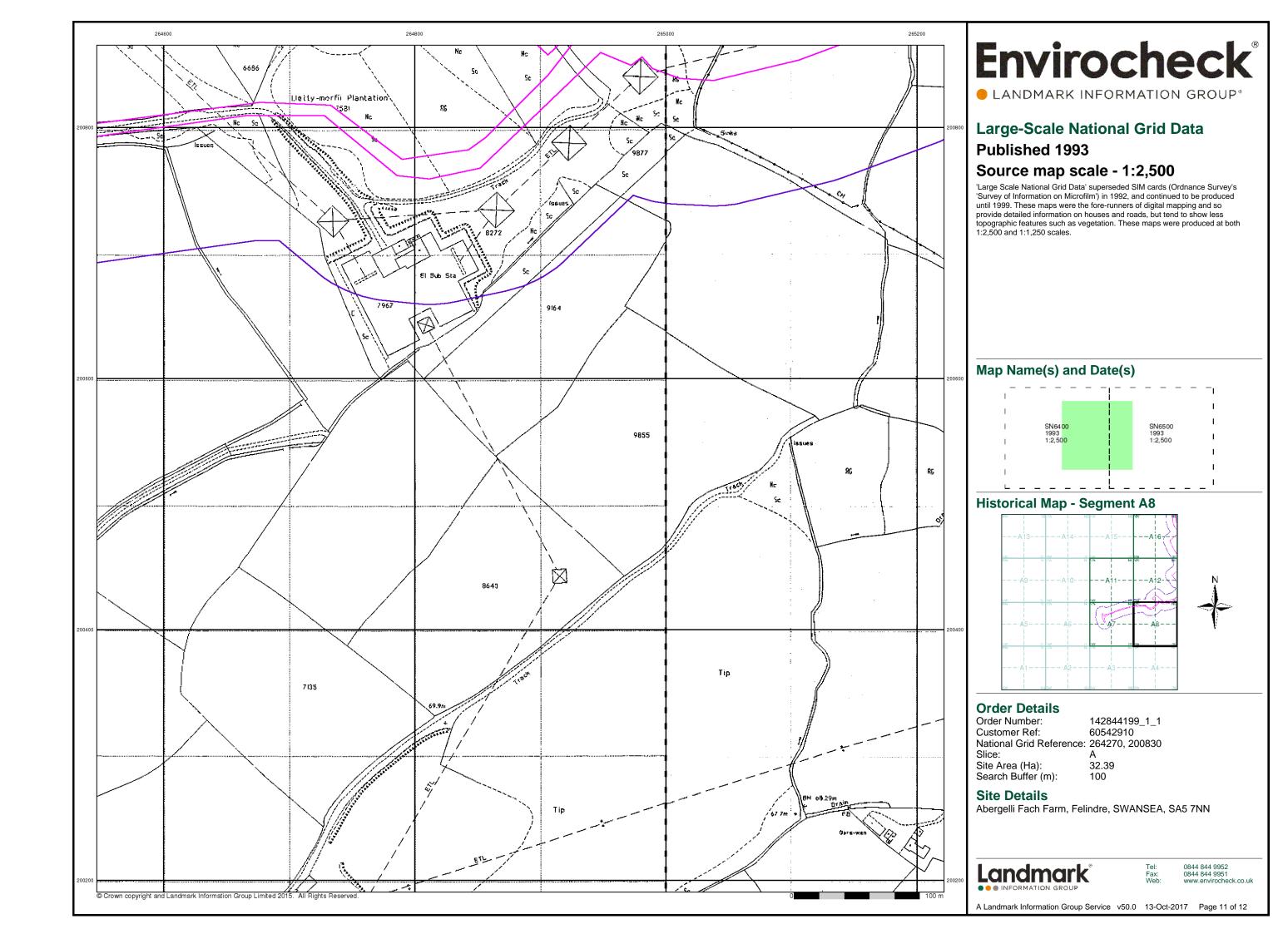












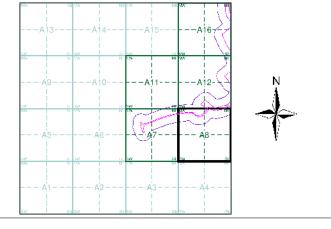


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### **Historical Aerial Photography** Published 2000

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

#### **Historical Aerial Photography - Segment A8**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

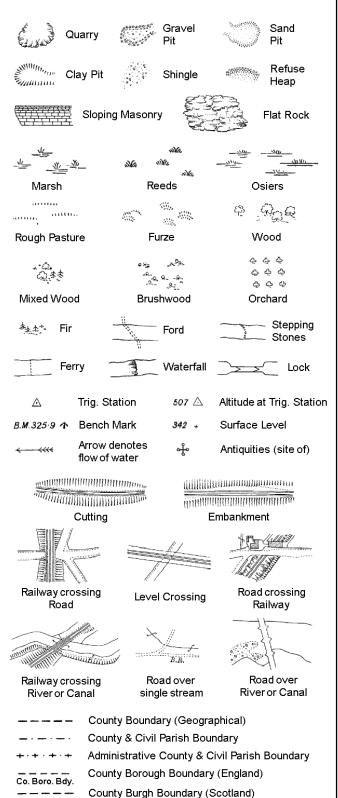
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### **Historical Mapping Legends**

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



Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

S.P

T.C.B

Sl.

 $T_T$ 

Co. Burgh Bdy.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

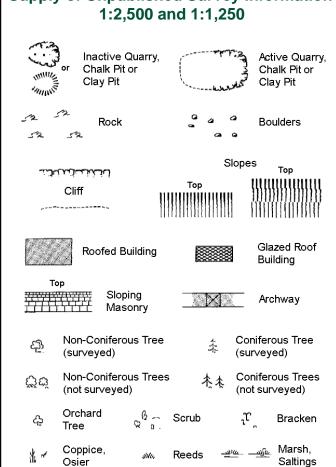
B.R.

E.P

F.B.

M.S

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 



Rough Culvert ш<sub>и</sub> Heath Grassland Direction Bench Antiquity of water flow (site of) Electricity Triangulation Cave Entrance

**Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

Fn/DFn

GVC

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

Gas Governer

**Guide Post** 

Manhole

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

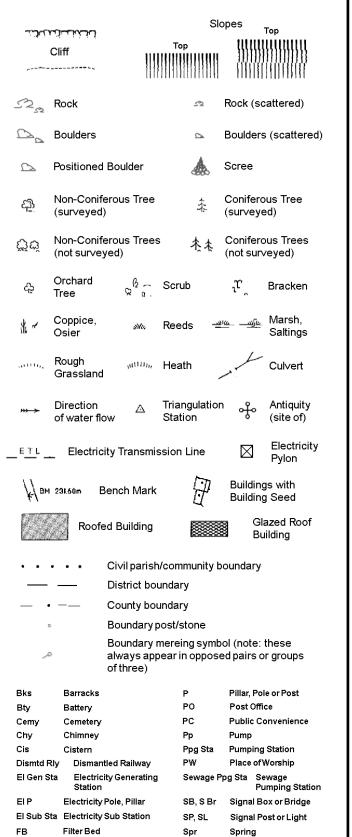
Works (building or area)

Tr

Wd Pp

Wks

1:1,250



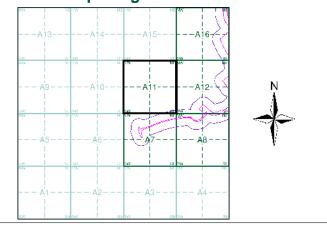
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LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1877        | 2  |
| Glamorganshire                           | 1:2,500 | 1898        | 3  |
| Glamorganshire                           | 1:2,500 | 1916        | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1959 - 1962 | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1961 - 1962 | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1973        | 8  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 9  |
| Additional SIMs                          | 1:2,500 | 1988 - 1990 | 10 |
| Additional SIMs                          | 1:2,500 | 1989 - 1990 | 11 |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 12 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 13 |

#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

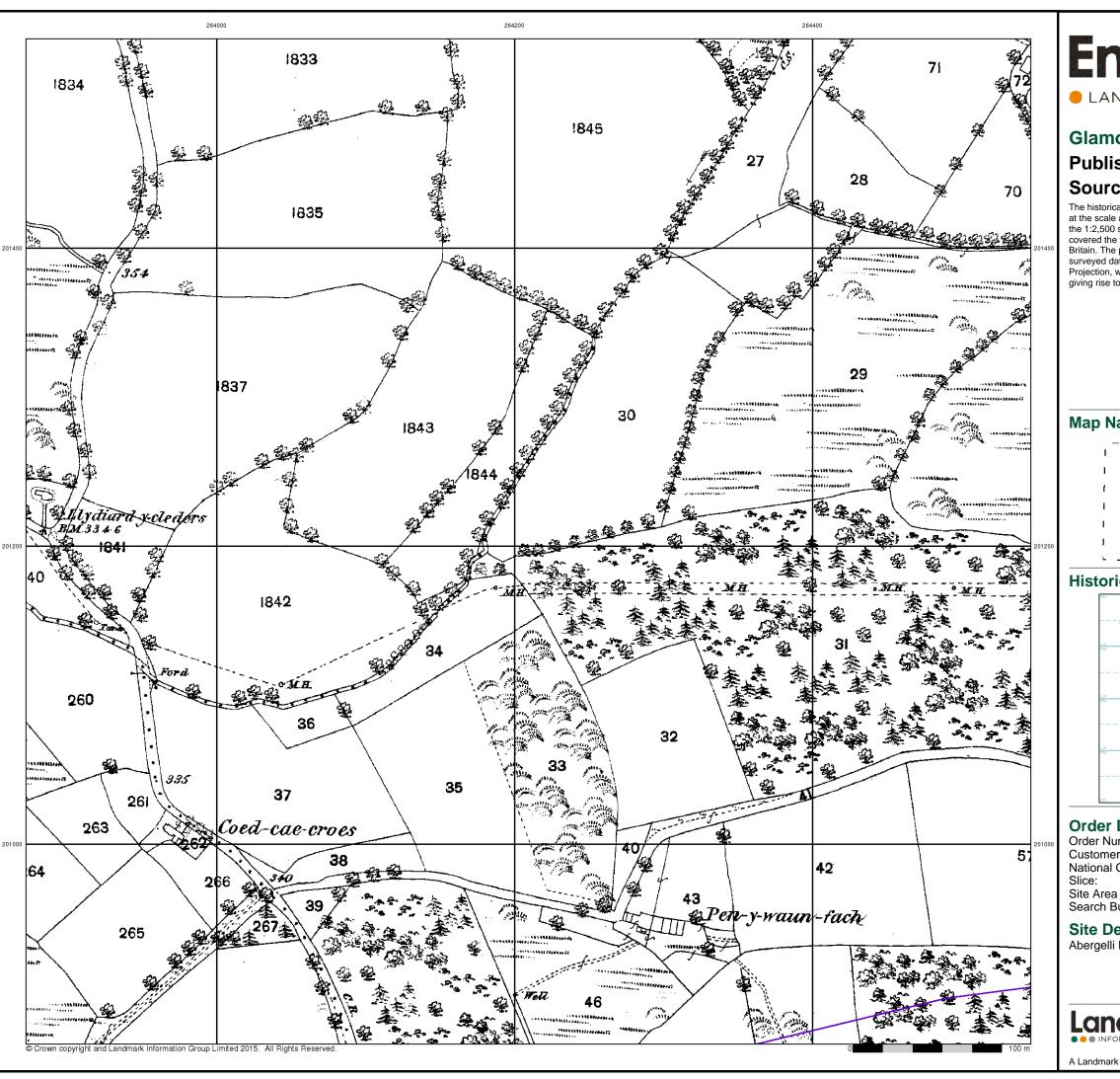
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13



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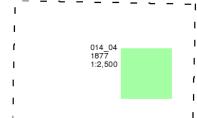
#### Glamorganshire

#### **Published 1877**

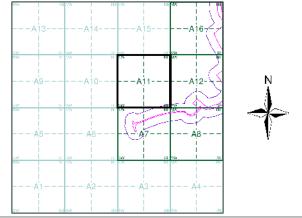
#### Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

142844199\_1\_1 60542910 Order Number: Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

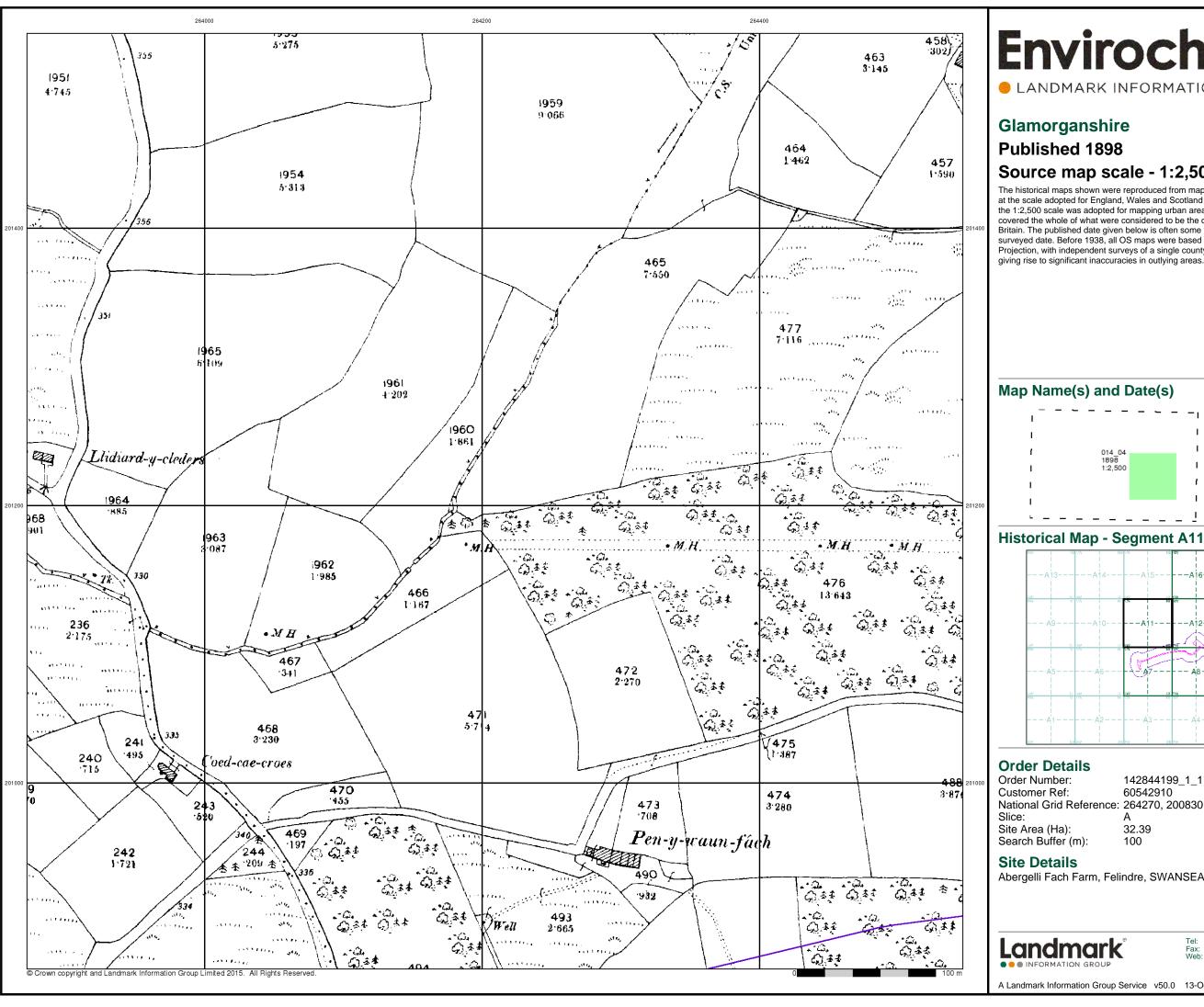
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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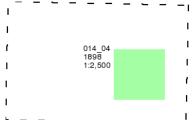
A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 13

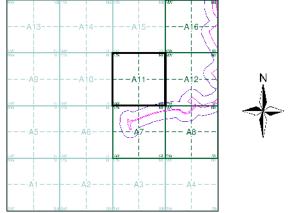


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#### Source map scale - 1:2,500

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



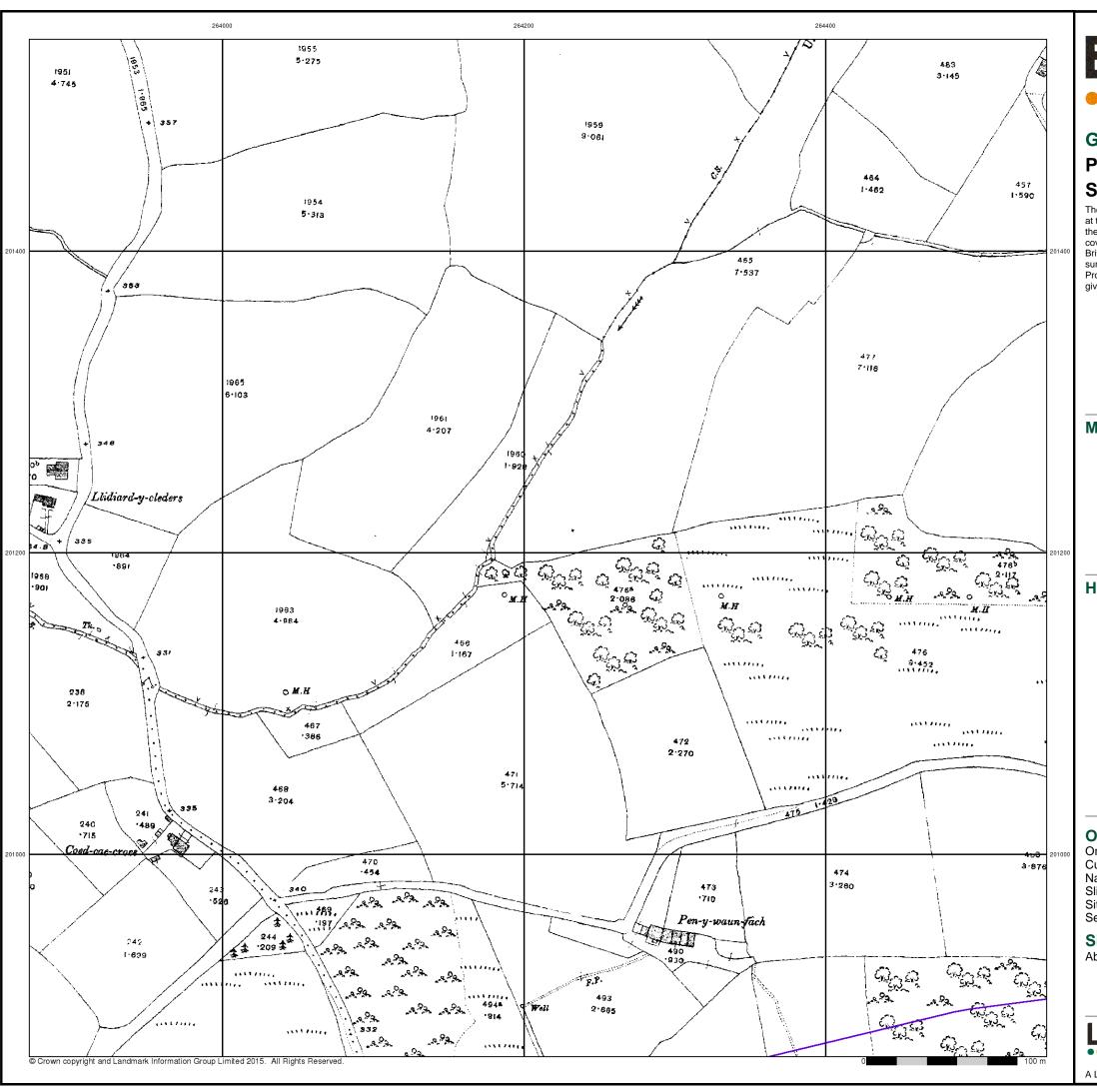


142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 3 of 13



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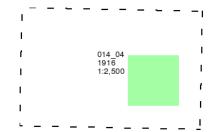
#### Glamorganshire

#### **Published 1916**

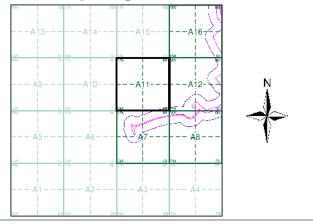
### Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 100

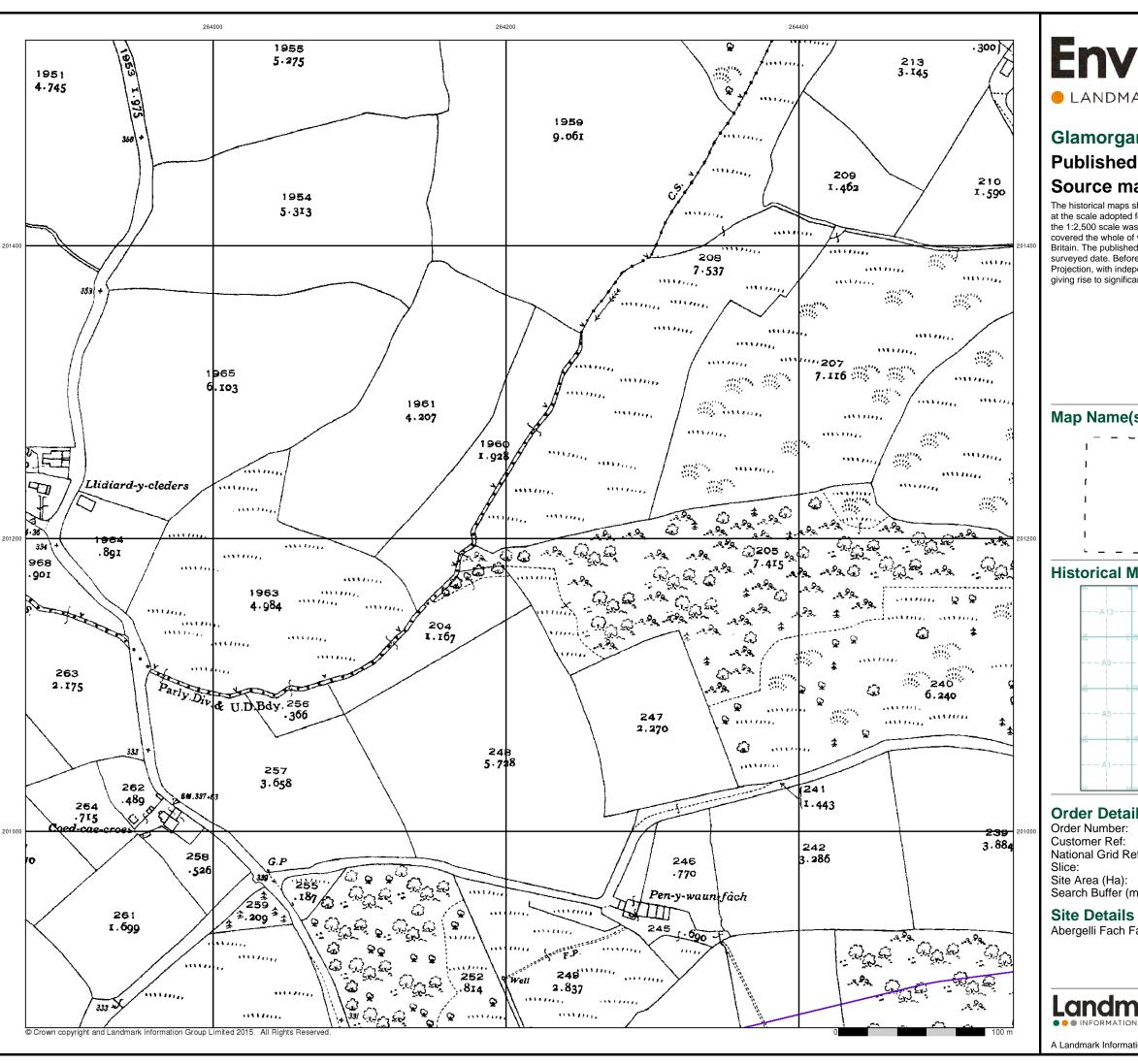
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 13



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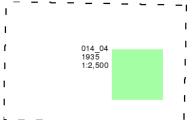
#### Glamorganshire

#### **Published 1935**

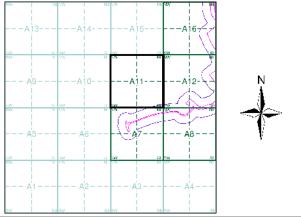
#### Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

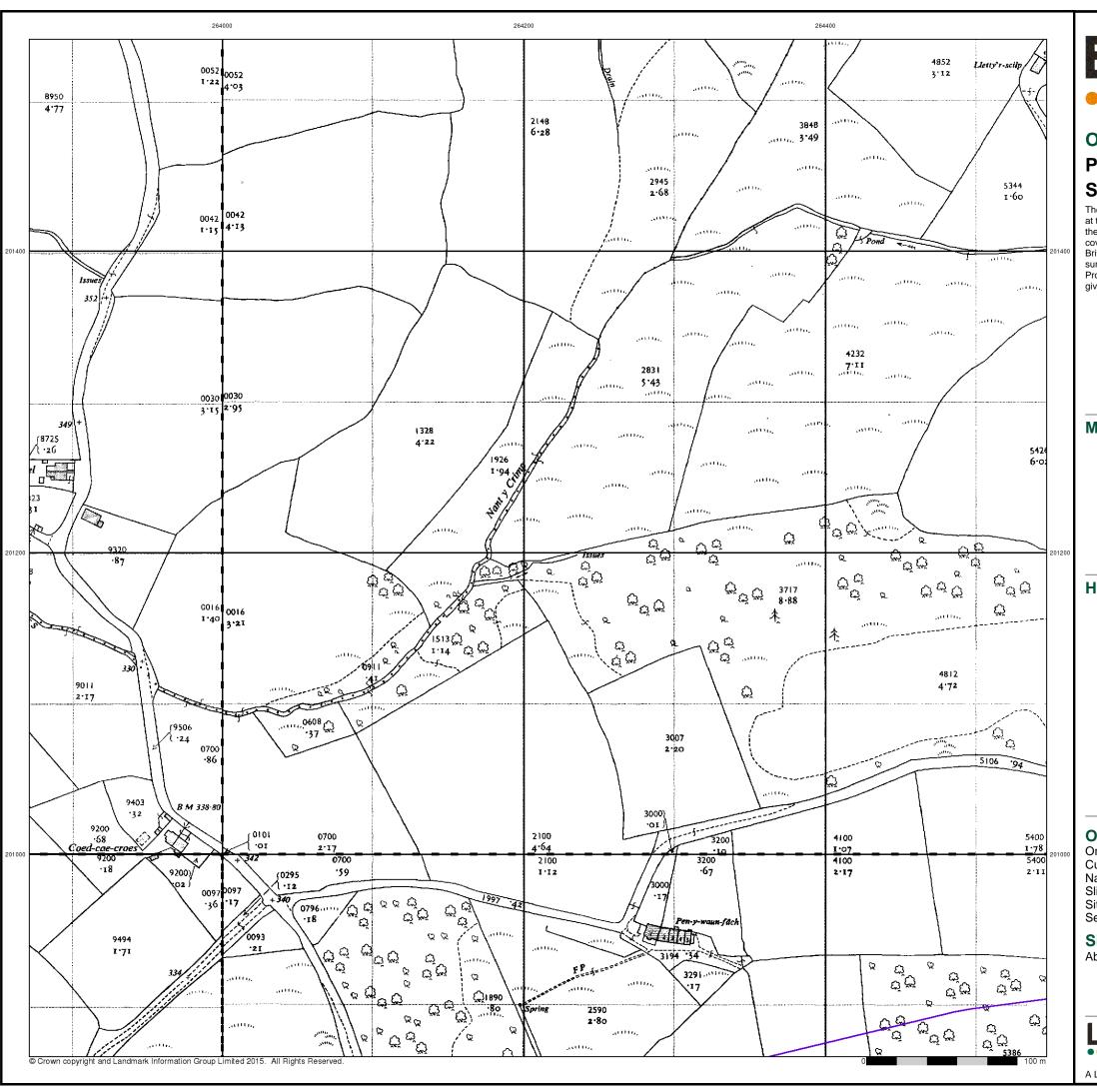
Site Area (Ha): 32.39 Search Buffer (m): 100

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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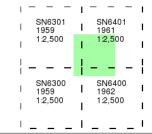
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# **Ordnance Survey Plan**

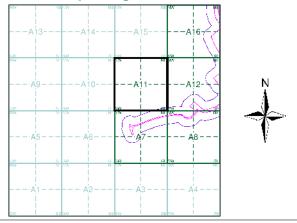
### Published 1959 - 1962 Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m):

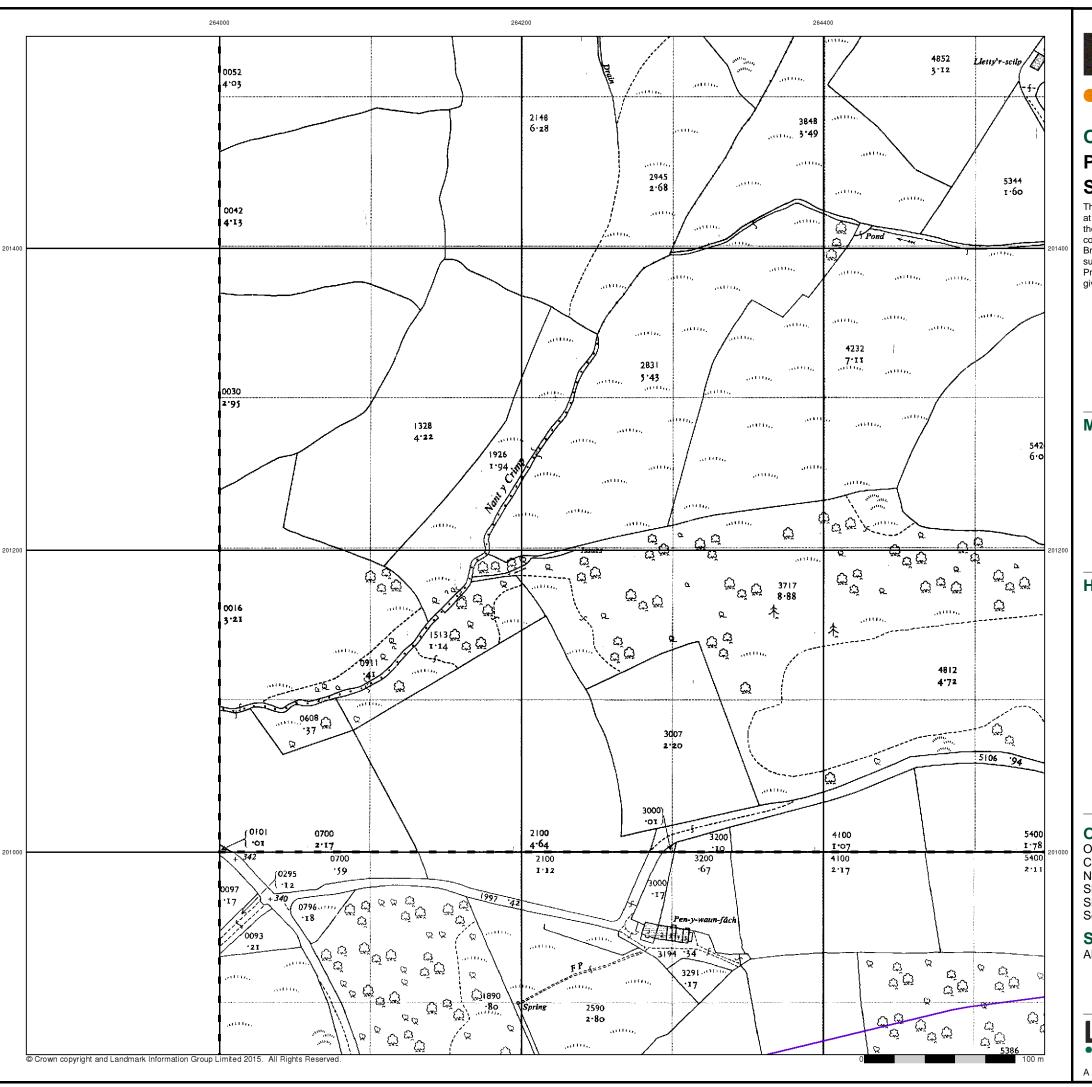
#### **Site Details**

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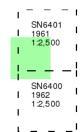
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# **Ordnance Survey Plan**

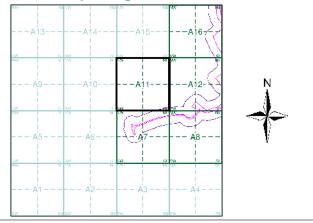
### Published 1961 - 1962 Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 100

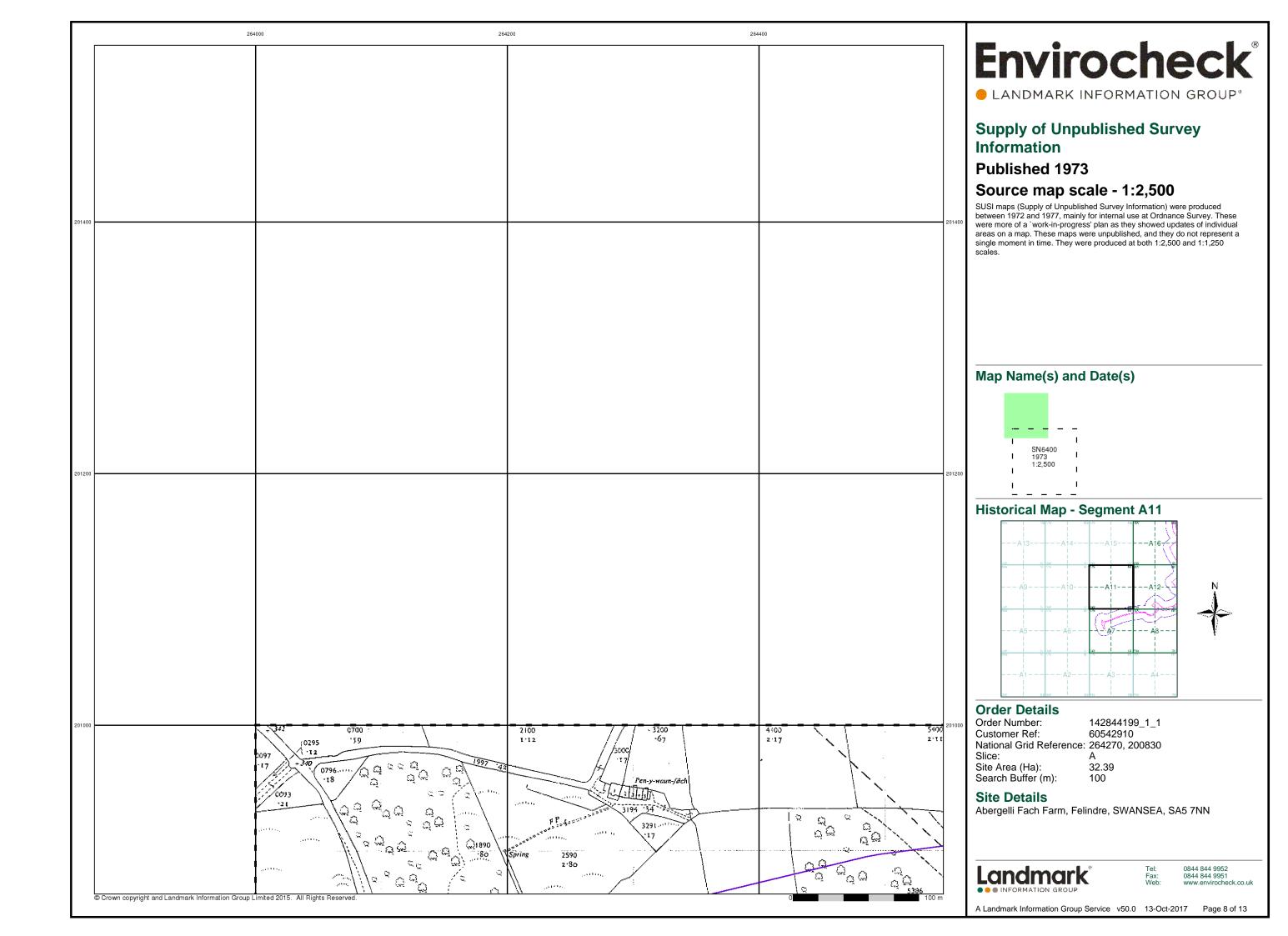
#### **Site Details**

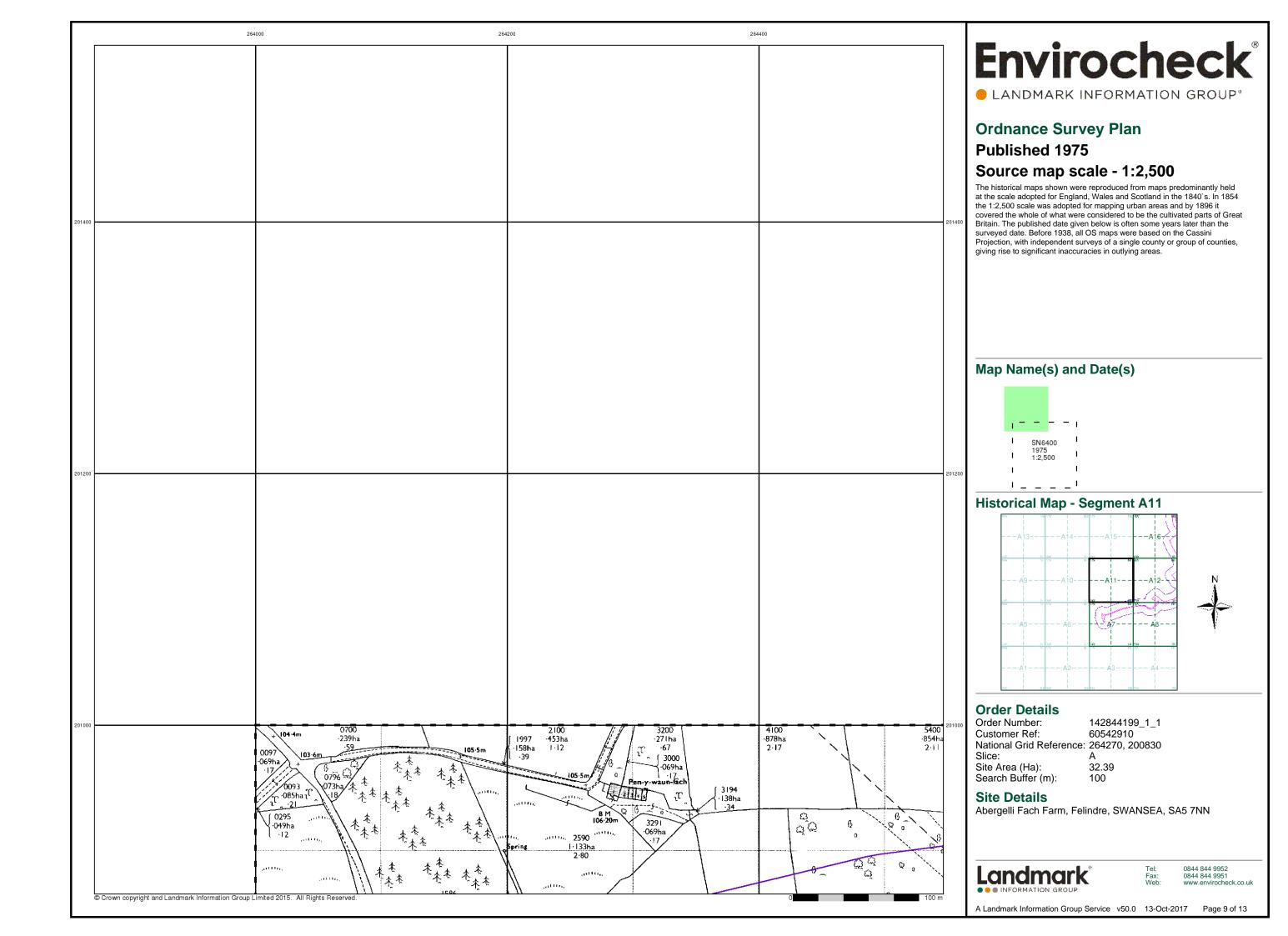
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

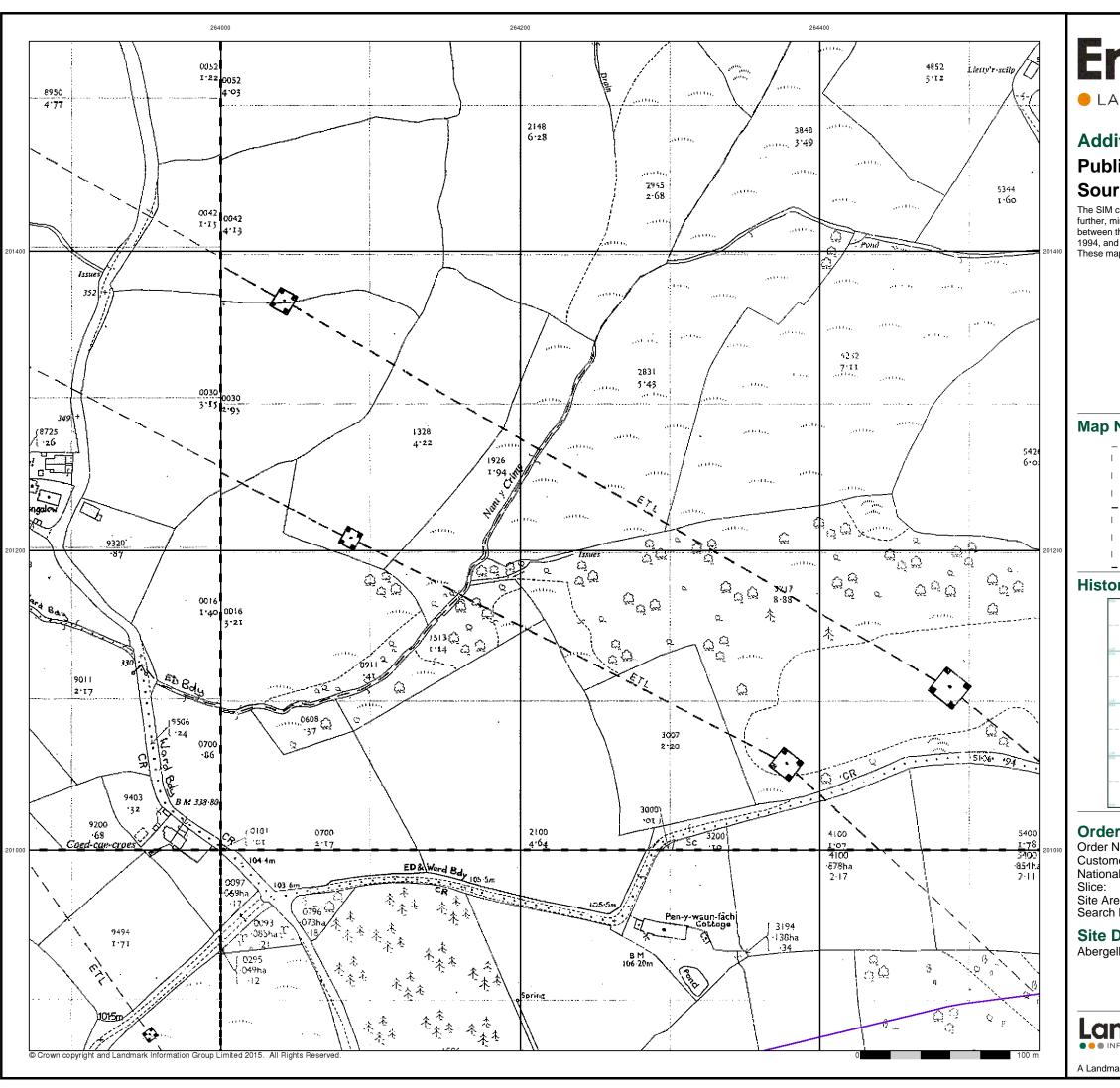


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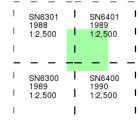
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#### **Additional SIMs**

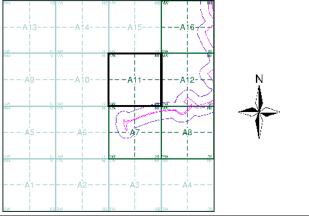
### Published 1988 - 1990 Source map scale - 1:2,500

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

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



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

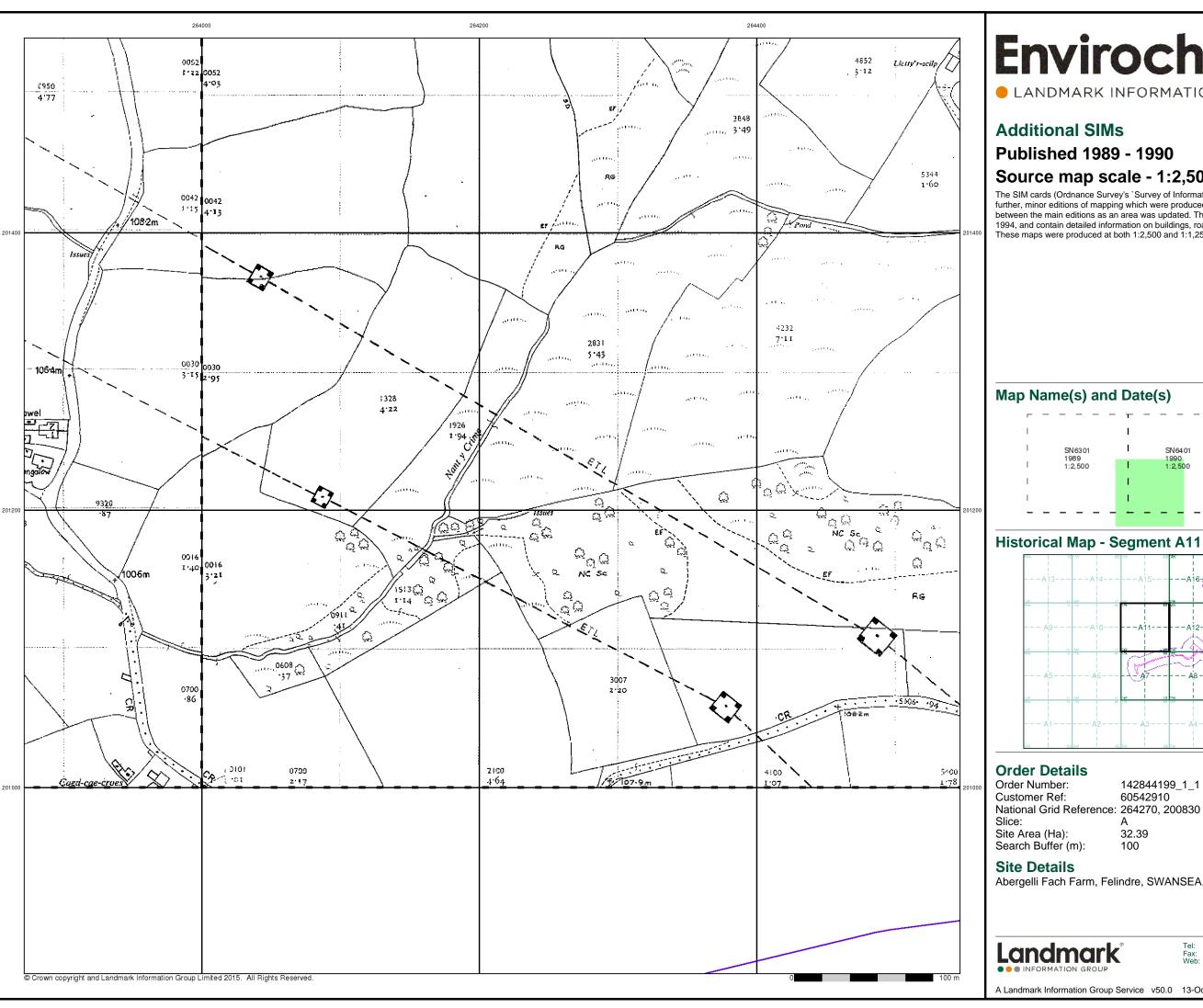
#### **Site Details**

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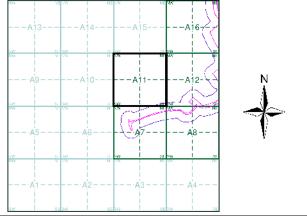


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### Published 1989 - 1990 Source map scale - 1:2,500

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





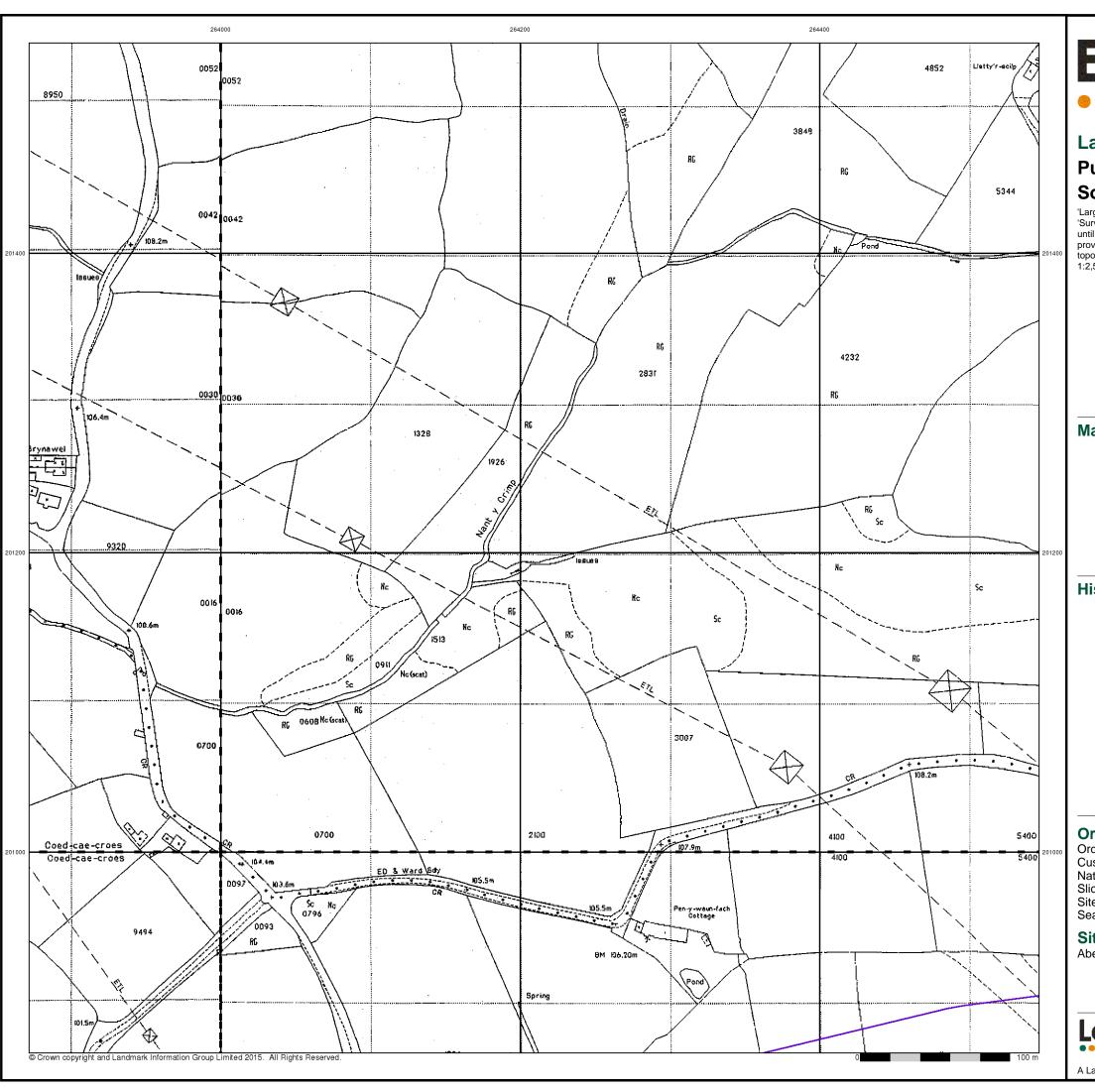
142844199\_1\_1 60542910 National Grid Reference: 264270, 200830

32.39 100

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### **Large-Scale National Grid Data**

### Published 1993

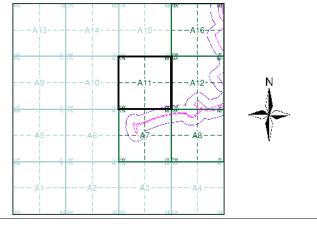
### Source map scale - 1:2,500

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

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

| I      | SN6301<br>1993<br>1:2,500 | 1      | SN64<br>1993<br>1:2,5 |     | I      |
|--------|---------------------------|--------|-----------------------|-----|--------|
| I      |                           | 1      |                       |     | ı      |
| _      |                           |        | _                     | _   | _      |
|        |                           |        |                       |     |        |
|        | SN6300                    | Т      | SN64                  | 100 | - 1    |
| 1      | 1993                      | Ţ      | 1993                  |     | !      |
| I<br>I |                           | T<br>T |                       |     | l<br>l |
| <br>   | 1993                      | 1      | 1993                  |     | <br>   |

#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

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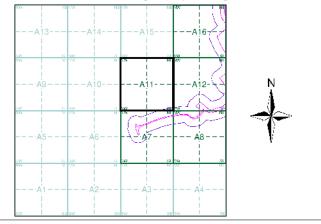


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# Historical Aerial Photography Published 2000

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

#### **Historical Aerial Photography - Segment A11**



#### **Order Details**

 Order Number:
 142844199\_1\_1

 Customer Ref:
 60542910

 National Grid Reference:
 264270, 200830

Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 100

**Site Details** 

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# **Geology 1:10,000 Maps Legends**

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                        | Rock Type                      | Min and Max Age     |
|---------------|----------|----------------------------------|--------------------------------|---------------------|
|               | WGR      | Worked Ground (Undivided)        | Void                           | Holocene - Holocene |
|               | MGR      | Made Ground (Undivided)          | Artificial Deposit             | Holocene - Holocene |
|               | LSGR     | Landscaped Ground<br>(Undivided) | Unknown/Unclassifie<br>d Entry | Holocene - Holocene |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name                                  | Rock Type                                       | Min and Max Age            |
|---------------|----------|--|---|----------------------------|
|               | ALV      | Alluvium                                   | Clay, Silt, Sand and<br>Gravel                  | Flandrian -<br>Pleistocene |
|               | TILLD    | Till, Devensian                            | Diamicton                                       | Devensian -<br>Ipswichian  |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian       | Sand and Gravel                                 | Devensian -<br>Ipswichian  |
|               | GFSDD    | GLACIOFLUVIAL SHEET<br>DEPOSITS, DEVENSIAN | Sand and Gravel                                 | Devensian -<br>Ipswichian  |
|               | PEAT     | Peat                                       | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Ryazanian  |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                         | Min and Max Age                  |
|---------------|----------|---------------------|-----------------------------------|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | GDB      | Grovesend Formation | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | Fault    |                     |                                   |                                  |
|               | Rock     |                     |                                   |                                  |

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#### Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

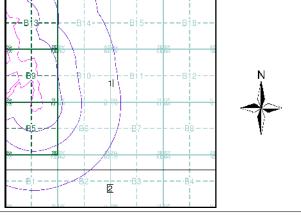
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### **Geology 1:10,000 Maps Coverage**

|                      |           | •                    |           |
|----------------------|-----------|----------------------|-----------|
| Map ID:              | 1         | Map ID:              | 2         |
| Map Name:            | SN60SE    | Map Name:            | SS69NE    |
| Map Date:            | 1972      | Map Date:            | 1975      |
| Bedrock Geology:     | Available | Bedrock Geology:     | Available |
| Superficial Geology: | Available | Superficial Geology: | Available |
| Artificial Geology:  | Available | Artificial Geology:  | Available |
| Faults:              | Available | Faults:              | Available |
| _andslip:            | Available | Landslip:            | Not Avai  |
| Rock Segments:       | Available | Rock Segments:       | Available |

#### Geology 1:10,000 Maps - Slice B



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010
Slice: B

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

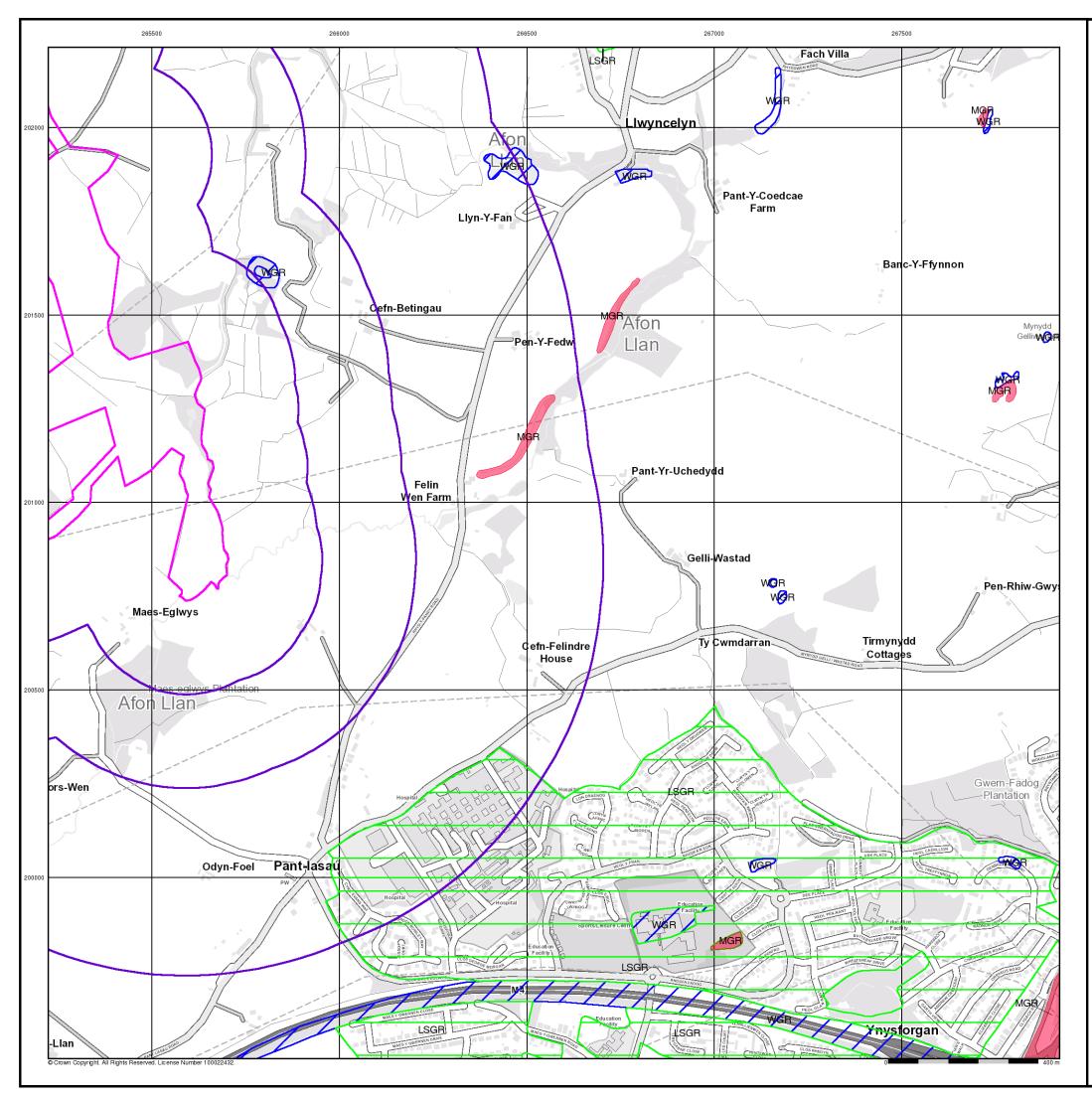
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Artificial Ground and Landslip**

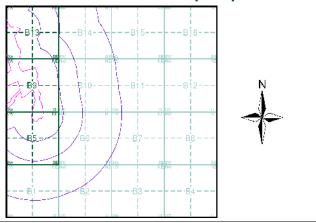
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

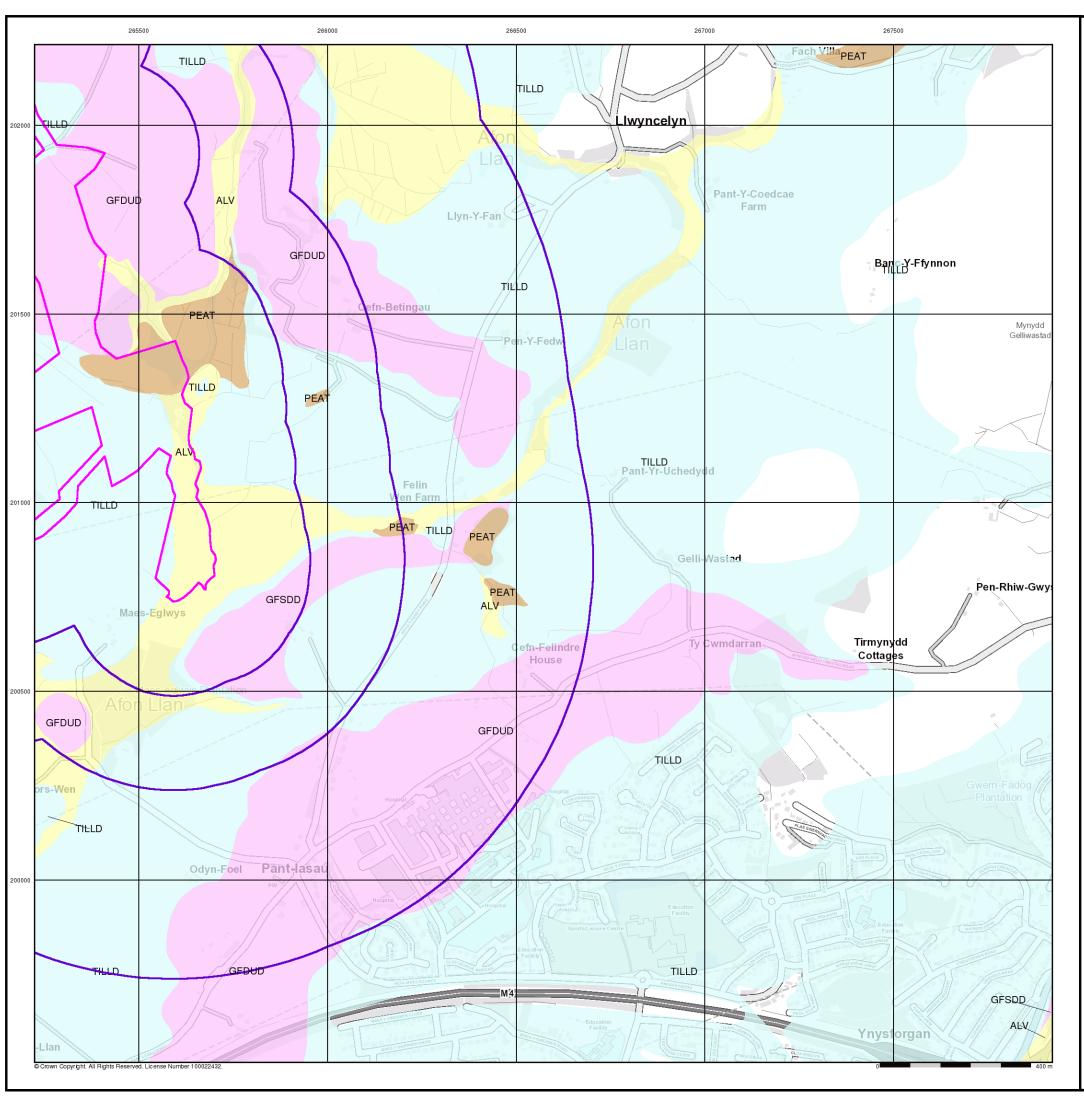
#### **Site Details**

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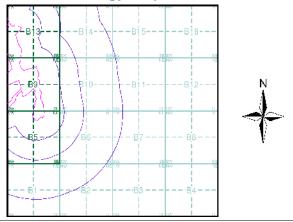
#### **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, 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 B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

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#### **Bedrock and Faults**

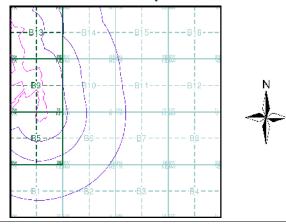
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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 and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

#### **Bedrock and Faults Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

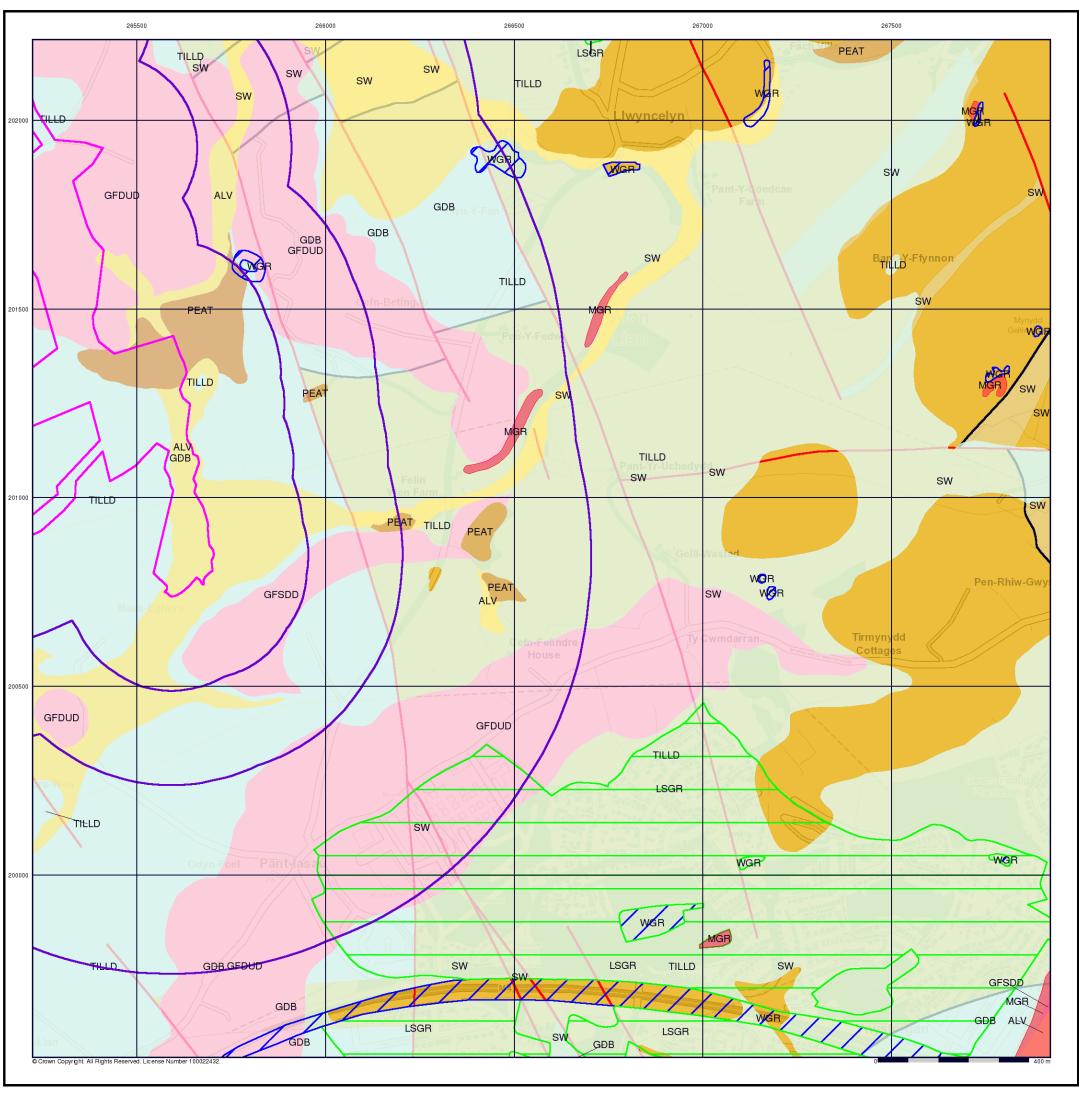
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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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.

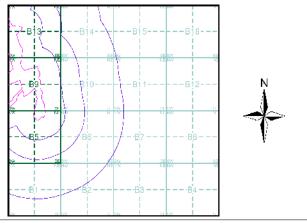
#### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

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

#### **Combined Geology Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

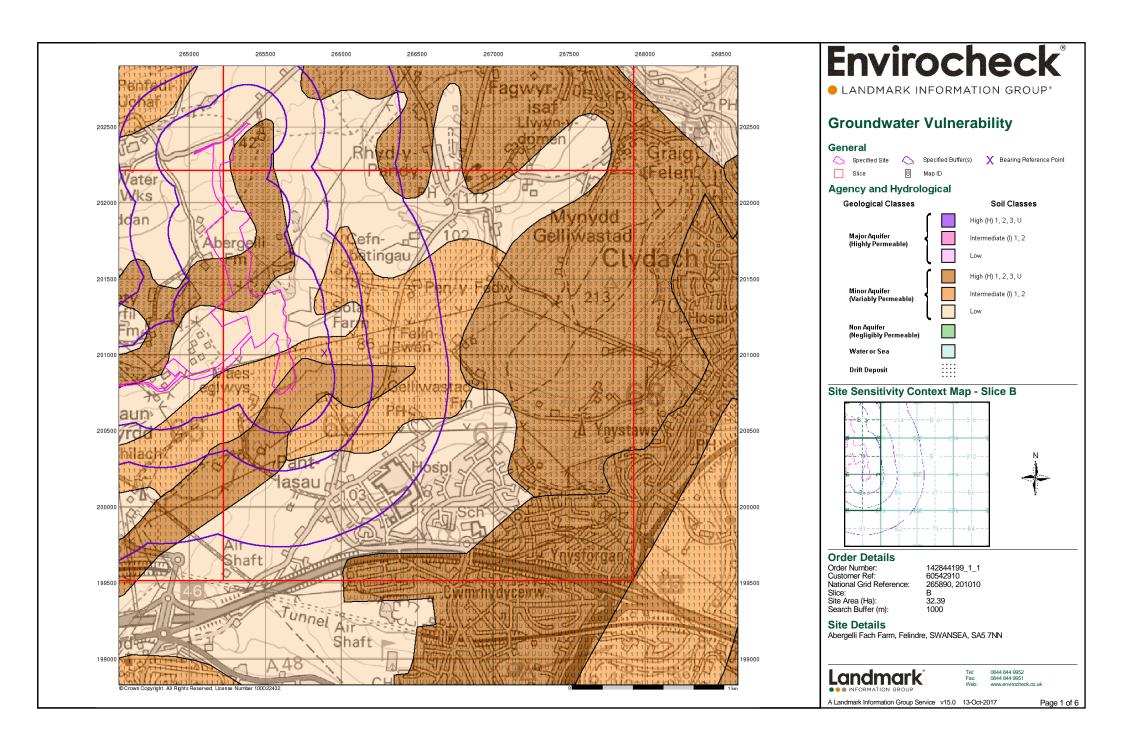
#### **Site Details**

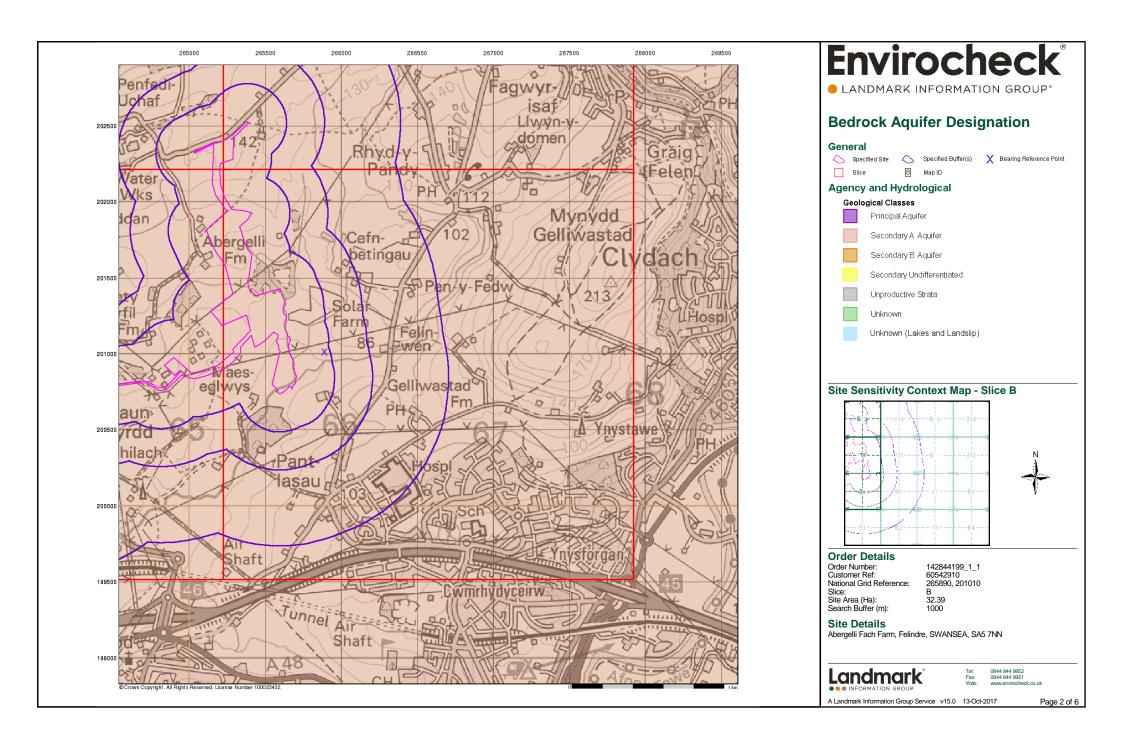
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

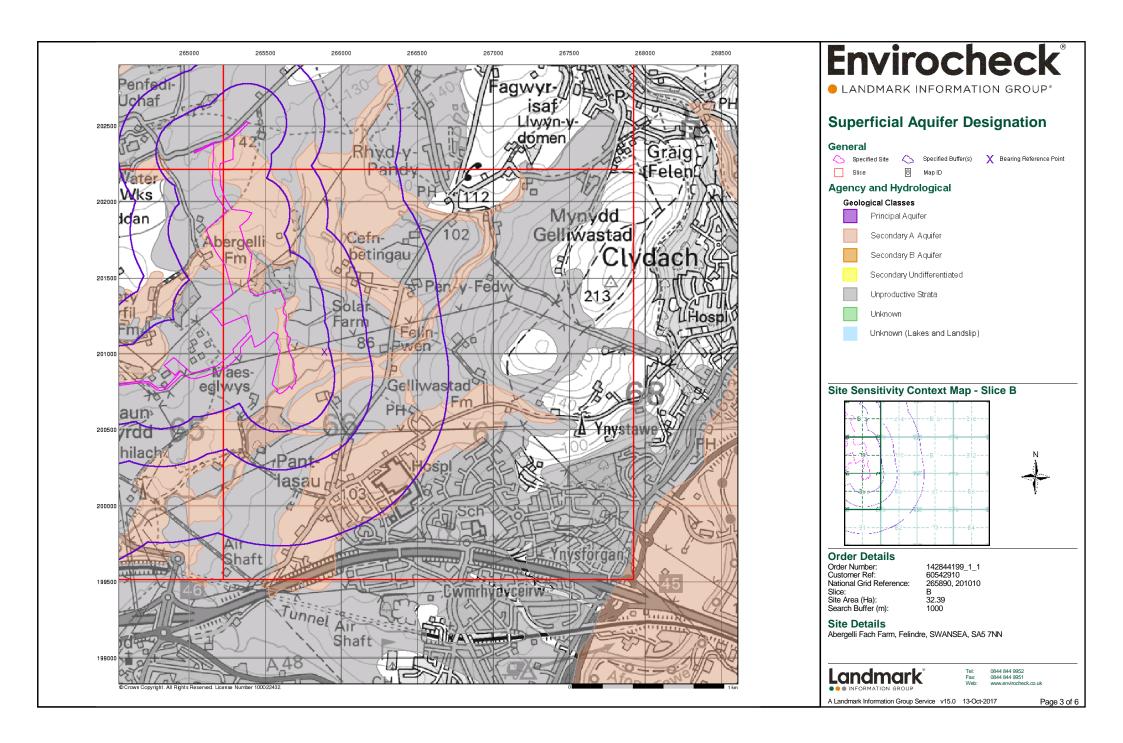


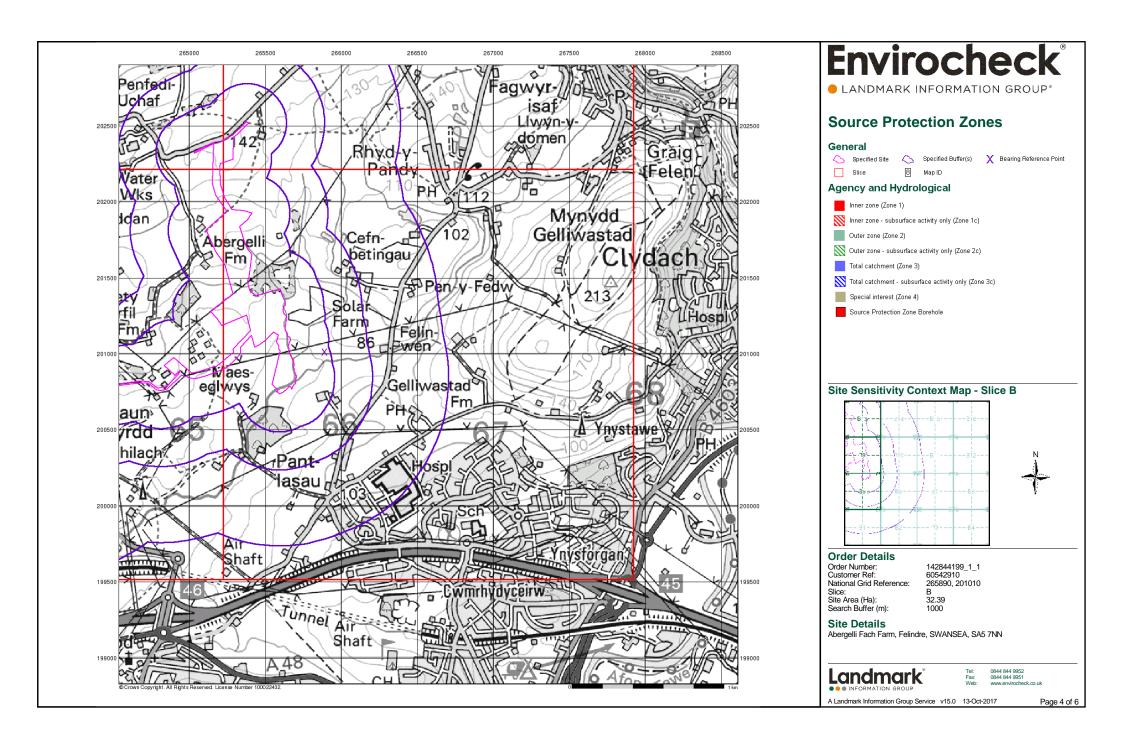
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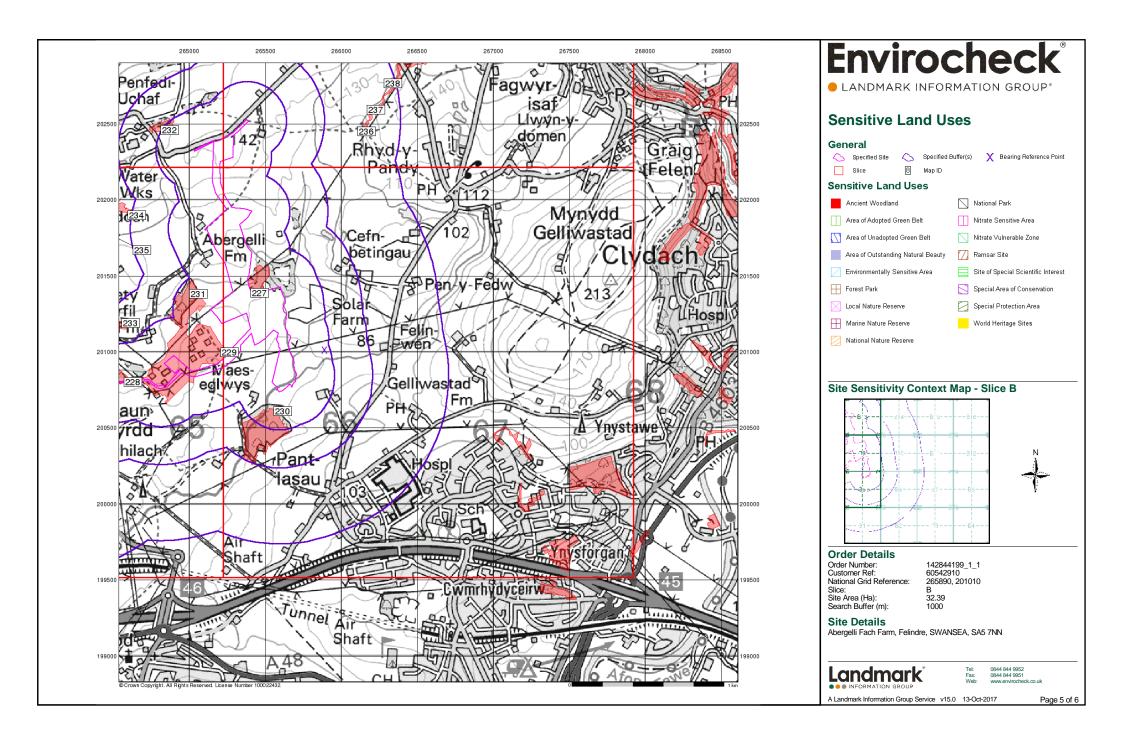
A Landmark Information Group Service v50.0 13-Oct-2017

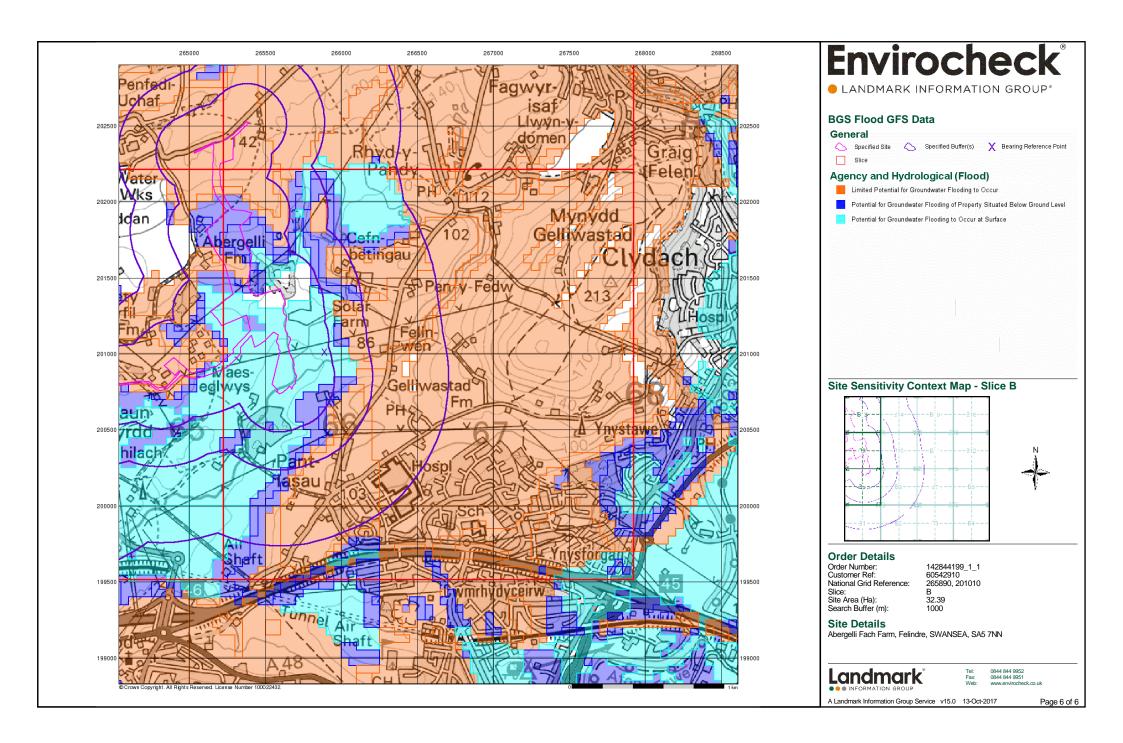














### **Envirocheck® Report:**

#### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199\_1\_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

265890, 201010

Slice:

В

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

#### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







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|-----------------------|-------------|
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#### 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 the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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 7           |         | 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                                 |                | Yes     |           |             |                                |
| Pollution Incidents to Controlled Waters                      | pg 8           |         |           | 1           |                                |
| Prosecutions Relating to Authorised Processes                 |                |         |           |             |                                |
| Registered Radioactive Substances                             | pg 9           |         |           |             | 12                             |
| River Quality   | pg 11          |         | 1         |             | 1                              |
| River Quality Biology Sampling Points                         | pg 11          |         |           |             | 1                              |
| Substantiated Pollution Incident Register                     |                |         |           |             |                                |
| River Quality Chemistry Sampling Points                       |                |         |           |             |                                |
| Water Abstractions  | pg 11          |         | 1         | 1           | 1 (*6)                         |
| Water Industry Act Referrals                                  |                |         |           |             |                                |
| Groundwater Vulnerability                                     | pg 13          | Yes     | n/a       | n/a         | n/a                            |
| Drift Deposits  | pg 14          | 2       | n/a       | n/a         | n/a                            |
| Bedrock Aquifer Designations                                  | pg 14          | Yes     | n/a       | n/a         | n/a                            |
| Superficial Aquifer Designations                              | pg 14          | Yes     | n/a       | n/a         | n/a                            |
| Source Protection Zones                                       |                |         |           |             |                                |
| Extreme Flooding from Rivers or Sea without Defences          | pg 14          | Yes     |           | n/a         | n/a                            |
| Flooding from Rivers or Sea without Defences                  | pg 14          | 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 14          | 19      | 46        | 43          | 88                             |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Waste   |                |         |           |             |                                |
| BGS Recorded Landfill Sites   | pg 37          |         |           | 1           |                                |
| Historical Landfill Sites   | pg 37          |         |           | 2           |                                |
| Integrated Pollution Control Registered Waste Sites                 |                |         |           |             |                                |
| Licensed Waste Management Facilities (Landfill Boundaries)          |                |         |           |             |                                |
| Licensed Waste Management Facilities (Locations)                    | pg 37          |         |           |             | 1                              |
| Local Authority Landfill Coverage                                   | pg 37          | 1       | n/a       | n/a         | n/a                            |
| Local Authority Recorded Landfill Sites                             |                |         |           |             |                                |
| Potentially Infilled Land (Non-Water)                               |                |         |           |             |                                |
| Potentially Infilled Land (Water)                                   | pg 37          |         |           |             | 1                              |
| Registered Landfill Sites   |                |         |           |             |                                |
| Registered Waste Transfer Sites                                     | pg 38          |         |           |             | 1                              |
| 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                           |                |         |           |             |                                |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Geological  |                |         |           |             |                                |
| BGS 1:625,000 Solid Geology                                       | pg 39          | Yes     | n/a       | n/a         | n/a                            |
| BGS Estimated Soil Chemistry                                      | pg 39          | Yes     |           | Yes         | Yes                            |
| BGS Recorded Mineral Sites  |                |         |           |             |                                |
| BGS Urban Soil Chemistry  | pg 41          |         |           |             | Yes                            |
| BGS Urban Soil Chemistry Averages                                 | pg 42          |         |           | Yes         |                                |
| CBSCB Compensation District                                       |                |         | n/a       | n/a         | n/a                            |
| Coal Mining Affected Areas  | pg 42          | Yes     | n/a       | n/a         | n/a                            |
| Mining Instability  | pg 42          | Yes     | n/a       | n/a         | n/a                            |
| Man-Made Mining Cavities  |                |         |           |             |                                |
| Natural Cavities  |                |         |           |             |                                |
| Non Coal Mining Areas of Great Britain                            |                |         |           | n/a         | n/a                            |
| Potential for Collapsible Ground Stability Hazards                | pg 42          | Yes     |           | n/a         | n/a                            |
| Potential for Compressible Ground Stability Hazards               | pg 42          | Yes     |           | n/a         | n/a                            |
| Potential for Ground Dissolution Stability Hazards                |                |         |           | n/a         | n/a                            |
| Potential for Landslide Ground Stability Hazards                  | pg 42          | Yes     |           | n/a         | n/a                            |
| Potential for Running Sand Ground Stability Hazards               | pg 43          | Yes     | Yes       | n/a         | n/a                            |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 43          | Yes     |           | n/a         | n/a                            |
| Radon Potential - Radon Affected Areas                            |                |         | n/a       | n/a         | n/a                            |
| Radon Potential - Radon Protection Measures                       |                |         | n/a       | n/a         | n/a                            |
| Industrial Land Use   |                |         |           |             |                                |
| Contemporary Trade Directory Entries                              | pg 44          |         |           |             | 4                              |
| Fuel Station Entries  |                |         |           |             |                                |
| Points of Interest - Commercial Services                          |                |         |           |             |                                |
| Points of Interest - Education and Health                         | pg 44          |         |           |             | 7                              |
| Points of Interest - Manufacturing and Production                 | pg 44          |         | 1         | 1           | 3                              |
| Points of Interest - Public Infrastructure                        | pg 45          |         |           | 1           |                                |
| Points of Interest - Recreational and Environmental               |                |         |           |             |                                |
| Gas Pipelines   | pg 45          | 3       |           |             |                                |
| Underground Electrical Cables                                     |                |         |           |             |                                |



| Data Type                            | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|--------------------------------------|----------------|---------|-----------|-------------|--------------------------------|
| Sensitive Land Use                   |                |         |           |             |                                |
| Ancient Woodland                     | pg 46          | 3       | 3         | 2           | 4                              |
| Areas of Adopted Green Belt          |                |         |           |             |                                |
| Areas of Unadopted Green Belt        |                |         |           |             |                                |
| Areas of Outstanding Natural Beauty  |                |         |           |             |                                |
| Environmentally Sensitive Areas      |                |         |           |             |                                |
| Forest Parks                         |                |         |           |             |                                |
| Local Nature Reserves                |                |         |           |             |                                |
| Marine Nature Reserves               |                |         |           |             |                                |
| National Nature Reserves             |                |         |           |             |                                |
| National Parks                       |                |         |           |             |                                |
| Nitrate Sensitive Areas              |                |         |           |             |                                |
| Nitrate Vulnerable Zones             |                |         |           |             |                                |
| Ramsar Sites                         |                |         |           |             |                                |
| Sites of Special Scientific Interest |                |         |           |             |                                |
| Special Areas of Conservation        |                |         |           |             |                                |
| Special Protection Areas             |                |         |           |             |                                |
| World Heritage Sites                 |                |         |           |             |                                |



| Vlap<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|------------|---|---|------------------------------------|---------|----------------------------|
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9SW<br>(W)                                     | 0                                  | 1       | 265500<br>201150           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 0                                  | 1       | 265150<br>200950           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 264900<br>201050           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (SW)  | 0                                  | 1       | 264950                     |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | B9SE  | 0                                  | 1       | 265890                     |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9SW (W)  | 0                                  | 1       | 201014<br>265250<br>201000 |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 264950<br>200800           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 264550<br>200800           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 0                                  | 1       | 264600<br>200800           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 265000<br>201014           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 265000<br>200850           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 0                                  | 1       | 265050<br>200850           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 0                                  | 1       | 265050<br>200900           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 0                                  | 1       | 265100<br>200900           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 0                                  | 1       | 265200<br>201600           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SW<br>(NW)                                   | 0                                  | 1       | 265400<br>201600           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW)  | 0                                  | 1       | 265150<br>201850           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B13NW<br>(NW)                                   | 0                                  | 1       | 265350<br>202050           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9NW<br>(NW)                                    | 0                                  | 1       | 265300<br>201500           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SW<br>(NW)                                   | 0                                  | 1       | 265400<br>201850           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9NW<br>(NW)                                    | 0                                  | 1       | 265350<br>201450           |
|            | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B9NW<br>(NW)                                    | 0                                  | 1       | 265400<br>201450           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                   | B9NW<br>(NW)                                    | 0                                  | 1       | 265550<br>201450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265300<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265550<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265350<br>201400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el B9NW   | 0                                  | 1       | 265450<br>201400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 0                                  | 1       | 265450                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | B13NE   | 0                                  | 1       | 265600                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el B9NW (NW)                                    | 1                                  | 1       | 201900<br>265500<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (W)   | 5                                  | 1       | 201400<br>265100<br>200950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 9                                  | 1       | 264850<br>200750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 11                                 | 1       | 264750<br>200750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (W)   | 11                                 | 1       | 265150<br>201014           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | B9SW<br>(W)                                     | 13                                 | 1       | 265250<br>201014           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | B13NW   | 21                                 | 1       | 265450                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (NW)  | 22                                 | 1       | 201950<br>265150<br>202000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | (NW)  | 29                                 | 1       | 265000<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 37                                 | 1       | 265200<br>201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 38                                 | 1       | 265050<br>200800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 40                                 | 1       | 265100<br>201200           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev | el (W)  | 41                                 | 1       | 265000<br>200800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                      | B13SE<br>(N)                                    | 41                                 | 1       | 265650<br>201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev |   | 43                                 | 1       | 265250<br>201050           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 45                                 | 1       | 265100<br>201300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 46                                 | 1       | 265150<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 46                                 | 1       | 264950<br>200750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SW<br>(NW)                                   | 48                                 | 1       | 265500<br>201850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B13NW<br>(NW)                                   | 58                                 | 1       | 265400<br>202000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 59                                 | 1       | 265000<br>200750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 71                                 | 1       | 265150<br>201100 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NW<br>(S)                                     | 74                                 | 1       | 265950<br>200850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 75                                 | 1       | 264950<br>201050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW)  | 80                                 | 1       | 265100<br>201350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 90                                 | 1       | 265050<br>201250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 92                                 | 1       | 265000<br>201050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 95                                 | 1       | 265050<br>201200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B10SW<br>(SE)                                   | 113                                | 1       | 266100<br>200900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 115                                | 1       | 265000<br>201850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SW<br>(NW)                                   | 117                                | 1       | 265550<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 121                                | 1       | 265050<br>201150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 125                                | 1       | 265000<br>201100 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 132                                | 1       | 265050<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 139                                | 1       | 265650<br>201600 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 139                                | 1       | 265650<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 140                                | 1       | 265000<br>201200 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (W)   | 154                                | 1       | 265000<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 162                                | 1       | 265000<br>201150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 168                                | 1       | 265600<br>201750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 172                                | 1       | 265050                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 181                                | 1       | 201500                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5NW<br>(SW)                                    | 192                                | 1       | 201150<br>265550<br>200550 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 195                                | 1       | 265000<br>200600           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B10NW<br>(N)                                    | 199                                | 1       | 266000<br>201350           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5NE<br>(S)                                     | 212                                | 1       | 265890<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW)  | 212                                | 1       | 264900<br>201850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 224                                | 1       | 265050<br>200600           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NW<br>(S)                                     | 227                                | 1       | 265900<br>200700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 228                                | 1       | 265700<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 241                                | 1       | 265700<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NW)  | 249                                | 1       | 264900<br>201950           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B6NW<br>(S)                                     | 254                                | 1       | 265900<br>200650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 255                                | 1       | 265250<br>202750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NW<br>(S)                                     | 257                                | 1       | 265950<br>200750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B9NE<br>(N)                                     | 264                                | 1       | 265890<br>201500           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B6NW<br>(SE)                                    | 272                                | 1       | 266000<br>200750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B10SW<br>(NE)                                   | 285                                | 1       | 265950<br>201050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B10NW<br>(N)                                    | 291                                | 1       | 265900<br>201450           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | B13NE<br>(N)                                    | 291                                | 1       | 265750<br>201900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13SE<br>(N)                                    | 292                                | 1       | 265750<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NE<br>(N)                                    | 292                                | 1       | 265800<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B6NW  | 300                                | 1       | 266000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)<br>B5SW                                    | 304                                | 1       | 200800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)<br>B10NW                                   | 310                                | 1       | 200500           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)<br>B10NW                                    | 311                                | 1       | 201250           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)<br>(N)                                      | 324                                | 1       | 201450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 330                                | 1       | 202800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B10SW   | 335                                | 1       | 202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (NE)<br>B13NE                                   | 339                                | 1       | 201100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)<br>B13SE                                    | 341                                | 1       | 202100           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)<br>B5SE                                     | 343                                | 1       | 201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)<br>(N)                                      | 346                                | 1       | 200400           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 347                                | 1       | 202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | B14SW   | 349                                | 1       | 202650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)<br>B6NW                                     | 350                                | 1       | 201750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)<br>B6SW                                    | 351                                | 1       | 200800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)<br>B10SW                                    | 360                                | 1       | 200500           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)<br>B5SE                                     | 364                                | 1       | 201000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 367                                | 1       | 200450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5SE  | 371                                | 1       | 202850           |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 372                                | 1       | 265350<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B10NW<br>(NE)                                   | 375                                | 1       | 266150<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)   | 379                                | 1       | 265300<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B5SE<br>(S)                                     | 390                                | 1       | 265890<br>200400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B6SW<br>(S)                                     | 391                                | 1       | 265900<br>200450 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B13SE<br>(N)                                    | 391                                | 1       | 265890<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (N)   | 392                                | 1       | 265250<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NE<br>(N)                                    | 398                                | 1       | 265850<br>202000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5SE<br>(S)                                     | 403                                | 1       | 265750<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (N)   | 412                                | 1       | 265200<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B5SE<br>(S)                                     | 418                                | 1       | 265800<br>200350 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (NW)  | 423                                | 1       | 265050<br>202800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B14NW<br>(N)                                    | 424                                | 1       | 265950<br>202200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B10NW<br>(NE)                                   | 424                                | 1       | 266050<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (N)   | 436                                | 1       | 265150<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B13NE<br>(N)                                    | 450                                | 1       | 265890<br>202150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B5SE<br>(S)                                     | 451                                | 1       | 265750<br>200300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | B10NW<br>(NE)                                   | 474                                | 1       | 266100<br>201400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B14SW<br>(N)                                    | 479                                | 1       | 266050<br>201700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5SE<br>(S)                                     | 488                                | 1       | 265650<br>200250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | B5SE<br>(S)                                     | 492                                | 1       | 265700<br>200250 |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 1         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:                  | Edwards D A Undefined Or Other Maes Eglwys Farm Pantlasau Morristo, Pantlasau Morriston Natural Resources Wales Not Supplied Bf0214701 1 1st February 1979 1st February 1979 22nd April 1994 Unspecified Not Supplied To Land Nr. River Llan Consent expired Located by supplier to within 10m  | B5NW<br>(SW)                                    | 128                                | 2       | 265460<br>200690 |
| 2         | Discharge Consent Operator: Property Type: Location:  Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:                 | Mr N E Godfrey Domestic Property (Single) Brynderwen Rhydypandy Road Pontlass, Rhydypandy Road Pontlasse Swanse, Pontlasse Swansea Natural Resources Wales Not Given Bm0032601 1 21st September 1983 21st September 1983 31st October 1996 Unspecified Land/Soakaway To Underground Strata Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m  | B6SW<br>(S)                                     | 526                                | 2       | 266050<br>200400 |
| 3         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:                  | Davies R W E Domestic Property (Single) Bungalow At Gorswen Farm Pontlasse, Pontlasse Swansea Natural Resources Wales River Loughor Bp0011401 1 7th February 1986 7th February 1986 10th October 1994 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 10m   | B5SW<br>(SW)                                    | 554                                | 2       | 265250<br>200300 |
| 4         | Discharge Consent Operator: Property Type: Location:  Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Mr Andrew Wilson Domestic Property (Single) Stw Serving 1 Domestic Property, Pantygelynen, Rhydypandy Road, Morriston, Swansea, Sa6 6nx Natural Resources Wales Not Supplied Npswqd000003 1 8th February 2008 8th February 2008 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River  Tributary Of Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m | B10SE<br>(E)                                    | 627                                | 2       | 266330<br>200873 |



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| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 5         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Evans C H Undefined Or Other Felin Wen Pontlasse Nr. Swansea. Natural Resources Wales Not Supplied Be0063401 1 12th October 1972 12th October 1972 31st January 1994 Unspecified Not Supplied To Land Nr. Afon Llan Consent expired Located by supplier to within 10m | B10SE<br>(E)                                    | 676                                | 2       | 266360<br>201010 |
| 6         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Jones C Undefined Or Other The Barn Cefn Velindre Fm Pontlasse Natural Resources Wales Not Supplied Bm0025201 1 26th July 1982 26th July 1982 2nd July 1994 Unspecified Not Supplied Underground Strata Consent expired Located by supplier to within 10m             | B6NE<br>(SE)                                    | 816                                | 2       | 266480<br>200570 |
| 7         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Mr Glinski Undefined Or Other Rhydypandy Trout Farm Morriston, Swansea Natural Resources Wales Not Supplied Bm0021601 1 18th February 1982 18th February 1982 2nd July 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 10m        | B14NE<br>(NE)                                   | 912                                | 2       | 266370<br>201910 |
|           | Nearest Surface Wa  | ater Feature  | B13NW<br>(NW)                                   | 0                                  | -       | 265246<br>201941 |
| 8         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:  | Not Given Up Stream Of Felindre Tip Environment Agency, Welsh Region Chemicals - Pesticides Not Supplied 13th March 1992 4433 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m  | B5SW<br>(SW)                                    | 413                                | 3       | 265450<br>200350 |



| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Registered Radioac                                    | tive Substances   |   |                                    |         |                  |
| 9         | Name:<br>Location:                                    | Abertawe Bro Morgannwg University Local Health Board<br>Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, Swansea,<br>Sa6 6nl   | B6SE<br>(SE)                                    | 845                                | 2       | 266300<br>200200 |
|           | Authority: Permit Reference: Dated: Process Type:     | Natural Resources Wales CE0010 1st October 2009 Authorisation under S13 RSA for the disposal of Radioactive waste (was  |   |                                    |         |                  |
|           | Description: Status:                                  | RSA60 S7) Discretionary authorisation under RSA Application has been authorised and any conditions apply to the   |   |                                    |         |                  |
|           | Positional Accuracy:                                  | operatorAuthorised Manually positioned to the address or location   |   |                                    |         |                  |
|           | Registered Radioac                                    | tive Substances   |   |                                    |         |                  |
| 9         | Name:<br>Location:                                    | Abertawe Bro Morgannwg University Nhs Trust<br>Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, SWANSEA,<br>SA6 6NL  | B6SE<br>(SE)                                    | 850                                | 2       | 266311<br>200205 |
|           | Authority: Permit Reference: Dated:                   | Natural Resources Wales<br>CC9644<br>29th October 2008  |   |                                    |         |                  |
|           | Process Type:  Description:                           | Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Minor variation to a registration under the Act of an open source which is also the subject of an authorisation |   |                                    |         |                  |
|           | Status:<br>Positional Accuracy:                       | Authorisation either revoked or cancelledCancelled Manually positioned to the address or location   |   |                                    |         |                  |
|           | Registered Radioac                                    | tive Substances   |   |                                    |         |                  |
| 9         | Name:<br>Location:                                    | Abertawe Bro Morgannwg University Nhs Trust<br>Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, SWANSEA,<br>SA6 6NL  | B6SE<br>(SE)                                    | 850                                | 2       | 266311<br>200206 |
|           | Authority: Permit Reference: Dated:                   | Natural Resources Wales<br>CC9652<br>29th October 2008  |   |                                    |         |                  |
|           | Process Type:   | Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)  |   |                                    |         |                  |
|           | Description: Status: Positional Accuracy:             | Minor variation to authorisation under RSA  Authorisation either revoked or cancelledCancelled  Manually positioned to the address or location  |   |                                    |         |                  |
|           | Registered Radioac                                    | tive Substances   |   |                                    |         |                  |
| 9         | Name:<br>Location:<br>Authority:<br>Permit Reference: | Abertawe Bro Morgannwg University Nhs Trust<br>Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL<br>Natural Resources Wales<br>Bw8844   | B6SE<br>(SE)                                    | 850                                | 2       | 266311<br>200206 |
|           | Dated:<br>Process Type:                               | 1st December 2003<br>Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)   |   |                                    |         |                  |
|           | Description: Status:                                  | Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded AuthorisationSuperseded AuthorisationSuperseded to the address                |   |                                    |         |                  |
|           | -   | Automatically positioned to the address   |   |                                    |         |                  |
| 9         | Registered Radioac<br>Name:                           | Abertawe Bro Morgannwg University Nhs Trust   | B6SE  | 850                                | 2       | 266311           |
| Э         | Location:<br>Authority:                               | Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales   |   | 850                                | 2       | 200206           |
|           | Permit Reference:<br>Dated:<br>Process Type:          | BF8488 29th July 1999 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)  |   |                                    |         |                  |
|           | Description:<br>Status:                               | Initial variation to an authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded  |   |                                    |         |                  |
|           | Positional Accuracy:                                  | Automatically positioned to the address   |   |                                    |         |                  |
|           | Registered Radioac                                    | tive Substances   |   |                                    |         |                  |
| 9         | Name:<br>Location:<br>Authority:                      | Abertawe Bro Morgannwg University Nhs Trust<br>Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL<br>Natural Resources Wales   | B6SE<br>(SE)                                    | 850                                | 2       | 266311<br>200206 |
|           | Permit Reference:<br>Dated:<br>Process Type:          | BF8925 20th July 1999 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1)   |   |                                    |         |                  |
|           | Description: Status:                                  | (was NOAOU 31) Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Authorisation superseded by a substantial or non substantial         |   |                                    |         |                  |
|           |   | Automatically positioned to the address   |   |                                    |         |                  |



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# **Agency & Hydrological**

| 9 Nan Loca Auth Pern Date Proc  Des State  Pos  Reg 9 Nan Loca | cation: thority: rmit Reference: ted: ocess Type: scription: atus:     | tive Substances  Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AY1137 18th March 1997 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Minor variation to authorisation under RSA   | B6SE<br>(SE) | 850 | 2 | 266311           |
|--|--|---|--------------|-----|---|------------------|
| 9 Nan Loca Auth Pern Date Proc  Des State  Pos  Reg 9 Nan Loca | me: cation: thority: rmit Reference: ted: coess Type: scription: atus: | Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AY1137 18th March 1997 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)   |              | 850 | 2 | 266311           |
| Pos Reg 9 Nan Loca   | atus:  |   |              |     |   | 200206           |
| 9 Nan  | Siliuliai Accuracy.  | Authorisation superseded by a substantial or non substantial variationSuperseded Automatically positioned to the address  |              |     |   |                  |
| 9 Nan<br>Loca  |  |   |              |     |   |                  |
| Peri<br>Date<br>Prod   | cation:<br>thority:<br>rmit Reference:                                 | Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AW0741 15th August 1996 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial  | B6SE<br>(SE) | 850 | 2 | 266311<br>200206 |
|  |  | variationSuperseded   |              |     |   |                  |
|  | gistered Radioact  | Automatically positioned to the address   |              |     |   |                  |
| 9 Nan<br>Loca<br>Auth<br>Perri<br>Date<br>Prod                 | me:<br>cation:<br>thority:<br>rmit Reference:                          | Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AP4734 13th February 1995 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded  | B6SE<br>(SE) | 850 | 2 | 266311<br>200206 |
| Pos  | sitional Accuracy:   | Automatically positioned to the address   |              |     |   |                  |
| Reg  | gistered Radioact  | tive Substances   |              |     |   |                  |
| Auth<br>Peri<br>Date<br>Prod<br>Des                            | cation: thority: rmit Reference: ted: poess Type: scription:           | Swansea Hospitals Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Environment Agency, Welsh Region AJ9016 31st March 1991 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Registration under the Act of an open source which is also the subject of an authorisation Authorisation superseded by a substantial or non substantial variationSuperseded | B6SE<br>(SE) | 850 | 3 | 266311<br>200206 |
|  |  | Automatically positioned to the address   |              |     |   |                  |
| 9 Nan<br>Loca<br>Auth<br>Perr<br>Date<br>Prod                  | cation:<br>thority:<br>rmit Reference:<br>ted:<br>ocess Type:          | hive Substances  Morriston Hospital/Ysbyty Treforys Nhs Trust  Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL  Natural Resources Wales  AG0372  31st March 1991  Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)  Authorisation under RSA   | B6SE<br>(SE) | 850 | 2 | 266311<br>200206 |
| Stat   | scription:<br>atus:<br>sitional Accuracy:                              | Authorisation either revoked or cancelledCancelled Automatically positioned to the address  |              |     |   |                  |
| Reg  | gistered Radioact  | tive Substances   |              |     |   |                  |
| Auth<br>Peri<br>Date<br>Prod                                   | cation:<br>thority:<br>rmit Reference:                                 | Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AH2281 31st March 1991 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Authorisation under RSA   | B6SE<br>(SE) | 850 | 2 | 266311<br>200206 |
| Stat   | atus:  | Authorisation superseded by a substantial or non substantial variationSuperseded Automatically positioned to the address  |              |     |   |                  |



| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | River Quality  |  |   |                                    |         |                  |
|           | Name:<br>GQA Grade:<br>Reach:<br>Estimated Distance<br>(km):<br>Flow Rate:<br>Flow Type:<br>Year:  | Llan River Quality B Cuckoo Mill - Felin-Wen 3.2  Flow less than 0.31 cumecs River 2000  | B6NW<br>(S)                                     | 30                                 | 3       | 265923<br>200848 |
|           | River Quality  |  |   |                                    |         |                  |
|           | Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:   | Llan River Quality B Felin-Wen - Cynghordy 2.8  Flow less than 0.31 cumecs River 2000  | B10SE<br>(E)                                    | 615                                | 3       | 266300<br>201000 |
|           | River Quality Biolog   | gy Sampling Points   |   |                                    |         |                  |
| 10        | Name: Reach: Estimated Distance: Positional Accuracy: Year: GQA Grade: Year: | Llan Cuckoo Mill To Felin To Wen 3.20 Manually corrected supplier location 1990 River Quality Biology GQA Grade Not Supplied 1995 River Quality Biology GQA Grade A - Very Good 2000 River Quality Biology GQA Grade A - Very Good 2002 River Quality Biology GQA Grade Not Supplied 2003 River Quality Biology GQA Grade Not Supplied 2004 River Quality Biology GQA Grade Not Supplied 2004 River Quality Biology GQA Grade B - Good 2005 River Quality Biology GQA Grade B - Good 2006 River Quality Biology GQA Grade B - Good 2007 River Quality Biology GQA Grade B - Good 2008 River Quality Biology GQA Grade B - Good 2008 River Quality Biology GQA Grade B - Good 2009 River Quality Biology GQA Grade B - Good | B10SE<br>(E)                                    | 615                                | 3       | 266300<br>201000 |
| 11        | -  | Mrs W Edwards 22/59/4/0013 100 Well On Land Belonging To Maeseglwys Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well On Land Belonging To Maeseglwys 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m  | B5NW<br>(SW)                                    | 165                                | 3       | 265500<br>200600 |
| 12        | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:   | Mr & Mrs P Rasbridge 22/59/4/0022 100 Spring At Cwfn Betinge Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring At Cwfn Betinge Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m   | B10NW<br>(N)                                    | 320                                | 3       | 265950<br>201360 |



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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 13        | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr & Mrs J Woolley 22/59/4/0008 100 Well At Felin Wen Court Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well At Felin Wen Court 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m  | B10SE<br>(E)                                    | 655                                | 3       | 266330<br>201060 |
|           |  | Mr S Griffiths 22/59/4/0006 100 Spring In Field No. 586 At Gelliwastad Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field No. 586 At Gelliwastad Fm 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m                        | B11SW<br>(E)                                    | 1046                               | 3       | 266730<br>201050 |
|           | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr D Thomas 22/59/4/0025 100 Spring In Enc. South West Of Pontycoedcae Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Enc. South West Of Pontycoedcae Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m                   | B15SE<br>(NE)                                   | 1423                               | 3       | 266980<br>201790 |
|           | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr B Bellingham 22/59/1/0057 100 Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m | B7SE<br>(SE)                                    | 1540                               | 3       | 267200<br>200460 |



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| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator:<br>Licence Number:<br>Permit Version:<br>Location:  | Mr W Watkins<br>22/59/4/0019<br>100<br>Well In Field No. 437 At Nantymilwr Farm   | B16NW<br>(NE)                                   | 1831                               | 3       | 267260<br>202190 |
|           | Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End:   | Well In Field No. 437 At Nantymilwi Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well In Field No. 437 At Nantymilwr Farm 01 January 31 December  |   |                                    |         |                  |
|           | Permit Start Date:<br>Permit End Date:  | Not Supplied Located by supplier to within 100m   |   |                                    |         |                  |
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator:<br>Licence Number:<br>Permit Version:<br>Location:<br>Authority:<br>Abstraction:<br>Abstraction Type:<br>Source:<br>Daily Rate (m3):<br>Yearly Rate (m3):<br>Details: | Mr I Phillips 22/59/1/0013 100 Well In Field No. 349 At Penrhiwgwysfa Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well In Field No. 349 At Penrhiwgwysfa  | B12SE<br>(E)                                    | 1907                               | 3       | 267610<br>200910 |
|           | Authorised Start:<br>Authorised End:<br>Permit Start Date:<br>Permit End Date:<br>Positional Accuracy:  | 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m  |   |                                    |         |                  |
|           | _   | Morriston Golf Club 22/59/1/0083 100 Unnamed Stream Environment Agency, Welsh Region Golf Courses: Spray Irrigation - Direct Water may be abstracted from a single point Surface Not Supplied Not Supplied Unnamed Stream 01 January 31 December 1st April 2001 Not Supplied Located by supplier to within 100m                   | (S)   | 1944                               | 3       | 266130<br>198870 |
|           | Groundwater Vulne Soil Classification:  Map Sheet:  | Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Sheet 35 West Glamorgan | B9SE<br>(N)                                     | 0                                  | 3       | 265888<br>201120 |
|           | Scale:  | 1:100,000   |   |                                    |         |                  |
|           | Groundwater Vulne Soil Classification:  Map Sheet: Scale:   | Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000  | B9NW<br>(NW)                                    | 0                                  | 3       | 265480<br>201383 |
|           | Groundwater Vulne   | '   |   |                                    |         |                  |
|           | Soil Classification:  Map Sheet: Scale:   | Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Sheet 35 West Glamorgan 1:100,000  | B9SE<br>(S)                                     | 0                                  | 3       | 265867<br>200947 |
|           | Groundwater Vulne   | ·   |   |                                    |         |                  |
|           | Soil Classification:  Map Sheet: Scale:   | Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000  | B9SE<br>(SW)                                    | 0                                  | 3       | 265890<br>201014 |



# **Agency & Hydrological**

| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:   | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000 |   | 0                                  | 3       | 265891<br>201023 |
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:   | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000 |   | 0                                  | 3       | 265802<br>200842 |
|           | Bedrock Aquifer De<br>Aquifer Designation:   | esignations<br>Secondary Aquifer - A  | (W)   | 0                                  | 1       | 265000<br>201014 |
|           | Bedrock Aquifer De<br>Aquifer Designation:   | esignations<br>Secondary Aquifer - A  | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |
|           | Superficial Aquifer<br>Aquifer Designation:  | Designations Secondary Aquifer - A  | B9NW<br>(NW)                                    | 0                                  | 1       | 265478<br>201415 |
|           | Superficial Aquifer<br>Aquifer Designation:  | Designations Secondary Aquifer - A  | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |
|           |  | Secondary Aquifer - A   | (W)   | 0                                  | 1       | 264865<br>201014 |
|           | Superficial Aquifer<br>Aquifer Designation:  | Designations Unproductive Strata  | B9SE<br>(N)                                     | 0                                  | 1       | 265893<br>201033 |
|           | Superficial Aquifer<br>Aquifer Designation:  | Designations Unproductive Strata  | (W)   | 0                                  | 1       | 265000<br>201014 |
|           | Extreme Flooding f<br>Type:<br>Flood Plain Type:<br>Boundary Accuracy:   | from Rivers or Sea without Defences  Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied  | B10SW<br>(S)                                    | 0                                  | 2       | 265902<br>200950 |
|           | Flooding from Rive Type: Flood Plain Type: Boundary Accuracy:  | ers or Sea without Defences  Extent of Flooding from Rivers or Sea without Defences Fluvial Models As Supplied  | B10SW<br>(S)                                    | 0                                  | 2       | 265902<br>200946 |
|           | Areas Benefiting fro   | om Flood Defences   |   |                                    |         |                  |
|           | Flood Water Storag<br>None<br>Flood Defences   | ge Areas  |   |                                    |         |                  |
|           | None   |   |   |                                    |         |                  |
| 14        | OS Water Network Watercourse Form: Watercourse Length Watercourse Level: Permanent: Watercourse Name: Catchment Name: Primacy: | Inland river : 388.0 On ground surface True Not Supplied  | B9NW<br>(NW)                                    | 0                                  | 4       | 265407<br>201256 |
| 15        | OS Water Network Watercourse Form: Watercourse Length Watercourse Level: Permanent: Watercourse Name: Catchment Name: Primacy: | Inland river<br>: 132.4<br>On ground surface<br>True  | B13NW<br>(NW)                                   | 0                                  | 4       | 265246<br>201941 |



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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 16        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 123.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SW<br>(W)                                     | 0                                  | 4       | 265265<br>200999 |
| 17        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 250.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NW<br>(NW)                                    | 0                                  | 4       | 265457<br>201319 |
| 18        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B13NW<br>(NW)                                   | 0                                  | 4       | 265250<br>201935 |
| 19        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NW<br>(NW)                                   | 0                                  | 4       | 265255<br>201927 |
| 20        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B13NW<br>(NW)                                   | 0                                  | 4       | 265258<br>201920 |
| 21        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 428.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13SW<br>(NW)                                   | 0                                  | 4       | 265497<br>201587 |
| 22        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1      | B9SE<br>(W)                                     | 0                                  | 4       | 265587<br>201120 |
| 23        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B9NW<br>(NW)                                    | 0                                  | 4       | 265457<br>201310 |
| 24        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 91.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NW<br>(NW)                                    | 0                                  | 4       | 265542<br>201286 |



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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 25        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 239.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 0                                  | 4       | 265610<br>201392 |
| 26        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NW<br>(NW)                                    | 0                                  | 4       | 265536<br>201274 |
| 27        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 0                                  | 4       | 265619<br>201279 |
| 28        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B5NE<br>(SW)                                    | 0                                  | 4       | 265579<br>200764 |
| 29        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 337.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SE<br>(W)                                     | 0                                  | 4       | 265599<br>201020 |
| 30        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 0                                  | 4       | 265610<br>201392 |
| 31        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 337.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SE<br>(W)                                     | 0                                  | 4       | 265682<br>200966 |
| 32        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SE<br>(W)                                     | 0                                  | 4       | 265687<br>200945 |
| 33        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 46.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9SW<br>(W)                                     | 1                                  | 4       | 265288<br>201016 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 34        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1                              | B5NE<br>(SW)                                    | 1                                  | 4       | 265690<br>200797 |
| 35        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 290.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SW<br>(W)                                     | 2                                  | 4       | 265284<br>201039 |
| 36        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B5NW<br>(SW)                                    | 2                                  | 4       | 265545<br>200797 |
| 37        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(NW)                                    | 2                                  | 4       | 265634<br>201330 |
| 38        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(NW)                                    | 2                                  | 4       | 265640<br>201252 |
| 39        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SE<br>(W)                                     | 2                                  | 4       | 265796<br>201045 |
| 40        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 339.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B10SW<br>(S)                                    | 2                                  | 4       | 265899<br>200930 |
| 41        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(NW)                                    | 3                                  | 4       | 265619<br>201279 |
| 42        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(NW)                                    | 3                                  | 4       | 265634<br>201330 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 43        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 39.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 3                                  | 4       | 265674<br>201272 |
| 44        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 507.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B5NE<br>(SW)                                    | 6                                  | 4       | 265570<br>200745 |
| 45        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.9  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | B9SW<br>(W)                                     | 7                                  | 4       | 265284<br>201036 |
| 46        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B9SW<br>(W)                                     | 8                                  | 4       | 265268<br>201000 |
| 47        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 128.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13SW<br>(NW)                                   | 14                                 | 4       | 265476<br>201788 |
| 48        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B9NE<br>(NW)                                    | 41                                 | 4       | 265678<br>201273 |
| 49        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B9NE<br>(NW)                                    | 45                                 | 4       | 265685<br>201276 |
| 50        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13SW<br>(NW)                                   | 52                                 | 4       | 265497<br>201587 |
| 51        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(NW)                                    | 53                                 | 4       | 265685<br>201276 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 52        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(NW)                                    | 53                                 | 4       | 265745<br>201292 |
| 53        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 82.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13SW<br>(NW)                                   | 58                                 | 4       | 265435<br>201716 |
| 54        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 25.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 75                                 | 4       | 265622<br>201498 |
| 55        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(NW)                                    | 75                                 | 4       | 265622<br>201498 |
| 56        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(N)                                     | 77                                 | 4       | 265746<br>201363 |
| 57        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13SW<br>(NW)                                   | 94                                 | 4       | 265498<br>201586 |
| 58        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B13SW<br>(NW)                                   | 95                                 | 4       | 265500<br>201584 |
| 59        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(N)                                     | 112                                | 4       | 265739<br>201468 |
| 60        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 180.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(NW)                                    | 112                                | 4       | 265696<br>201477 |



| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
| 61        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 49.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(N)                                     | 113                                | 4       | 265793<br>201281 |
| 62        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B9NE<br>(NW)                                    | 113                                | 4       | 265745<br>201292 |
| 63        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(N)                                     | 119                                | 4       | 265746<br>201363 |
| 64        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 478.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9SE<br>(NW)                                    | 120                                | 4       | 265782<br>201060 |
| 65        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.4  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B9SE<br>(W)                                     | 122                                | 4       | 265782<br>201057 |
| 66        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B9SE<br>(NW)                                    | 122                                | 4       | 265796<br>201053 |
| 67        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13SW<br>(NW)                                   | 124                                | 4       | 265476<br>201788 |
| 68        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 239.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | B9SE<br>(N)                                     | 137                                | 4       | 265896<br>201034 |
| 69        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 69.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B9NE<br>(N)                                     | 149                                | 4       | 265765<br>201462 |



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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 70        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B9NE<br>(N)                                     | 149                                | 4       | 265739<br>201468 |
| 71        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 168.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(N)                                     | 156                                | 4       | 265793<br>201281 |
| 72        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 213.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B9NE<br>(N)                                     | 156                                | 4       | 265830<br>201275 |
| 73        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 28.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(N)                                     | 180                                | 4       | 265751<br>201524 |
| 74        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 25.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B9NE<br>(N)                                     | 183                                | 4       | 265751<br>201524 |
| 75        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13SE<br>(N)                                    | 201                                | 4       | 265756<br>201549 |
| 76        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13SE<br>(N)                                    | 201                                | 4       | 265764<br>201551 |
| 77        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 416.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | B10SW<br>(S)                                    | 215                                | 4       | 265913<br>200936 |
| 78        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B5NW<br>(SW)                                    | 238                                | 4       | 265222<br>200644 |



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| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
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| 79        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 278.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13SE<br>(N)                                    | 254                                | 4       | 265723<br>201648 |
| 80        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 37.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13SE<br>(N)                                    | 254                                | 4       | 265761<br>201649 |
| 81        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 89.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NE<br>(N)                                    | 256                                | 4       | 265610<br>202150 |
| 82        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B5NW<br>(SW)                                    | 273                                | 4       | 265258<br>200590 |
| 83        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 455.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B5SE<br>(S)                                     | 276                                | 4       | 265773<br>200475 |
| 84        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13NE<br>(N)                                    | 289                                | 4       | 265738<br>201914 |
| 85        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B13NE<br>(N)                                    | 307                                | 4       | 265625<br>202154 |
| 86        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NE<br>(N)                                    | 316                                | 4       | 265629<br>202155 |
| 87        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | B13NE<br>(N)                                    | 329                                | 4       | 265642<br>202158 |



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| 88        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.8  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | B13NE<br>(N)                                    | 329                                | 4       | 265747<br>201914 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 89        | Watercourse Form: Inland river Watercourse Length: 54.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B13NE<br>(N)                                    | 337                                | 4       | 265652<br>202160 |
| 90        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NE<br>(N)                                    | 338                                | 4       | 265750<br>201914 |
| 91        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 262.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13NE<br>(N)                                    | 341                                | 4       | 265750<br>201914 |
| 92        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 147.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B10NW<br>(N)                                    | 352                                | 4       | 265976<br>201518 |
| 93        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 107.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B5NW<br>(SW)                                    | 355                                | 4       | 265254<br>200530 |
| 94        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 74.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13NE<br>(N)                                    | 380                                | 4       | 265700<br>202182 |
| 95        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 46.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B13NE<br>(N)                                    | 386                                | 4       | 265748<br>202170 |
| 96        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NE<br>(N)                                    | 386                                | 4       | 265704<br>202176 |



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| 97        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.7  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | B13NE<br>(N)                                    | 387                                | 4       | 265702<br>202179 |
| 98        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B10NW<br>(N)                                    | 387                                | 4       | 265981<br>201517 |
| 99        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B10NW<br>(N)                                    | 397                                | 4       | 266025<br>201386 |
| 100       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 16.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | B10NW<br>(N)                                    | 397                                | 4       | 266034<br>201372 |
| 101       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 80.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 404                                | 4       | 265948<br>201631 |
| 102       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B14SW<br>(N)                                    | 407                                | 4       | 265954<br>201625 |
| 103       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | B13SE<br>(N)                                    | 415                                | 4       | 265855<br>201752 |
| 104       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.6  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | B13NE<br>(N)                                    | 418                                | 4       | 265756<br>202167 |
| 105       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B13NE<br>(N)                                    | 422                                | 4       | 265762<br>202164 |



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| 106       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B13SE<br>(N)                                    | 425                                | 4       | 265869<br>201754 |
| 107       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 840.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | B5SW<br>(SW)                                    | 426                                | 4       | 265398<br>200358 |
| 108       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | B13NE<br>(N)                                    | 426                                | 4       | 265762<br>202164 |
| 109       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B13SE<br>(N)                                    | 428                                | 4       | 265889<br>201750 |
| 110       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | B13SE<br>(N)                                    | 429                                | 4       | 265889<br>201750 |
| 111       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | B10NW<br>(N)                                    | 430                                | 4       | 266046<br>201454 |
| 112       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 42.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 435                                | 4       | 265929<br>201737 |
| 113       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SW<br>(N)                                    | 446                                | 4       | 265954<br>201694 |
| 114       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | B14SW<br>(N)                                    | 449                                | 4       | 265947<br>201719 |



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| 115       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 32.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 455                                | 4       | 265947<br>201719 |
| 116       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 22.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 455                                | 4       | 265962<br>201709 |
| 117       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 175.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B13NE<br>(N)                                    | 459                                | 4       | 265868<br>201953 |
| 118       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 464                                | 4       | 265965<br>201709 |
| 119       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 190.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 467                                | 4       | 265967<br>201712 |
| 120       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 467                                | 4       | 265967<br>201712 |
| 121       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 56.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | B14SW<br>(N)                                    | 480                                | 4       | 265976<br>201720 |
| 122       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 538                                | 4       | 266006<br>201775 |
| 123       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 542                                | 4       | 266006<br>202098 |



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| 124       | Water Network Lines  Watercourse Form: Inland river Watercourse Length: 17.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1        | B10SE<br>(E)                                    | 544                                | 4       | 266239<br>200947 |
| 125       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B10SE<br>(E)                                    | 544                                | 4       | 266239<br>200947 |
| 126       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 165.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | B10SE<br>(E)                                    | 554                                | 4       | 266251<br>200939 |
| 127       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 222.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B10SE<br>(E)                                    | 554                                | 4       | 266251<br>200939 |
| 128       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 568                                | 4       | 266075<br>201732 |
| 129       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 581                                | 4       | 266018<br>201890 |
| 130       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 109.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14NW<br>(N)                                    | 581                                | 4       | 265989<br>201894 |
| 131       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 96.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14NW<br>(N)                                    | 608                                | 4       | 266013<br>202000 |
| 132       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 57.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 615                                | 4       | 266055<br>201837 |



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| 133       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 0.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 615                                | 4       | 266055<br>201837 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 134       | Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                 | B14SW<br>(N)                                    | 615                                | 4       | 266056<br>201837 |
| 135       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 45.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SW<br>(N)                                    | 617                                | 4       | 266098<br>201814 |
| 136       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SW<br>(N)                                    | 618                                | 4       | 266115<br>201763 |
| 137       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14NW<br>(N)                                    | 621                                | 4       | 266007<br>202094 |
| 138       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14NW<br>(N)                                    | 621                                | 4       | 266006<br>202098 |
| 139       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 622                                | 4       | 266007<br>202098 |
| 140       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 626                                | 4       | 266045<br>201886 |
| 141       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 39.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 628                                | 4       | 266134<br>201752 |



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| 142       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 121.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 633                                | 4       | 266065<br>202075 |
| 143       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | B14SW<br>(N)                                    | 634                                | 4       | 266116<br>201805 |
| 144       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | B14SW<br>(N)                                    | 635                                | 4       | 266193<br>201838 |
| 145       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 637                                | 4       | 266082<br>201878 |
| 146       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.1  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SW<br>(N)                                    | 642                                | 4       | 266155<br>201742 |
| 147       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 643                                | 4       | 266116<br>201805 |
| 148       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 643                                | 4       | 266126<br>201800 |
| 149       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 26.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14SW<br>(N)                                    | 648                                | 4       | 266149<br>201788 |
| 150       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 127.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SW<br>(N)                                    | 655                                | 4       | 266082<br>201878 |



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| 151       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SW<br>(N)                                    | 656                                | 4       | 266120<br>201822 |
| 152       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 656                                | 4       | 266120<br>201822 |
| 153       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SW<br>(N)                                    | 660                                | 4       | 266172<br>201777 |
| 154       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 663                                | 4       | 266088<br>201876 |
| 155       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14NW<br>(N)                                    | 673                                | 4       | 266065<br>202075 |
| 156       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 52.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 673                                | 4       | 266114<br>202054 |
| 157       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 673                                | 4       | 266198<br>201763 |
| 158       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14SW<br>(N)                                    | 689                                | 4       | 266126<br>201868 |
| 159       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SW<br>(N)                                    | 689                                | 4       | 266193<br>201838 |



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| 160       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SW<br>(NE)                                   | 697                                | 4       | 266209<br>201759 |
| 161       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SW<br>(NE)                                   | 697                                | 4       | 266209<br>201759 |
| 162       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1                              | B10SE<br>(E)                                    | 700                                | 4       | 266376<br>201078 |
| 163       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 135.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | B10SE<br>(E)                                    | 700                                | 4       | 266386<br>201007 |
| 164       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | B14NW<br>(N)                                    | 702                                | 4       | 266082<br>202127 |
| 165       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 16.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 702                                | 4       | 266082<br>202127 |
| 166       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 910.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B10SE<br>(E)                                    | 703                                | 4       | 266376<br>201078 |
| 167       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 48.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14NW<br>(N)                                    | 704                                | 4       | 266079<br>202144 |
| 168       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 57.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 704                                | 4       | 266079<br>202144 |



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| 169       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 432.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B6NE<br>(E)                                     | 709                                | 4       | 266411<br>200800 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 170       | Watercourse Form: Inland river Watercourse Length: 91.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B6NE<br>(E)                                     | 711                                | 4       | 266413<br>200802 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 171       | Watercourse Form: Inland river Watercourse Length: 32.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                               | B6NE<br>(E)                                     | 711                                | 4       | 266413<br>200802 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 172       | Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B14NW<br>(N)                                    | 716                                | 4       | 266149<br>202040 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 173       | Watercourse Form: Inland river Watercourse Length: 53.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B14NW<br>(N)                                    | 716                                | 4       | 266114<br>202054 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 174       | Watercourse Form: Inland river Watercourse Length: 107.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                         | B14SW<br>(N)                                    | 724                                | 4       | 266216<br>201825 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 175       | Watercourse Form: Lake Watercourse Length: 68.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                  | B6NE<br>(E)                                     | 743                                | 4       | 266445<br>200795 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 176       | Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                 | B14NW<br>(N)                                    | 749                                | 4       | 266154<br>202039 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 177       | Watercourse Form: Inland river Watercourse Length: 138.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                         | B14NE<br>(N)                                    | 753                                | 4       | 266280<br>201985 |



| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
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| 178       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 280.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1  | B14NW<br>(N)                                    | 756                                | 4       | 266154<br>202167 |
| 179       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 91.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B6NE<br>(SE)                                    | 770                                | 4       | 266467<br>200730 |
| 180       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 265.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1  | B14NE<br>(N)                                    | 771                                | 4       | 266281<br>201986 |
| 181       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SE<br>(NE)                                   | 800                                | 4       | 266300<br>201834 |
| 182       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | B14SE<br>(NE)                                   | 804                                | 4       | 266295<br>201823 |
| 183       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SE<br>(NE)                                   | 804                                | 4       | 266295<br>201823 |
| 184       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SE<br>(NE)                                   | 813                                | 4       | 266302<br>201833 |
| 185       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 82.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1      | B6NE<br>(SE)                                    | 818                                | 4       | 266503<br>200653 |
| 186       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14SE<br>(NE)                                   | 819                                | 4       | 266311<br>201827 |



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| 187       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B10SE<br>(E)                                    | 820                                | 4       | 266498<br>201057 |
| 188       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 110.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B10SE<br>(E)                                    | 820                                | 4       | 266498<br>201057 |
| 189       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                          | B14SE<br>(NE)                                   | 839                                | 4       | 266309<br>201874 |
| 190       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B10SE<br>(E)                                    | 853                                | 4       | 266531<br>201058 |
| 191       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | B14NE<br>(NE)                                   | 858                                | 4       | 266302<br>201916 |
| 192       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 33.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B14NE<br>(NE)                                   | 869                                | 4       | 266288<br>201953 |
| 193       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 770.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | B10SE<br>(E)                                    | 872                                | 4       | 266536<br>201146 |
| 194       | 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: Loughor Primacy: 1 | B10SE<br>(E)                                    | 877                                | 4       | 266541<br>201137 |
| 195       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | B14SE<br>(NE)                                   | 888                                | 4       | 266379<br>201846 |



| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
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| 196       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14SE<br>(NE)                                   | 888                                | 4       | 266379<br>201846 |
| 197       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B7NW<br>(SE)                                    | 899                                | 4       | 266587<br>200660 |
| 198       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | B14NE<br>(NE)                                   | 905                                | 4       | 266352<br>201926 |
| 199       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1     | B14NE<br>(NE)                                   | 905                                | 4       | 266368<br>201909 |
| 200       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | B14NE<br>(NE)                                   | 907                                | 4       | 266372<br>201897 |
| 201       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 275.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B14NE<br>(NE)                                   | 908                                | 4       | 266352<br>201929 |
| 202       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 254.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | B11SW<br>(E)                                    | 909                                | 4       | 266578<br>201116 |
| 203       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 2.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | B11SW<br>(E)                                    | 909                                | 4       | 266573<br>201141 |
| 204       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1      | B14NE<br>(NE)                                   | 910                                | 4       | 266373<br>201906 |



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| 205       | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 9.6 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                      | B11SW<br>(E)                                    | 912                                | 4       | 266575<br>201142 |
| 206       | OS Water Network Lines  Watercourse Form: Inland river  Watercourse Length: 200.9  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1 | B14NE<br>(NE)                                   | 912                                | 4       | 266373<br>201906 |
| 207       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | B14NE<br>(N)                                    | 943                                | 4       | 266316<br>202207 |
| 208       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.8  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | B11SW<br>(E)                                    | 963                                | 4       | 266645<br>201053 |
| 209       | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | B14NE<br>(N)                                    | 970                                | 4       | 266341<br>202198 |





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|           | BGS Recorded Lan  | dfill Sites   |   |                                    |         |                  |
| 210       | Site Name:<br>Location:<br>Authority:<br>Ground Water:<br>Surface Water:<br>Geology:<br>Positional Accuracy:<br>Boundary Accuracy:  | Gorswen Farm Pontdassau, LLANGYFELACH, Glamorgan British Geological Survey, National Geoscience Information Service No threat to ground water Threat to surface water N/A Positioned by the supplier Moderate | B5NW<br>(SW)                                    | 300                                | -       | 265336<br>200540 |
|           | Historical Landfill S   | ites  |   |                                    |         |                  |
| 211       | Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:       |   | B5NW<br>(SW)                                    | 294                                | 2       | 265337<br>200539 |
|           | Historical Landfill S   | ites  |   |                                    |         |                  |
| 212       | Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:                        | EAHLD14480 31st December 1955 31st December 1970 Deposited Waste included Inert, Industrial and Special Waste  0 Not Supplied 6855/0045 Not Supplied Not Supplied Not Supplied                                | B5SW<br>(SW)                                    | 402                                | 2       | 265294<br>200461 |
| 213       | Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: Positional Accuracy: Local Authority Lan | -   | B6SE<br>(SE)                                    | 864                                | 2       | 266400<br>200300 |
|           | Name:   | City and County of Swansea - Has no landfill data to supply   |   | 0                                  | 5       | 265890           |
| 21.4      | Potentially Infilled L  | and (Water)   | DONE  | 907                                | P       | 201014           |
| 214       | Use:<br>Date of Mapping:  | Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1900   | B6NE<br>(SE)                                    | 807                                | 8       | 26<br>20         |



**Waste** 

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Registered Waste T  | ransfer Sites   |   |                                    |         |                  |
| 215       | Licence Holder: Licence Reference: Site Location:  Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Licence Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Quality: Authorised Waste  Prohibited Waste | Morriston Hospital Nhs Trust L1/8 Morriston Hospital, Heol Maes Eglwys, Morriston, SWANSEA, West Glamorgan, SA6 6NL As Site Address Environment Agency Wales, South West Area Transfer Very Small (Less than 10,000 tonnes per year) Waste produced/controlled by licence holder  Licence has completion certificateSurrendered 30th March 1996 L1/8  Not Given  Manually positioned to the address or location Not Supplied Clinical Wastes Hospital Wastes Highly Flam./Lpg Regs'72 Subs Percussive/Explosive/Similar Waste Radioactive Waste Except In Work.Plan Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Waste N.O.S. | B6SE<br>(SE)                                    | 922                                | 3       | 266400<br>200200 |





| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
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|           | BGS 1:625,000 Solid  | d Geology  |   |                                    |         |                  |
|           | Description:   | South Wales Upper Coal Measures Formation  | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg                                   | B10SW<br>(SE)                                   | 0                                  | 1       | 265961<br>200910 |
|           | BGS Estimated Soil   | Chamistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg<br><1.8 mg/kg<br>60 - 90 mg/kg                       | B9SE<br>(S)                                     | 0                                  | 1       | 265890<br>201000 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  2.2 - 3.0 mg/kg  60 - 90 mg/kg  <100 mg/kg  15 - 30 mg/kg | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service<br>Sediment<br>15 - 25 mg/kg<br>2.2 - 3.0 mg/kg<br>60 - 90 mg/kg                  | B10SW<br>(NE)                                   | 303                                | 1       | 266000<br>201150 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg                                   | B10SW<br>(E)                                    | 322                                | 1       | 266000<br>201014 |
|           | BGS Estimated Soil   | Chemistry  |   |                                    |         |                  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:                    | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg          | B10SW<br>(E)                                    | 340                                | 1       | 266030<br>201066 |





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|           | BGS Estimated Soil Chemistry                             |   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic                  | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg     | B10SW<br>(E)                                    | 344                                | 1       | 266025<br>201000 |
|           | Concentration: Cadmium Concentration:                    | <1.8 mg/kg  |   |                                    |         |                  |
|           | Chromium Concentration:                                  | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration:          | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                                       | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:                             | British Geological Survey, National Geoscience Information Service Sediment                         | B10NW<br>(N)                                    | 369                                | 1       | 266011<br>201347 |
|           | Arsenic Concentration:                                   | 35 - 45 mg/kg   |   |                                    |         |                  |
|           | Cadmium Concentration: Chromium                          | <1.8 mg/kg<br>60 - 90 mg/kg   |   |                                    |         |                  |
|           | Concentration: Lead Concentration:                       |   |   |                                    |         |                  |
|           | Nickel<br>Concentration:                                 | 15 - 30 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                                       | Chemistry   |   |                                    | · · ·   |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic                  | British Geological Survey, National Geoscience Information Service<br>Sediment<br>35 - 45 mg/kg     | B10NE<br>(NE)                                   | 556                                | 1       | 266271<br>201531 |
|           | Concentration: Cadmium                                   | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Chromium<br>Concentration:             | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel<br>Concentration:          | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                                       | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic                  | British Geological Survey, National Geoscience Information Service<br>Sediment<br>25 - 35 mg/kg     | B5SW<br>(SW)                                    | 559                                | 1       | 265281<br>200273 |
|           | Concentration:<br>Cadmium                                | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:<br>Chromium<br>Concentration:             | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Lead Concentration:<br>Nickel                            | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |
|           | Concentration:   |   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:<br>Arsenic                  | Chemistry British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg | B14SW<br>(N)                                    | 591                                | 1       | 266000<br>201861 |
|           | Concentration:<br>Cadmium                                | <1.8 mg/kg  |   |                                    |         |                  |
|           | Concentration:   | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Concentration: Lead Concentration: Nickel Concentration: | <100 mg/kg<br>15 - 30 mg/kg   |   |                                    |         |                  |
|           | BGS Estimated Soil                                       | Chemistry   |   |                                    |         |                  |
|           | Source:<br>Soil Sample Type:                             | British Geological Survey, National Geoscience Information Service Sediment                         | B10SE<br>(E)                                    | 681                                | 1       | 266383<br>200912 |
|           | Arsenic Concentration: Cadmium                           | 35 - 45 mg/kg<br><1.8 mg/kg   |   |                                    |         |                  |
|           | Concentration:<br>Chromium                               | 60 - 90 mg/kg   |   |                                    |         |                  |
|           | Concentration:<br>Lead Concentration:<br>Nickel          | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |
|           | Concentration:   | 50 - 45 mg/kg   |   |                                    |         |                  |





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|           | BGS Estimated Soil Chemistry   |   |   |                                    |         |                  |  |  |
|           | Source:<br>Soil Sample Type:<br>Arsenic<br>Concentration:<br>Cadmium<br>Concentration:<br>Chromium   | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg                              | B6NE<br>(E)                                     | 729                                | 1       | 266431<br>200802 |  |  |
|           | Concentration:<br>Lead Concentration:<br>Nickel<br>Concentration:  | <100 mg/kg<br>30 - 45 mg/kg   |   |                                    |         |                  |  |  |
|           | BGS Estimated Soil   | Chemistry   |   |                                    |         |                  |  |  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:  | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg     | B14NE<br>(NE)                                   | 778                                | 1       | 266565<br>201960 |  |  |
|           | BGS Estimated Soil   | Chemistry   |   |                                    |         |                  |  |  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:  | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg  <1.8 mg/kg  60 - 90 mg/kg  <100 mg/kg  15 - 30 mg/kg | B10SE<br>(E)                                    | 801                                | 1       | 266490<br>201000 |  |  |
|           | BGS Estimated Soil   | Chemistry   |   |                                    |         |                  |  |  |
|           | Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:  | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg                              | B14NE<br>(N)                                    | 845                                | 1       | 266333<br>202123 |  |  |
|           | BGS Measured Urba  | an Soil Chemistry   |   |                                    |         |                  |  |  |
|           | Source: Grid: Soil Sample Type: Sample Area: Arsenic Measured Concentration: Cadmium Measured Concentration: Chromium Measured Concentration: Lead Measured Concentration: Nickel Measured |   | B1SE<br>(S)                                     | 970                                | 1       | 265740<br>199780 |  |  |





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|          | BGS Urban Soil Che  | BGS Urban Soil Chemistry Averages  |   |                                    |         |  |
|          | Source:<br>Sample Area:<br>Count Id:  | British Geological Survey, National Geoscience Information Service Swansea 368   | B5SE<br>(S)                                     | 438                                | 1       | 265890<br>200300   |
|          | Arsenic Minimum Concentration:  | 8.00 mg/kg   |   |                                    |         |  |
|          | Arsenic Average Concentration:  | 79.00 mg/kg  |   |                                    |         |  |
|          | Arsenic Maximum Concentration:  | 2161.00 mg/kg  |   |                                    |         |  |
|          | Cadmium Minimum Concentration:  | 0.10 mg/kg   |   |                                    |         |  |
|          | Cadmium Average Concentration:  | 2.90 mg/kg   |   |                                    |         |  |
|          | Cadmium Maximum Concentration:  | 61.90 mg/kg  |   |                                    |         |  |
|          | Chromium Minimum Concentration:   | 13.00 mg/kg  |   |                                    |         |  |
|          | Chromium Average Concentration:   | 72.00 mg/kg  |   |                                    |         |  |
|          | Chromium Maximum Concentration:   | 562.00 mg/kg   |   |                                    |         |  |
|          | Lead Minimum Concentration:   | 23.00 mg/kg  |   |                                    |         |  |
|          | Lead Average Concentration:   | 413.00 mg/kg   |   |                                    |         |  |
|          | Lead Maximum Concentration:   | 10000.00 mg/kg   |   |                                    |         |  |
|          | Nickel Minimum Concentration:   | 8.00 mg/kg   |   |                                    |         |  |
|          | Nickel Average<br>Concentration:  | 52.00 mg/kg  |   |                                    |         |  |
|          | Nickel Maximum Concentration:   | 384.00 mg/kg   |   |                                    |         |  |
|          | Coal Mining Affecte   | d Areas  |   |                                    |         |  |
|          | Description:  | In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.   | B9SE<br>(SW)                                    | 0                                  | 6       | 265890<br>201014   |
|          | Mining Instability Mining Evidence: Source:   | Inconclusive Coal Mining Ove Arup & Partners   | B9SE<br>(SW)                                    | 0                                  | -       | 265890<br>201014   |
|          | Boundary Quality: Non Coal Mining Are   | As Supplied  |   |                                    |         |  |
|          | No Hazard   |  |   |                                    |         |  |
|          | =   | sible Ground Stability Hazards   |   |                                    |         |  |
|          | Hazard Potential:<br>Source:  | Very Low<br>British Geological Survey, National Geoscience Information Service   | B9SE<br>(N)                                     | 0                                  | 1       | 265895<br>201035   |
|          | -   | sible Ground Stability Hazards   |   |                                    |         |  |
|          | Hazard Potential: Source:   | No Hazard<br>British Geological Survey, National Geoscience Information Service  | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014   |
|          | -   | essible Ground Stability Hazards   | _   |                                    |         |  |
|          | Hazard Potential:<br>Source:  | Moderate British Geological Survey, National Geoscience Information Service  | B9NE  | 0                                  | 1       | 265587<br>20142  |
| ,        |   | <b>5</b> ,,  | (NW)  |                                    |         |  |
|          | Hazard Potential:   | essible Ground Stability Hazards  Moderate   | B9SE  | 0                                  | 1       |  |
|          | Hazard Potential:<br>Source:<br>Potential for Compr<br>Hazard Potential:  | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard  | B9SE<br>(SW)                                    | 0                                  | 1       | 201014   |
|          | Hazard Potential:<br>Source:<br>Potential for Compr<br>Hazard Potential:<br>Source:   | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service   | B9SE<br>(SW)                                    |                                    |         | 201014   |
|          | Hazard Potential:<br>Source:<br>Potential for Compr<br>Hazard Potential:<br>Source:   | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard  | B9SE<br>(SW)                                    |                                    |         | 201014<br>265895<br>201035<br>265784   |
|          | Hazard Potential:<br>Source:<br>Potential for Compr<br>Hazard Potential:<br>Source:<br>Potential for Compr<br>Hazard Potential:<br>Source:  | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High  | B9SE (SW)  B9SE (N)                             | 0                                  | 1       | 201014<br>265899<br>201039<br>265784<br>201304   |
|          | Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Ground Hazard Potential: Source:  Potential for Landsl Hazard Potential:         | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High British Geological Survey, National Geoscience Information Service  Id Dissolution Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service  Id Geoscience Information Service | B9SE (SW)  B9SE (N)  B9NE (N)  B9SE (SW)        | 0                                  | 1       | 265896<br>201036<br>265784<br>201304<br>265896<br>201014<br>265507                               |
|          | Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Ground Hazard Potential: Source:  Potential for Landsl Hazard Potential: Source: | essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High British Geological Survey, National Geoscience Information Service d Dissolution Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service dide Ground Stability Hazards   | B9SE (SW)  B9SE (N)  B9NE (N)  B9SE (SW)        | 0 0                                | 1 1     | 265890<br>201014<br>265895<br>201035<br>265784<br>201304<br>265890<br>201014<br>265501<br>201365 |



# **Geological**

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |  |
|-----------|---|---|---|------------------------------------|---------|------------------|--|
|           | Potential for Running Sand Ground Stability Hazards |   |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | Low<br>British Geological Survey, National Geoscience Information Service   | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |  |
|           | Potential for Runni                                 | ng Sand Ground Stability Hazards  |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | Low<br>British Geological Survey, National Geoscience Information Service   | B9NE<br>(NW)                                    | 0                                  | 1       | 265587<br>201421 |  |
|           | Potential for Runni                                 | ng Sand Ground Stability Hazards  |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | Very Low<br>British Geological Survey, National Geoscience Information Service  | B9SE<br>(N)                                     | 0                                  | 1       | 265895<br>201035 |  |
|           | Potential for Runni                                 | ng Sand Ground Stability Hazards  |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | Very Low<br>British Geological Survey, National Geoscience Information Service  | B10SW<br>(SE)                                   | 55                                 | 1       | 265952<br>200897 |  |
|           | Potential for Shrink                                | ring or Swelling Clay Ground Stability Hazards  |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | No Hazard<br>British Geological Survey, National Geoscience Information Service   | B13SE<br>(N)                                    | 0                                  | 1       | 265605<br>201855 |  |
|           | Potential for Shrink                                | ring or Swelling Clay Ground Stability Hazards  |   |                                    |         |                  |  |
|           | Hazard Potential:<br>Source:                        | Very Low<br>British Geological Survey, National Geoscience Information Service  | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |  |
|           | Radon Potential - R                                 | Radon Affected Areas  |   |                                    |         |                  |  |
|           | Affected Area:                                      | The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |  |
|           | Source:   | British Geological Survey, National Geoscience Information Service  |   |                                    |         |                  |  |
|           | Radon Potential - R                                 | Radon Protection Measures   |   |                                    |         |                  |  |
|           |   | No radon protective measures are necessary in the construction of new dwellings or extensions                               | B9SE<br>(SW)                                    | 0                                  | 1       | 265890<br>201014 |  |
|           | Source:   | British Geological Survey, National Geoscience Information Service  |   |                                    |         |                  |  |



### **Industrial Land Use**

| Map<br>ID |   | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|--|---|------------------------------------|---------|------------------|
| 216       | Contemporary Trad<br>Name:<br>Location:<br>Classification:<br>Status:<br>Positional Accuracy: | e Directory Entries  Artificial Limb & Appliance Centre Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Disability Equipment - Manufacturers & Suppliers Inactive Automatically positioned to the address            | B6SE<br>(SE)                                    | 850                                | -       | 266311<br>200206 |
| 216       | Contemporary Trad<br>Name:<br>Location:<br>Classification:<br>Status:<br>Positional Accuracy: | e Directory Entries Swansea Nhs Trust Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Hospitals Inactive Automatically positioned to the address   | B6SE<br>(SE)                                    | 850                                | -       | 266311<br>200206 |
| 216       | Contemporary Trad<br>Name:<br>Location:<br>Classification:<br>Status:<br>Positional Accuracy: | e Directory Entries  City & County Of Swansea Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Hospitals Inactive Automatically positioned to the address   | B6SE<br>(SE)                                    | 850                                | -       | 266311<br>200206 |
| 217       | Contemporary Trad<br>Name:<br>Location:<br>Classification:<br>Status:<br>Positional Accuracy: | e Directory Entries  Charles A Blatchford & Sons Ltd Heol Maeseglwys, Swansea, SA6 6LG Disability Equipment - Manufacturers & Suppliers Inactive Automatically positioned to the address                               | B2NE<br>(SE)                                    | 888                                | -       | 266279<br>200119 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location                   | B6SE<br>(SE)                                    | 811                                | 7       | 266297<br>200248 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location   | B6SE<br>(SE)                                    | 850                                | 7       | 266311<br>200206 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location                   | B6SE<br>(SE)                                    | 850                                | 7       | 266311<br>200206 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health Regional Cardiac Centre Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location                                     | B6SE<br>(SE)                                    | 850                                | 7       | 266311<br>200206 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location                   | B6SE<br>(SE)                                    | 850                                | 7       | 266311<br>200206 |
| 218       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital  Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL  Health Practitioners and Establishments  Hospitals  Positioned to address or location                                     | B6SE<br>(SE)                                    | 850                                | 7       | 266311<br>200206 |
| 219       | Name:<br>Location:<br>Category:<br>Class Code:  | Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location   | B2NE<br>(S)                                     | 862                                | 7       | 266248<br>200125 |
| 220       | Name:<br>Location:<br>Category:<br>Class Code:  | Manufacturing and Production  Abergelli Glas Solar Farm - Solar Photovoltaics (DECC) Land At Abergelli Farm, Felindre, Swansea, Powys, SA5 7NN Industrial Features Energy Production Positioned to address or location | B13NW<br>(NW)                                   | 25                                 | 7       | 265361<br>201966 |



### **Industrial Land Use**

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 221       | Name:<br>Location:<br>Category:<br>Class Code:  | Manufacturing and Production  Cefn Betingau Farm - Solar Photovoltaics (DECC) Land At Cefn Betingau Farm, Morriston, Swansea, SA6 6NX Industrial Features Energy Production Positioned to an adjacent address or location | B10NW<br>(NE)                                   | 428                                | 7       | 266064<br>201309 |
| 222       | Name:<br>Location:<br>Category:<br>Class Code:  | Manufacturing and Production  Tank SA6 Industrial Features Tanks (Generic) Positioned to address or location  | B6SE<br>(SE)                                    | 876                                | 7       | 266431<br>200325 |
| 222       | Name:<br>Location:<br>Category:<br>Class Code:  | Manufacturing and Production  Tank SA6 Industrial Features Tanks (Generic) Positioned to address or location  | B6SE<br>(SE)                                    | 879                                | 7       | 266436<br>200327 |
| 222       | Name:<br>Location:<br>Category:<br>Class Code:  | Manufacturing and Production  Tanks SA6 Industrial Features Tanks (Generic) Positioned to an adjacent address or location   | B6SE<br>(SE)                                    | 883                                | 7       | 266444<br>200331 |
| 223       | Name:<br>Location:<br>Category:<br>Class Code:  | Public Infrastructure  Slurry Pond SA6 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | B10NW<br>(N)                                    | 450                                | 7       | 266066<br>201447 |
| 224       | Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Felindre to Three Cocks<br>Owned By National Grid<br>1200<br>132<br>Active<br>107292.6<br>Feeder 28  | B13SW<br>(NW)                                   | 0                                  | 8       | 265270<br>201570 |
| 225       | Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28   | B13SW<br>(NW)                                   | 0                                  | 8       | 265275<br>201562 |
| 226       | Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number: | FM28 - Felindre to Cilfrew Owned By National Grid 1200 132 Active 17048.8 Feeder 28   | B13SW<br>(NW)                                   | 0                                  | 8       | 265289<br>201563 |



### **Sensitive Land Use**

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 227       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7060<br>16001.14<br>Ancient and Semi-Natural Woodland           | B9NW<br>(NW)                                    | 0                                  | 2       | 265460<br>201388 |
| 228       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>891<br>63487.78<br>Restored Ancient Woodland Site               | (W)   | 0                                  | 2       | 264626<br>200801 |
| 229       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>50394<br>151288.84<br>Ancient Woodland Site of Unknown Category | B9SW<br>(W)                                     | 0                                  | 2       | 265263<br>200999 |
| 230       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7241<br>63268.23<br>Restored Ancient Woodland Site              | B5NE<br>(SW)                                    | 118                                | 2       | 265614<br>200610 |
| 231       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7316<br>21495.34<br>Restored Ancient Woodland Site              | (NW)  | 129                                | 2       | 265057<br>201382 |
| 232       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>882<br>7755.99<br>Ancient and Semi-Natural Woodland             | (NW)  | 207                                | 2       | 264868<br>202459 |
| 233       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>893<br>13199.98<br>Restored Ancient Woodland Site               | (W)   | 331                                | 2       | 264612<br>201188 |
| 234       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>880<br>5527.37<br>Ancient and Semi-Natural Woodland             | (NW)  | 463                                | 2       | 264653<br>201900 |
| 235       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>878<br>4775.36<br>Ancient and Semi-Natural Woodland             | (NW)  | 576                                | 2       | 264539<br>201741 |
| 236       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7139<br>2605.61<br>Ancient and Semi-Natural Woodland            | (N)   | 750                                | 2       | 266163<br>202450 |
| 237       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7140<br>3219.21<br>Ancient and Semi-Natural Woodland            | (N)   | 812                                | 2       | 266226<br>202594 |
| 238       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7141<br>3530.41<br>Ancient and Semi-Natural Woodland            | (N)   | 974                                | 2       | 266338<br>202766 |



LANDMARK INFORMATION GROUP®

# **Data Currency**

| Agency & Hydrological  | Version       | Update Cycle          |
|--|---------------|-----------------------|
| Contaminated Land Register Entries and Notices                             |               |                       |
| City and County of Swansea - Environmental Health Department               | January 2015  | Annual Rolling Update |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2015    | Annual Rolling Update |
| Discharge Consents   |               |                       |
| Environment Agency - Welsh Region  | August 2014   | Quarterly             |
| Natural Resources Wales  | August 2017   | Quarterly             |
| Enforcement and Prohibition Notices  | March 2013    | A = == 4:5: = d       |
| Environment Agency - Welsh Region  | March 2013    | As notified           |
| Integrated Pollution Controls  |               |                       |
| Environment Agency - Welsh Region  | October 2008  | Not Applicable        |
| Integrated Pollution Prevention And Control                                |               |                       |
| Natural Resources Wales  | August 2017   | Quarterly             |
| Environment Agency - Welsh Region  | July 2017     | Quarterly             |
| Local Authority Integrated Pollution Prevention And Control                |               |                       |
| Swansea Bay Port Health Authority  | April 2014    | Annually              |
| Neath Port Talbot County Borough Council - Environmental Health Department | August 2012   | Annual Rolling Update |
| City and County of Swansea - Environmental Health Department               | June 2014     | Annual Rolling Update |
| Local Authority Pollution Prevention and Controls                          |               |                       |
| Swansea Bay Port Health Authority  | April 2014    | Annually              |
| City and County of Swansea - Environmental Health Department               | June 2014     | Annual Rolling Update |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2014    | Annual Rolling Update |
| Local Authority Pollution Prevention and Control Enforcements              |               |                       |
| Swansea Bay Port Health Authority  | April 2014    | Annually              |
| City and County of Swansea - Environmental Health Department               | June 2014     | Annual Rolling Update |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2014    | Annual Rolling Update |
| Nearest Surface Water Feature  |               | /g opaan              |
| Ordnance Survey  | May 2017      |                       |
| ,  | Way 2017      |                       |
| Pollution Incidents to Controlled Waters Environment Agency - Welsh Region | December 1998 | Not Applicable        |
|  | December 1996 | Not Applicable        |
| Prosecutions Relating to Authorised Processes                              |               | A                     |
| Environment Agency - Welsh Region  | March 2013    | As notified           |
| Natural Resources Wales  | March 2013    | As notified           |
| Prosecutions Relating to Controlled Waters                                 |               |                       |
| Environment Agency - Welsh Region  | March 2013    | As notified           |
| Natural Resources Wales  | March 2013    | As notified           |
| Registered Radioactive Substances  |               |                       |
| Natural Resources Wales  | January 2015  | As notified           |
| Environment Agency - Welsh Region  | January 2015  |                       |
| River Quality  |               |                       |
| Environment Agency - Head Office   | November 2001 | Not Applicable        |
| River Quality Biology Sampling Points                                      |               |                       |
| Environment Agency - Head Office   | July 2012     | Annually              |
| Substantiated Pollution Incident Register                                  |               |                       |
| Natural Resources Wales  | August 2018   | Quarterly             |
| Environment Agency Wales - South West Area                                 | July 2017     | Quarterly             |
| Water Abstractions   |               |                       |
| Environment Agency - Welsh Region  | July 2017     | Quarterly             |
| Natural Resources Wales  | July 2017     | Quarterly             |
| Water Industry Act Referrals   |               |                       |
| Natural Resources Wales  | August 2017   | Quarterly             |
| Environment Agency - Welsh Region  | July 2017     | Quarterly             |

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| Agency & Hydrological   | Version       | Update Cycle    |
|---|---------------|-----------------|
| Groundwater Vulnerability   |               |                 |
| Environment Agency - Head Office  | April 2015    | Not Applicable  |
| Drift Deposits  |               |                 |
| Environment Agency - Head Office  | January 1999  | Not Applicable  |
| Bedrock Aquifer Designations  | A             | A = == 4:6: = d |
| British Geological Survey - National Geoscience Information Service                                   | August 2015   | As notified     |
| Superficial Aquifer Designations  British Geological Survey - National Geoscience Information Service | August 2015   | As notified     |
| Source Protection Zones   |               |                 |
| Natural Resources Wales   | November 2016 | As notified     |
| Extreme Flooding from Rivers or Sea without Defences  |               |                 |
| Natural Resources Wales   | August 2017   | Quarterly       |
| Flooding from Rivers or Sea without Defences  |               |                 |
| Natural Resources Wales   | August 2017   | Quarterly       |
| Areas Benefiting from Flood Defences  |               |                 |
| Natural Resources Wales   | August 2017   | Quarterly       |
| Flood Water Storage Areas   |               |                 |
| Natural Resources Wales   | August 2017   | Quarterly       |
| Flood Defences  |               |                 |
| Natural Resources Wales   | August 2017   | Quarterly       |
| OS Water Network Lines  |               |                 |
| Ordnance Survey   | July 2017     | 6 Weekly        |
| Surface Water 1 in 30 year Flood Extent   |               |                 |
| Natural Resources Wales   | October 2013  | As notified     |
| Surface Water 1 in 100 year Flood Extent  | 0.11.0010     | A               |
| Natural Resources Wales   | October 2013  | As notified     |
| Surface Water 1 in 1000 year Flood Extent   | 0 . 1 . 2215  | A               |
| Natural Resources Wales   | October 2013  | As notified     |
| Surface Water Suitability   | 0.11.0010     | A               |
| Natural Resources Wales   | October 2013  | As notified     |
| BGS Groundwater Flooding Susceptibility   | M 2012        |                 |
| British Geological Survey - National Geoscience Information Service                                   | May 2013      | Annually        |

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| Waste  | Version        | Update Cycle         |
|--|----------------|----------------------|
| BGS Recorded Landfill Sites  |                |                      |
| British Geological Survey - National Geoscience Information Service        | June 1996      | Not Applicable       |
| Historical Landfill Sites  |                |                      |
| Natural Resources Wales  | May 2017       | Quarterly            |
| Integrated Pollution Control Registered Waste Sites                        |                |                      |
| Environment Agency - Welsh Region  | October 2008   | Not Applicable       |
| Licensed Waste Management Facilities (Landfill Boundaries)                 |                |                      |
| Environment Agency Wales - South West Area                                 | May 2017       | Quarterly            |
| Natural Resources Wales  | May 2017       | Quarterly            |
| Licensed Waste Management Facilities (Locations)                           |                |                      |
| Natural Resources Wales  | August 2017    | Quarterly            |
| Environment Agency Wales - South West Area                                 | July 2017      | Quarterly            |
| Local Authority Landfill Coverage  |                |                      |
| City and County of Swansea - Environmental Health Department               | May 2000       | Not Applicable       |
| Neath Port Talbot County Borough Council - Environmental Health Department | May 2000       | Not Applicable       |
| Local Authority Recorded Landfill Sites                                    |                |                      |
| City and County of Swansea - Environmental Health Department               | May 2000       | Not Applicable       |
| Neath Port Talbot County Borough Council - Environmental Health Department | September 2003 | Not Applicable       |
| Potentially Infilled Land (Non-Water)                                      |                |                      |
| Landmark Information Group Limited   | December 1999  | Not Applicable       |
| Potentially Infilled Land (Water)  |                |                      |
| Landmark Information Group Limited   | December 1999  | Not Applicable       |
| Registered Landfill Sites  |                |                      |
| Environment Agency Wales - South West Area                                 | March 2003     | Not Applicable       |
| Registered Waste Transfer Sites  |                |                      |
| Environment Agency Wales - South West Area                                 | March 2003     | Not Applicable       |
| Registered Waste Treatment or Disposal Sites                               |                |                      |
| Environment Agency Wales - South West Area                                 | March 2003     | Not Applicable       |
| Hazardous Substances   | Version        | Update Cycle         |
| Control of Major Accident Hazards Sites (COMAH)                            |                |                      |
| Health and Safety Executive  | September 2017 | Bi-Annually          |
| Explosive Sites  |                |                      |
| Health and Safety Executive  | March 2017     | Bi-Annually          |
| Notification of Installations Handling Hazardous Substances (NIHHS)        |                |                      |
| Health and Safety Executive  | November 2000  | Not Applicable       |
| Planning Hazardous Substance Enforcements                                  |                |                      |
| City and County of Swansea - Planning Department                           | January 2016   | Annual Rolling Updat |
| Neath Port Talbot County Borough Council - Planning Department             | October 2015   | Annual Rolling Updat |
| Planning Hazardous Substance Consents                                      |                |                      |
| City and County of Swansea - Planning Department                           | January 2016   | Annual Rolling Updat |
| Neath Port Talbot County Borough Council - Planning Department             | October 2015   | Annual Rolling Updat |

Order Number: 142844199\_1\_1 Date: 13-Oct-2017 rpr\_ec\_datasheet v53.0 A Landmark Information Group Service Page 49 of 53



| Geological  | Version      | Update Cycle   |
|---|--------------|----------------|
| BGS 1:625,000 Solid Geology   |              |                |
| British Geological Survey - National Geoscience Information Service | January 2009 | Not Applicable |
| BGS Estimated Soil Chemistry  |              |                |
| British Geological Survey - National Geoscience Information Service | October 2015 | As notified    |
| BGS Recorded Mineral Sites  |              |                |
| British Geological Survey - National Geoscience Information Service | April 2017   | Bi-Annually    |
| BGS Urban Soil Chemistry  |              |                |
| British Geological Survey - National Geoscience Information Service | October 2015 | As notified    |
| BGS Urban Soil Chemistry Averages                                   |              |                |
| British Geological Survey - National Geoscience Information Service | October 2015 | As notified    |
| CBSCB Compensation District   |              |                |
| Cheshire Brine Subsidence Compensation Board (CBSCB)                | August 2011  | Not Applicable |
| Coal Mining Affected Areas  |              |                |
| The Coal Authority - Property Searches                              | March 2014   | As notified    |
| Mining Instability  |              |                |
| Ove Arup & Partners   | October 2000 | 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 | June 2015    | Annually       |
| Potential for Compressible Ground Stability Hazards                 |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Ground Dissolution Stability Hazards                  |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Landslide Ground Stability Hazards                    |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Running Sand Ground Stability Hazards                 |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards   |              |                |
| British Geological Survey - National Geoscience Information Service | June 2015    | Annually       |
| Radon Potential - Radon Affected Areas                              |              |                |
| British Geological Survey - National Geoscience Information Service | July 2011    | As notified    |
| Radon Potential - Radon Protection Measures                         |              |                |
| British Geological Survey - National Geoscience Information Service | July 2011    | As notified    |

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| Industrial Land Use  | Version                 | Update Cycle            |
|--|-------------------------|-------------------------|
| Contemporary Trade Directory Entries   |                         |                         |
| Thomson Directories  | September 2017          | Quarterly               |
| Fuel Station Entries   |                         |                         |
| Catalist Ltd - Experian  | August 2017             | Quarterly               |
| Gas Pipelines  |                         |                         |
| National Grid  | July 2014               | Quarterly               |
| Points of Interest - Commercial Services   |                         |                         |
| PointX   | September 2017          | Quarterly               |
| Points of Interest - Education and Health  |                         |                         |
| PointX   | September 2017          | Quarterly               |
| Points of Interest - Manufacturing and Production  |                         |                         |
| PointX   | September 2017          | Quarterly               |
| Points of Interest - Public Infrastructure   |                         |                         |
| PointX   | September 2017          | Quarterly               |
| Points of Interest - Recreational and Environmental  |                         |                         |
| PointX   | September 2017          | Quarterly               |
| Underground Electrical Cables  |                         |                         |
| National Grid  | December 2015           | Bi-Annually             |
| Sensitive Land Use   | Version                 | Update Cycle            |
| Ancient Woodland   |                         |                         |
| Natural Resources Wales  | May 2017                | Bi-Annually             |
| Areas of Adopted Green Belt  |                         |                         |
| City and County of Swansea   | May 2017                | As notified             |
| Areas of Outstanding Natural Beauty  |                         |                         |
| Natural Resources Wales  | August 2017             | Bi-Annually             |
| Environmentally Sensitive Areas  |                         |                         |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside)       | January 2017            | Annually                |
| Forest Parks   |                         |                         |
| Forestry Commission  | April 1997              | Not Applicable          |
| Local Nature Reserves  |                         |                         |
| City and County of Swansea   | August 2017             | Bi-Annually             |
| Neath Port Talbot County Borough Council   | August 2017             | Bi-Annually             |
| Marine Nature Reserves   |                         |                         |
| Natural Resources Wales  | August 2017             | Bi-Annually             |
| National Nature Reserves   |                         |                         |
| Natural Resources Wales  | August 2017             | Bi-Annually             |
| National Parks   |                         | ,                       |
| Natural Resources Wales  | August 2017             | Annually                |
| Nitrate Vulnerable Zones   | -                       | -                       |
| Natural Resources Wales  | June 2017               | Bi-Annually             |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside)       | October 2005            |                         |
| Ramsar Sites   |                         |                         |
| Natural Resources Wales  | August 2017             | Bi-Annually             |
| Natural Nesources Wales  | -                       |                         |
|  |                         |                         |
| Sites of Special Scientific Interest Natural Resources Wales                               | August 2017             | Bi-Annually             |
| Sites of Special Scientific Interest Natural Resources Wales                               | August 2017             | Bi-Annually             |
| Sites of Special Scientific Interest Natural Resources Wales Special Areas of Conservation |                         |                         |
| Sites of Special Scientific Interest   | August 2017 August 2017 | Bi-Annually Bi-Annually |

Order Number: 142844199\_1\_1 Date: 13-Oct-2017 rpr\_ec\_datasheet v53.0 A Landmark Information Group Service



# **Data Suppliers**

A selection of organisations who provide data within this report

| Data Supplier                          | Data Supplier Logo   |
|--|--|
| Ordnance Survey                        | Map data   |
| Environment Agency                     | Environment<br>Agency  |
| Scottish Environment Protection Agency | SEPAS<br>Scottish Environment -<br>Protection Agency                 |
| The Coal Authority                     | The Coal<br>Authority  |
| British Geological Survey              | British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL       |
| Centre for Ecology and Hydrology       | Centre for Ecology & Hydrology  NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                | Cyfoeth Naturiol Naturiol Natural Resources Wules                    |
| Scottish Natural Heritage              | SCOTTISH<br>NATURAL<br>HERITAGE                                      |
| Natural England                        | NATURAL<br>ENGLAND   |
| Public Health England                  | Public Health<br>England   |
| Ove Arup                               | ARUP   |
| Peter Brett Associates                 | peterbrett   |



# **Useful Contacts**

| Contact | Name and Address  | Contact Details  |
|---------|---|--|
| 1       | British Geological Survey - Enquiry Service  British Geological Survey, Kingsley Dunham 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<br>Email: enquiries@naturalresourceswales.gov.uk  |
| 3       | Environment Agency - National Customer Contact<br>Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY                                   | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk   |
| 4       | Ordnance Survey  Adanac Drive, Southampton, Hampshire, SO16 0AS   | Telephone: 023 8079 2000<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk         |
| 5       | City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE                                    | Telephone: 01792 636000 extn 5651<br>Fax: 01792 635719   |
| 6       | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG   | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com       |
| 7       | PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY   | Website: www.pointx.co.uk  |
| 8       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9966<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk        |
| -       | Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ           | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>Website: www.ukradon.org                    |
| -       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk |

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

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## Geology 1:50,000 Maps Legends

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                        | Rock Type                       | Min and Max Age            |
|---------------|----------|----------------------------------|---------------------------------|----------------------------|
|               | WMGR     | Infilled Ground                  | Artificial Deposit              | Cenozoic -<br>Cenozoic     |
|               | WGR      | Worked Ground<br>(Undivided)     | Void                            | Holocene -<br>Holocene     |
| Z             | MGR      | Made Ground (Undivided)          | Artificial Deposit              | Holocene -<br>Holocene     |
|               | LSGR     | Landscaped Ground<br>(Undivided) | Artificially Modified<br>Ground | Holocene -<br>Holocene     |
|               | SLIP     | Landslide Deposit                | Unknown/Unclassif ied Entry     | Quaternary -<br>Quaternary |

| Map<br>Colour | Lex Code | Rock Name     | Rock Type                               | Min and Max Age                  |
|---------------|----------|---------------|---|----------------------------------|
|               | Н        | Hughes Member | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member | Sandstone                               | Westphalian D -<br>Westphalian D |
|               |          | Faults        |   |                                  |
|               |          | Rock Segments |   |                                  |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age            |
|---------------|----------|---|---|----------------------------|
|               | ALV      | Alluvium  | Clay, Silt, Sand<br>and Gravel                  | Flandrian -<br>Flandrian   |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | TILLD    | Till, Devensian                                     | Diamicton                                       | Devensian -<br>Devensian   |
|               | HMGDD    | Hummocky (Moundy)<br>Glacial Deposits,<br>Devensian | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | GFSDD    | Glaciofluvial Sheet<br>Deposits, Devensian          | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | GFICD    | Glaciofluvial Ice Contact<br>Deposits, Devensian    | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Quaternary |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                               | Min and Max Age                  |
|---------------|----------|---------------------|---|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                               | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | GDB      | Grovesend Formation | Sandstone                               | Westphalian D -<br>Westphalian D |

# **Envirocheck**®

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#### Geology 1:50,000 Maps

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

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

Swansea

Available

Available

Available

Not Supplied

Not Supplied

2011

#### Geology 1:50,000 Maps Coverage

Map ID: Map ID: Map Sheet No: Map Name: Ammanford Map Name: 1977 Map Date: Map Date: Superficial Geology: Available Superficial Geology: Artificial Geology: Artificial Geology: Not Supplied Landslip: Available Landslin: Not Supplied

Geology 1:50,000 Maps - Slice B



#### **Order Details:**

Order Number: 142844199\_1\_1 Customer Reference: 60542910 National Grid Reference: 265890, 201010 Site Area (Ha): Search Buffer (m): 32.39 1000

#### Site Details:

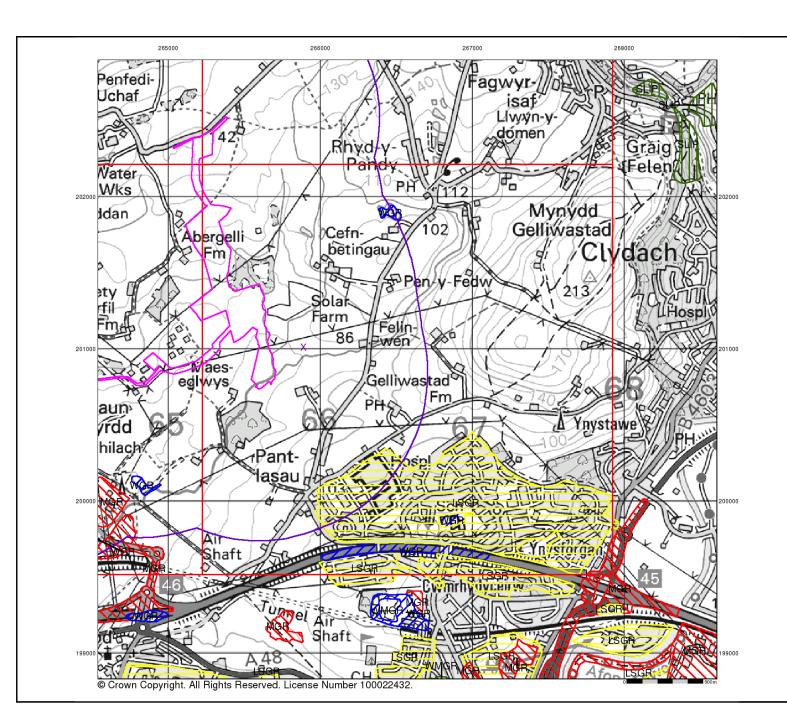
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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#### Artificial Ground and Landslip

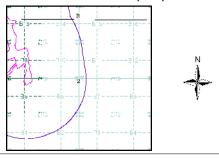
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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



#### **Order Details:**

 Order Number:
 142844199\_1\_1

 Customer Reference:
 60542910

 National Grid Reference:
 265890, 201010

 Slice:
 B

 Site Area (Ha):
 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

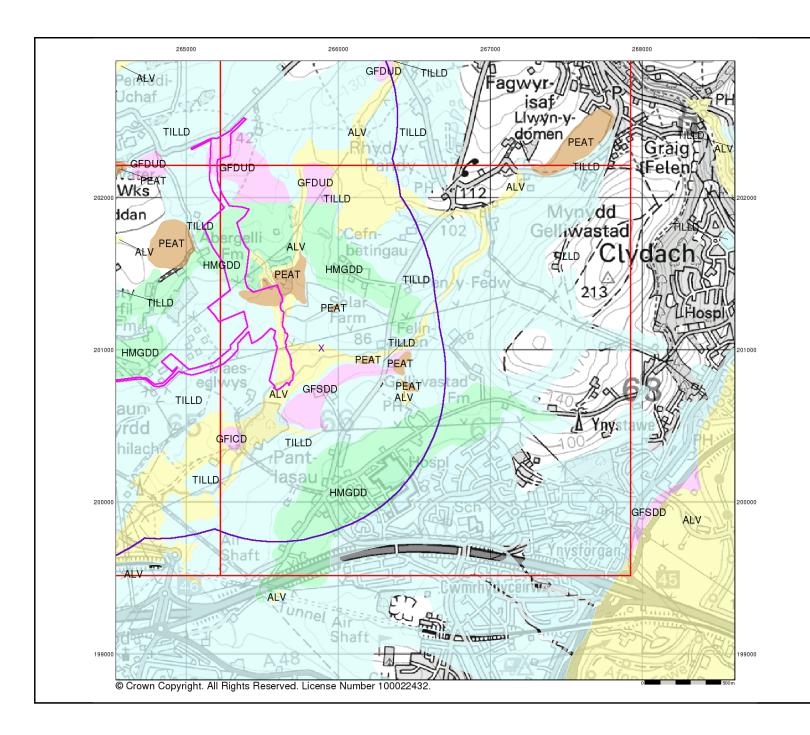
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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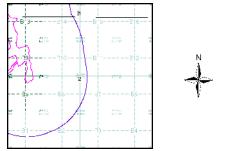
#### **Superficial Geology**

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 B



#### **Order Details:**

Order Number: Customer Reference: 142844199\_1\_1 60542910 National Grid Reference: 265890, 201010 B 32.39 Site Area (Ha): Search Buffer (m):

1000

#### Site Details:

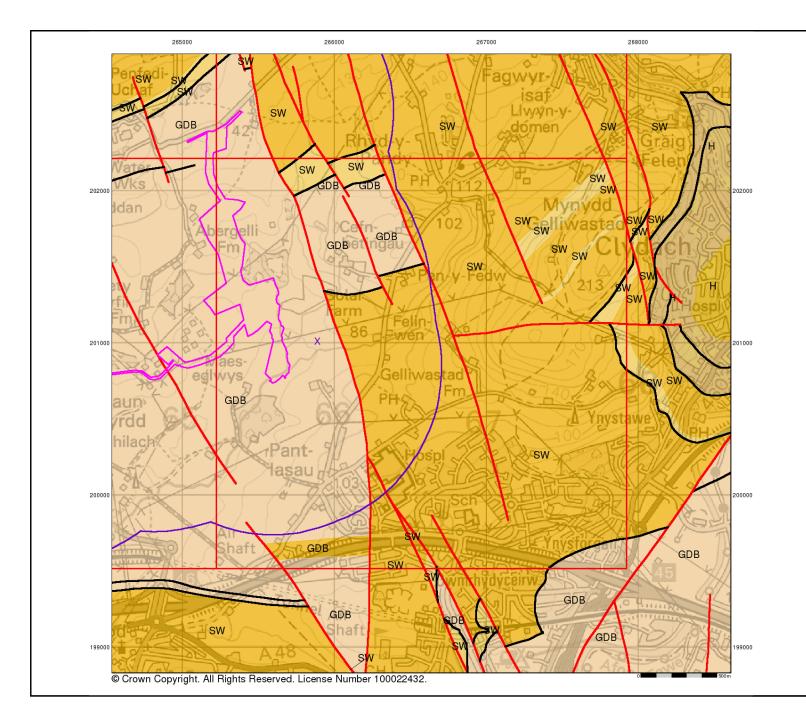
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#### **Bedrock and Faults**

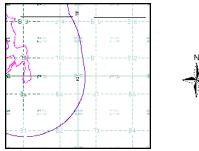
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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 lader, 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 B



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 265890, 201010
Slice: Slice Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

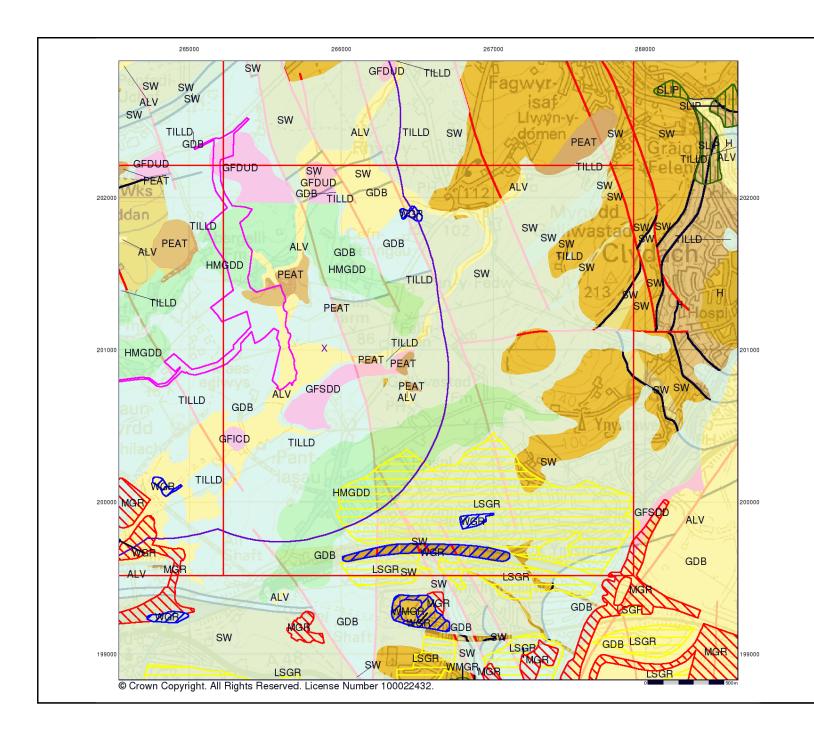
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#### **Combined Surface Geology**

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

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

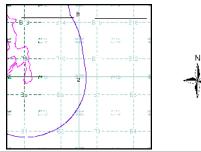
#### **Additional Information**

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

#### Contact

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

#### Combined Geology Map - Slice B



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 265890, 201010
Slice: B
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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# **Historical Mapping Legends**

## Gravel Pit Other Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Bench Mark Site of Antiquities Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Raised Road Sunken Road Railway over Road over Railway Ri∨er Railway over Level Crossing Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Rural District Boundary RD. Bdy.

····· Civil Parish Boundary

**Ordnance Survey County Series 1:10,560** 

## Ordnance Survey Plan 1:10,000

| Chalk Pit, Clay P or Quarry                 | it లోకి కెండ్ Gravel Pit   |
|---|--|
| Sand Pit                                    | Disused Pit or Quarry  |
| Refuse or Slag Heap                         | Lake, Loch<br>or Pond  |
| Dunes                                       | Boulders   |
| ↑ ↑ ↑ Coniferous<br>Trees                   |  |
| ⇔ ⇔ Orchard ∩ n  →                          | Scrub \Yn Coppice  |
| ளி Bracken லயம்<br>எ                        | Heath VIII, Rough Grassland                                      |
| → <u>·</u> ·· Marsh ···V//                  | Reeds — Saltings   |
| Dire  | ection of Flow of Water  |
| Building                                    | Shingle  |
| *   | Sand   |
| Glasshouse                                  | Salid  |
|   | Pylon  |
|   | Electricity  |
| Sloping Masonry                             | Transmission  Pole  •  |
|   |  |
| Cutting Embank                              | ment   |
| ***************************************     | Standard Gauge   |
|   | Widitiple Track  |
| Road'''  ''' Road Le                        | Standard Gauge Single Track                                      |
|   | ssing Bridge   |
|   | Siding, Tramway or Mineral Line                                  |
|   |  |
|   | ─────────────────────────────────────                            |
|   |  |
| — — Geographical C                          | County   |
|   | County, County Borough   |
| or County of C                              | ugh, Urban or Rural District,                                    |
| Burgh or Distri                             |  |
|   | h or County Constituency<br>not coincident with other boundaries |
| Civil Parish<br>Shown alternately           | when coincidence of boundaries occurs                            |
|   |  |
| BP, BS Boundary Post or Stone               | Pol Sta Police Station   |
| Ch Church                                   | PO Post Office   |
| CH Club House                               | PC Public Convenience  |
| F E Sta Fire Engine Station  FB Foot Bridge | PH Public House<br>SB Signal Box                                 |
| FB Foot Bridge Fn Fountain                  | SB Signal Box<br>Spr Spring                                      |
| GP Guide Post                               | TCB Telephone Call Box   |
| MP Mile Post                                | TCP Telephone Call Post  |
| MO Mile Otema                               | )A( )A(-II   |

## 1:10,000 Raster Mapping

|  | Gravel Pit   |   | Refuse tip<br>or slag heap   |
|--|--|---|--|
|  | Rock   |   | Rock<br>(scattered)  |
|  | Boulders   |   | Boulders<br>(scattered)  |
|  | Shingle  | Mud                                     | Mud  |
| Sand   | Sand   |   | Sand Pit   |
| ***************************************  | Slopes   |   | Top of cliff   |
|  | General detail   |   | Underground<br>detail  |
|  | - O∨erhead detail  |   | Narrow gauge<br>railway  |
|  | Multi-track<br>railway   |   | Single track railway   |
|  | County boundary<br>(England only)  | • • • • •                               | Civil, parish or<br>community<br>boundary  |
|  | District, Unitary,<br>Metropolitan,<br>London Borough<br>boundary  |   | Constituency<br>boundary   |
| ۵ <sup>۵</sup>   | Area of wooded<br>∨egetation   | ۵ <sup>۵</sup> ۵                        | Non-coniferous<br>trees  |
|  |  |   |  |
| $\Diamond$   | Non-coniferous trees (scattered)   | **                                      | Coniferous<br>trees  |
|  |  | **<br>**                                |  |
| ۵<br>*   | trees (scattered) Coniferous   | **                                      | trees Positioned   |
| * *  | trees (scattered)  Coniferous trees (scattered)  |   | trees  Positioned tree  Coppice  |
| \$ \$\phi \ \phi \phi | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough  | £ € £                                   | trees Positioned tree  Coppice or Osiers   |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  | £ € € € € € € € € € € € € € € € € € € € | trees Positioned tree Coppice or Osiers Heath Marsh, Salt  |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub   | £ € € € € € € € € € € € € € € € € € € € | trees Positioned tree Coppice or Osiers Heath Marsh, Salt Marsh or Reeds   |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high   |   | trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low  |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line   |   | trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line   |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line (where shown)  Bench mark   | A A A A A A A A A A A A A A A A A A A   | trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line (with poles)  Triangulation                             |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   | trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line (where shown)  Bench mark (where shown)  Point feature (e.g. Guide Post |   | trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line (with poles)  Triangulation station  Pylon, flare stack |

Building

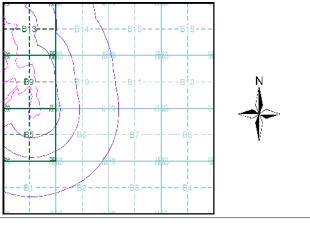
# **Envirocheck®**

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## **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date        | Pg |
|----------------------|----------|-------------|----|
| Glamorganshire       | 1:10,560 | 1884        | 3  |
| Glamorganshire       | 1:10,560 | 1900        | 4  |
| Glamorganshire       | 1:10,560 | 1921        | 5  |
| Glamorganshire       | 1:10,560 | 1936        | 6  |
| Glamorganshire       | 1:10,560 | 1938        | 7  |
| Glamorganshire       | 1:10,560 | 1951 - 1953 | 8  |
| Ordnance Survey Plan | 1:10,000 | 1964        | 9  |
| Ordnance Survey Plan | 1:10,000 | 1976        | 10 |
| Swansea              | 1:10,000 | 1976        | 11 |
| Ordnance Survey Plan | 1:10,000 | 1980        | 12 |
| Ordnance Survey Plan | 1:10,000 | 1989        | 13 |
| Ordnance Survey Plan | 1:10,000 | 1993        | 14 |
| 10K Raster Mapping   | 1:10,000 | 1999        | 15 |
| 10K Raster Mapping   | 1:10,000 | 2006        | 16 |
| VectorMap Local      | 1:10,000 | 2017        | 17 |

## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 1000

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952

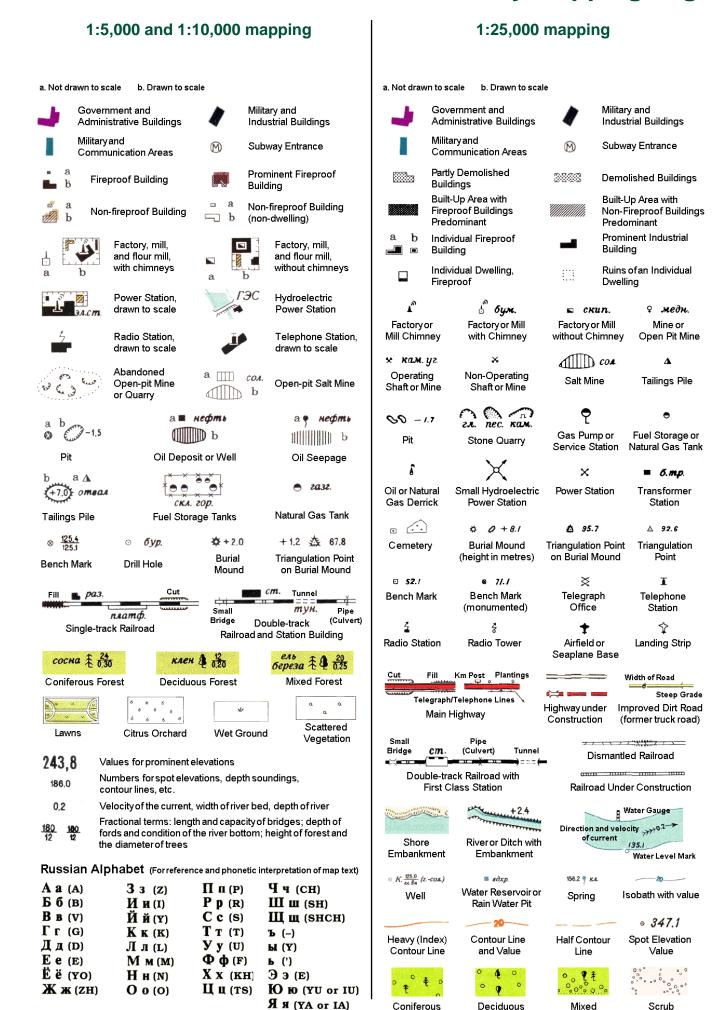
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 17

# **Russian Military Mapping Legends**

Deciduous

Mixed

Scrub



#### **Key to Numbers on Mapping**

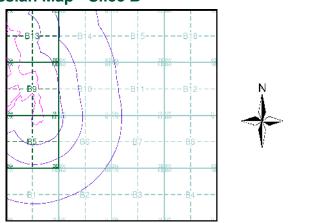
# **Envirocheck®**

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### **Historical Mapping & Photography included:**

|          |   | $\overline{}$  |
|----------|---|--|
| Scale    | Date  | Pg   |
| 1:10,560 | 1884  | 3  |
| 1:10,560 | 1900  | 4  |
| 1:10,560 | 1921  | 5  |
| 1:10,560 | 1936  | 6  |
| 1:10,560 | 1938  | 7  |
| 1:10,560 | 1951 - 1953   | 8  |
| 1:10,000 | 1964  | 9  |
| 1:10,000 | 1976  | 10   |
| 1:10,000 | 1976  | 11   |
| 1:10,000 | 1980  | 12   |
| 1:10,000 | 1989  | 13   |
| 1:10,000 | 1993  | 14   |
| 1:10,000 | 1999  | 15   |
| 1:10,000 | 2006  | 16   |
| 1:10,000 | 2017  | 17   |
|          | 1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 | 1:10,560 1884 1:10,560 1900 1:10,560 1921 1:10,560 1936 1:10,560 1938 1:10,560 1951 - 1953 1:10,000 1964 1:10,000 1976 1:10,000 1976 1:10,000 1980 1:10,000 1993 1:10,000 1999 1:10,000 2006 |

### Russian Map - Slice B



### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

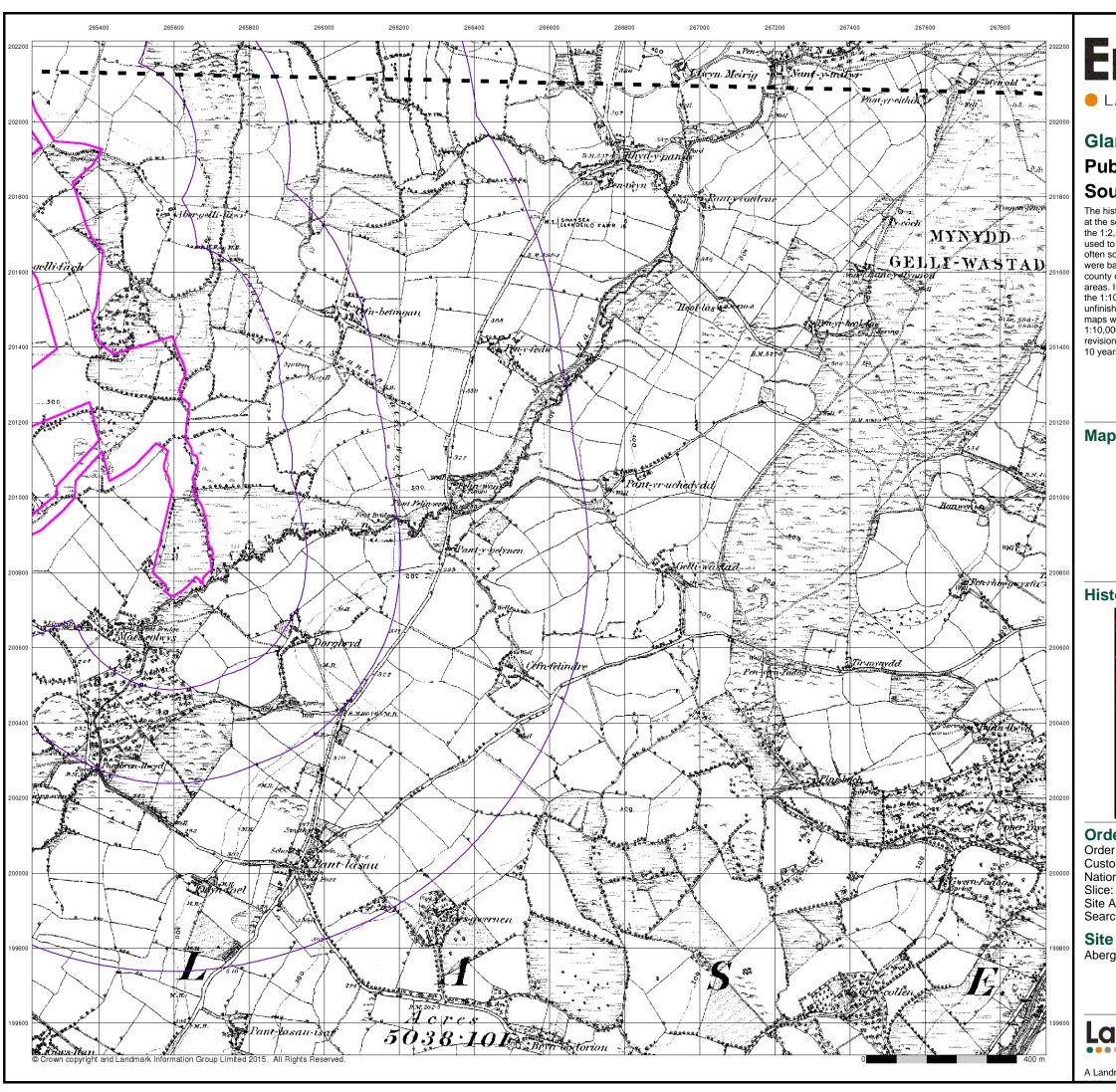
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Landmark

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 17



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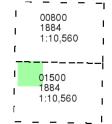
# Glamorganshire

## **Published 1884**

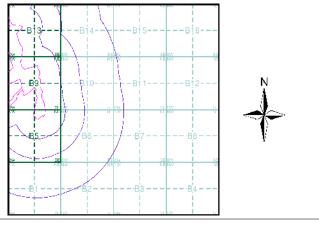
# Source map scale - 1:10,560

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

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



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

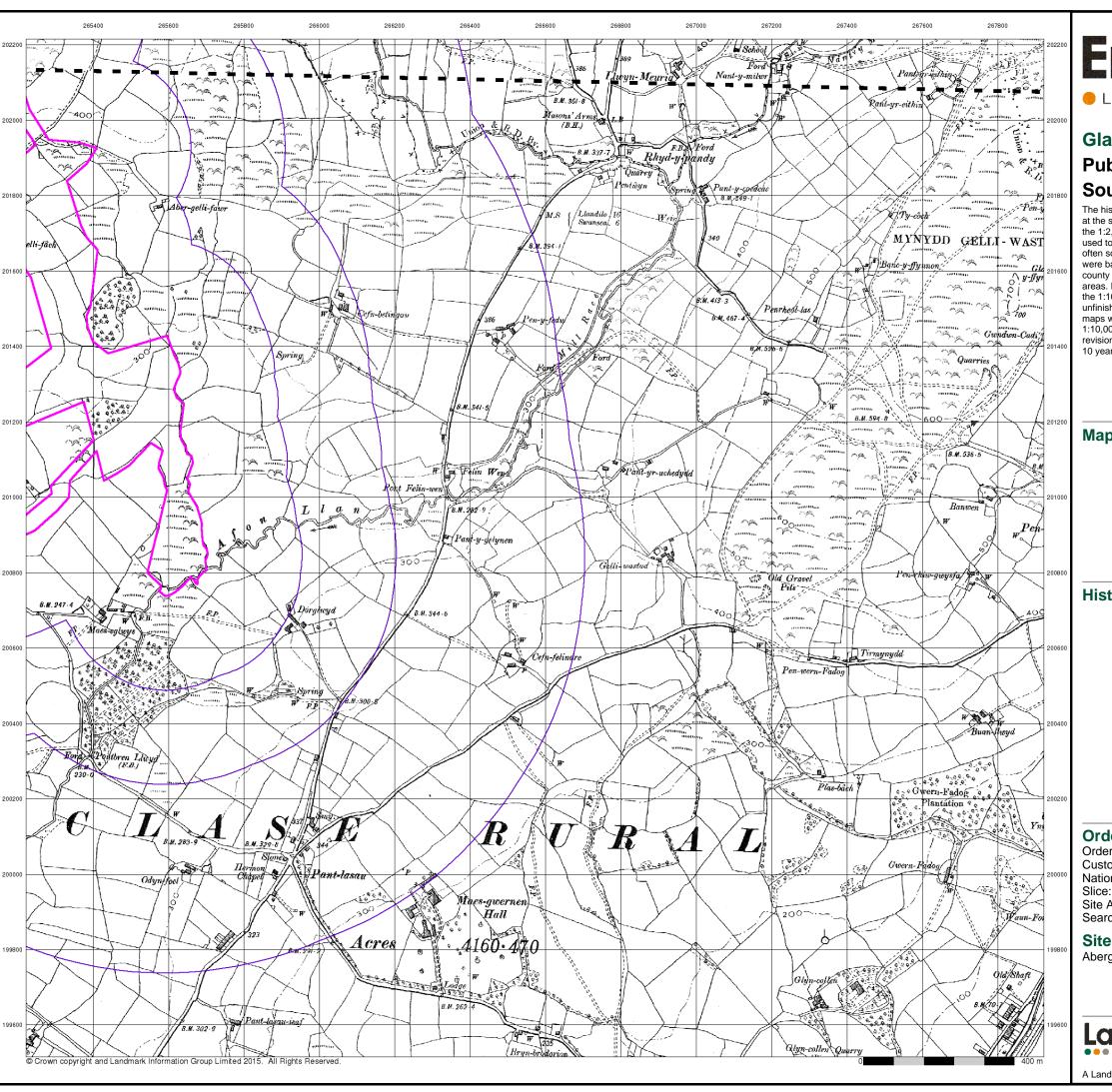
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 3 of 17



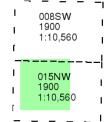
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# Glamorganshire

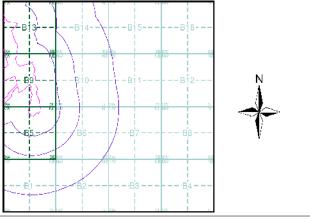
# Published 1900 Source map scale - 1:10,560

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

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



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

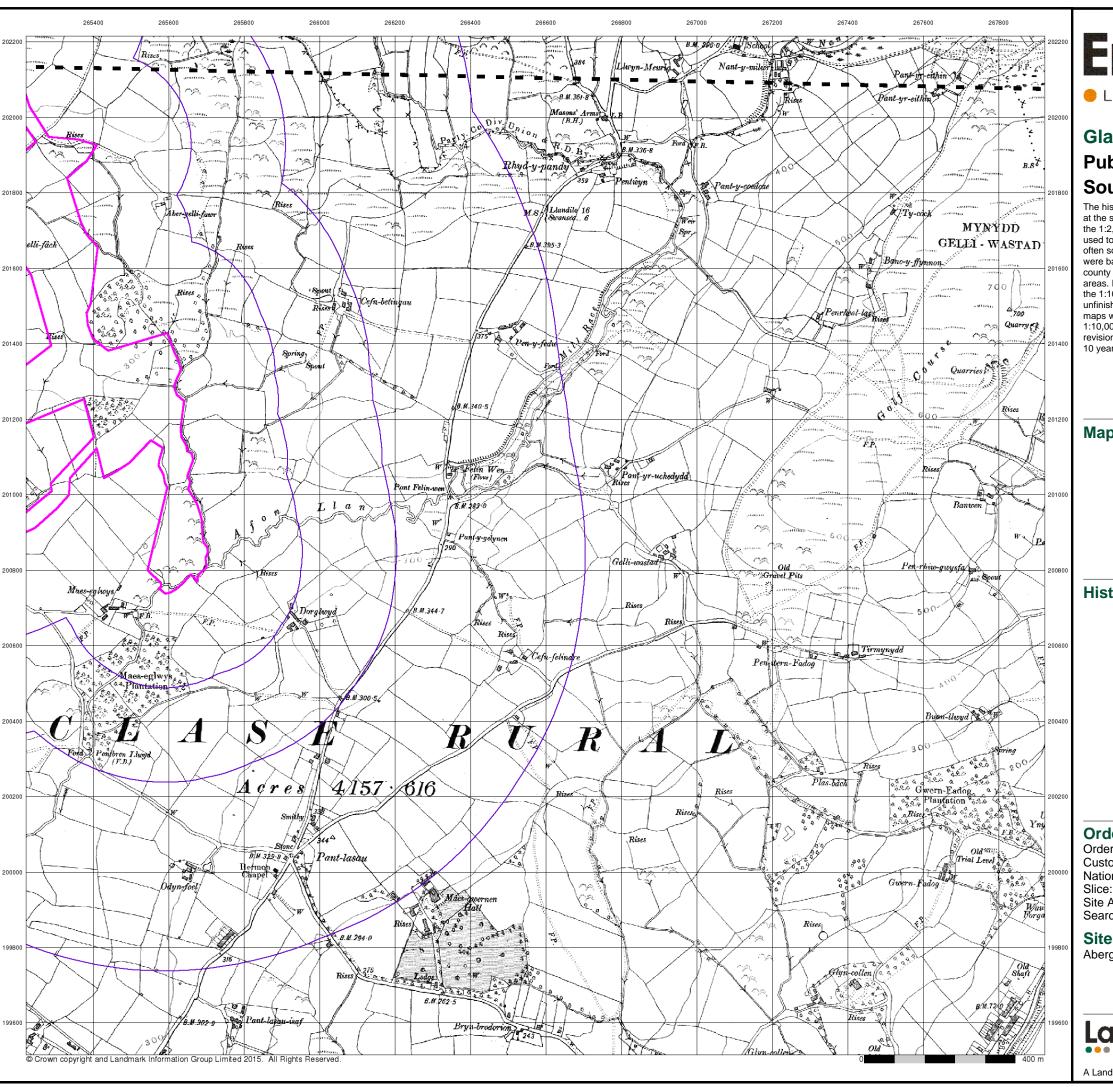
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 17



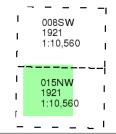
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# Glamorganshire

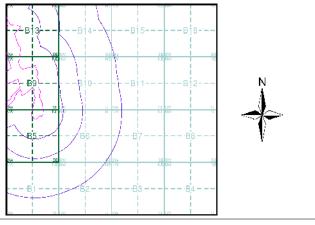
# Published 1921 Source map scale - 1:10,560

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

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



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

(11.)

Site Area (Ha): 32.39 Search Buffer (m): 1000

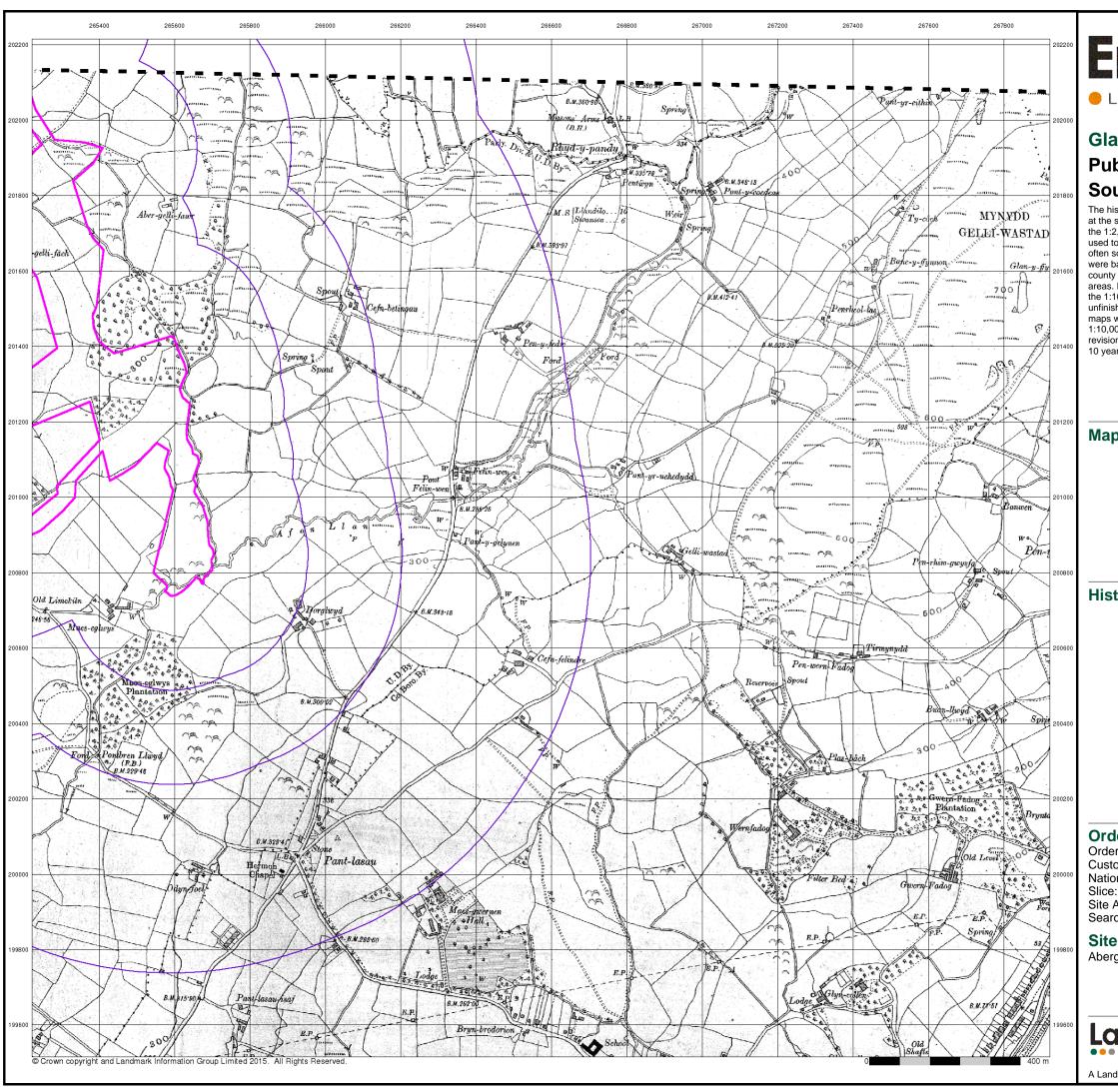
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 5 of 17



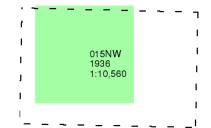
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# Glamorganshire Published 1936

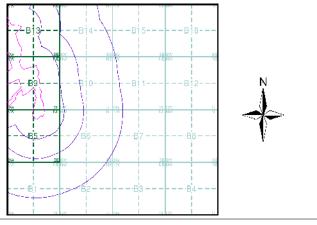
# Source map scale - 1:10,560

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

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



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

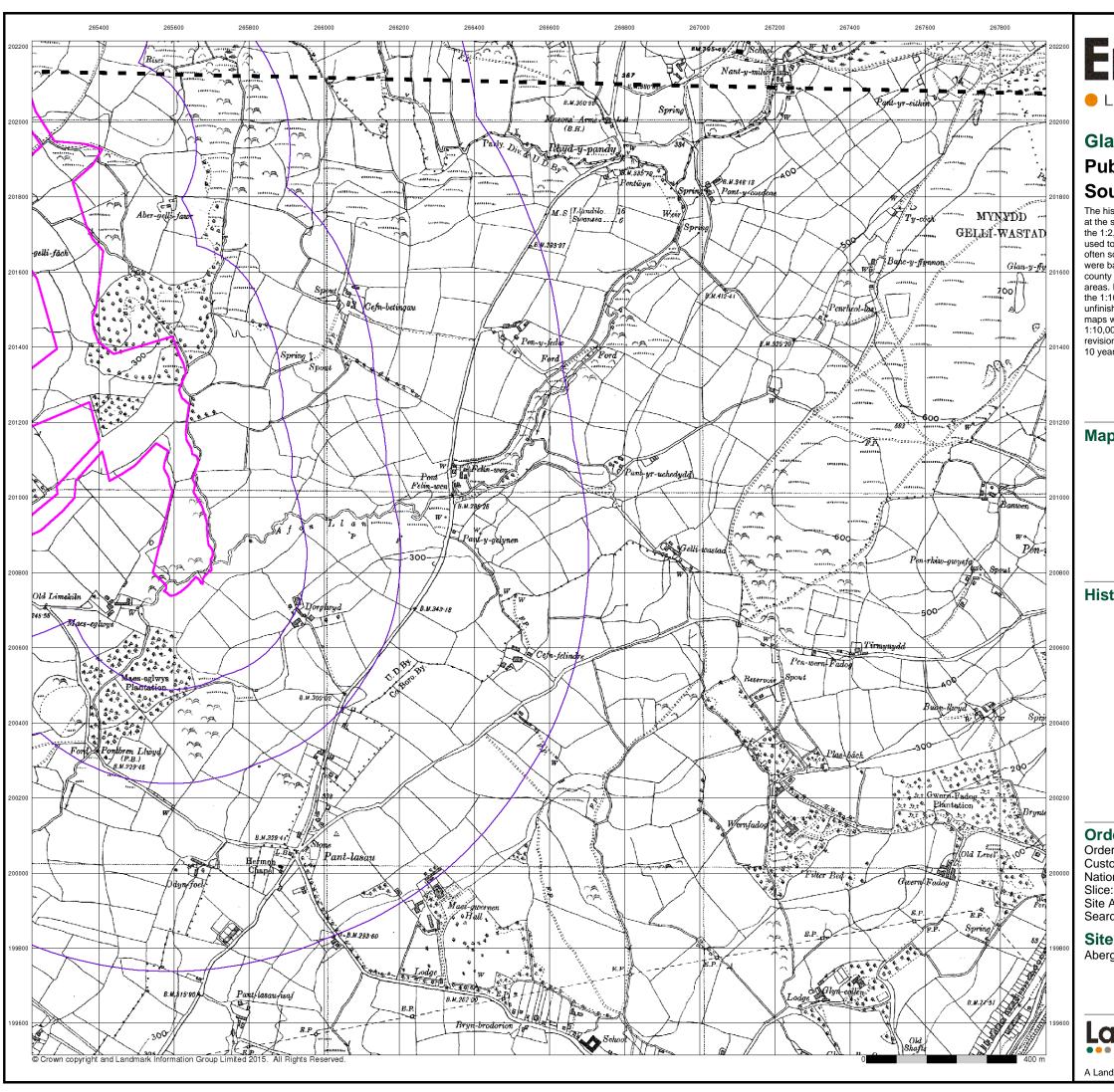
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 17



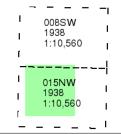
LANDMARK INFORMATION GROUP®

# Glamorganshire

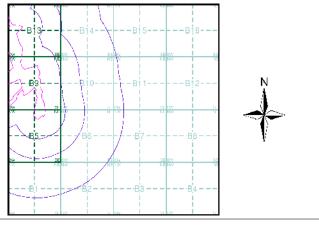
# Published 1938 Source map scale - 1:10,560

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

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



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

e:

Site Area (Ha): 32.39 Search Buffer (m): 1000

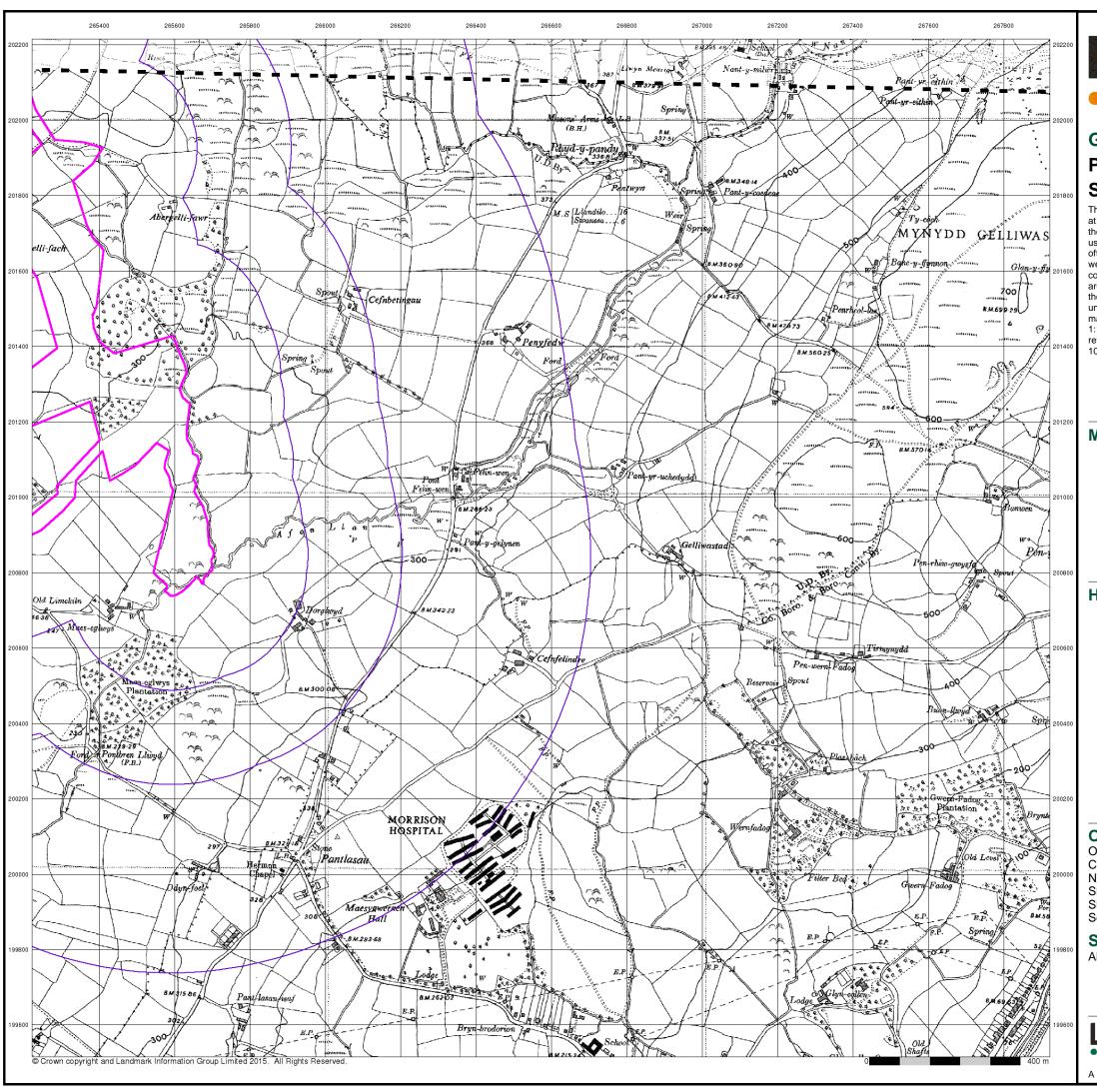
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 7 of 17



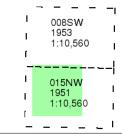
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## **Glamorganshire**

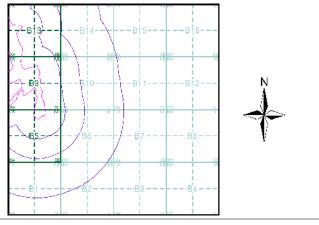
# Published 1951 - 1953 Source map scale - 1:10,560

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

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



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010
Slice: B

Site Area (Ha): 32.39 Search Buffer (m): 1000

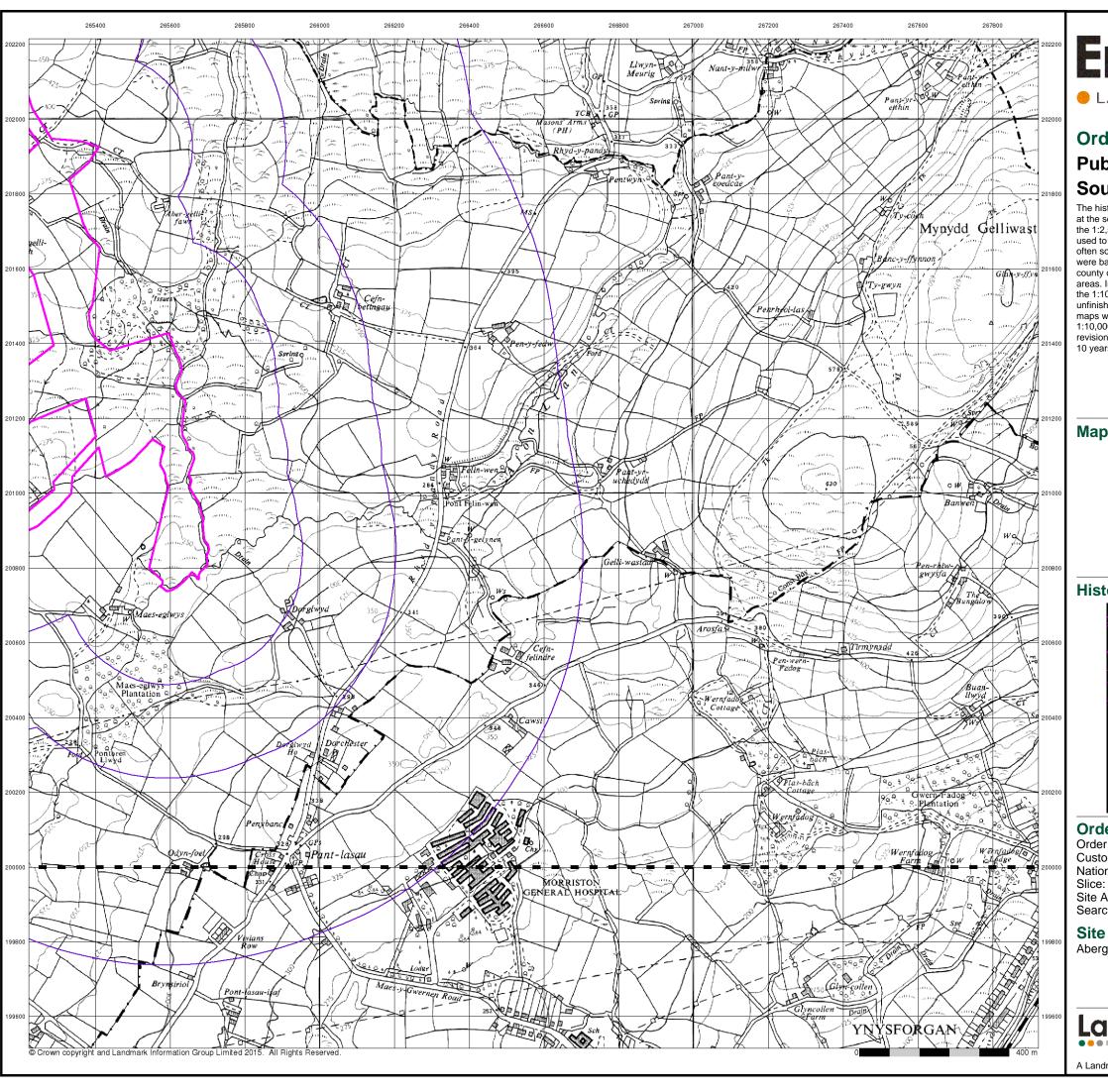
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 8 of 17

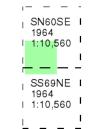


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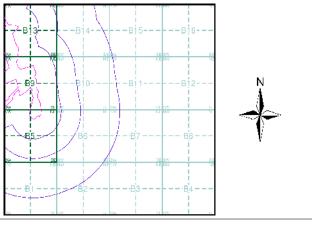
# Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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

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



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

e:

Site Area (Ha): 32.39 Search Buffer (m): 1000

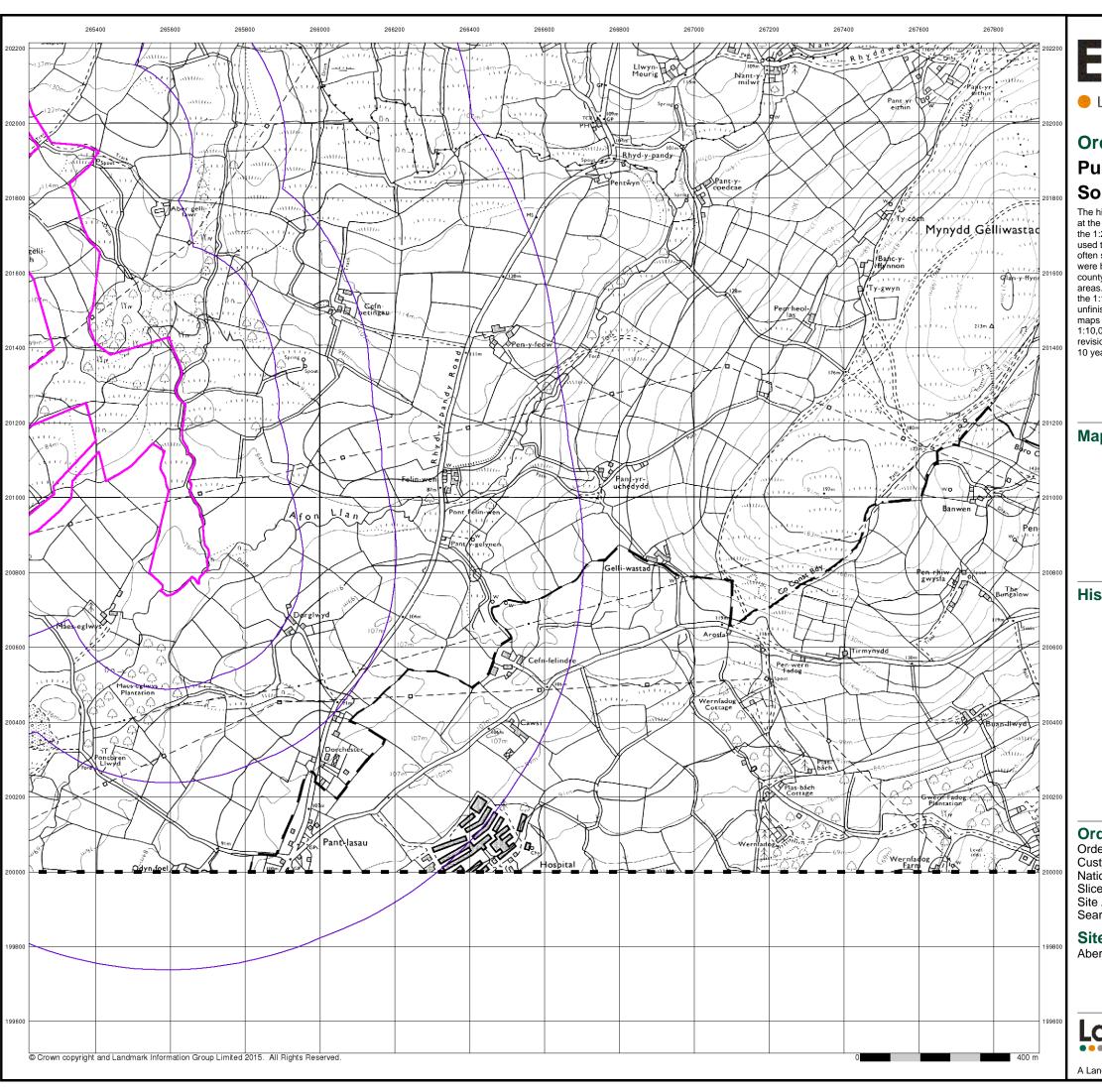
#### **Site Details**

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Web: www.envirocheck.

A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 17

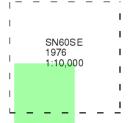


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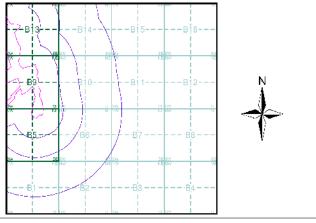
# **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

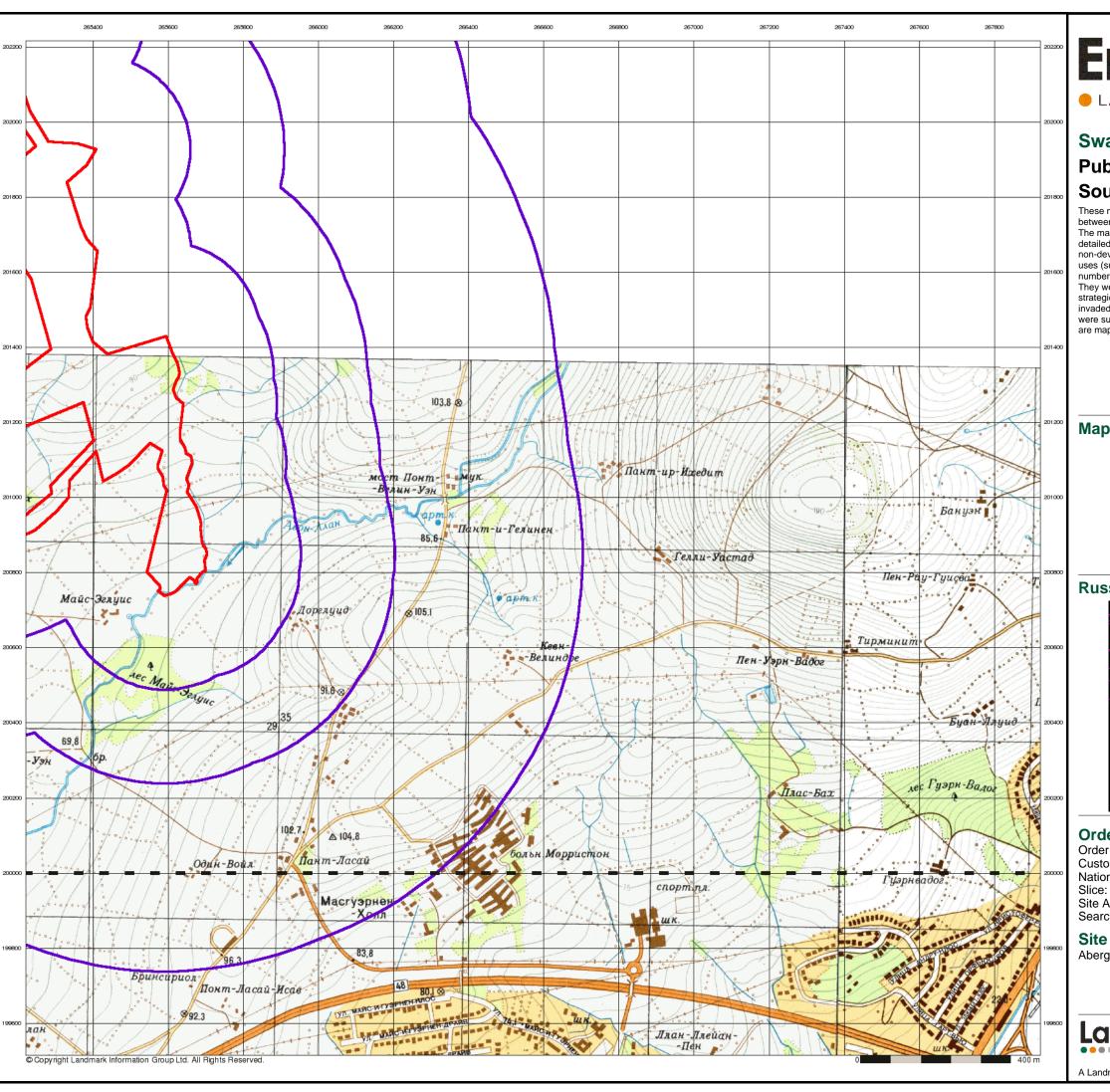
#### **Site Details**

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### **Swansea**

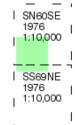
# **Published 1976** Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a

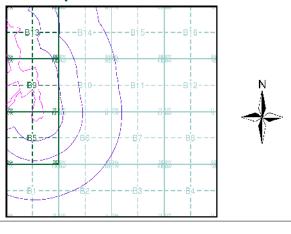
numbered key describing their use.

They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that

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



## Russian Map - Slice B



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Site Area (Ha): 32.39 Search Buffer (m): 1000

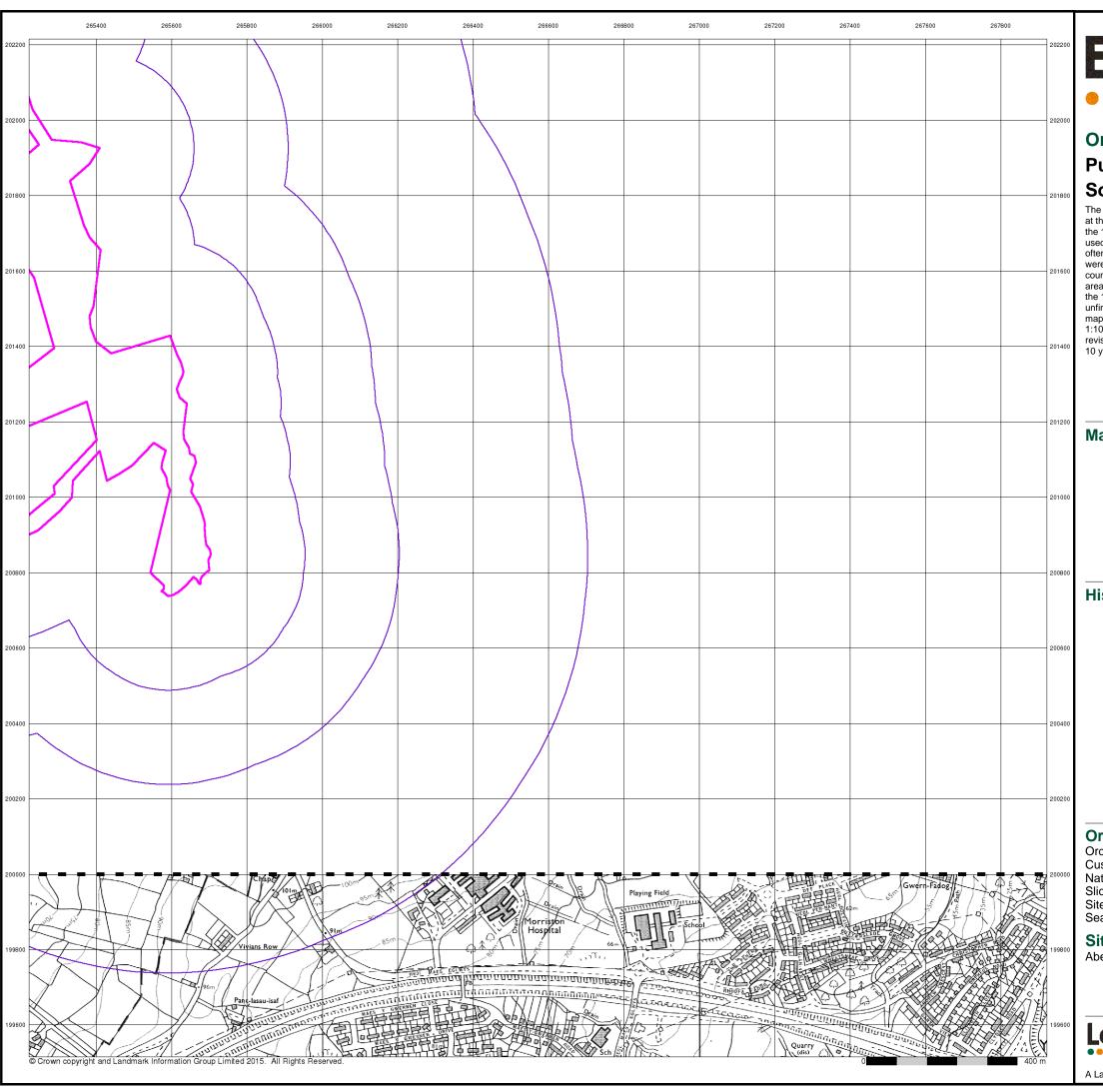
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 17

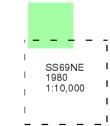


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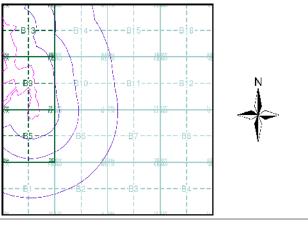
# **Ordnance Survey Plan** Published 1980 Source map scale - 1:10,000

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

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



## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m):

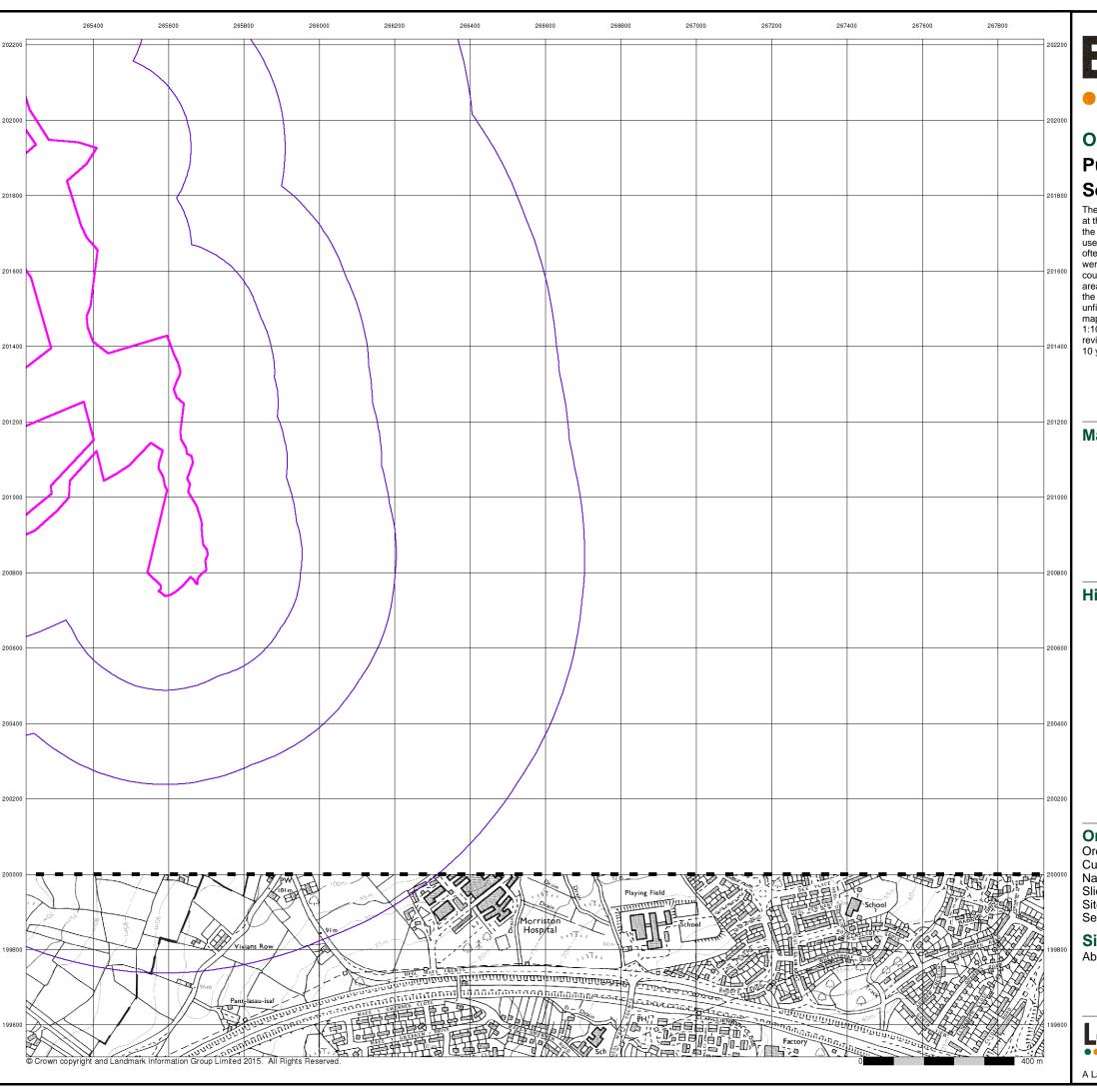
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 17

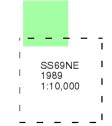


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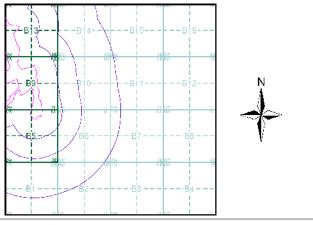
# **Ordnance Survey Plan Published 1989** Source map scale - 1:10,000

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

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



## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m): 1000

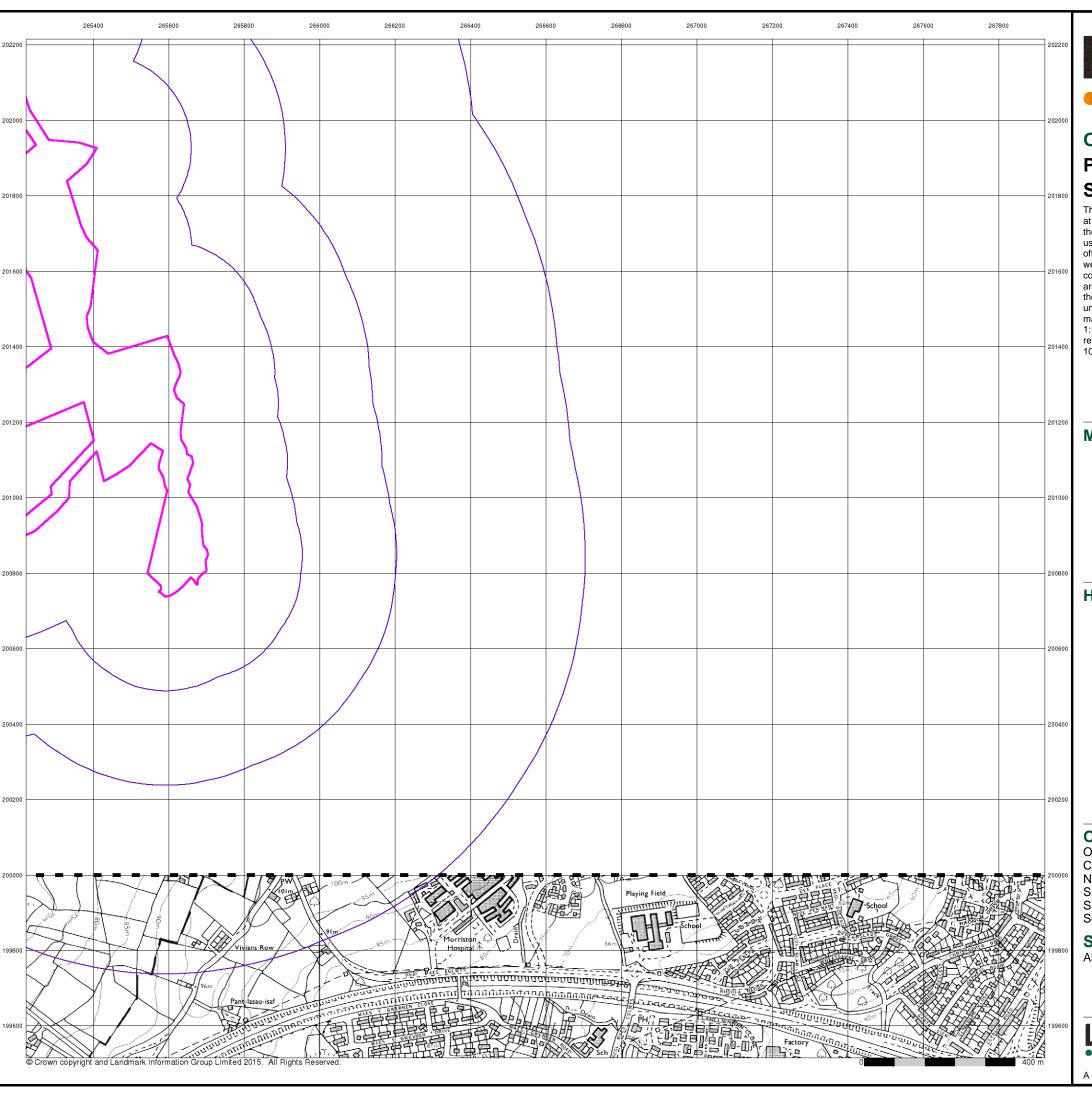
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 13 of 17

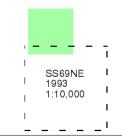


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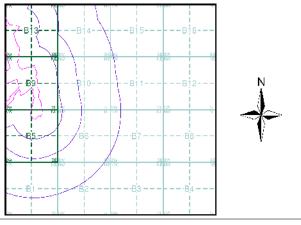
# **Ordnance Survey Plan Published 1993** Source map scale - 1:10,000

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

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



## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m):

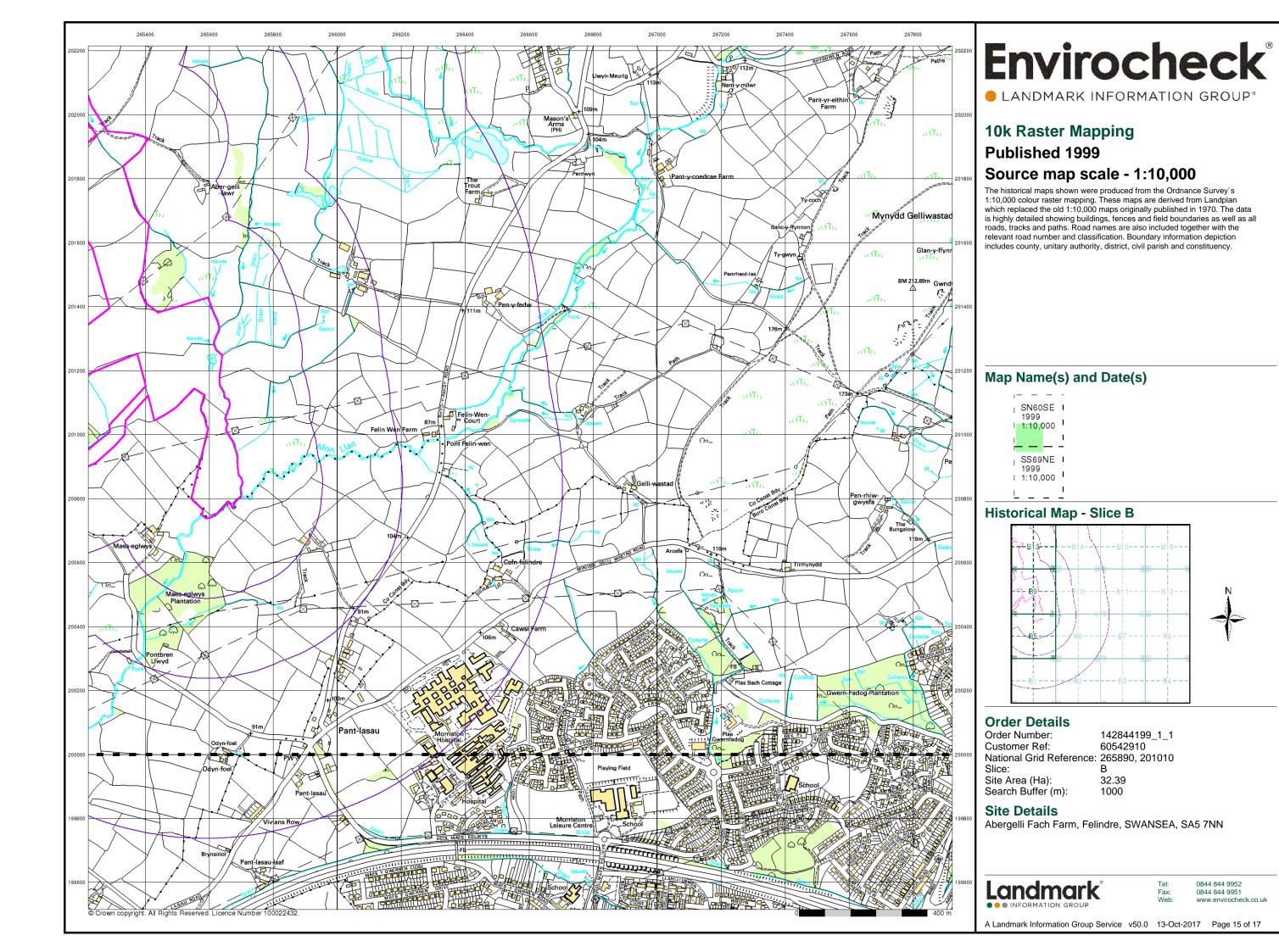
#### **Site Details**

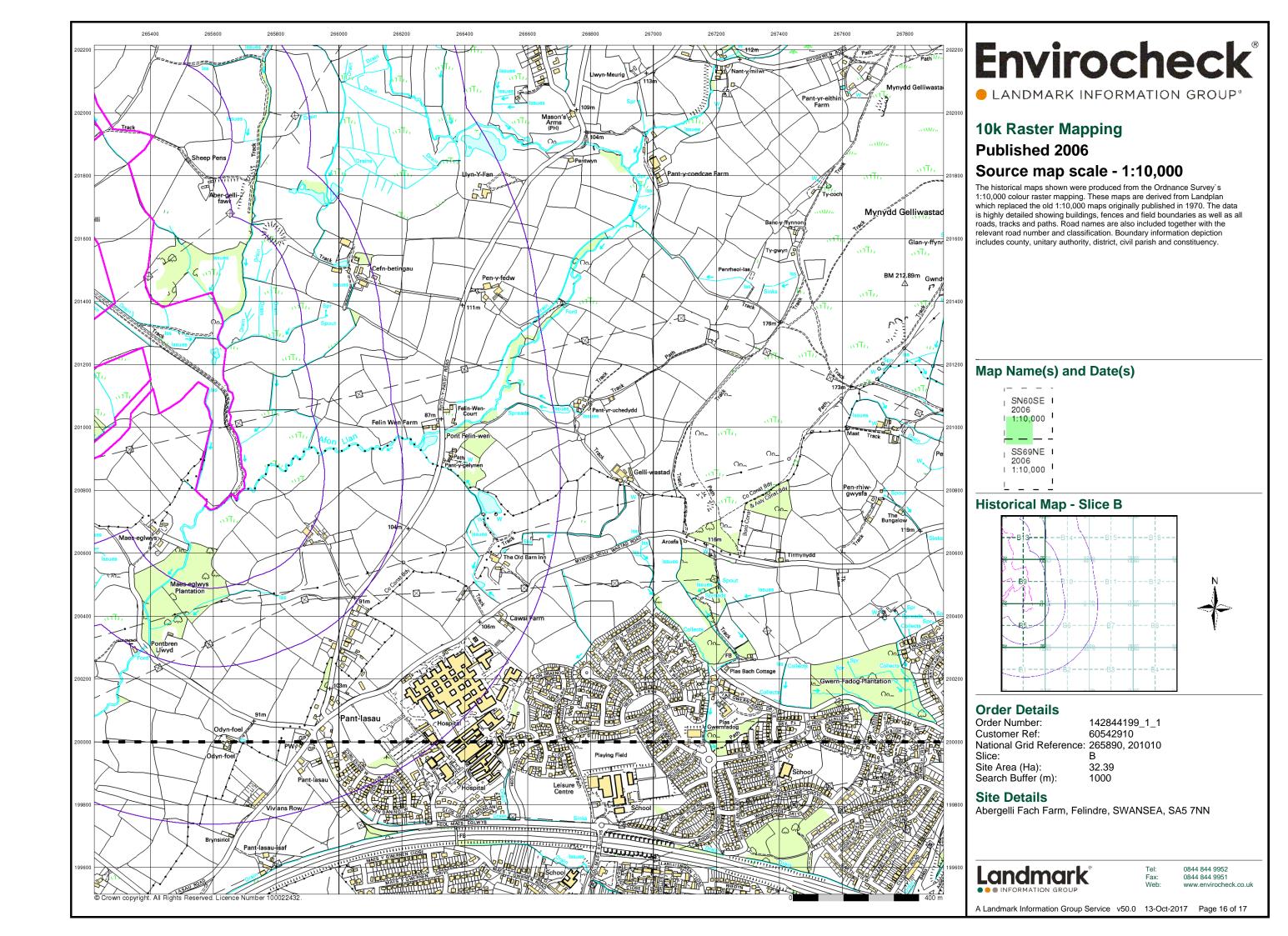
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

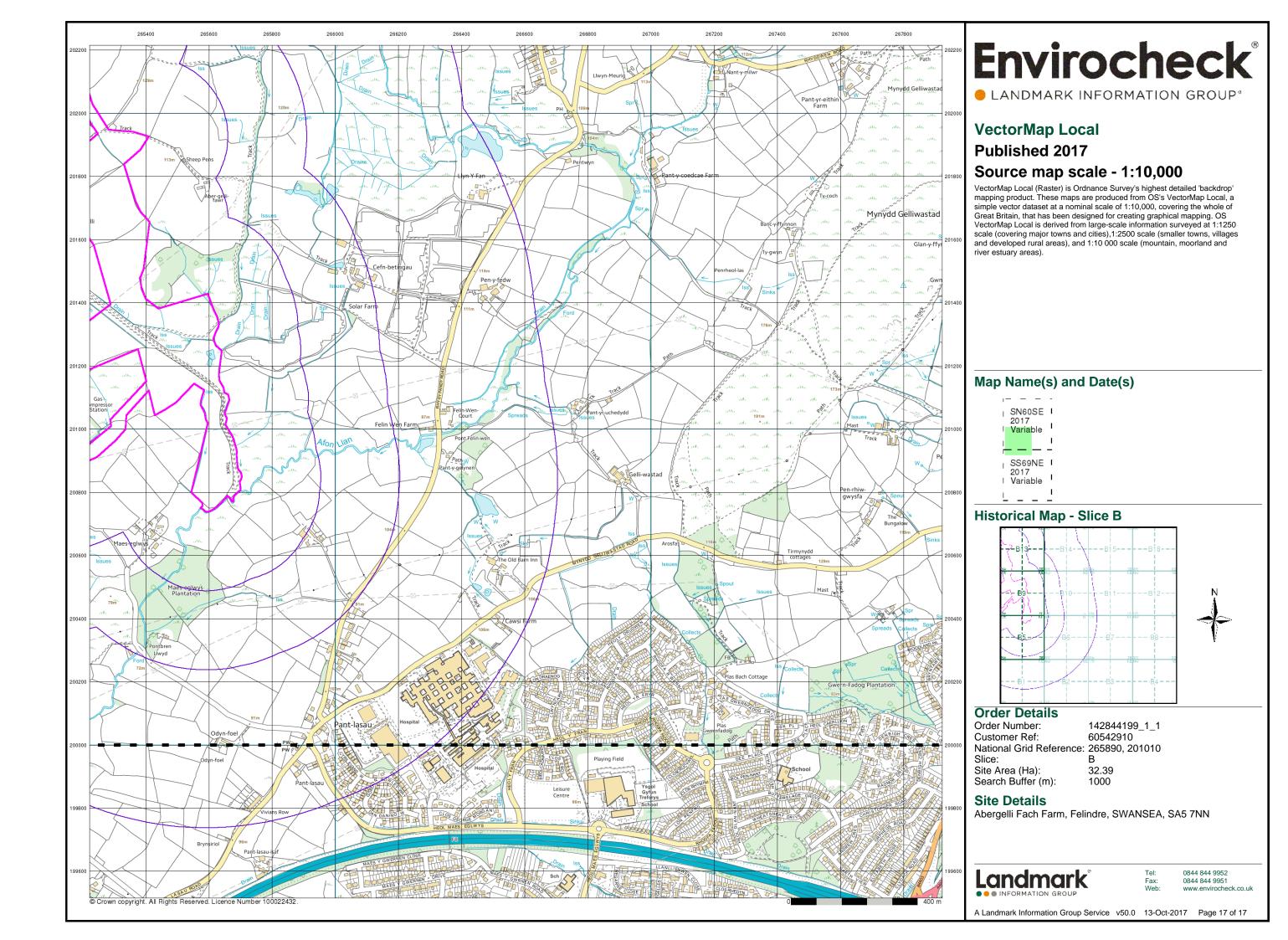


0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 14 of 17







Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

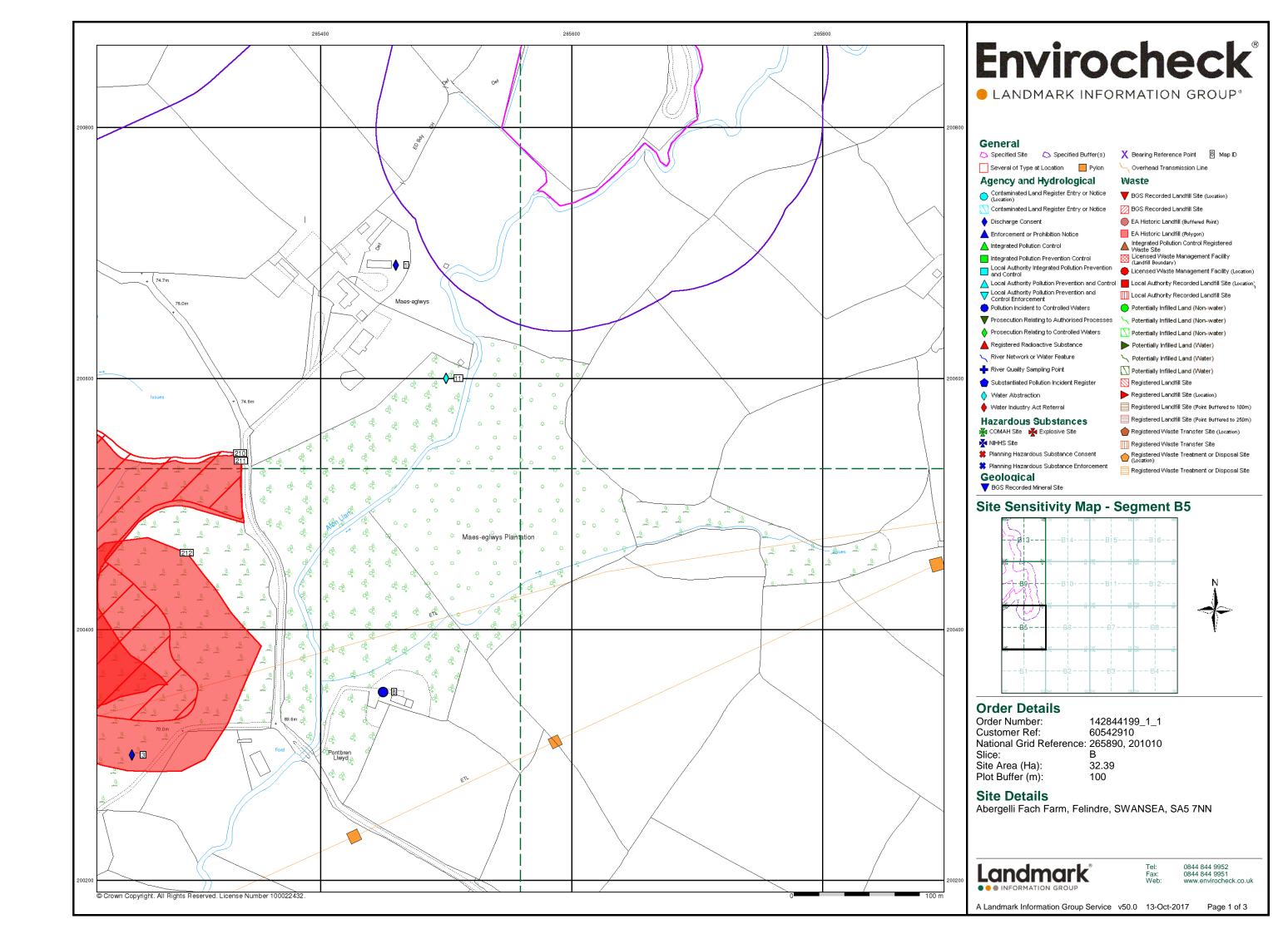
Slice:

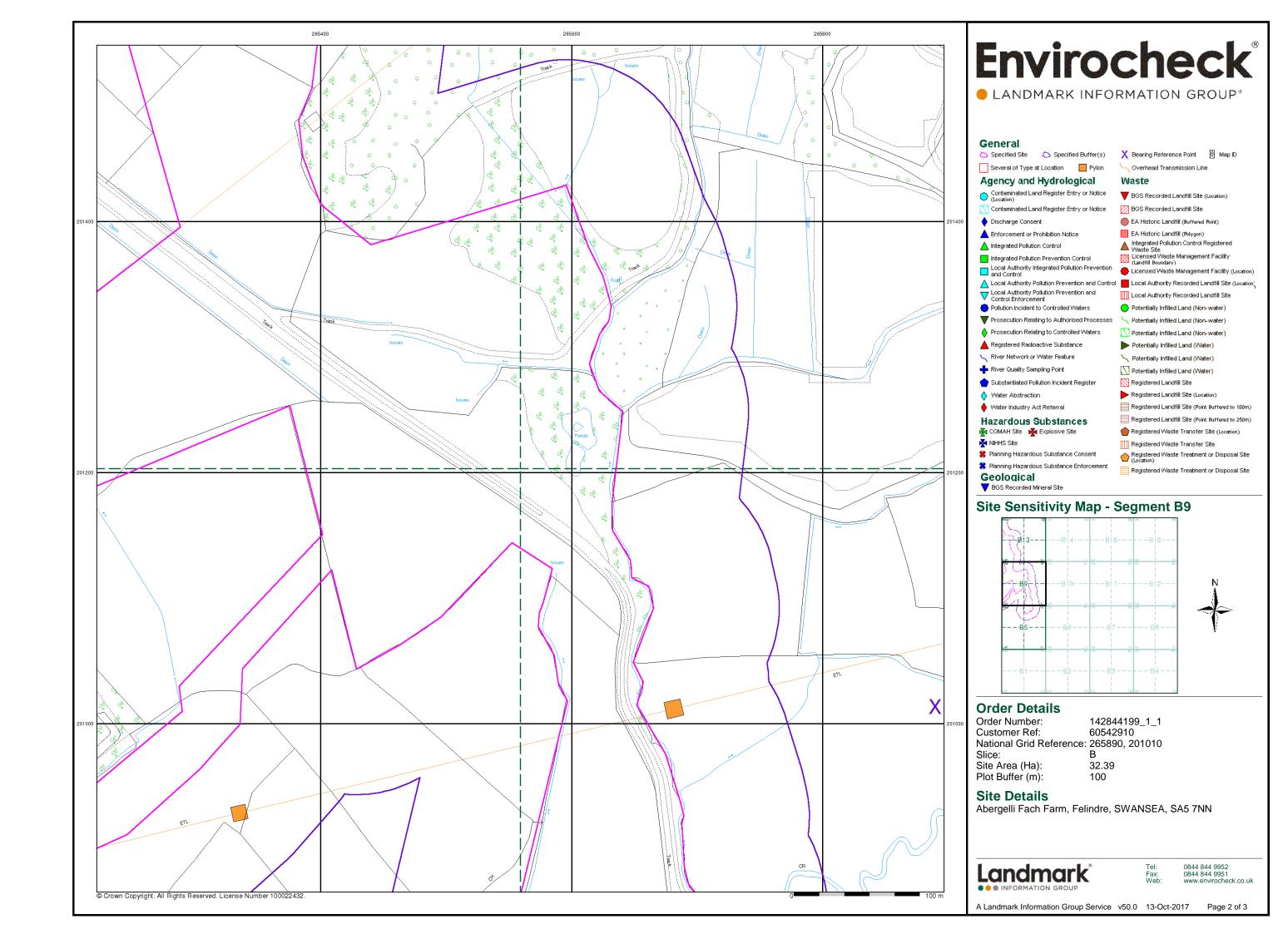
Site Area (Ha): 32.39 Search Buffer (m): 1000

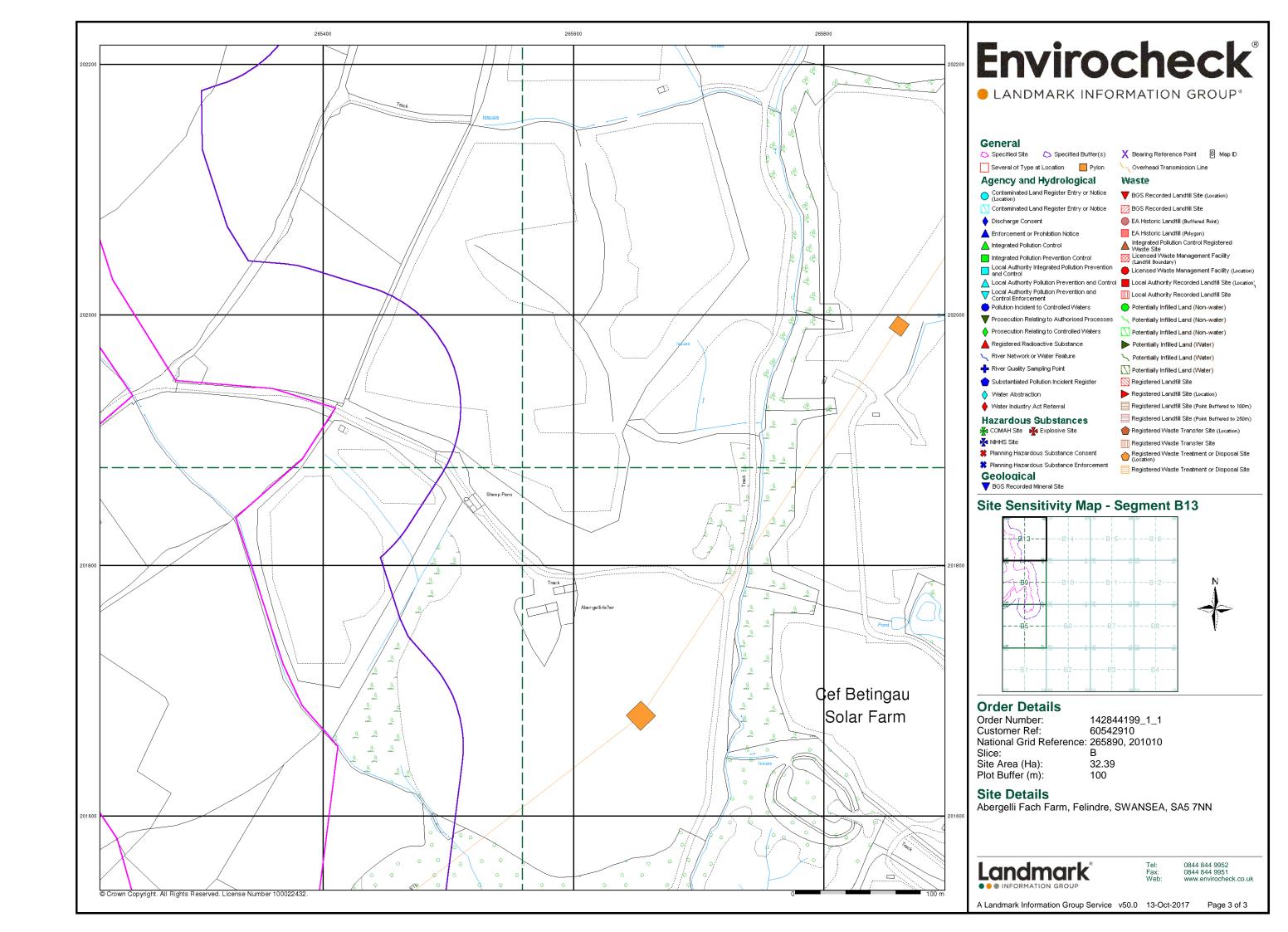
Site Details:

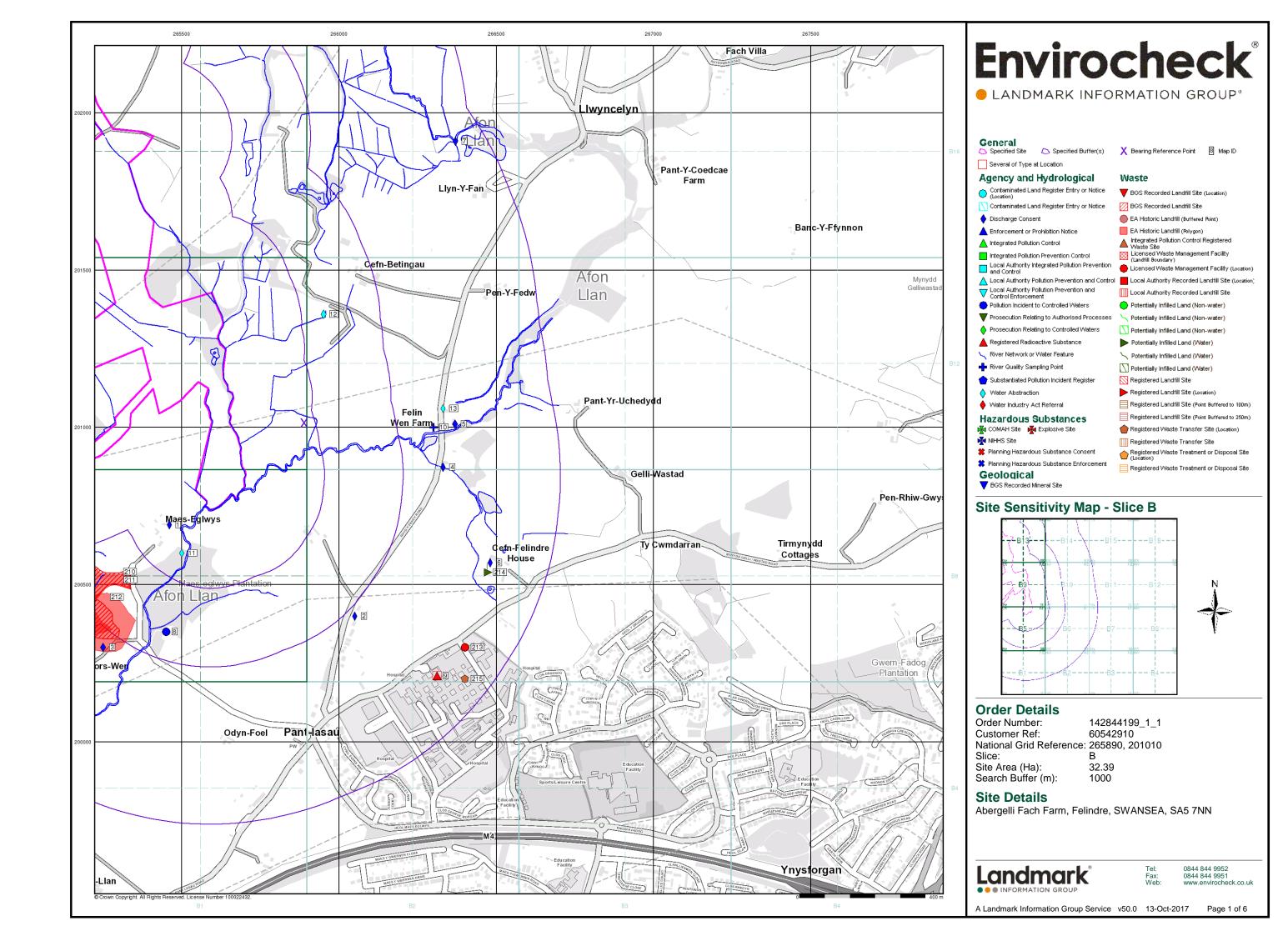
Abergelli F Felindre SWANSEA SA5 7NN

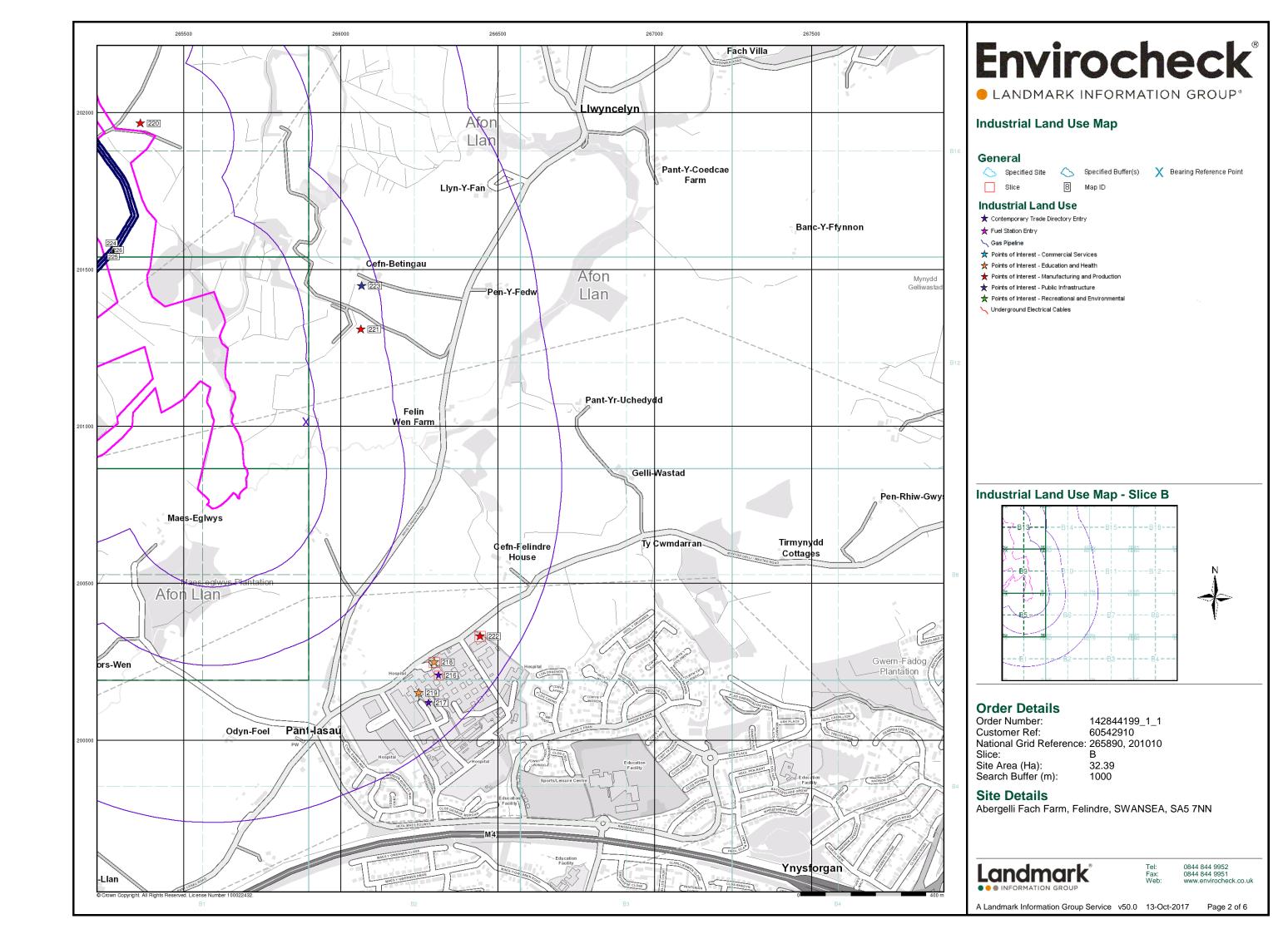
| File Name Map Series Pub        | lished Source Sca | a Survey Dat Revisi | on D: Addition D | Edition Dat Published Date |
|---------------------------------|-------------------|---------------------|------------------|----------------------------|
| 142844199 Glamorgan             | 1936 1:10,560     | 1876                | 1936             | 1935                       |
| 142844199 Glamorgan             | 1938 1:10,560     | 1876-1876           | 1938-1938        | 3 1913-1936                |
| 142844199 Glamorgan             | 1921 1:10,560     | 1876-1876 1913-     | 1913             | 1921-1921                  |
| 142844199 Glamorgan             | 1900 1:10,560     | 1877-1876 1897-     | 1897             | 1900-1900                  |
| 142844199 Glamorgan             | 1884 1:10,560     | 1877-1877           |                  | 1884-1884                  |
| 142844199 Glamorgan 195         | 1-1953 1:10,560   | 1876-1876           | 1948-1948        | 3 1913-1936 1953-1951      |
| 142844199 Ordnance 9            | 1980 1:10,000     | 1977                | 1977             | 1980                       |
| 142844199 Ordnance 9            | 1976 1:10,000     | 1974                | 1975             | 1976                       |
| 142844199 Ordnance 9            | 1964 1:10,560     | 1961-1962           |                  | 1964-1964                  |
| 142844199 Ordnance 9            | 1993 1:10,000     | 1985                | 1992             | 1993                       |
| 142844199 Ordnance 9            | 1989 1:10,000     | 1985                | 1988             | 1989                       |
| 14284419 <sup>c</sup> Swansea   | 1976 1:10,000     |                     |                  |                            |
| 14284419510K Raster             | 1999 1:10,000     |                     |                  |                            |
| 14284419910K Raster             | 2006 1:10,000     |                     |                  |                            |
| 14284419 <sup>c</sup> VectorMar | 2017 Variable     |                     |                  |                            |

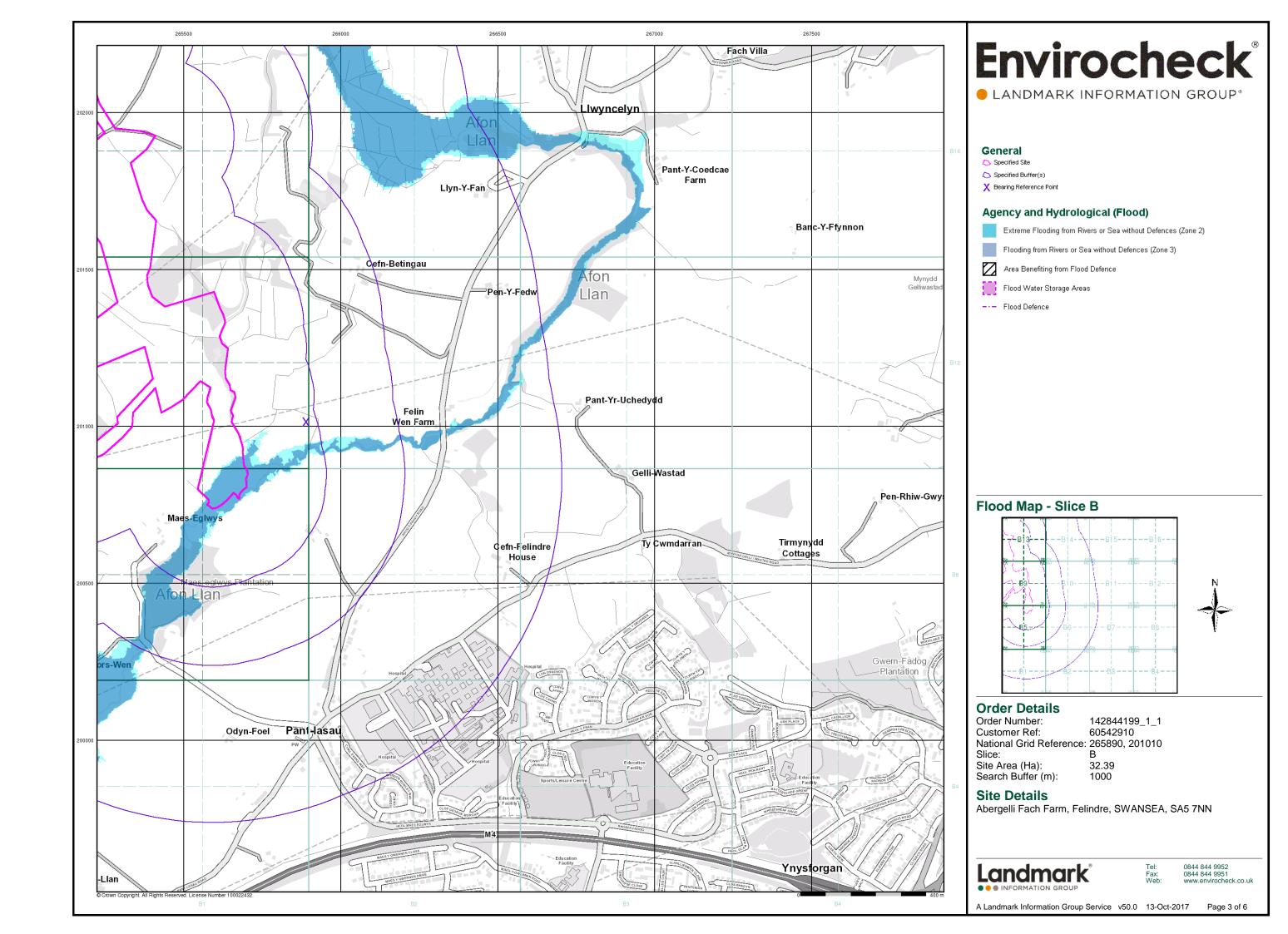


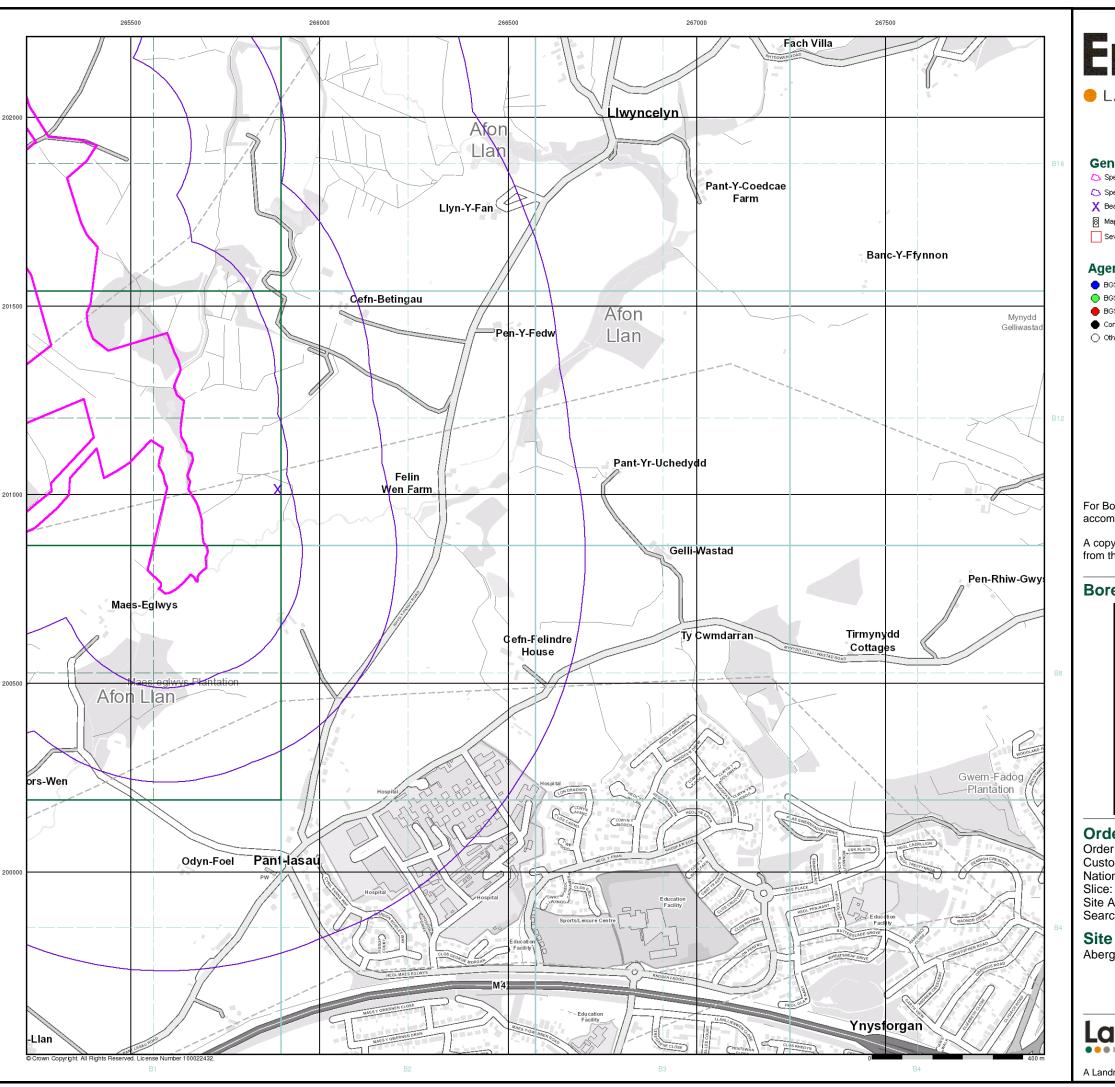












LANDMARK INFORMATION GROUP®

#### General

Specified Buffer(s)

X Bearing Reference Point

8 Map ID

Several of Type at Location

### Agency and Hydrological (Boreholes)

BGS Borehole Depth 0 - 10m

BGS Borehole Depth 10 - 30m

BGS Borehole Depth 30m +

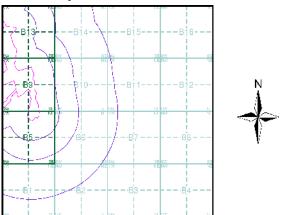
Confidential

Other

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

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

### **Borehole Map - Slice B**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39 1000

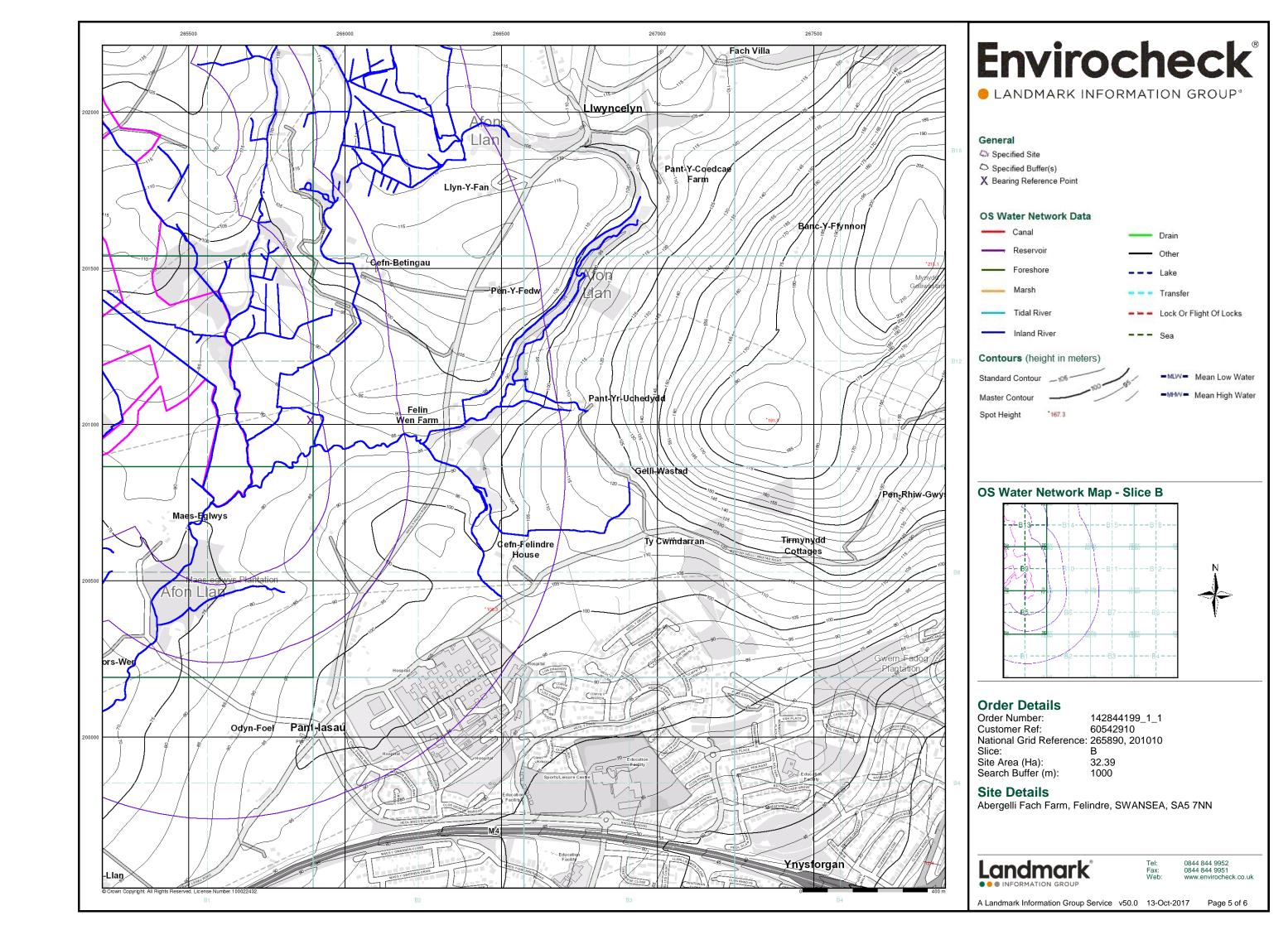
### **Site Details**

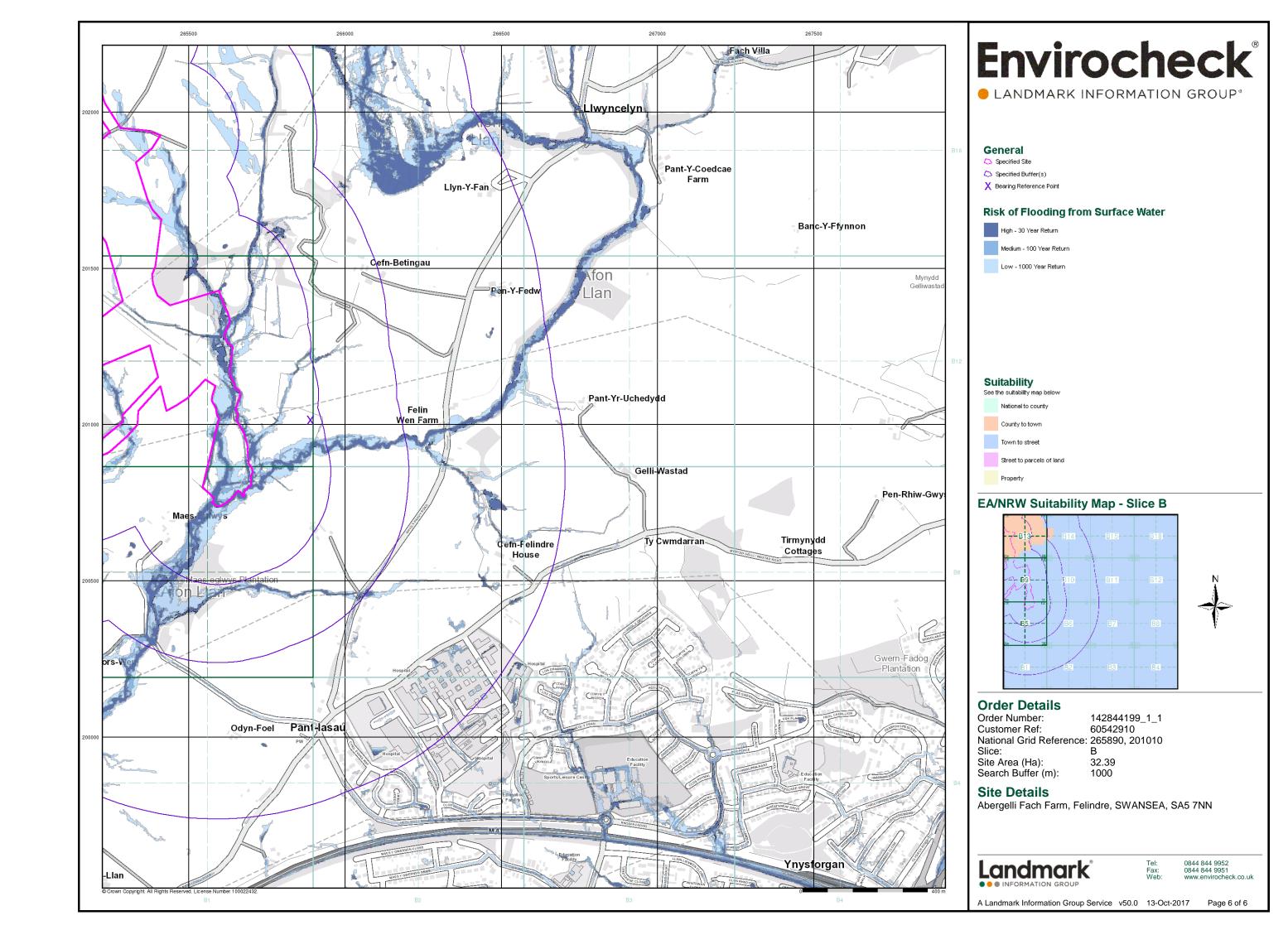
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

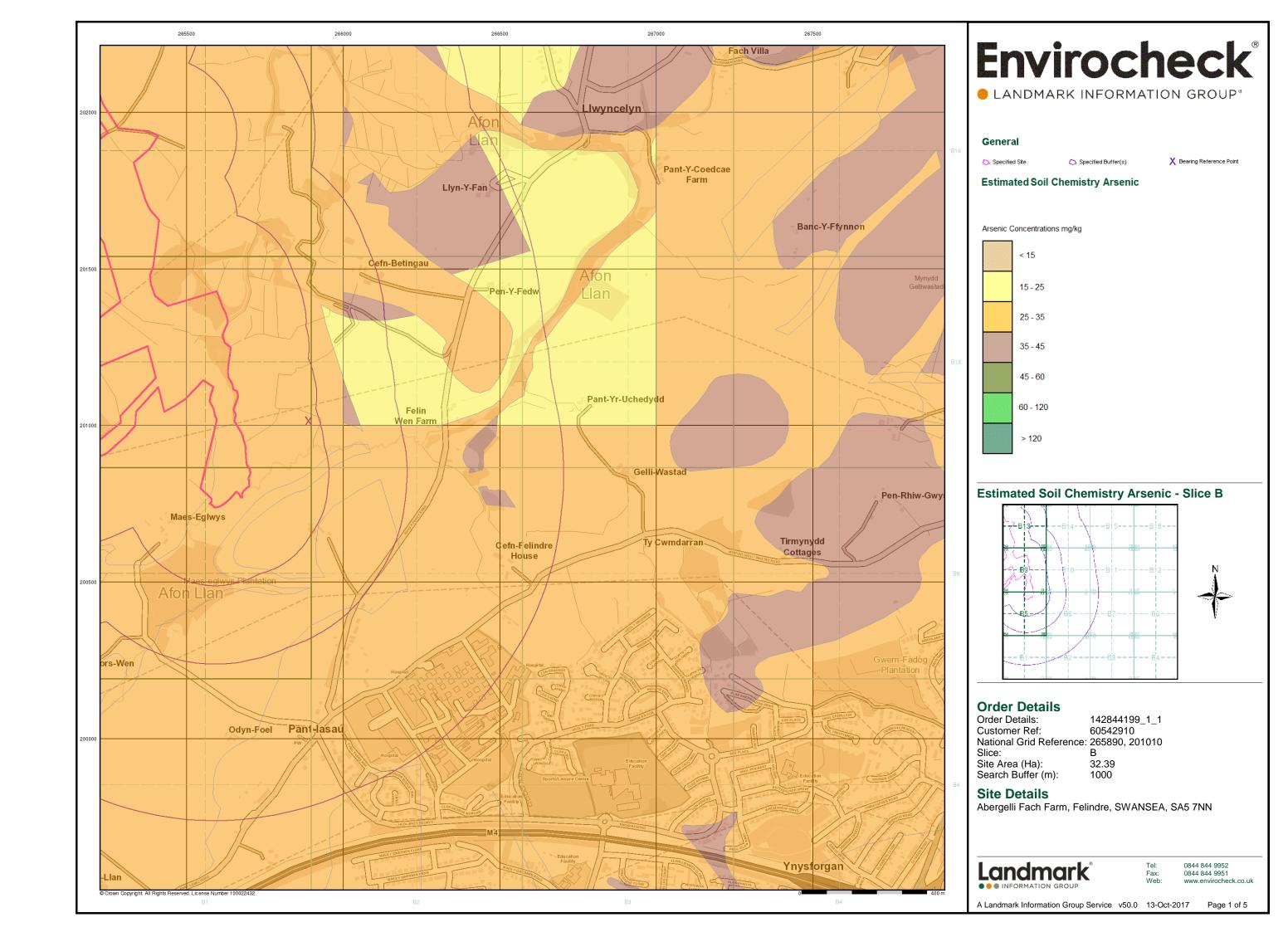
Landmark

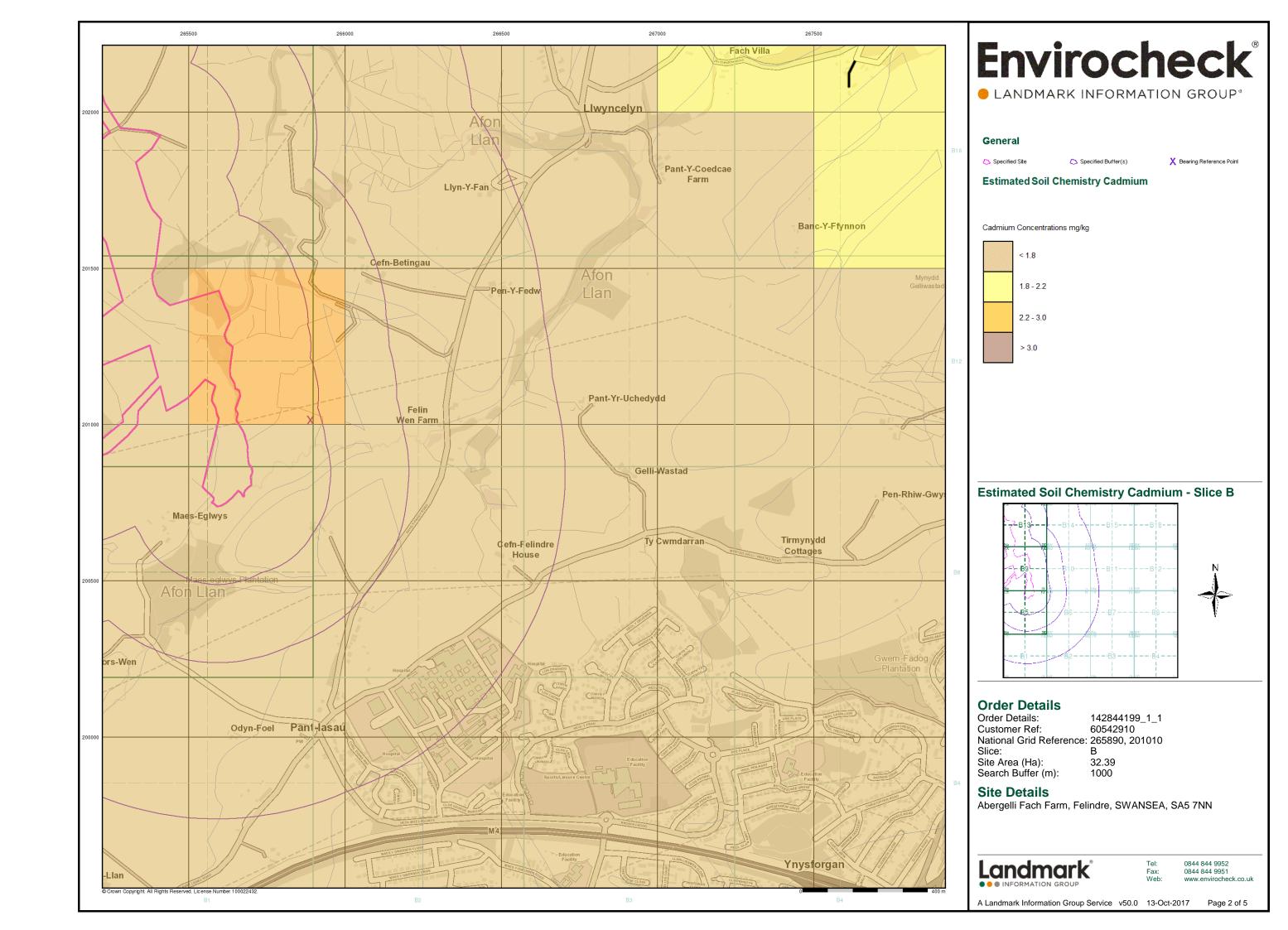
0844 844 9951 www.envirocheck.co.uk

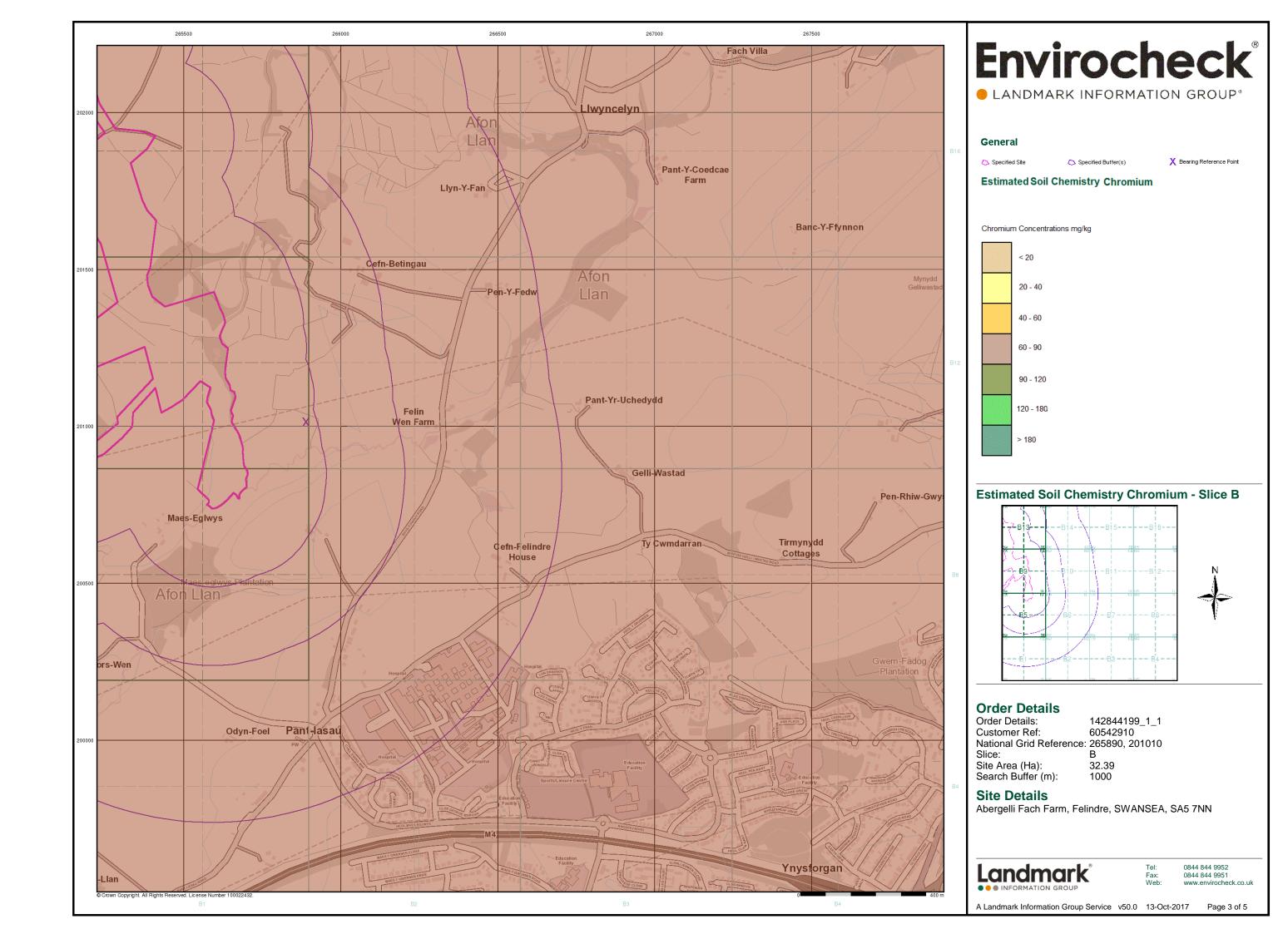
A Landmark Information Group Service v50.0 13-Oct-2017

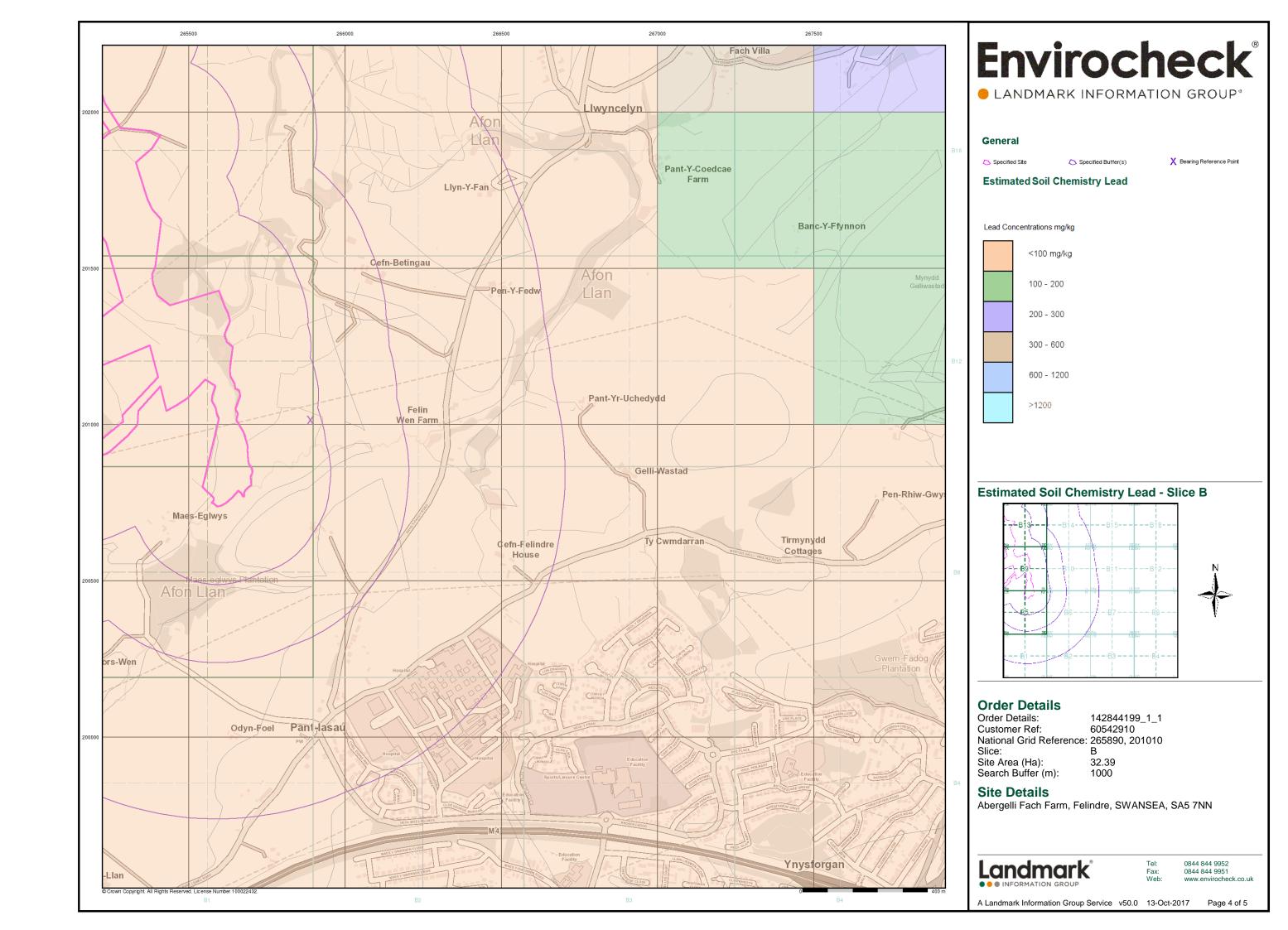


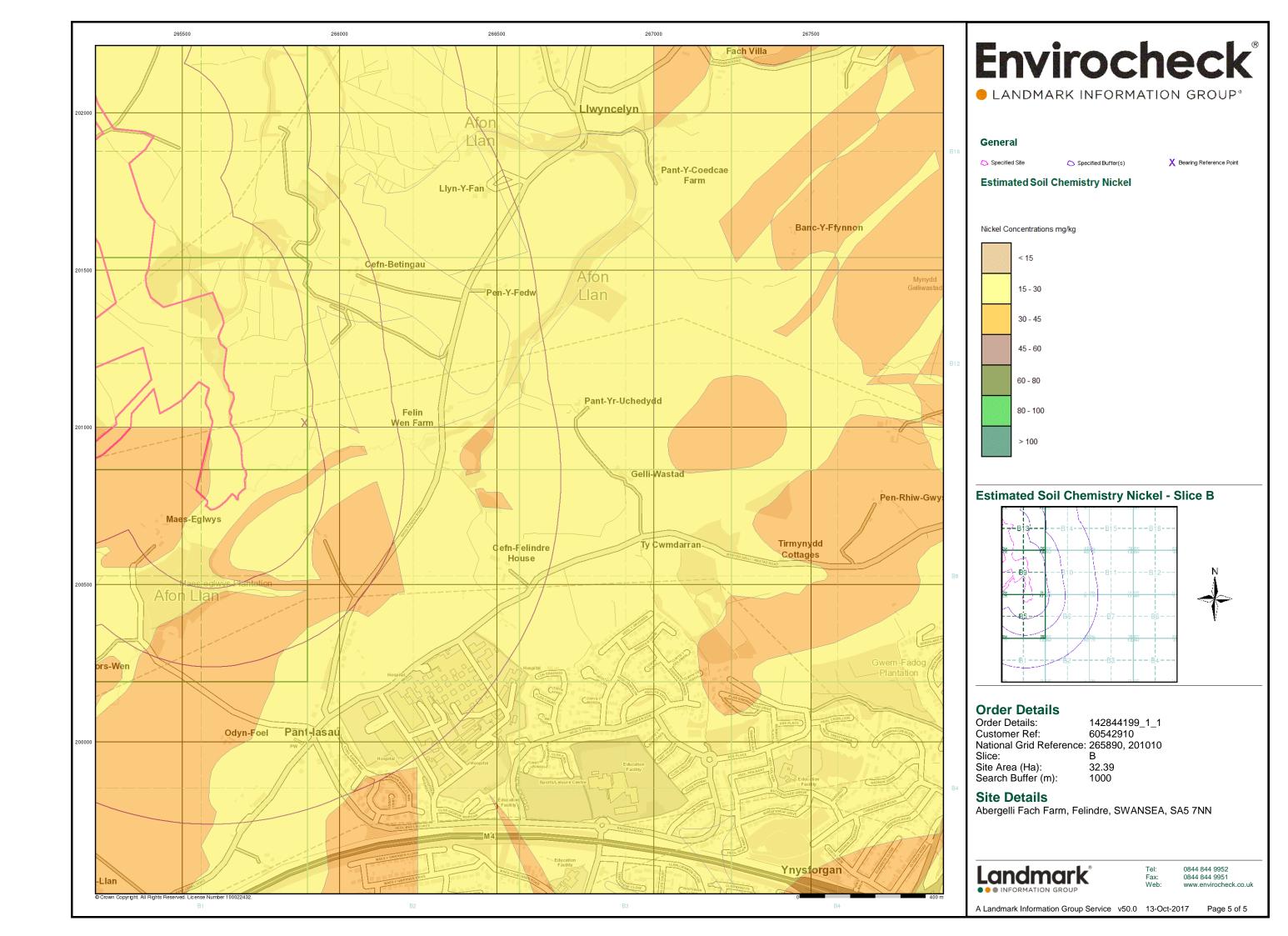












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice: B

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

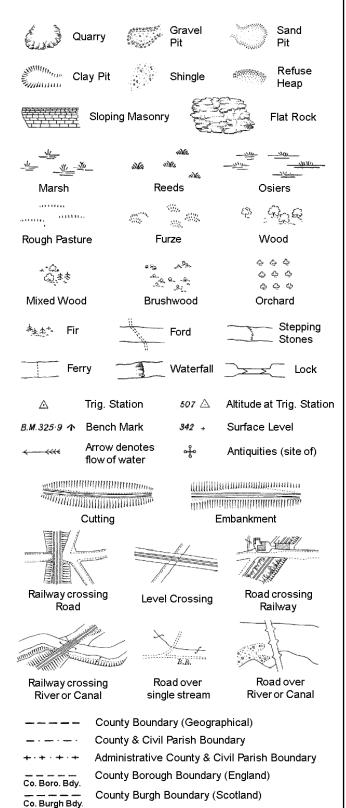
A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche

**BGS** Boreholes

eck.co.uk.

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

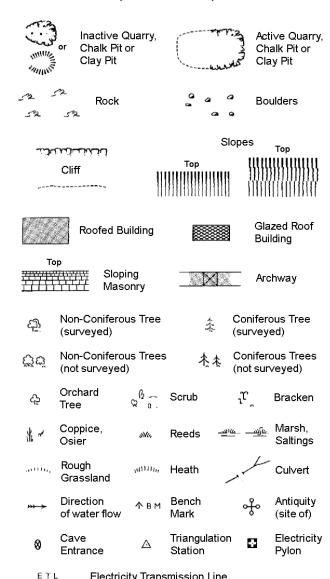
S.P

T.C.B

Sl.

 $T_T$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



| e |
|---|
| ١ |

|                               | County Boundary (Geographical)                      |
|-------------------------------|---|
|                               | County & Civil Parish Boundary                      |
|                               | Civil Parish Boundary                               |
| · <del></del> · <del></del> · | Admin. County or County Bor. Boundary               |
| L B Bdy                       | London Borough Boundary                             |
| ***                           | Symbol marking point where boundary mereing changes |

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

FΒ

Fn/DFn

Filter Bed

Gas Governer

**Guide Post** 

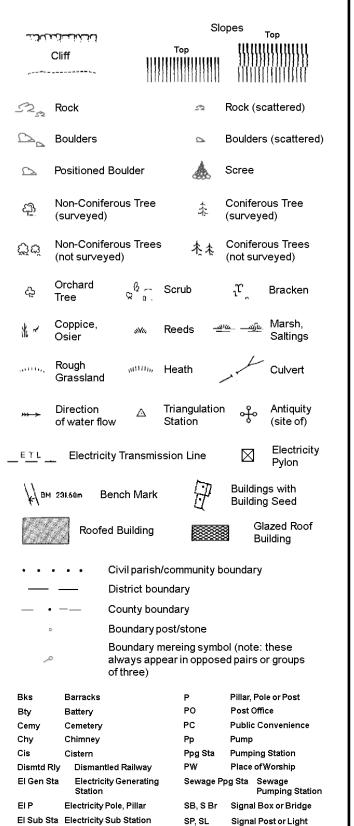
Manhole

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

### 1:1,250



Spr

Tr

Wd Pp

Wks

Spring

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tank or Track

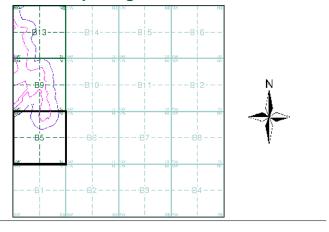
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1877        | 2  |
| Glamorganshire                           | 1:2,500 | 1899        | 3  |
| Glamorganshire                           | 1:2,500 | 1917 - 1918 | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1962        | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1975        | 8  |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 9  |
| Historical Aerial Photography            | 1:2,500 | 2000        | 10 |

### **Historical Map - Segment B5**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: 32.39

Site Area (Ha):

Search Buffer (m): 100

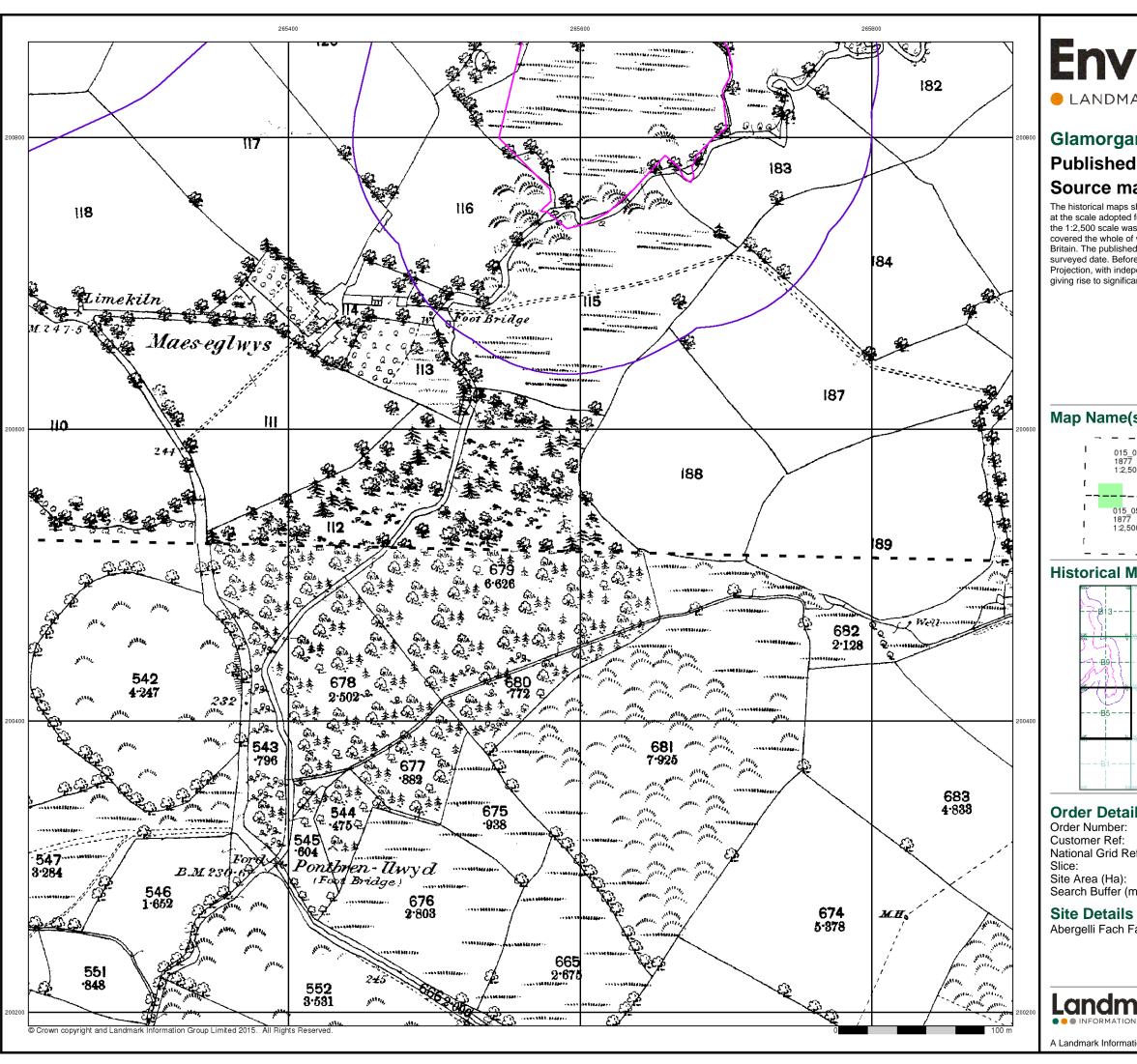
#### Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 10



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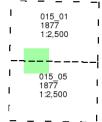
### Glamorganshire

### **Published 1877**

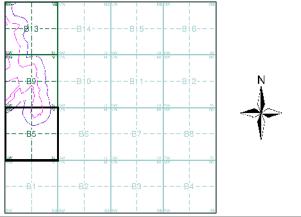
### Source map scale - 1:2,500

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

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



### **Historical Map - Segment B5**



### **Order Details**

142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265890, 201010

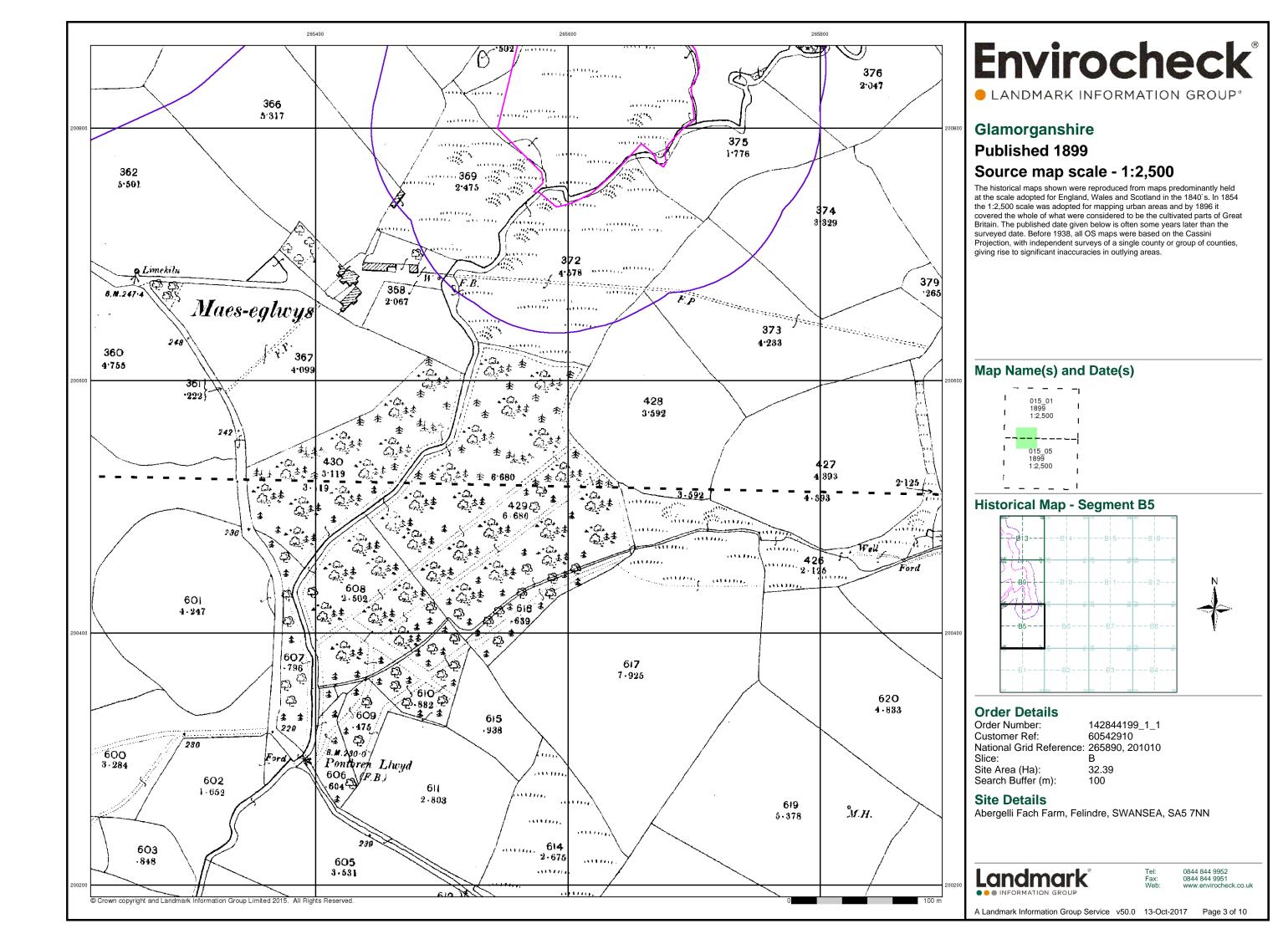
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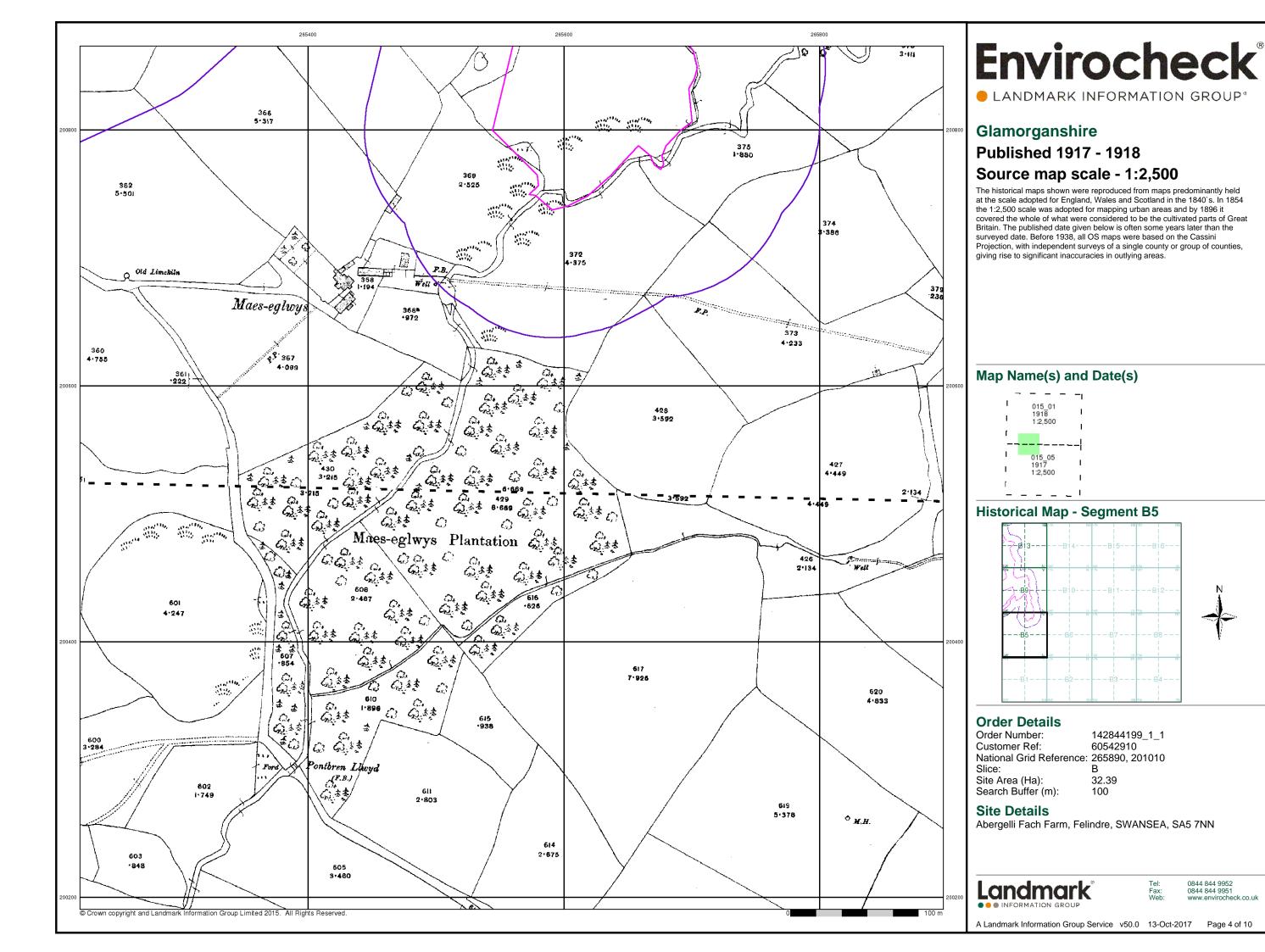
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

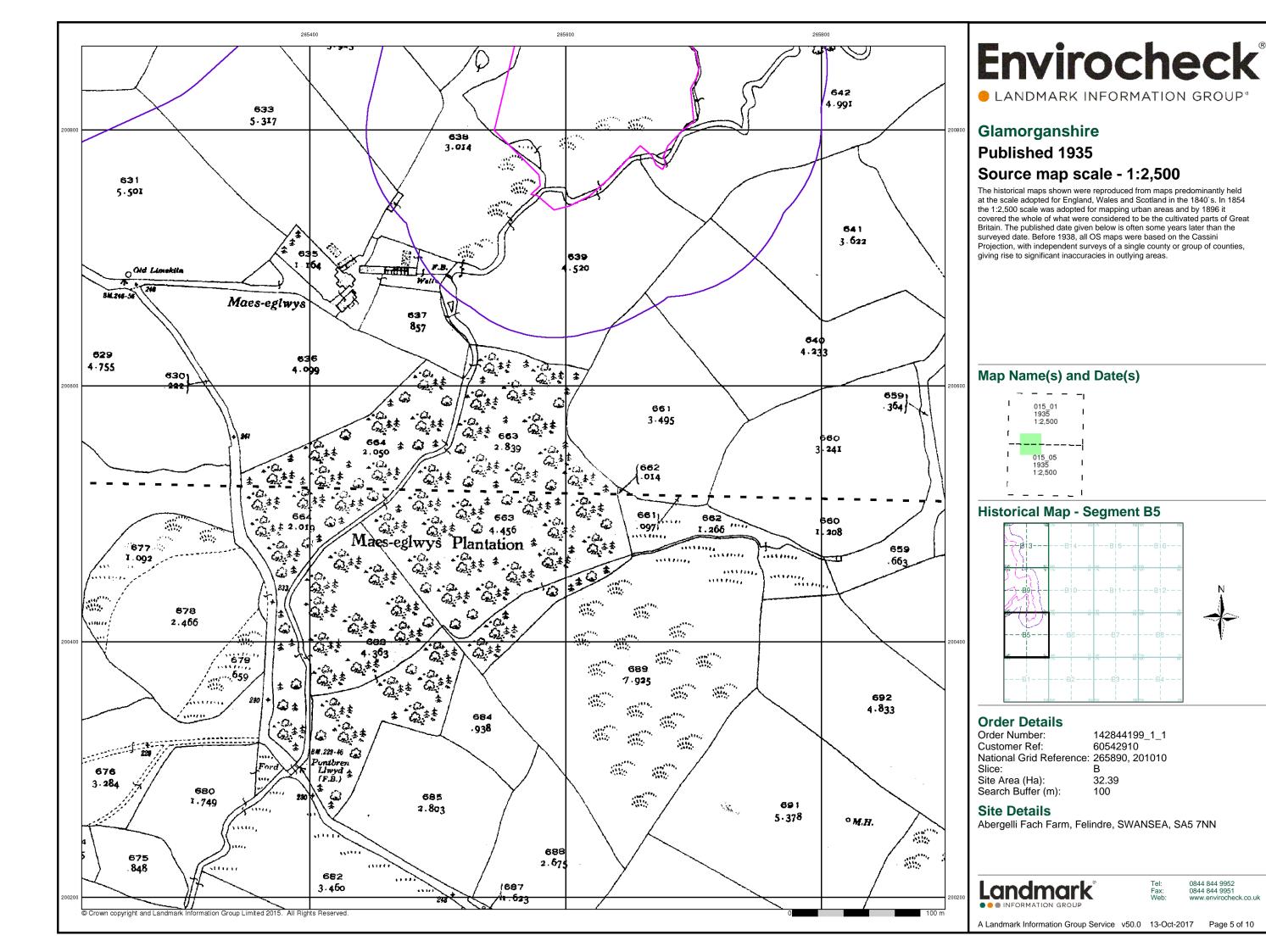


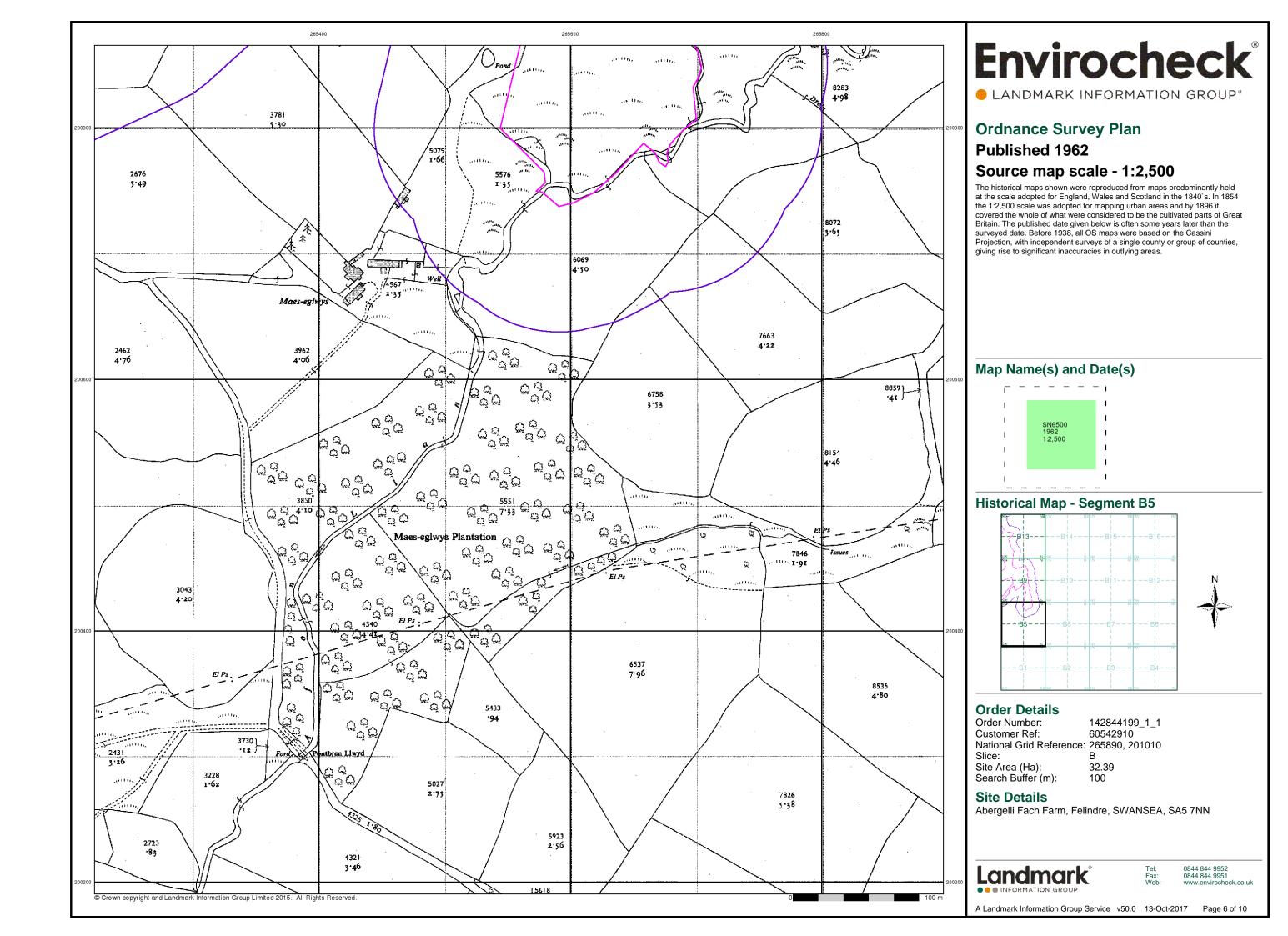
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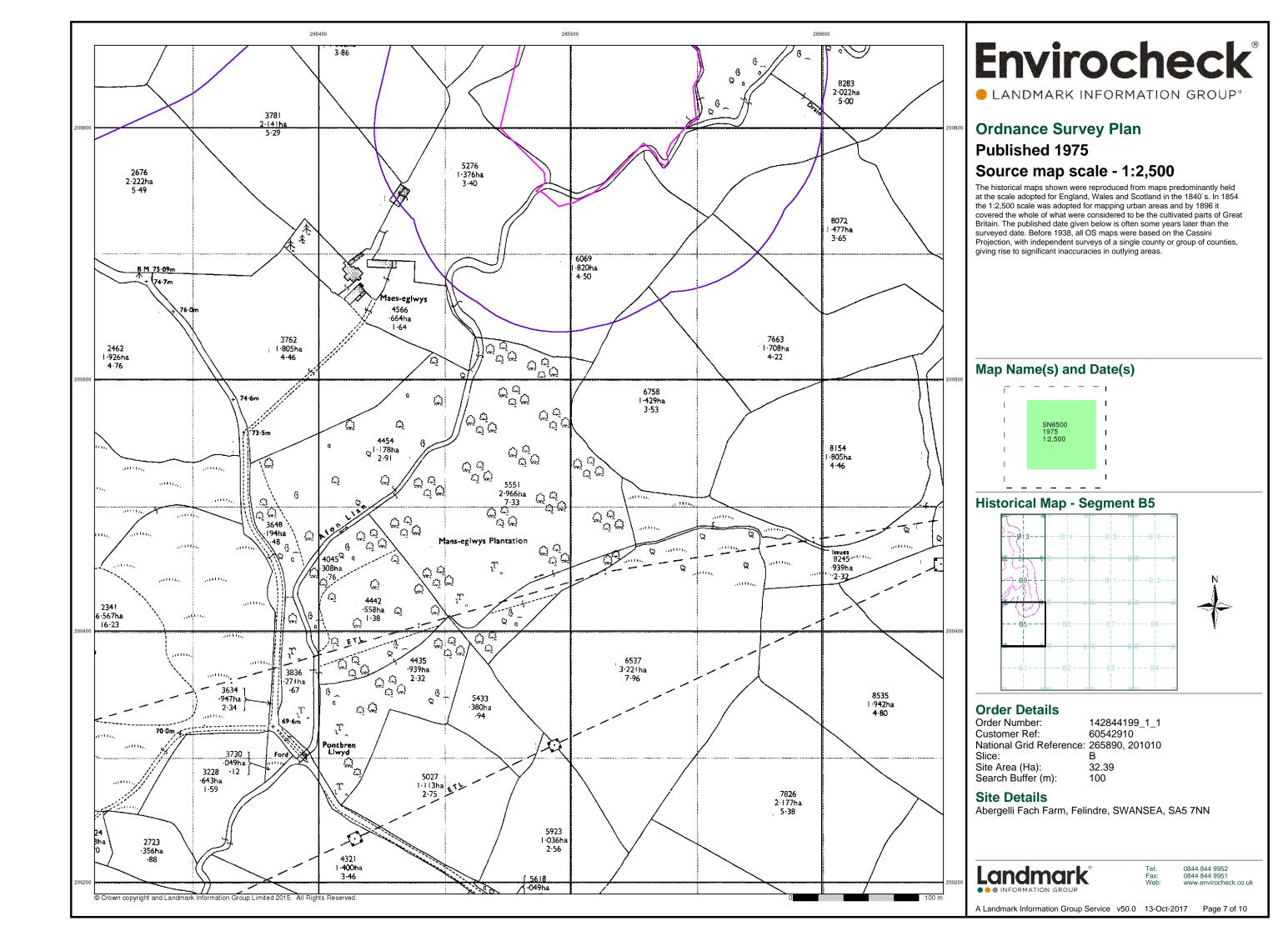
A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 10

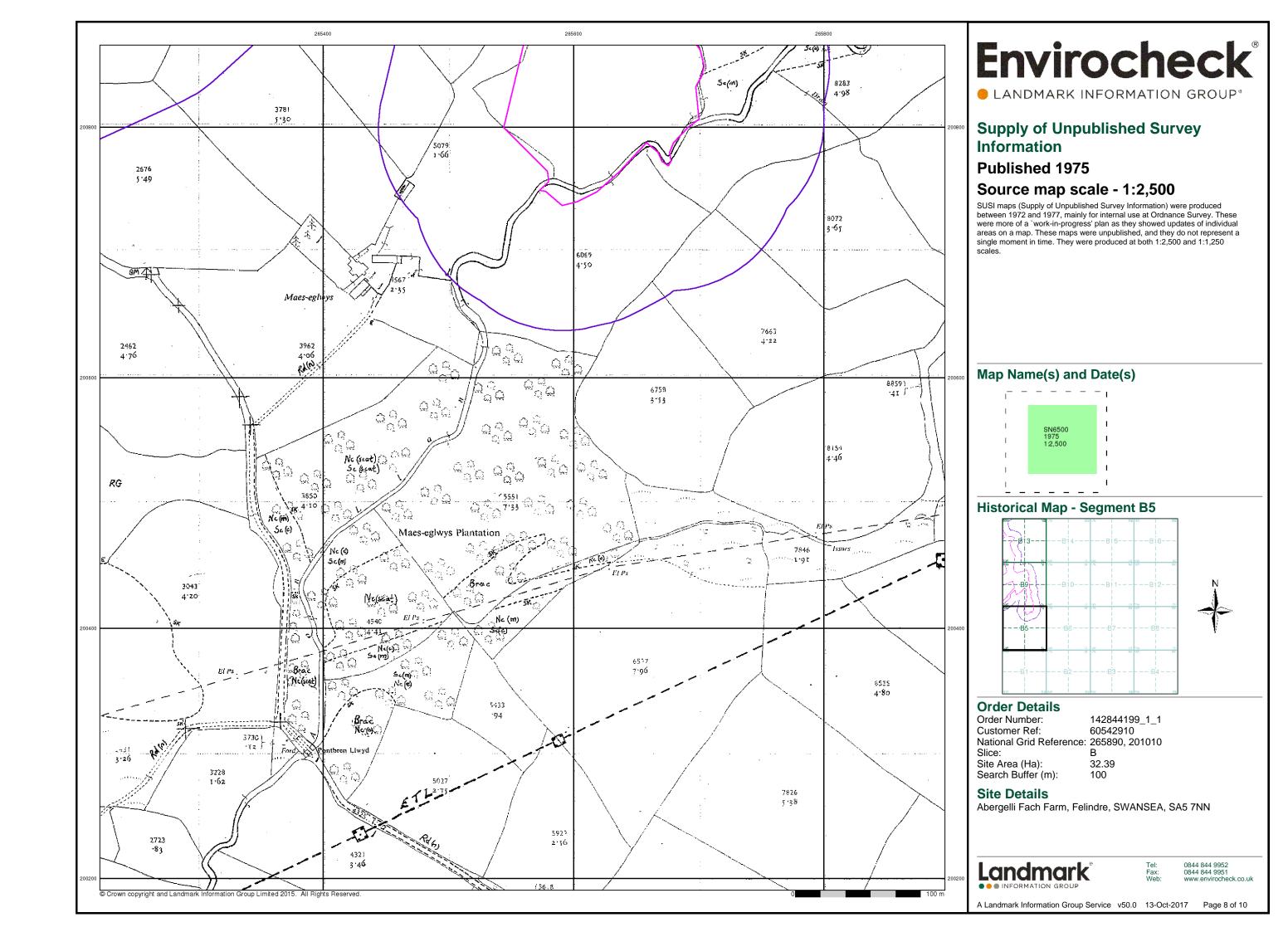


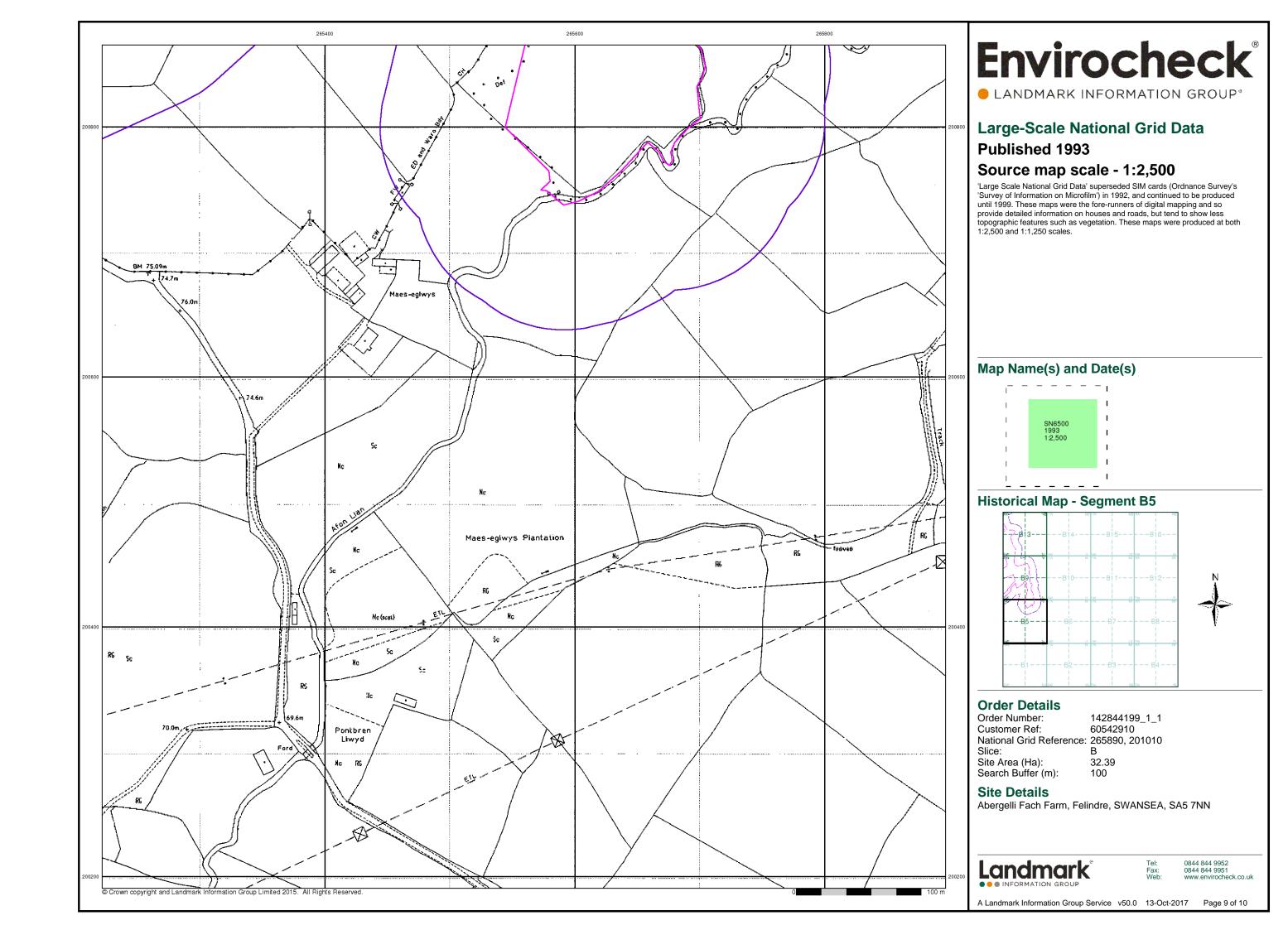


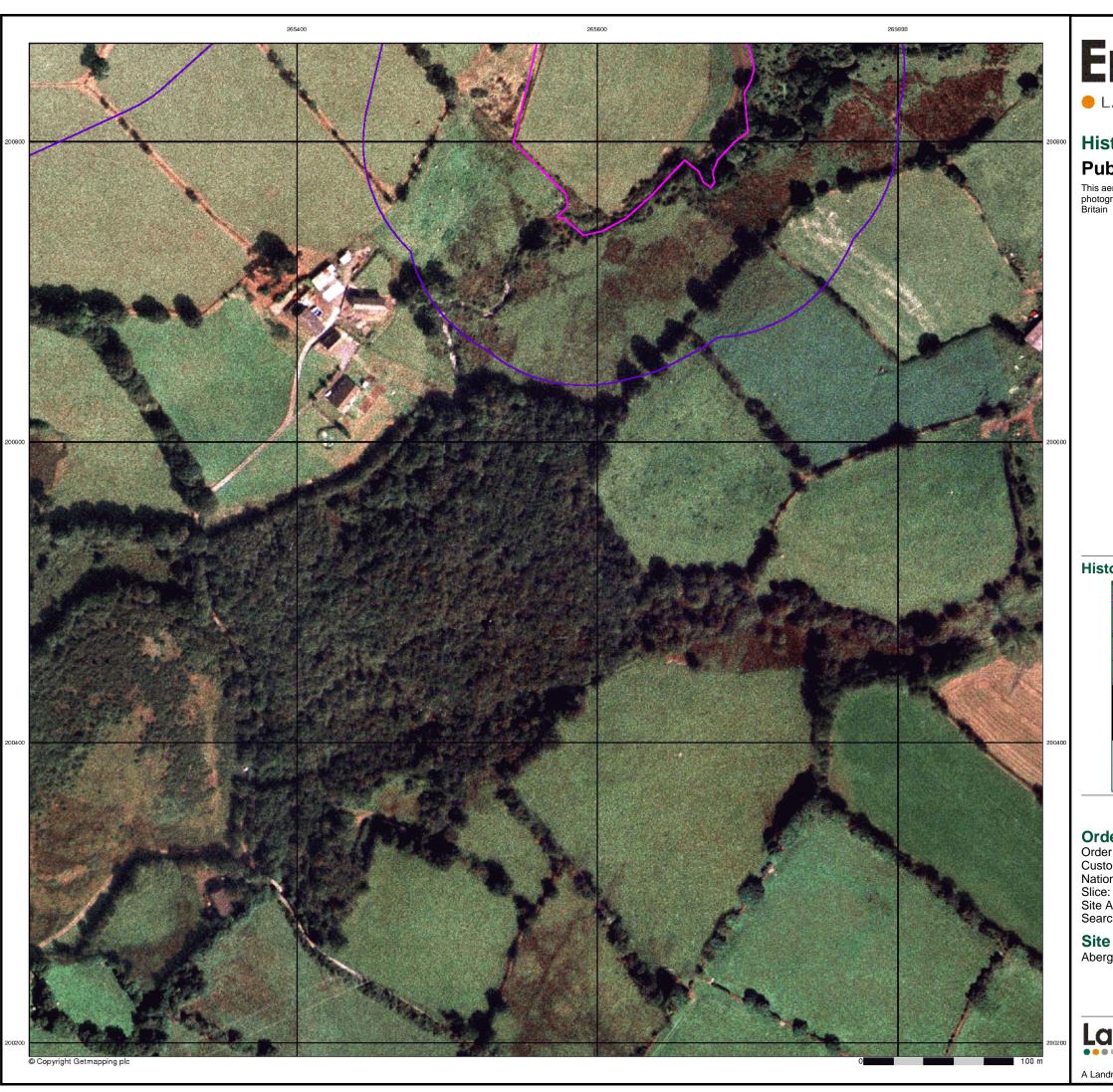










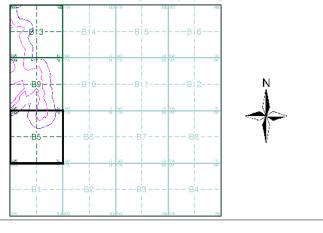


LANDMARK INFORMATION GROUP®

### **Historical Aerial Photography** Published 2000

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

### **Historical Aerial Photography - Segment B5**



### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 10

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

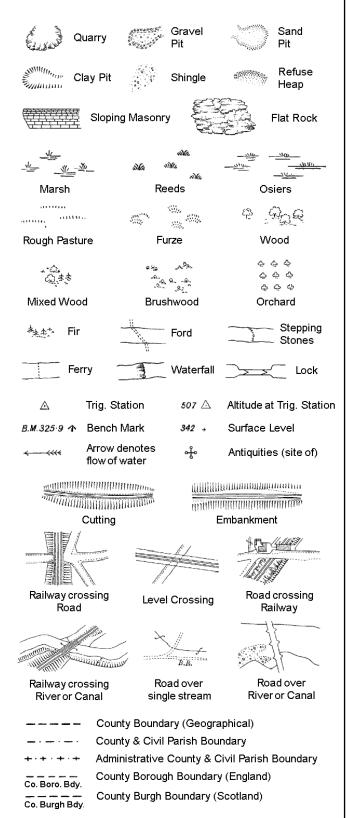
Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

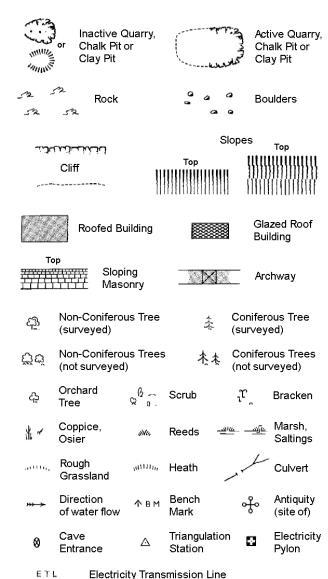
Trough Well

S.P

Sl.

 $T_{T}$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



**Electricity Transmission Line** 

County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

### 1:1,250

| بالمثند                                | لكناسات                  |  |                        | pes                 | Тор                     |
|--|--------------------------|--|------------------------|---------------------|-------------------------|
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Cliff                    |  | Top                    |                     |                         |
| 32                                     | Rock                     |  | 23                     | Rock (s             | cattered)               |
| $\Box_{\Delta}$                        | Boulders                 |  | Δ.                     | Boulder             | s (scattered)           |
|  | Positioned               | l Boulder                                |                        | Scree               |                         |
| <u>ය</u> ු                             | Non-Conit                | erous Tree<br>)                          | *                      | Conifer<br>(survey  | ous Tree<br>ed)         |
| Ďΰ                                     | Non-Conit<br>(not surve  | erous Trees<br>yed)                      | 杰杰                     | Conifer<br>(not sur | ous Trees<br>∨eyed)     |
| දා                                     | Orchard<br>Tree          | Q α . S                                  | crub                   | Ĺ,                  | Bracken                 |
| * ~                                    | Coppice,<br>Osier        | seu. R                                   | eeds 🛥                 | <u> </u>            | Marsh,<br>Saltings      |
| ,000,                                  | Rough<br>Grassland       | <sub>инии</sub> , Н                      | eath                   | 1                   | Culvert                 |
| <del>*** &gt;</del>                    | Direction<br>of water fl |  | riangulatior<br>tation | ું નુ               | Antiquity<br>(site of)  |
| ETL_                                   | Electric                 | city Transmissi                          | on Line                | $\boxtimes$         | Electricity<br>Pylon    |
| <b>∤</b> ∤ вм                          | 1 231.6ûm                | Bench Mark                               |                        | Buildin<br>Buildin  | igs with<br>ig Seed     |
| 13.3                                   | Roof                     | ed Building                              |                        | 8 -                 | lazed Roof<br>uilding   |
|  |                          | Ci∨il parish/ce                          | ommunity b             | oundary             | ,                       |
|  |                          | District bound                           | -                      | ouridar y           |                         |
|  |                          |  | •                      |                     |                         |
| _ '                                    |                          | County bound                             | =                      |                     |                         |
| 4                                      | 0                        | Boundary pos                             | st/stone               |                     |                         |
| ٨                                      | 0                        | Boundary me<br>always appea<br>of three) |                        | ,                   |                         |
| Bks                                    | Barracks                 |  | Р                      | Pillar. Po          | ole or Post             |
| Bty                                    | Battery                  |  | PO                     | Post Off            |                         |
| Cemy                                   | Cemetery                 |  | PC                     | Public C            | Convenience             |
| Chy                                    | Chimney                  |  | Pp                     | Pump                |                         |
| Cis                                    | Cistern                  |  | Ppg Sta                |                     | g Station               |
| Dismtd F                               | -                        | itled Railway                            | PW                     |                     | Worship                 |
| El Gen S                               | Sta Electric<br>Station  | ity Generating                           | Sewage P               |                     | ewage<br>umping Station |
| EIP                                    | Electricity              | Pole, Pillar                             | SB, S Br               |                     | Box or Bridge           |
| El Sub S                               | ta Electricity           | Sub Station                              | SP, SL                 | Signal F            | ost or Light            |
| FB                                     | Filter Bed               |  | Spr                    | Spring              |                         |
| EW/DE                                  | . Farmetein              | Daimbin a Cha                            |                        |                     |                         |

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

Mile Post or Mile Stone

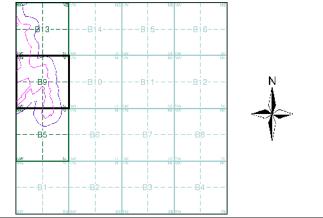
## **Envirocheck®**

LANDMARK INFORMATION GROUP®

### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1877        | 2  |
| Glamorganshire                           | 1:2,500 | 1899        | 3  |
| Glamorganshire                           | 1:2,500 | 1918        | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1961 - 1962 | 6  |
| Ordnance Survey Plan                     | 1:2,500 | 1975        | 7  |
| Supply of Unpublished Survey Information | 1:2,500 | 1975        | 8  |
| Additional SIMs                          | 1:2,500 | 1992        | 9  |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 10 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 11 |

### **Historical Map - Segment B9**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: Site Area (Ha): 32.39

Search Buffer (m):

100

#### **Site Details**

Tank or Track

Works (building or area)

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Tr

Wd Pp

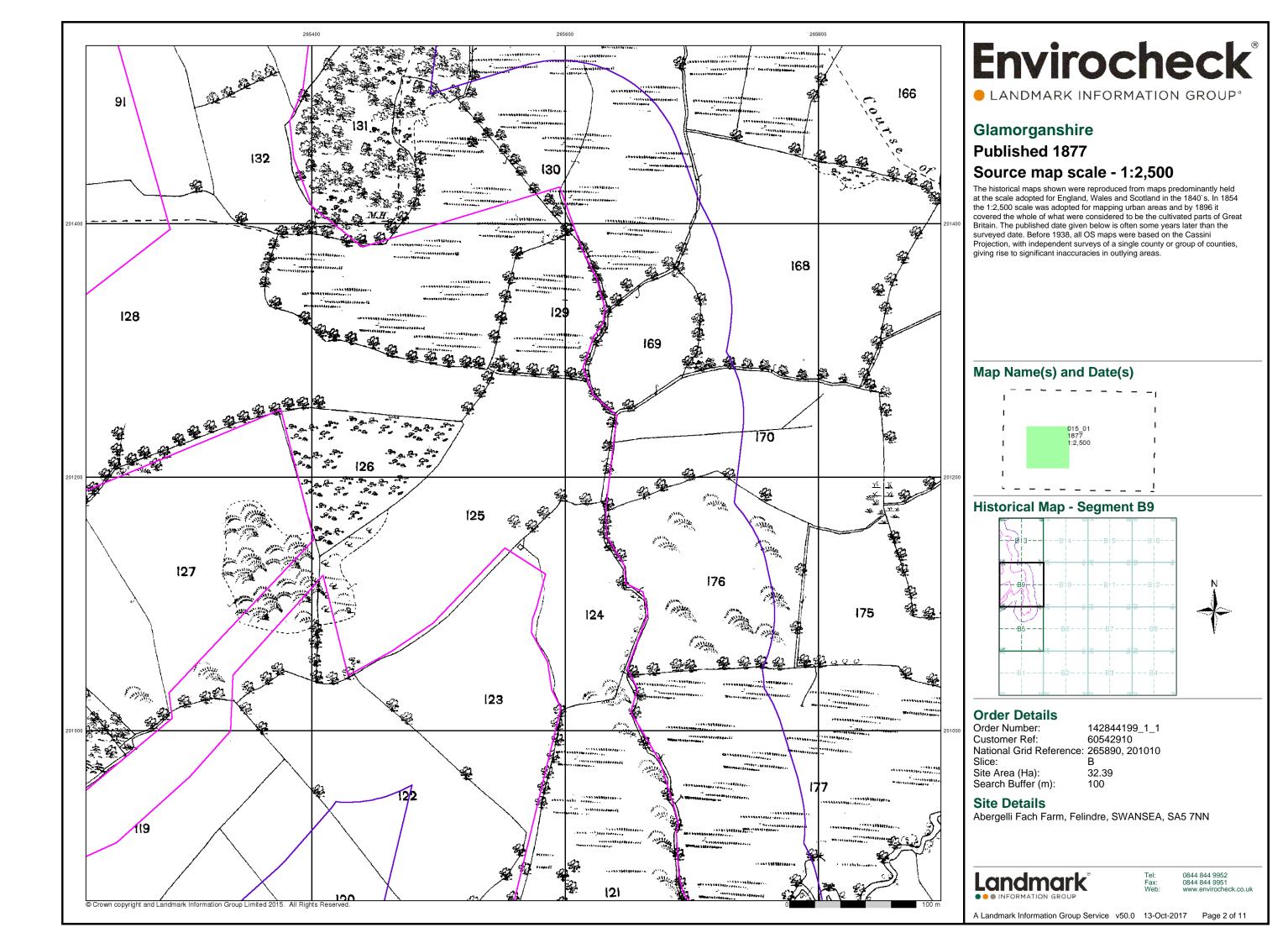
Wks

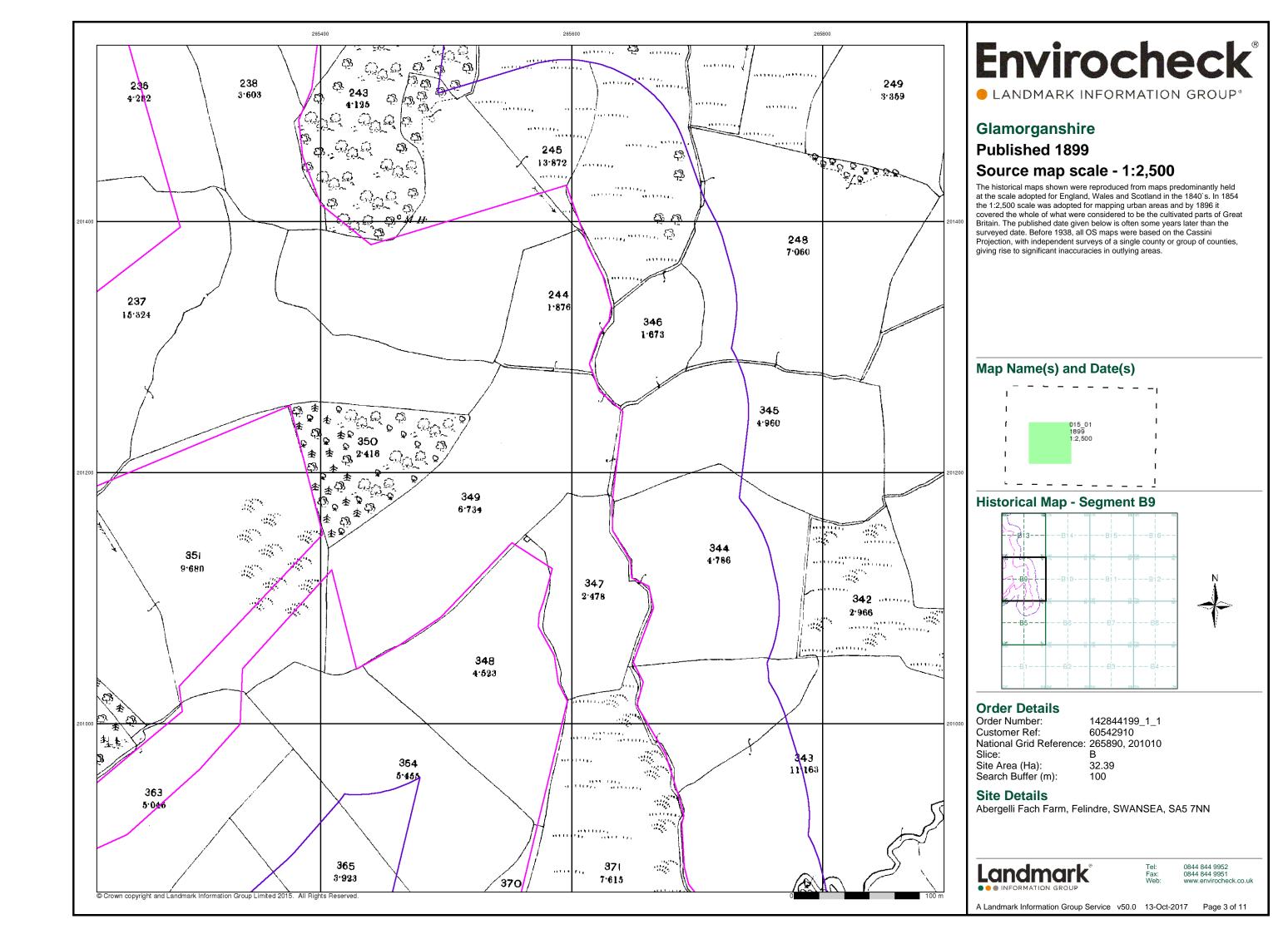
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

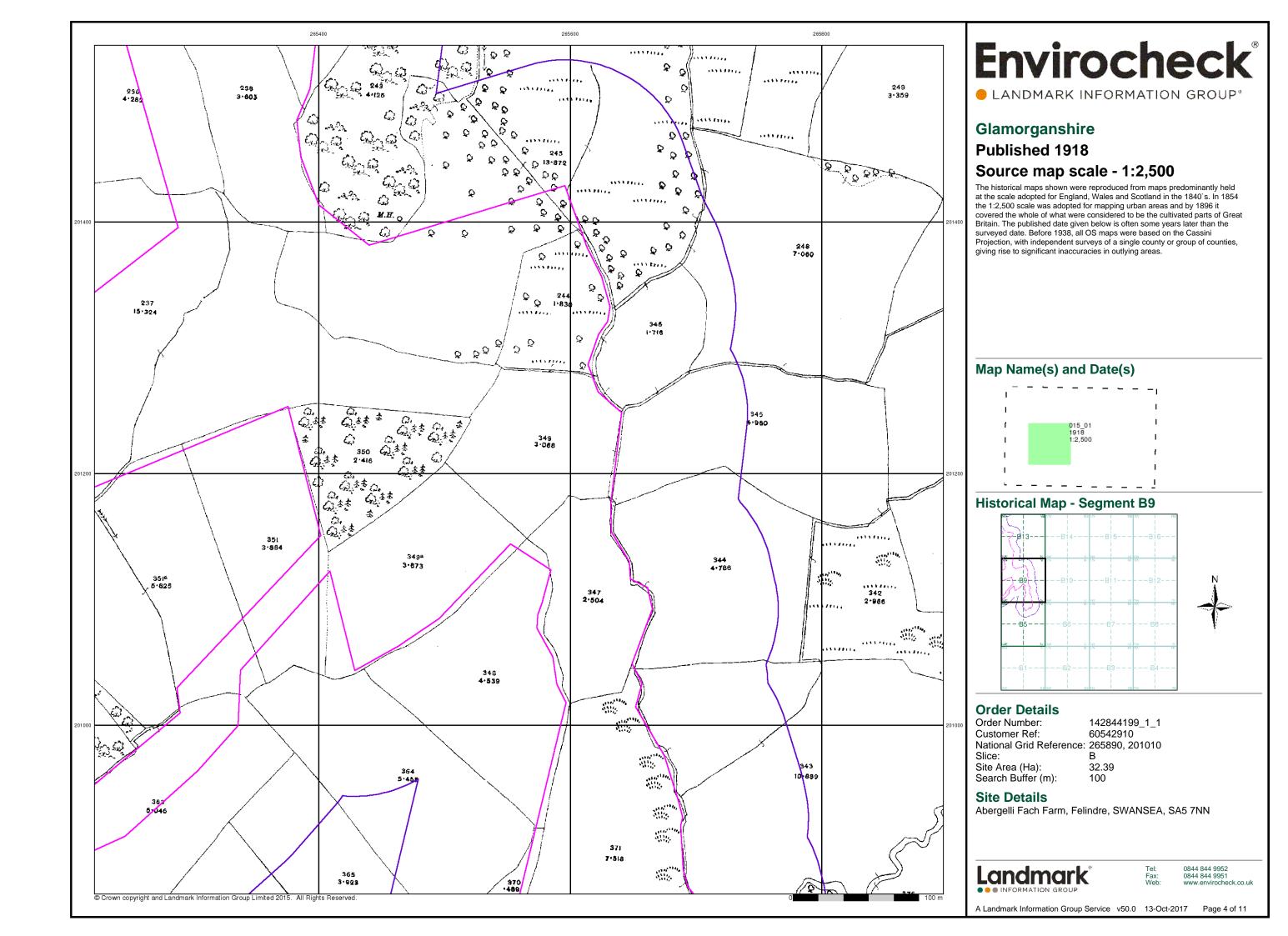


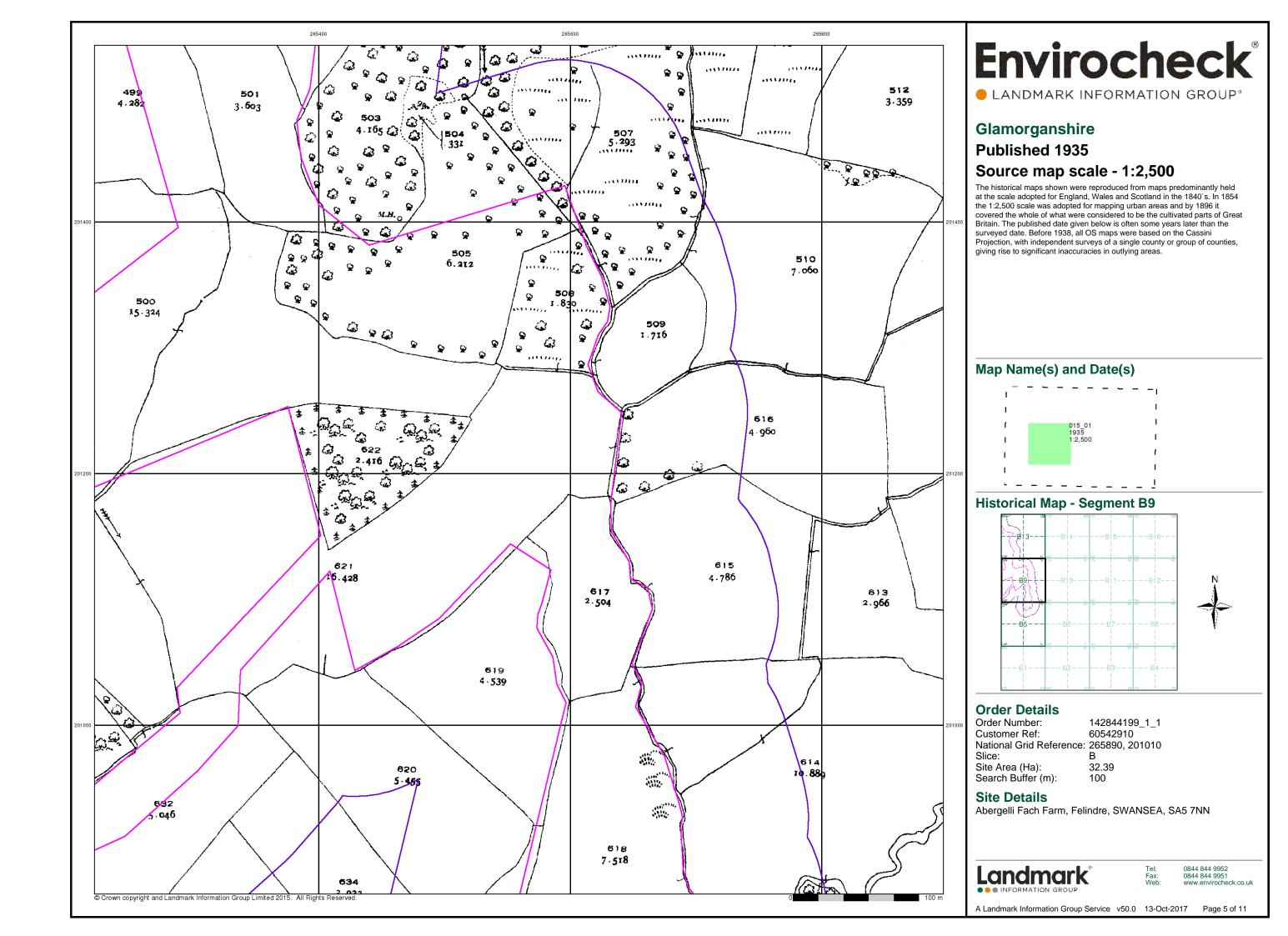
0844 844 9952 0844 844 9951

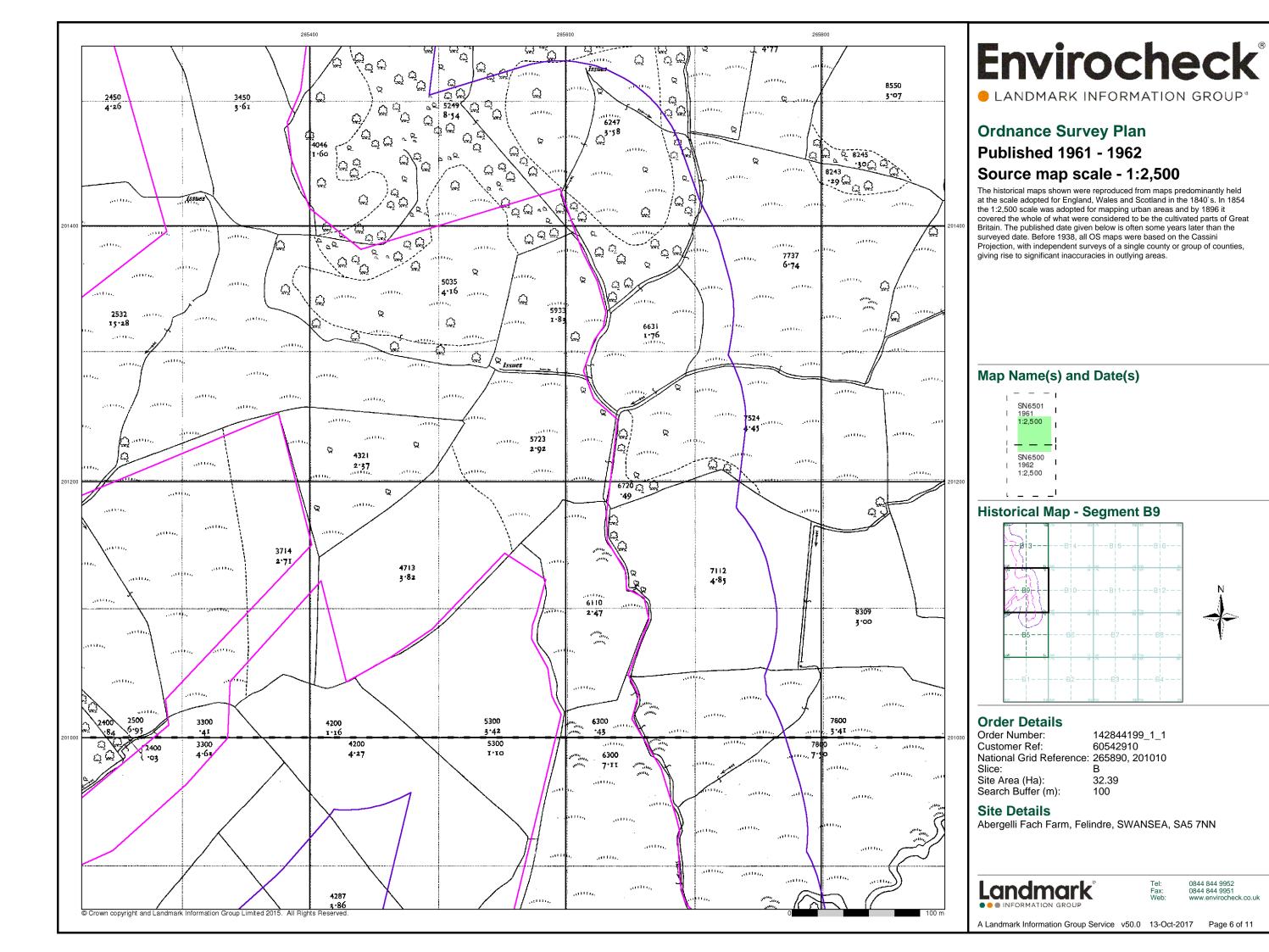
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 11

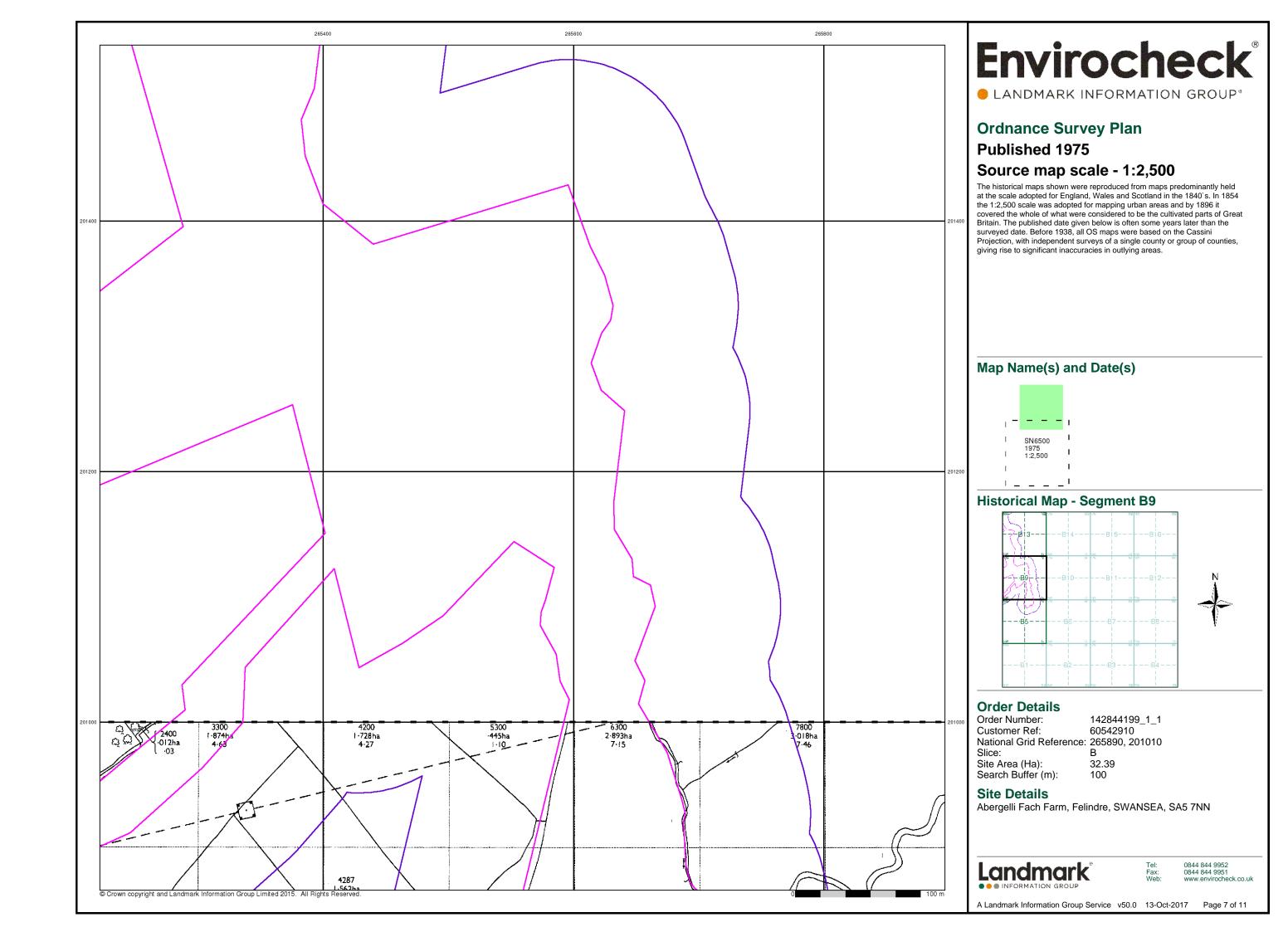


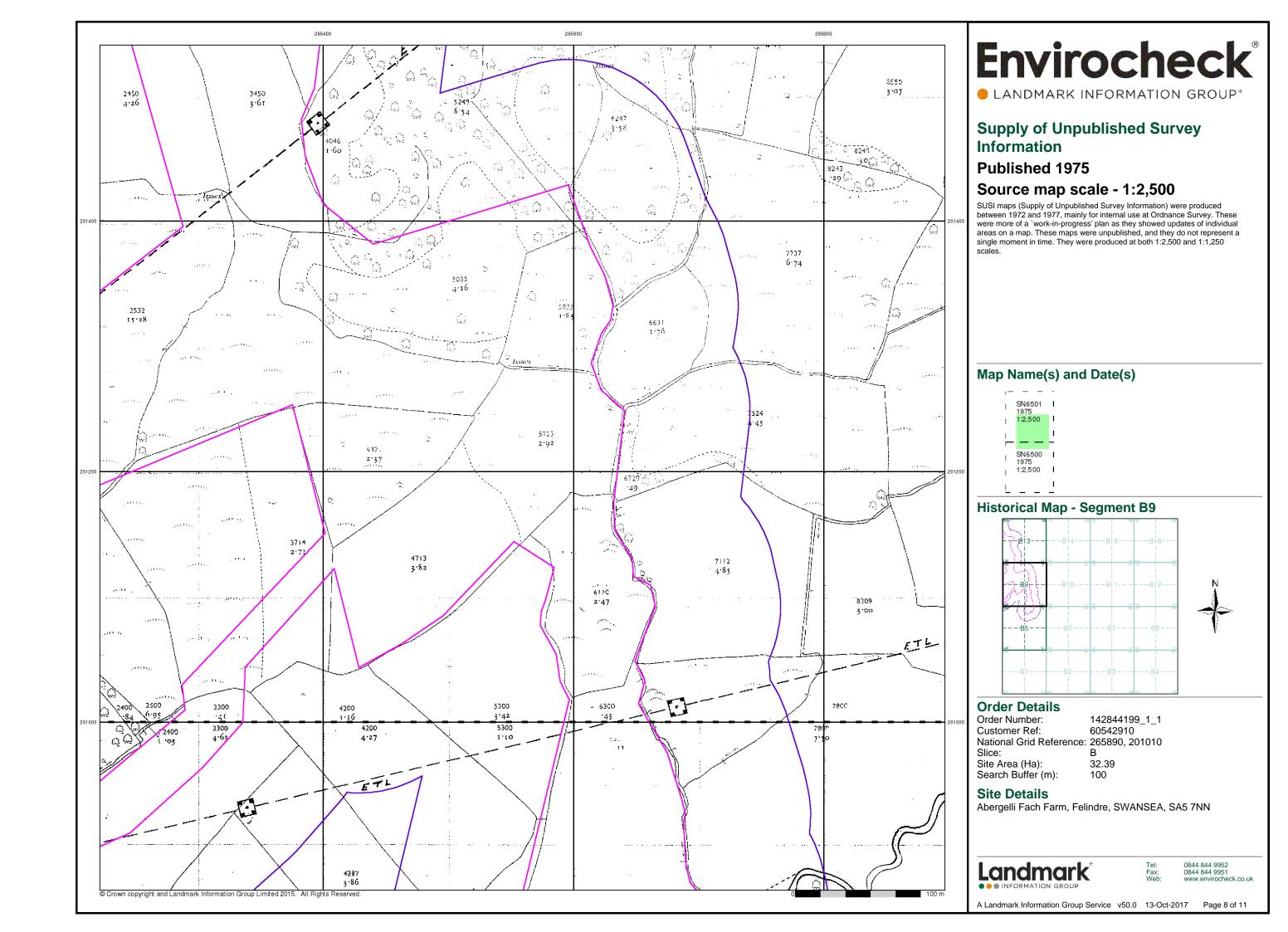


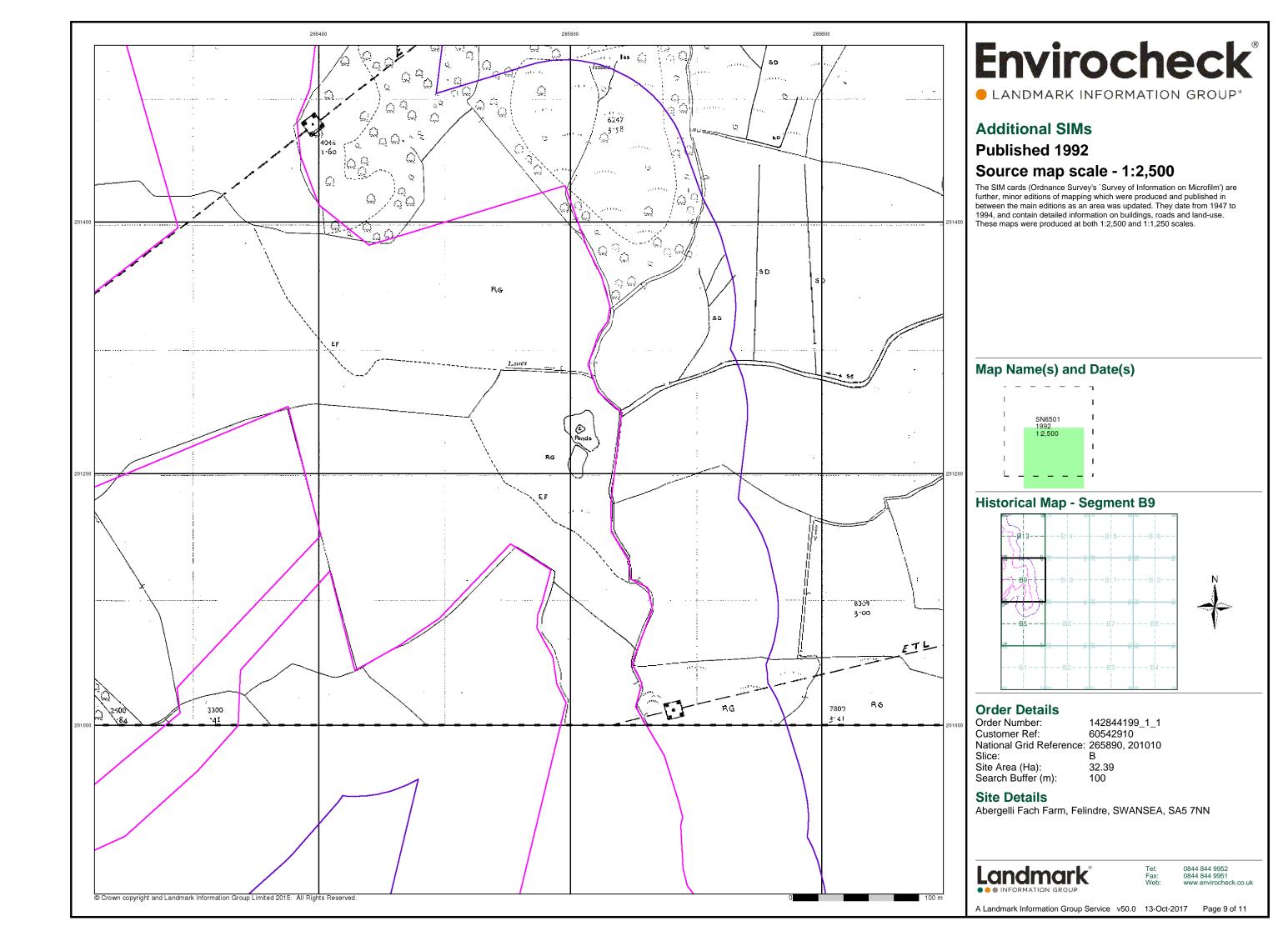


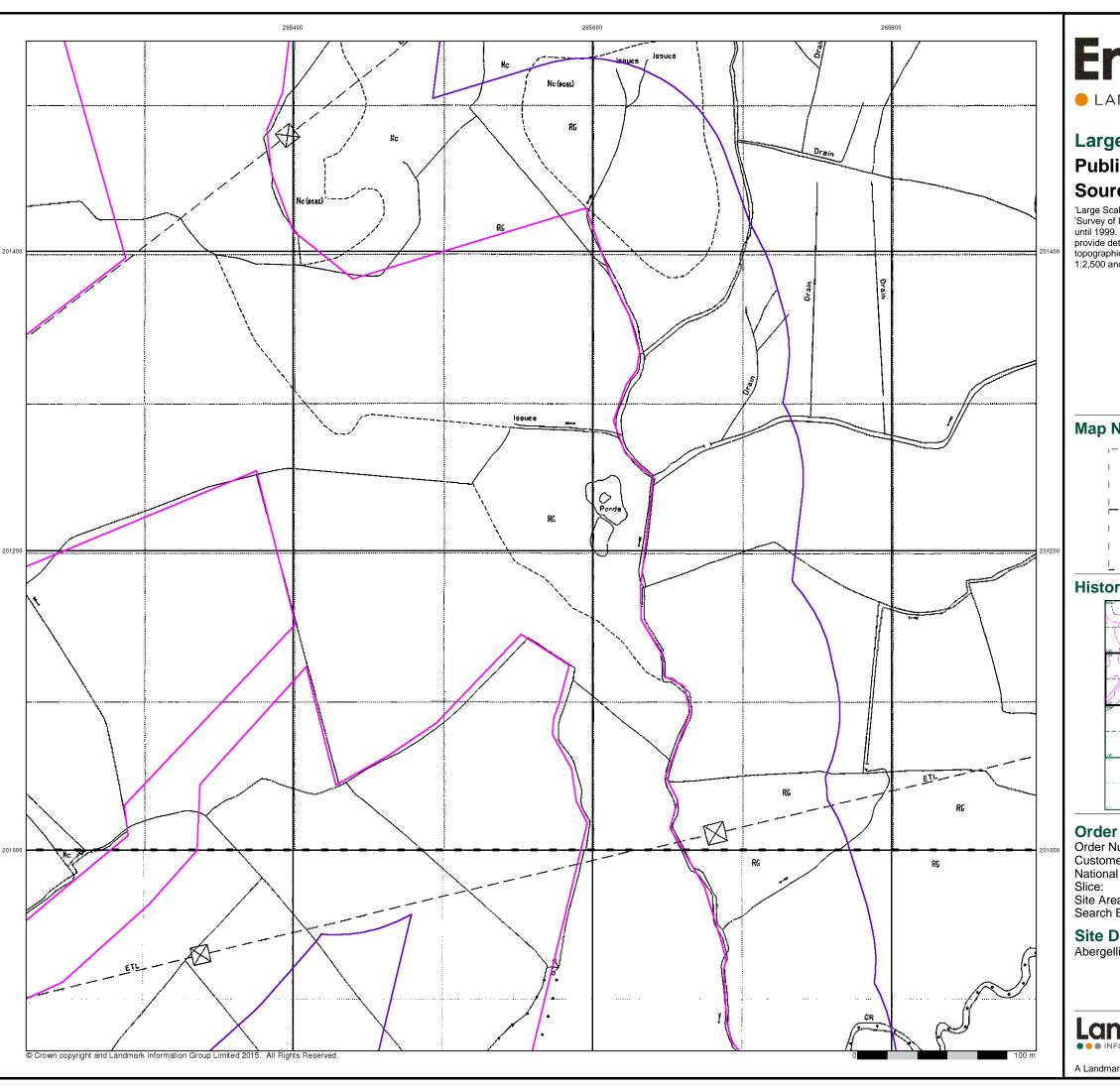












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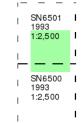
### **Large-Scale National Grid Data**

### **Published 1993**

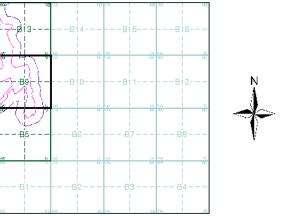
### Source map scale - 1:2,500

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

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



### **Historical Map - Segment B9**



### **Order Details**

142844199\_1\_1 60542910 Order Number: Customer Ref: National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m):

32.39

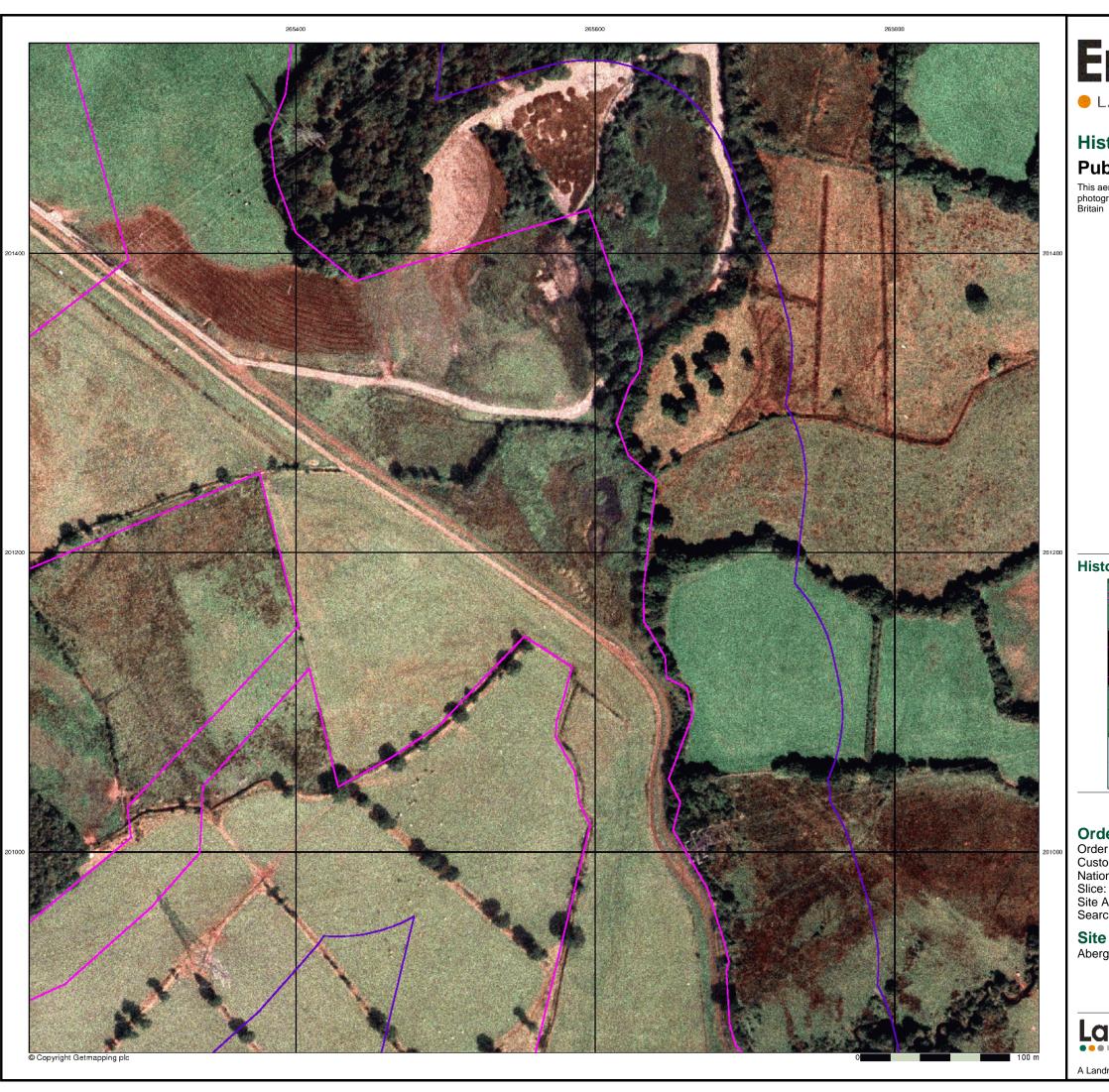
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 11

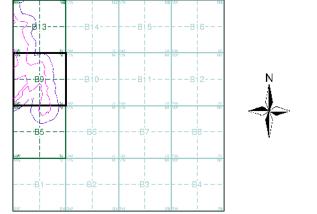


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### **Historical Aerial Photography** Published 2000

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

### **Historical Aerial Photography - Segment B9**



### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39 100

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 11

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

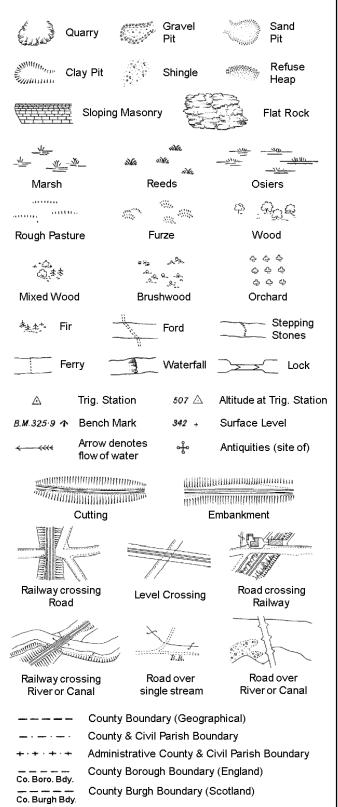
Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

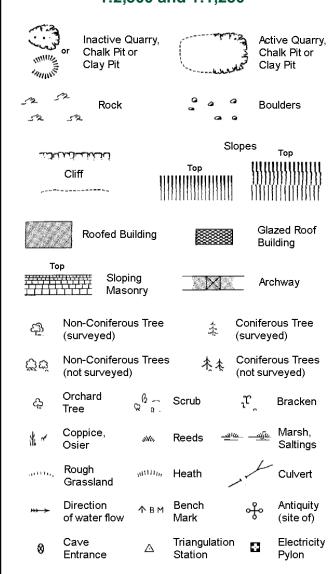
S.P

T.C.B

Sl.

 $T_T$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



### **Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary

Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

Fn/DFn

GVC

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

Gas Governer

**Guide Post** 

Manhole

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

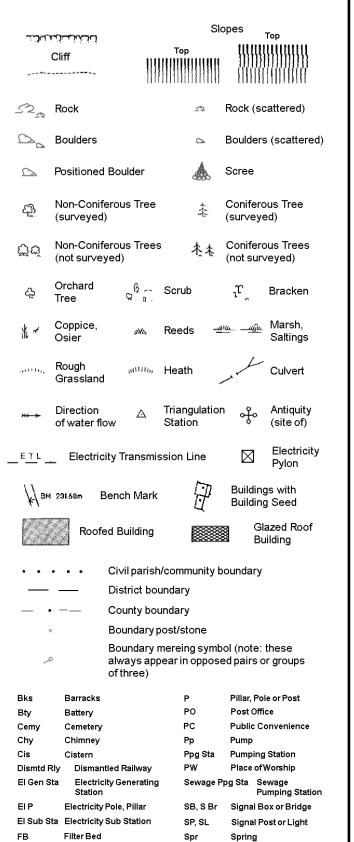
Works (building or area)

Tr

Wd Pp

Wks

### 1:1,250



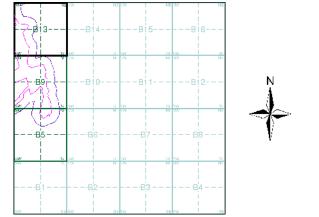
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LANDMARK INFORMATION GROUPS

### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1877        | 2  |
| Glamorganshire                           | 1:2,500 | 1898 - 1899 | 3  |
| Glamorganshire                           | 1:2,500 | 1918        | 4  |
| Glamorganshire                           | 1:2,500 | 1935        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1961        | 6  |
| Supply of Unpublished Survey Information | 1:2,500 | 1975        | 7  |
| Additional SIMs                          | 1:2,500 | 1992        | 8  |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 9  |
| Historical Aerial Photography            | 1:2,500 | 2000        | 10 |

### **Historical Map - Segment B13**



#### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: Site Area (Ha): 32.39

Search Buffer (m):

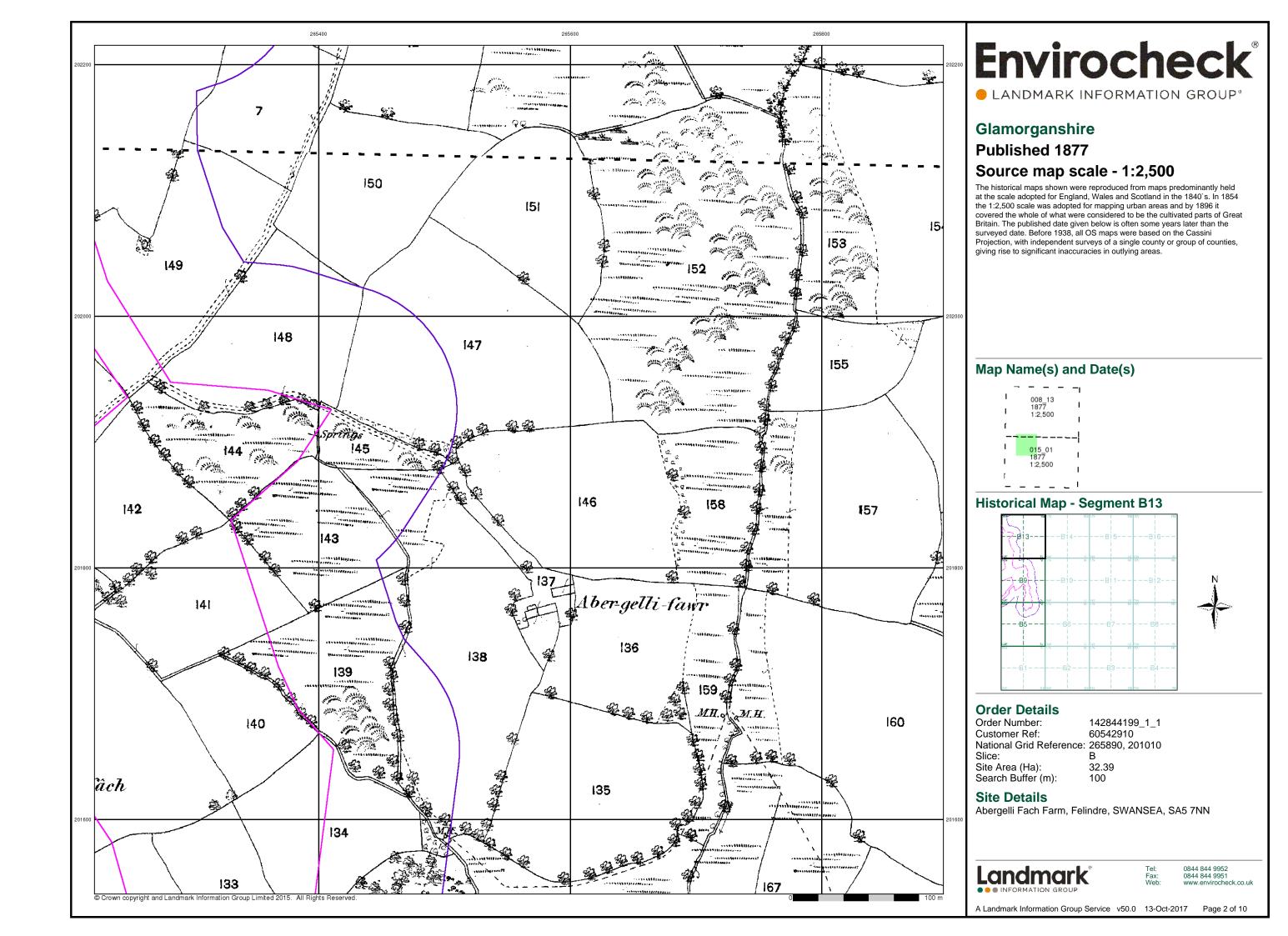
Site Details Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

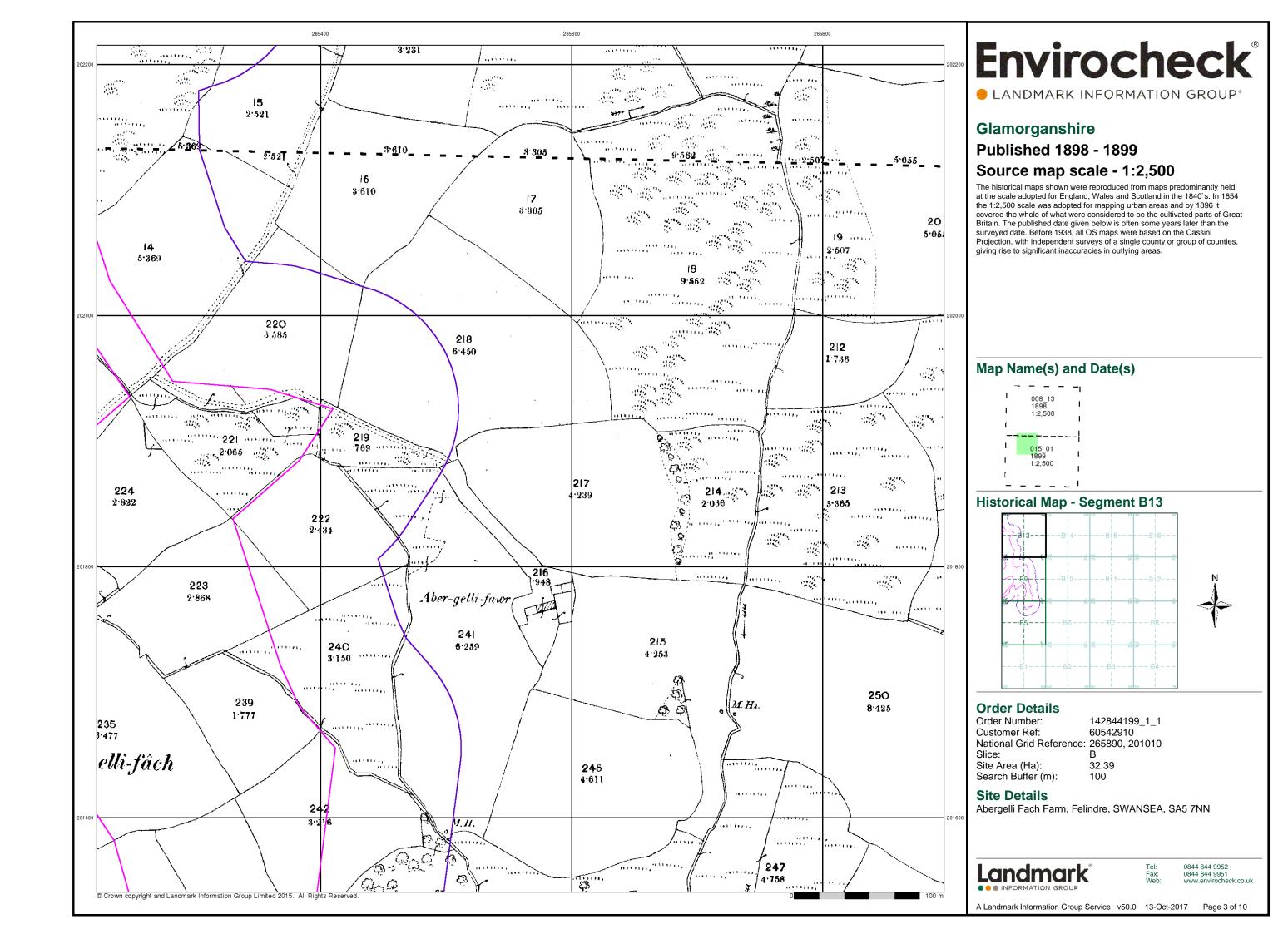
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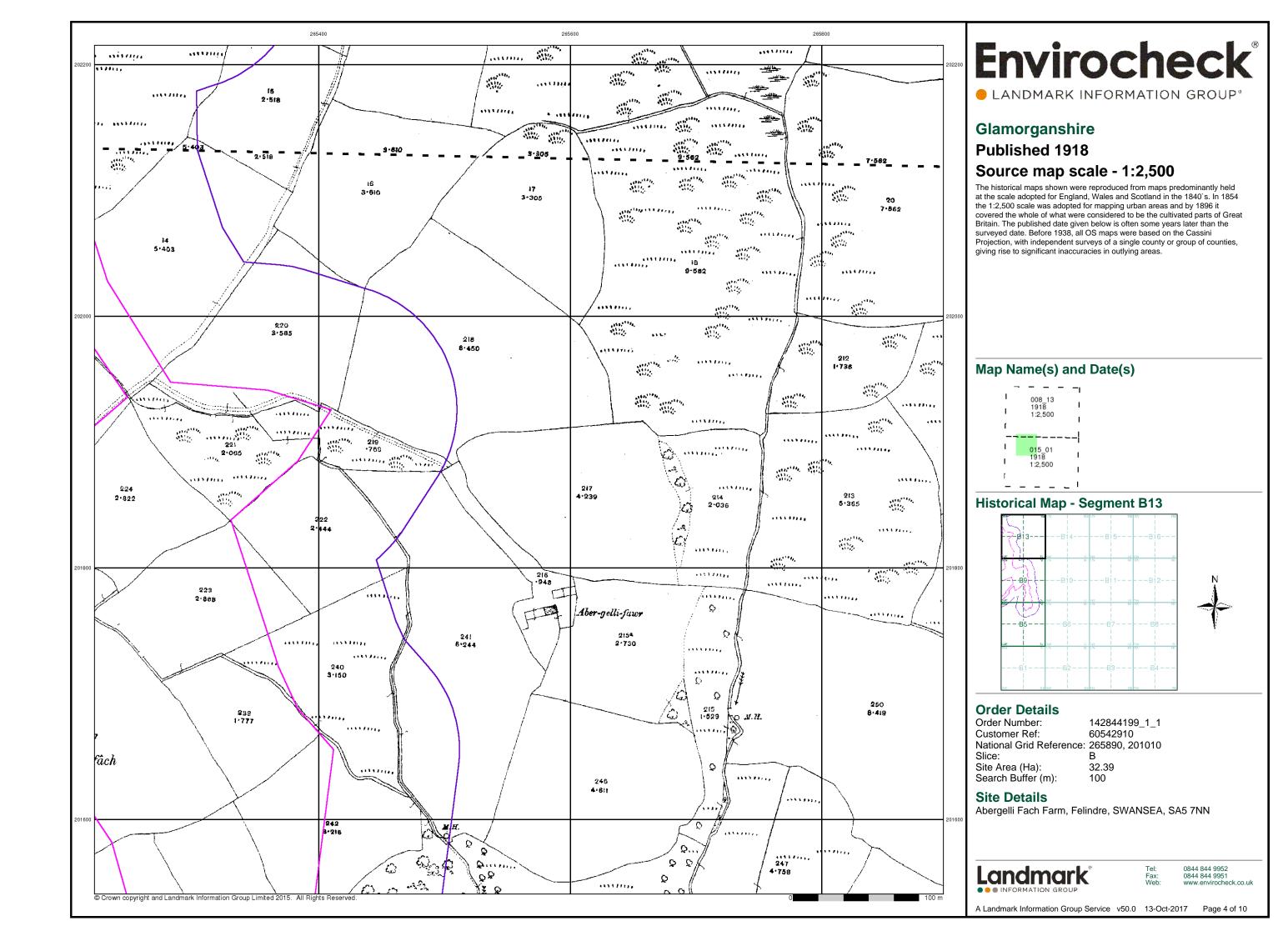


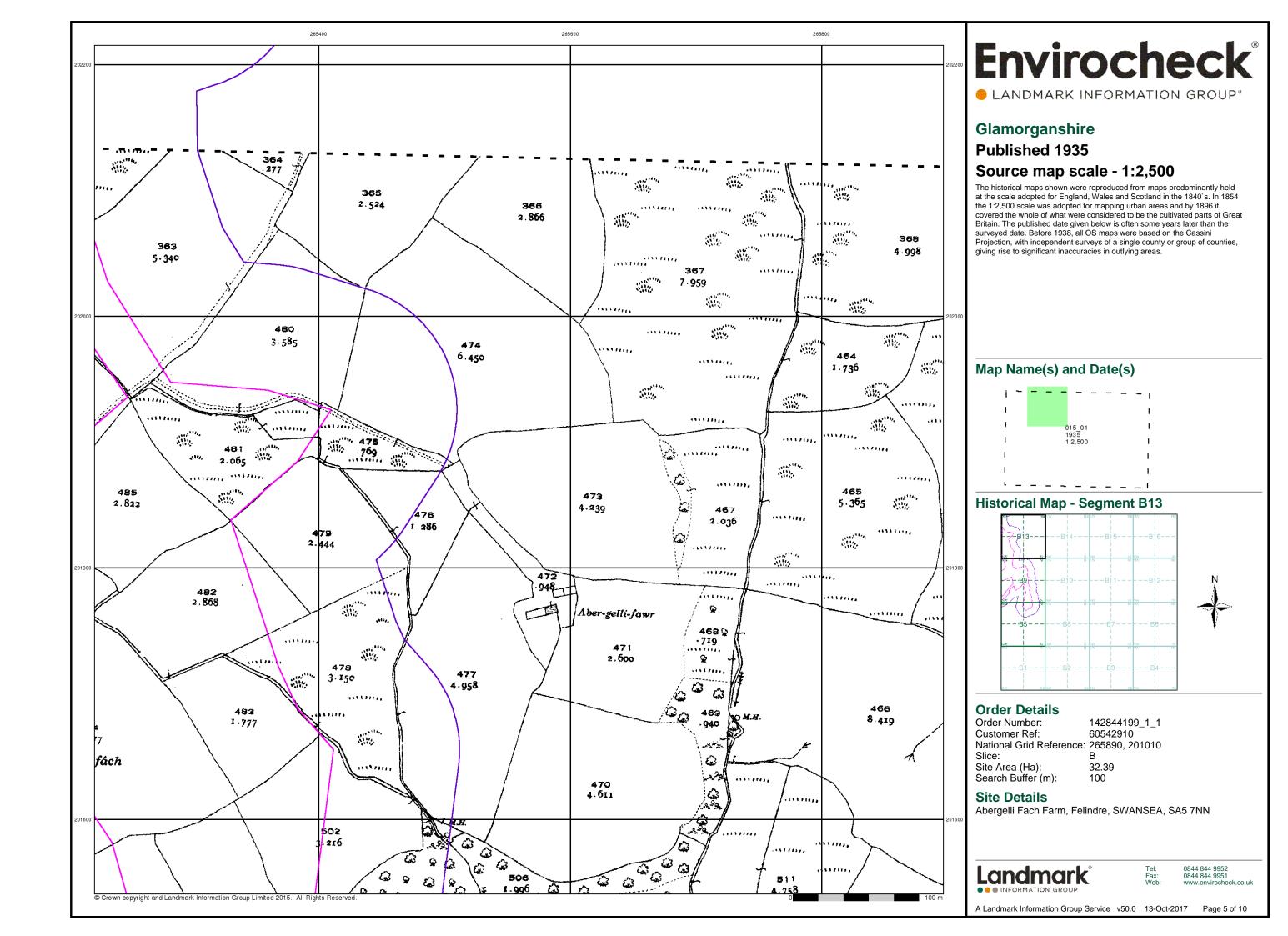
0844 844 9952 0844 844 9951

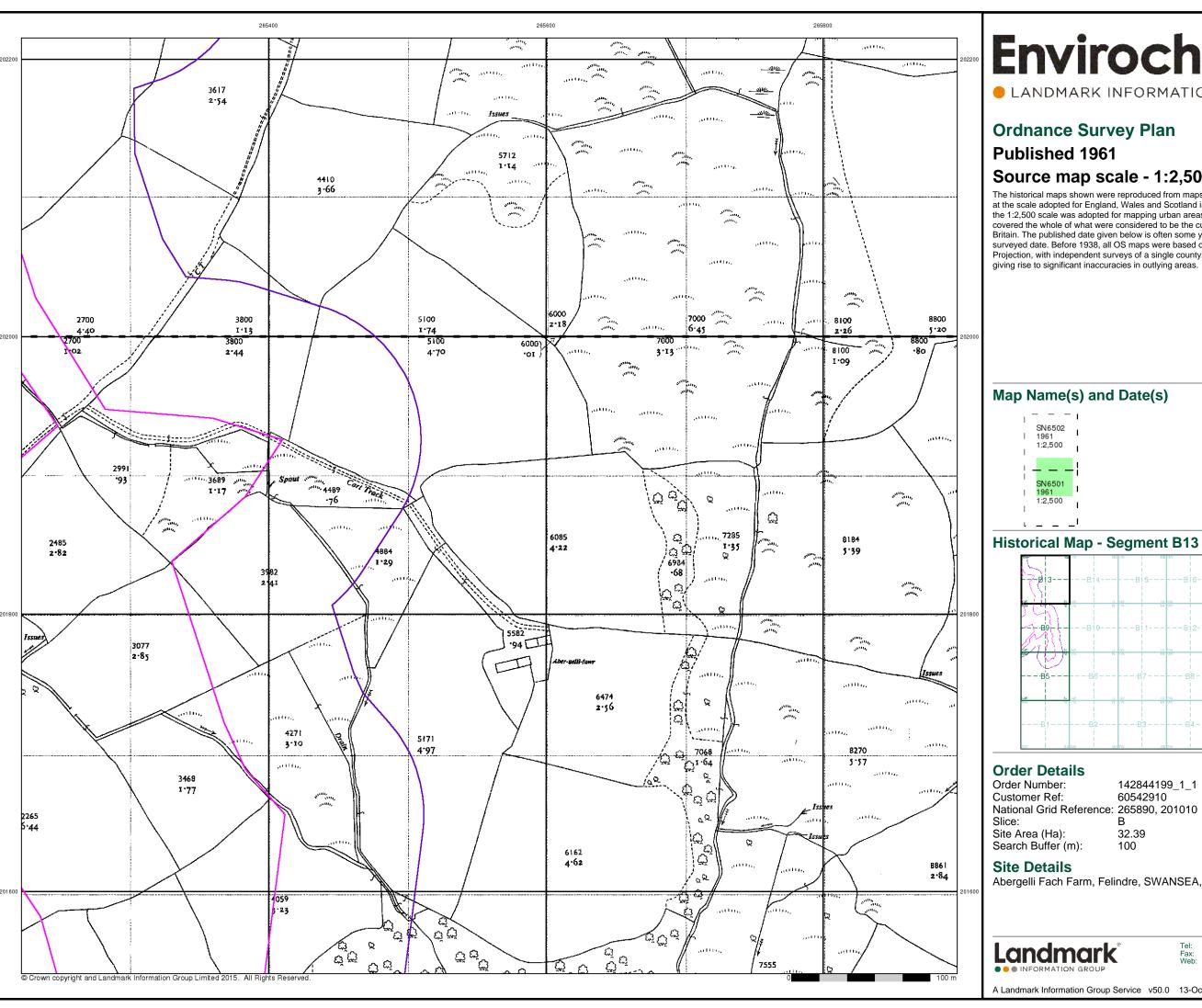
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 10









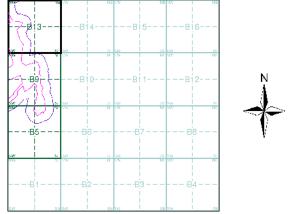


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### **Ordnance Survey Plan**

### Source map scale - 1:2,500

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



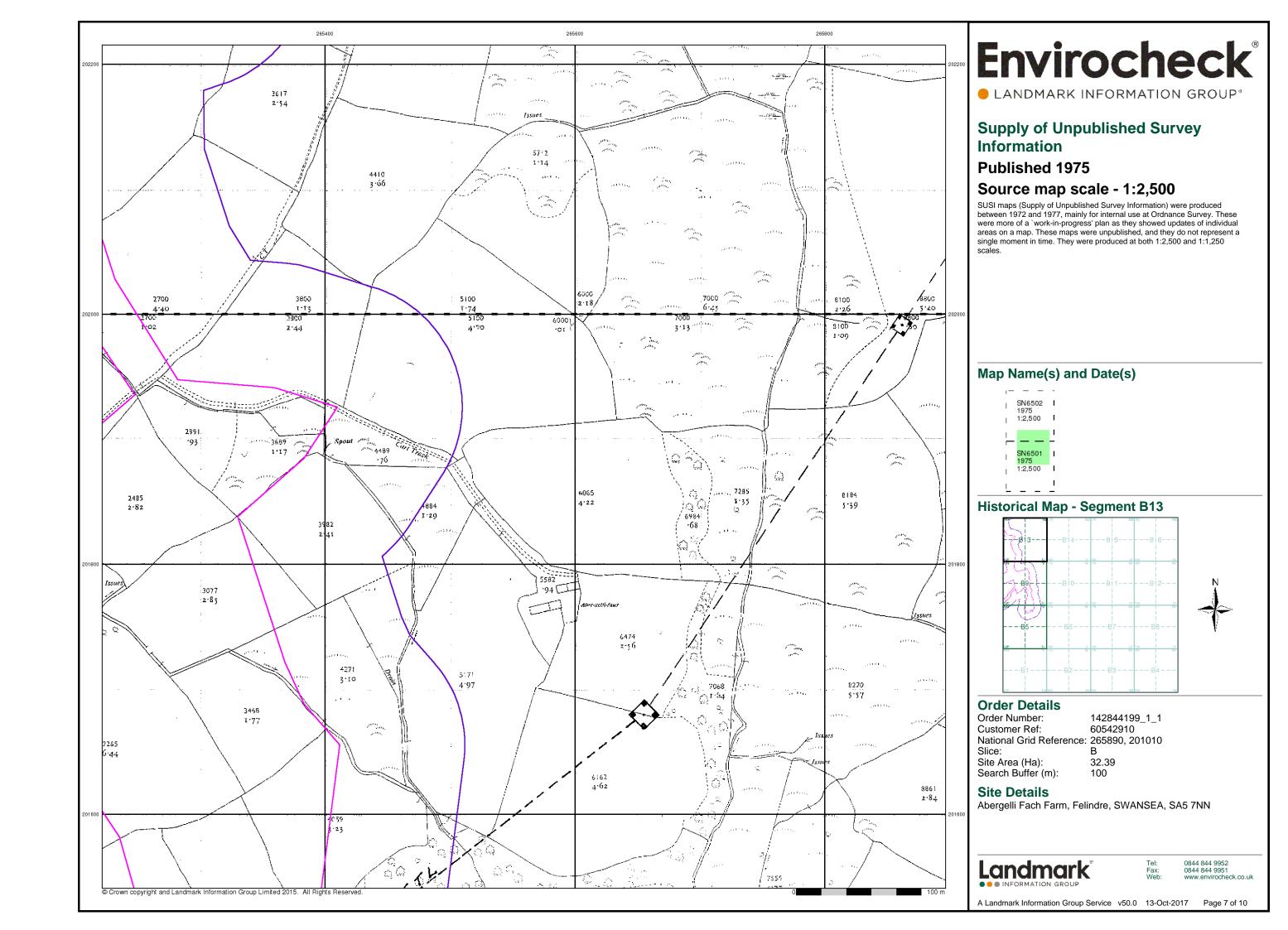
142844199\_1\_1 60542910 National Grid Reference: 265890, 201010

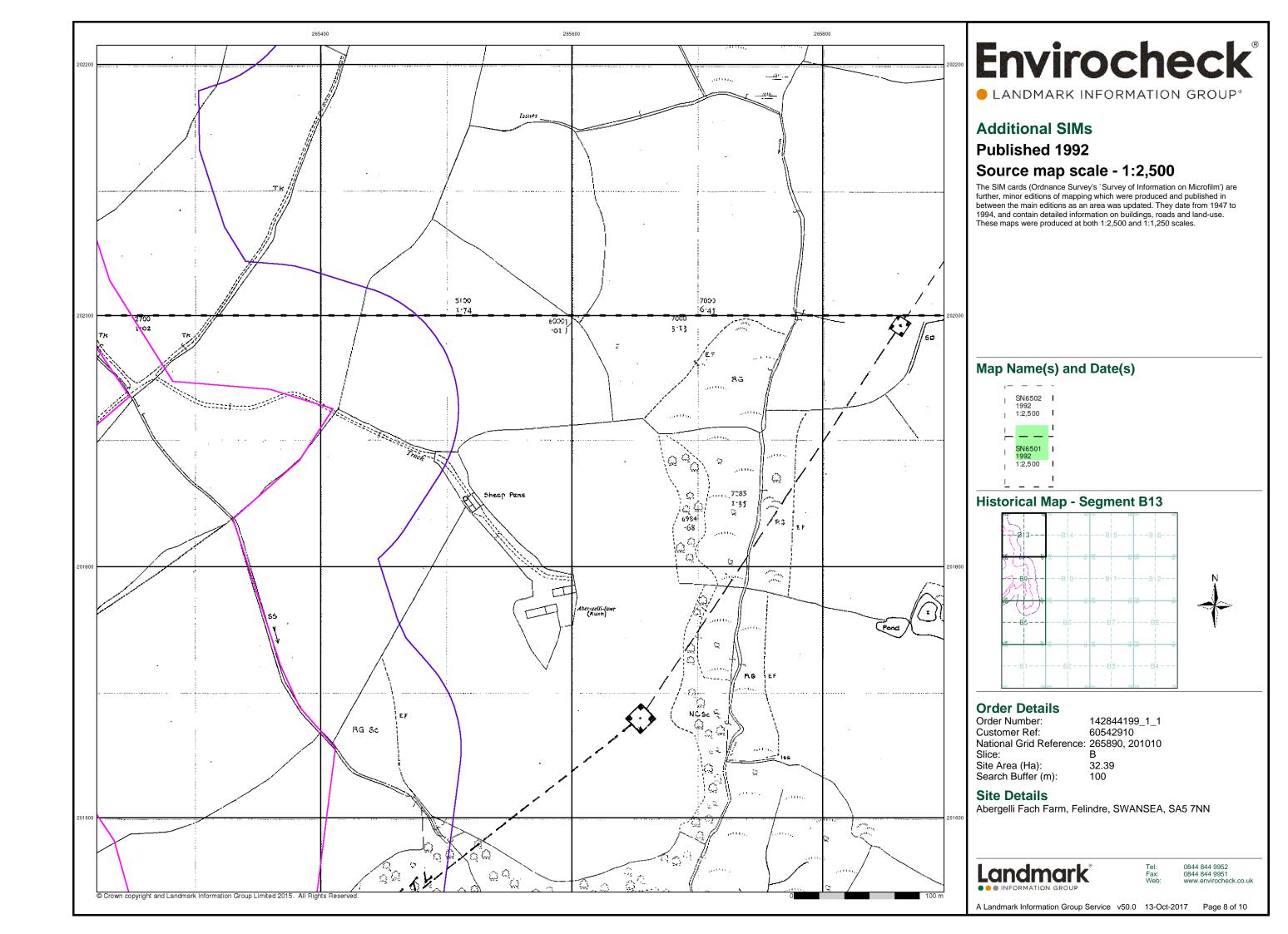
32.39

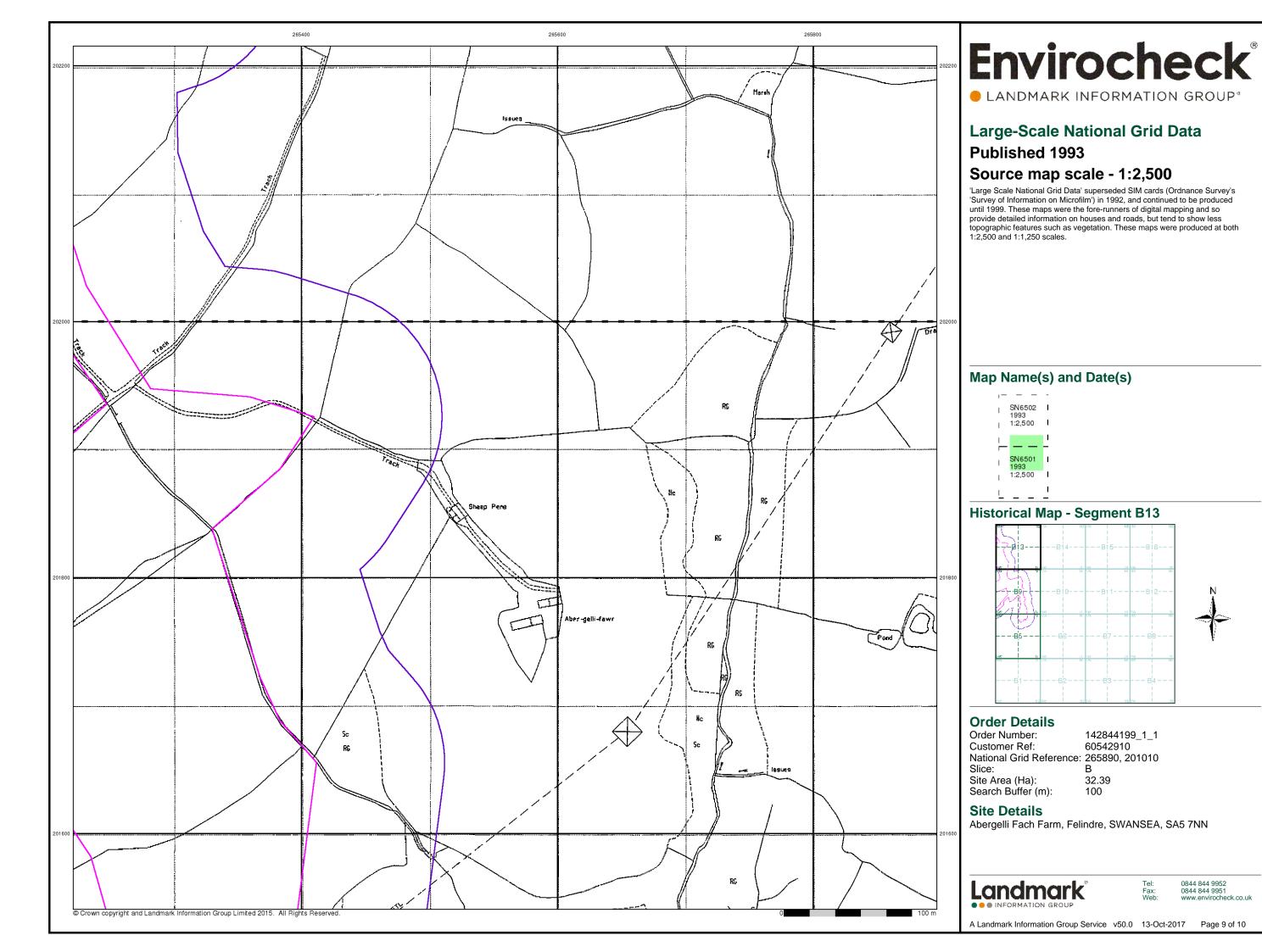
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

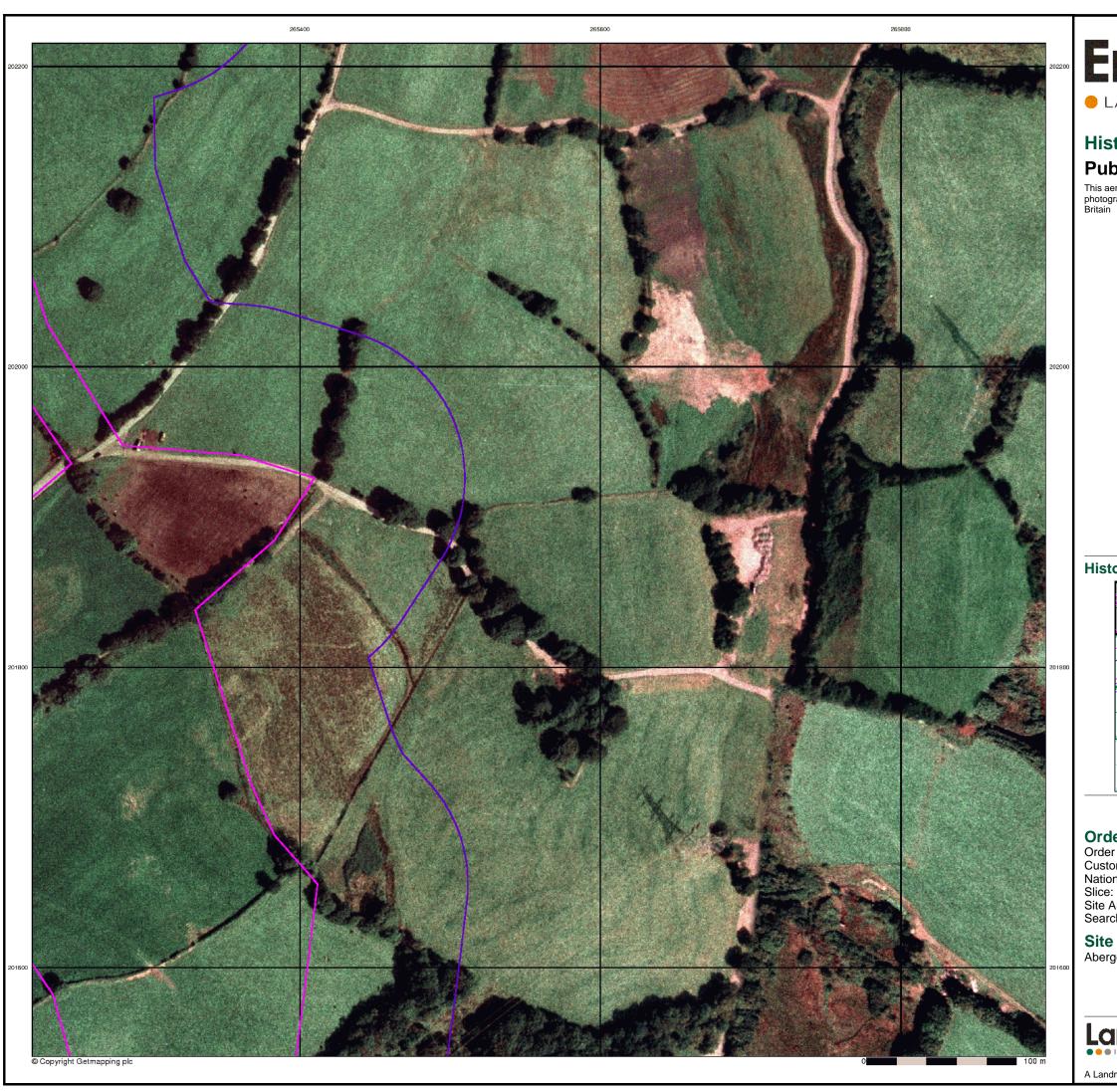
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A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 10







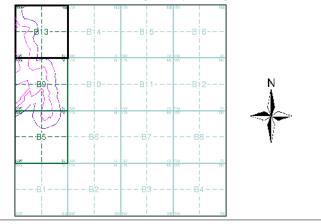


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### **Historical Aerial Photography** Published 2000

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

#### **Historical Aerial Photography - Segment B13**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 10

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500



C

## **Geology 1:10,000 Maps Legends**

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                 | Rock Type                      | Min and Max Age            |
|---------------|----------|---------------------------|--------------------------------|----------------------------|
|               | WGR      | Worked Ground (Undivided) | Void                           | Holocene - Holocene        |
|               | MGR      | Made Ground (Undivided)   | Artificial Deposit             | Holocene - Holocene        |
|               | SLIP     | Landslide Deposit         | Unknown/Unclassifie<br>d Entry | Quaternary -<br>Quaternary |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age                |
|---------------|----------|---|---|--------------------------------|
|               | SUPNM    | Superficial Theme Not<br>Mapped [For Digital Map Use<br>Only] | Unknown/Unclassifie<br>d Entry                  | Not Supplied - Not<br>Supplied |
|               | ALV      | Alluvium  | Clay, Silt, Sand and<br>Gravel                  | Flandrian -<br>Pleistocene     |
|               | TILLD    | Till, Devensian   | Diamicton                                       | Devensian -<br>Ipswichian      |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                          | Sand and Gravel                                 | Devensian -<br>Ipswichian      |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Ryazanian      |
|               | RTDU     | River Terrace Deposits (Undifferentiated)                     | Sand and Gravel                                 | Quaternary -<br>Ryazanian      |
|               | ALF      | Alluvial Fan Deposits   | Sand and Gravel                                 | Quaternary -<br>Ryazanian      |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                         | Min and Max Age                  |
|---------------|----------|---------------------|-----------------------------------|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | Fault    |                     |                                   |                                  |
|               | Rock     |                     |                                   |                                  |

## **Envirocheck®**

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#### **Geology 1:10,000 Maps**

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

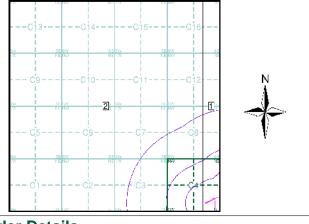
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### Geology 1:10,000 Maps Coverage

Map ID: Map ID: Map Name: SN60SE Map Name: SN60SW Map Date: 1972 Map Date: 1966 Available Available Bedrock Geology: Bedrock Geology: Superficial Geology: Superficial Geology: Available Available Artificial Geology: Available Artificial Geology: Available Available Faults: Available Landslip: Available Landslip: Available **Rock Segments:** Available **Rock Segments:** 

#### Geology 1:10,000 Maps - Slice C



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha):

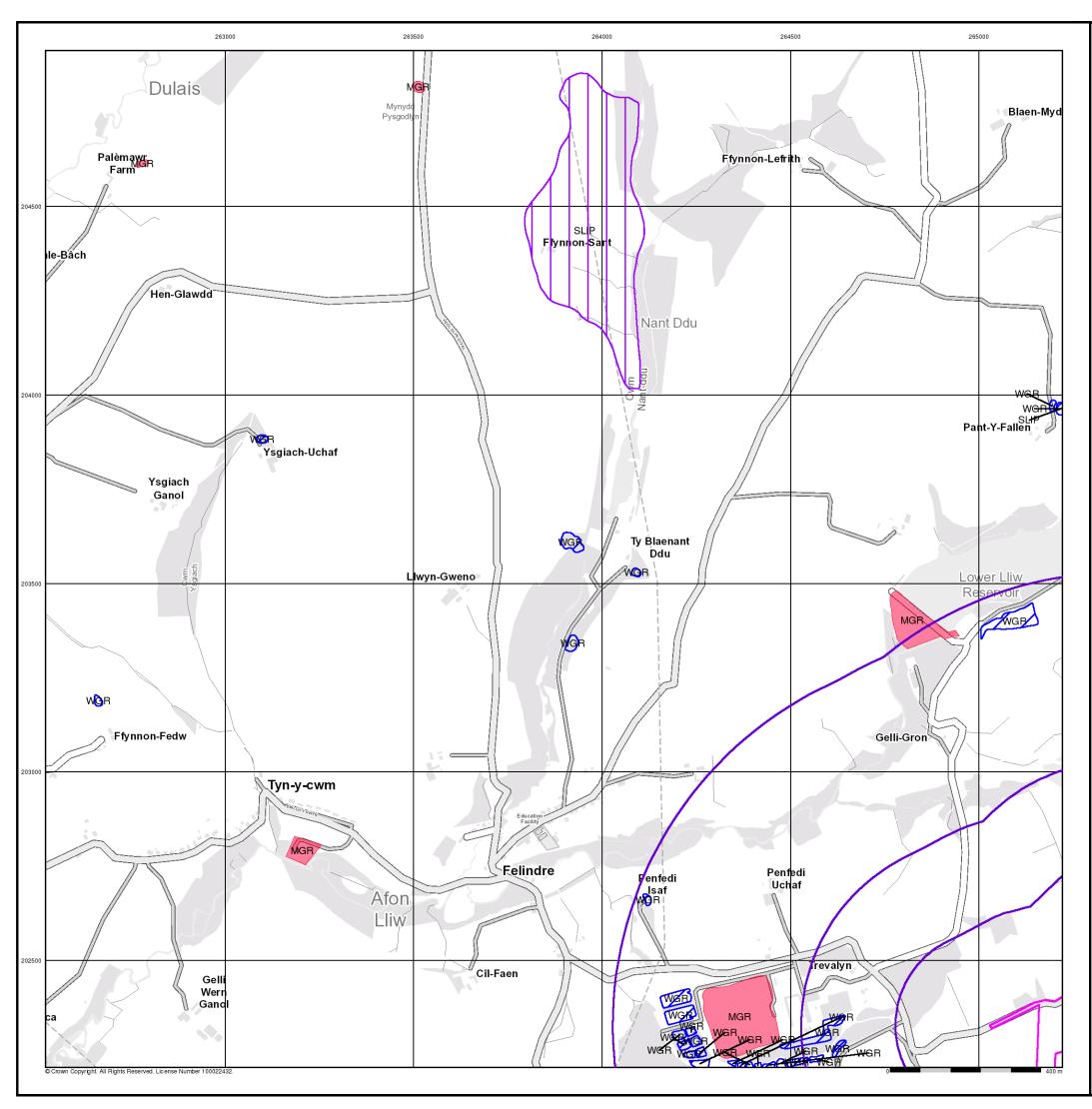
32.39 Search Buffer (m): 1000

#### **Site Details**

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#### **Artificial Ground and Landslip**

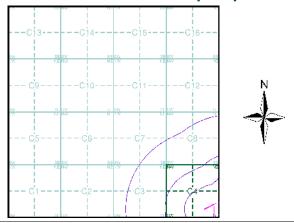
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

#### 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 C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

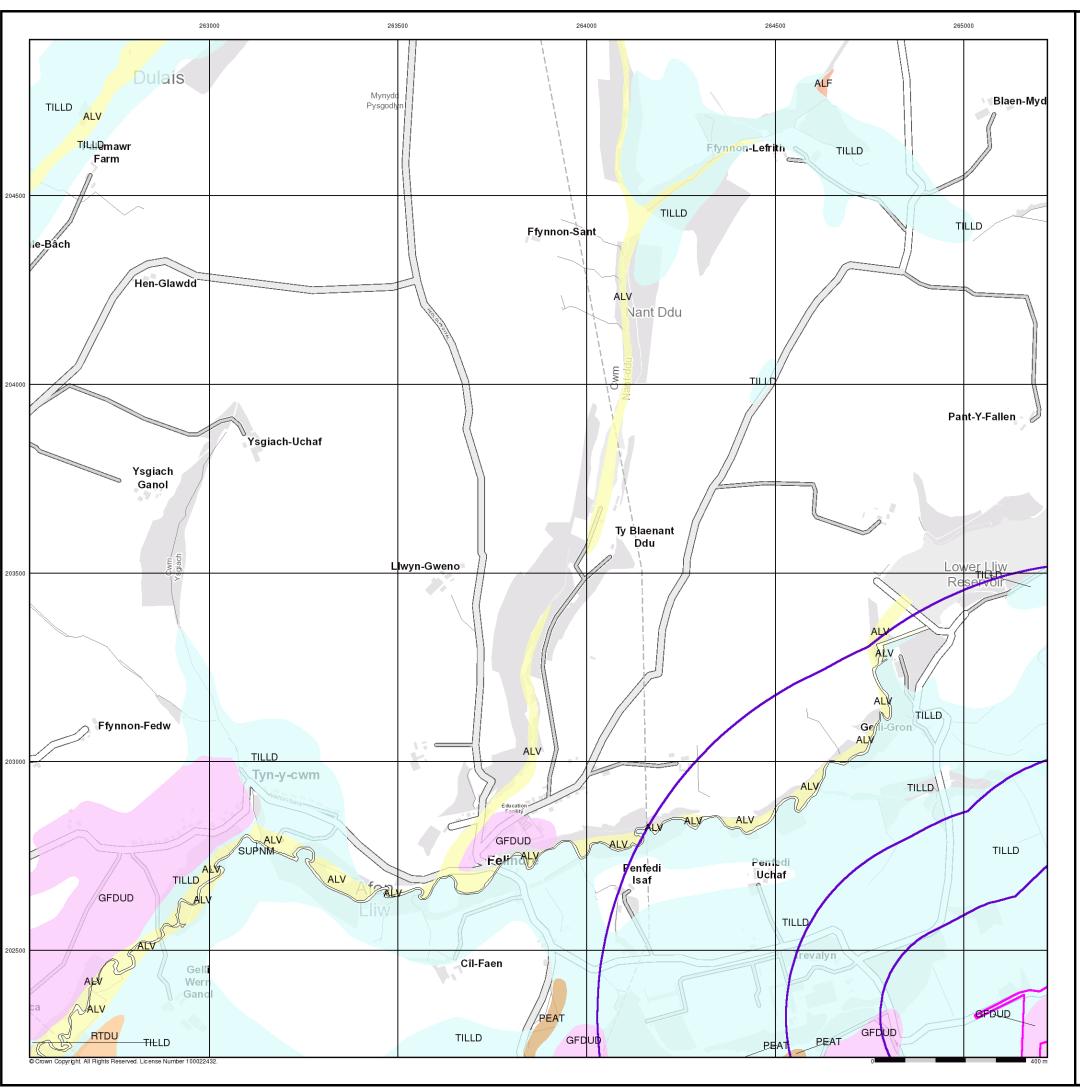
#### **Site Details**

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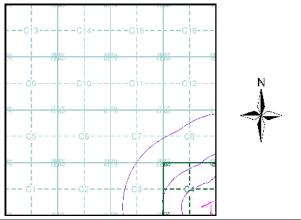
### **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, 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 C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

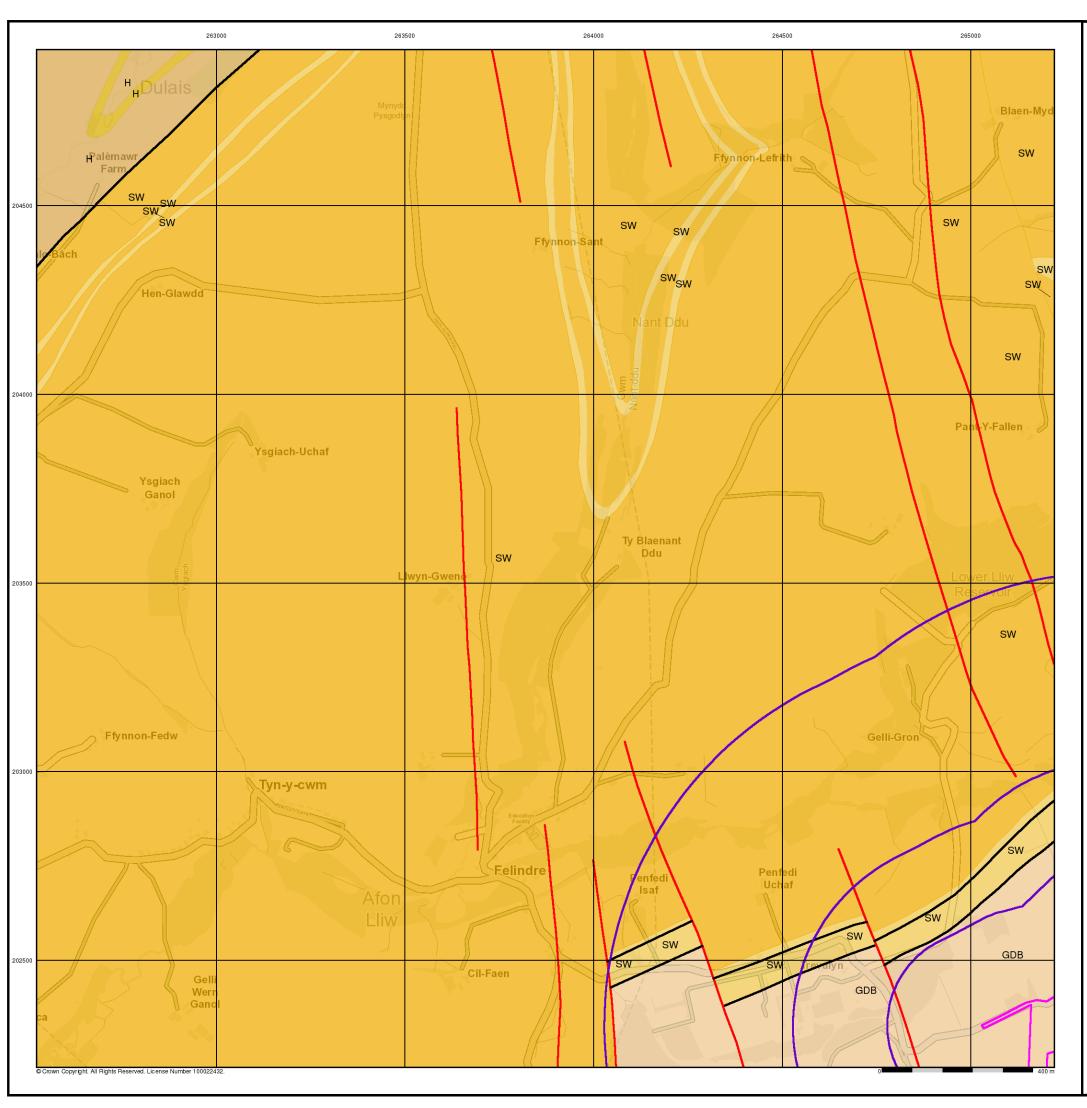
#### **Site Details**

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#### **Bedrock and Faults**

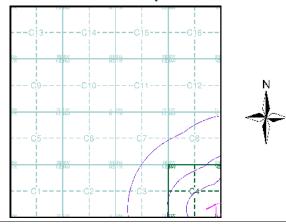
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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 and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

#### **Bedrock and Faults Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

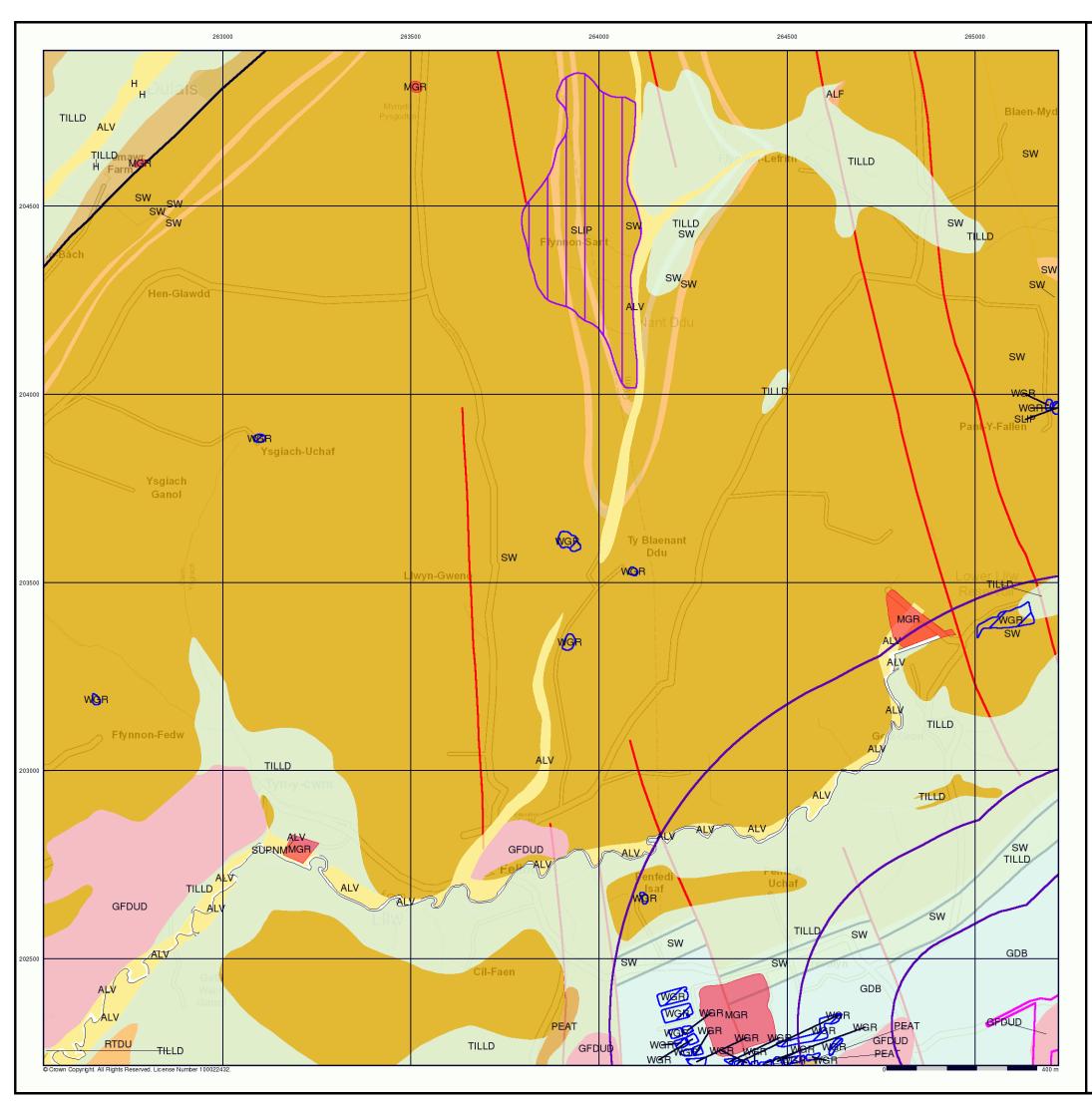
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

el: 0844 844 9952 ax: 0844 844 9951 'eb: www.envirocheck.co.uk

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Page 4



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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.

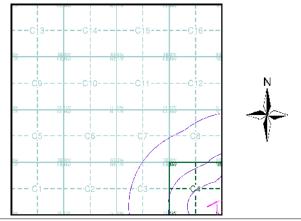
#### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

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

#### **Combined Geology Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

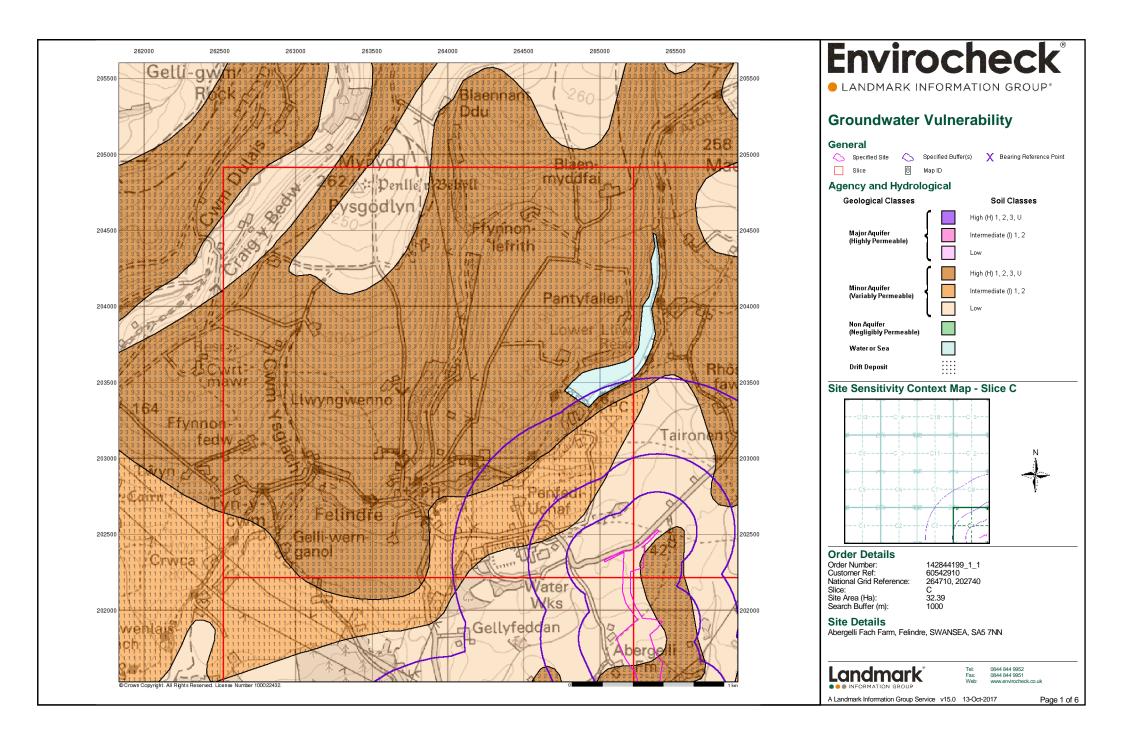
#### **Site Details**

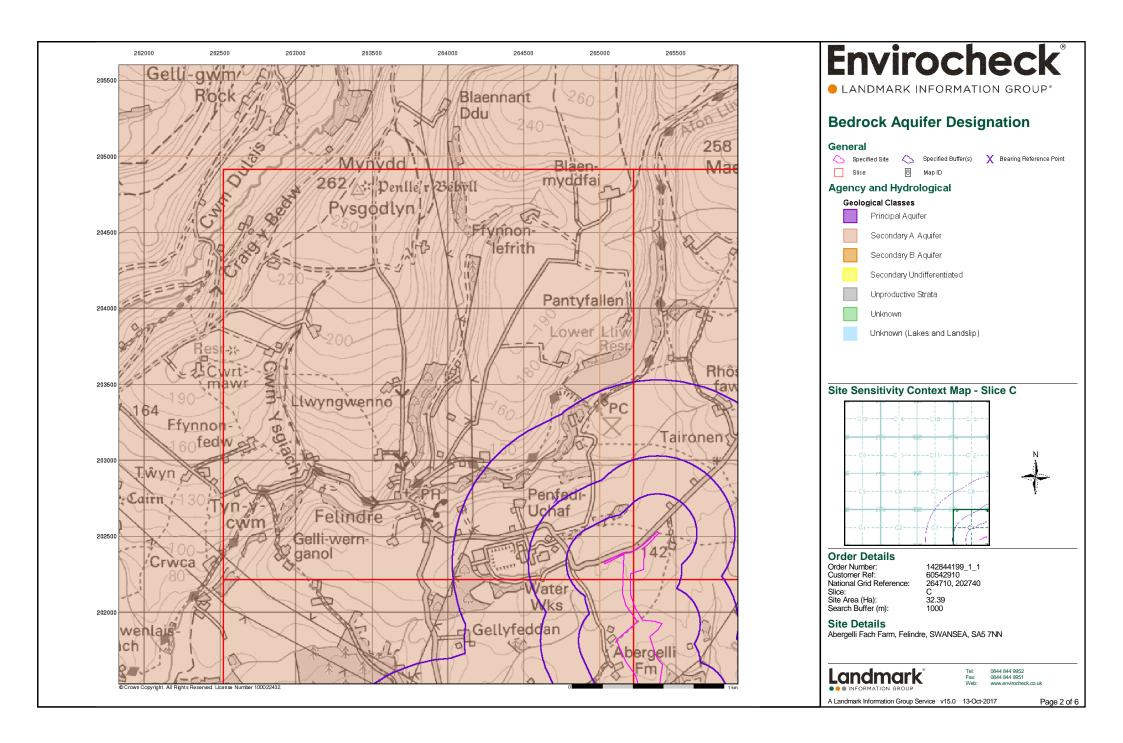
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

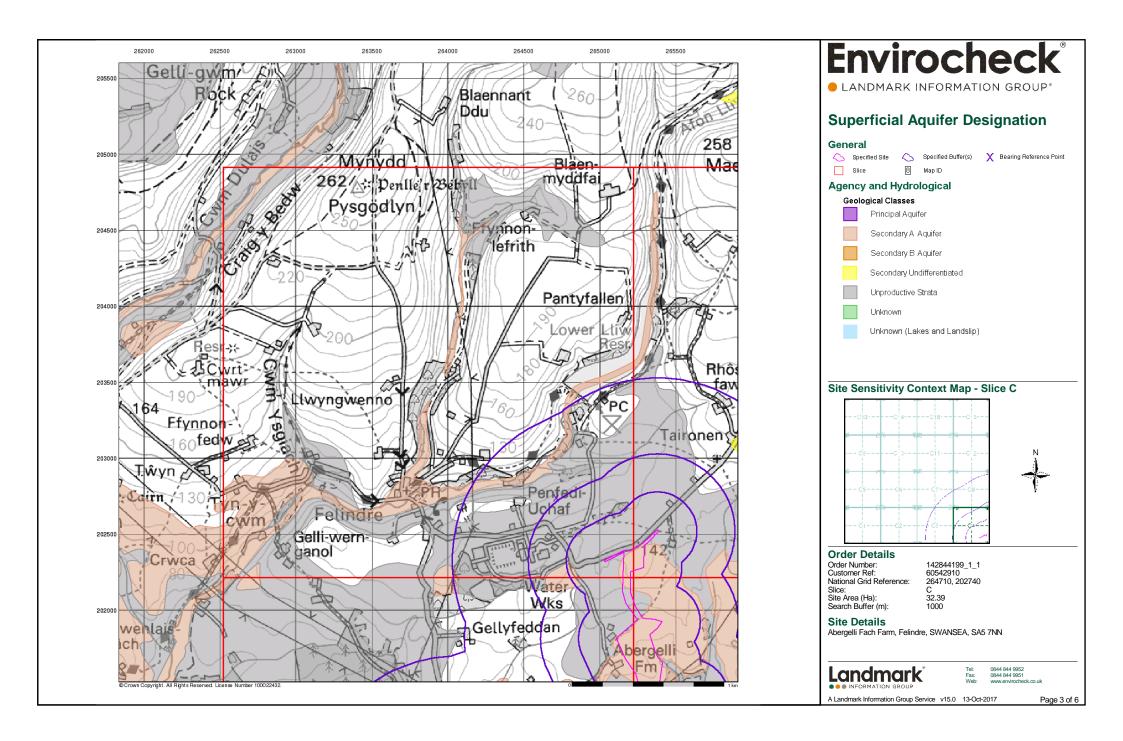


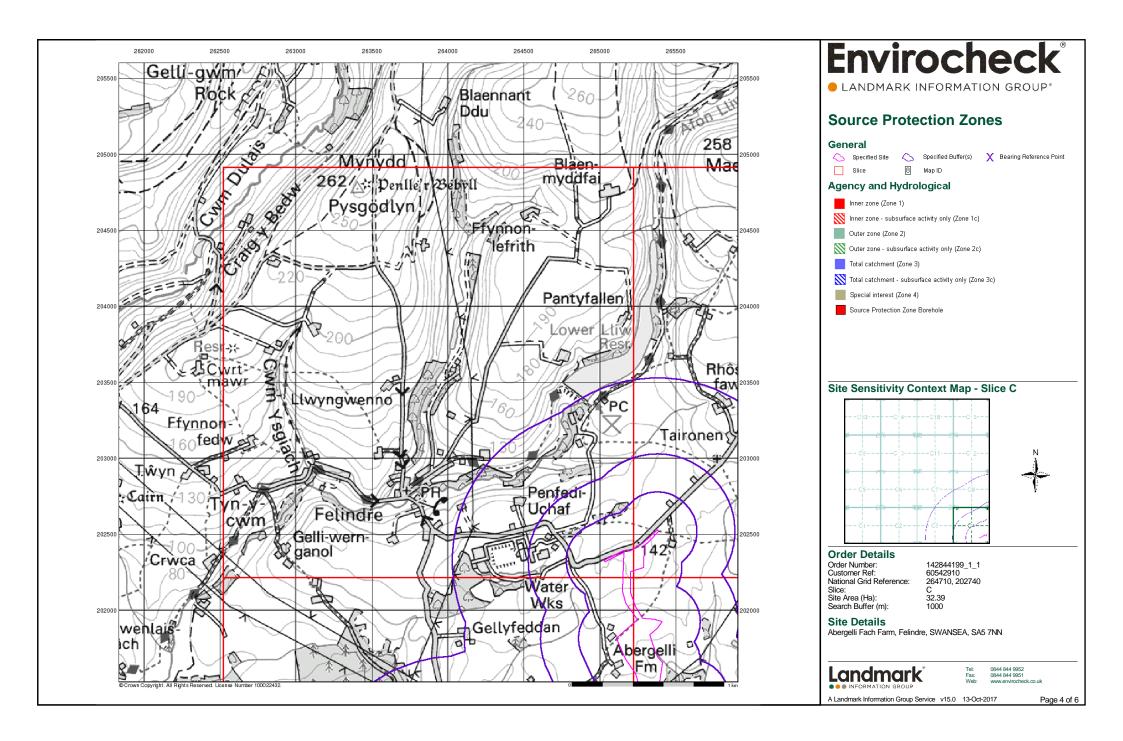
0844 844 9951 www.envirocheck.co.uk

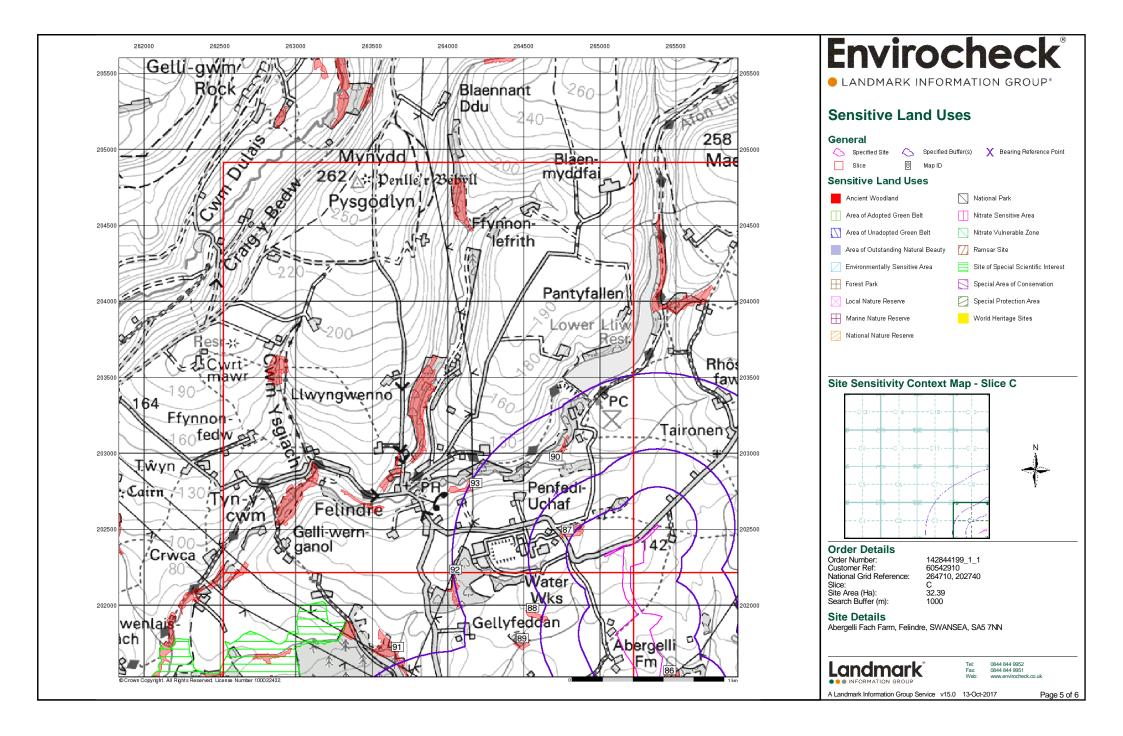
A Landmark Information Group Service v50.0 13-Oct-2017

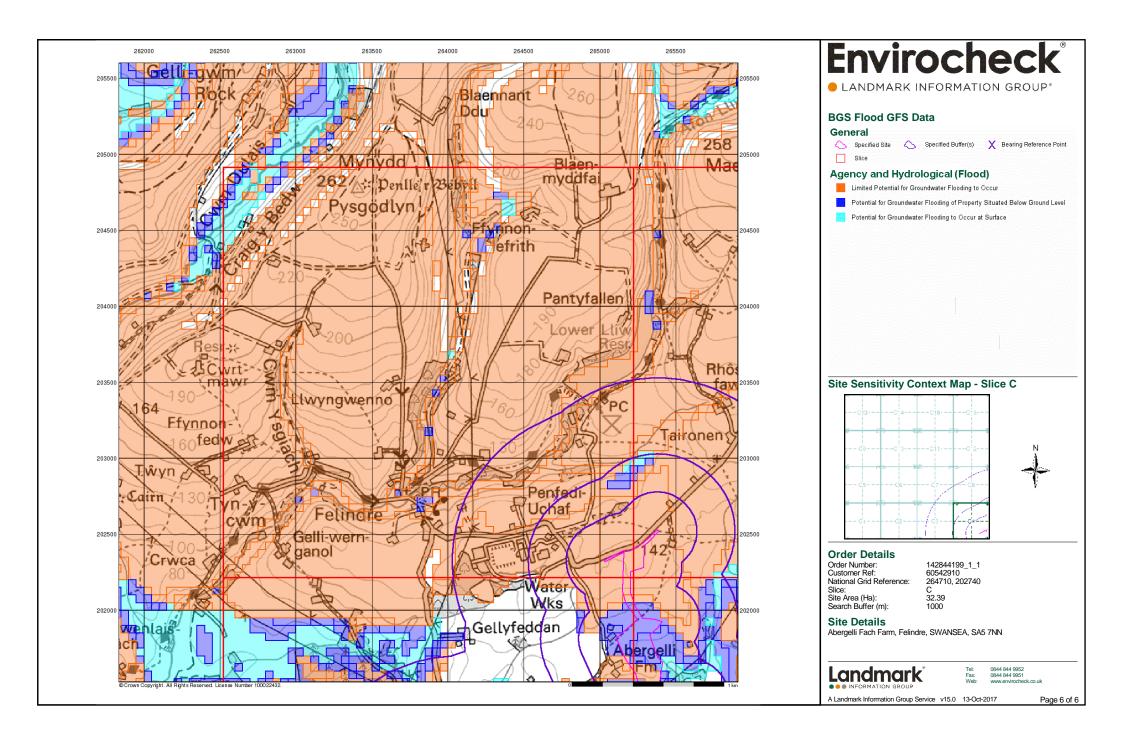














## **Envirocheck® Report:**

#### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199\_1\_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

264710, 202740

Slice:

С

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

#### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







| Report Section        | Page Number |
|-----------------------|-------------|
| Summary               | -           |
| Agency & Hydrological | 1           |
| Waste                 | 16          |
| Hazardous Substances  | 17          |
| Geological            | 18          |
| Industrial Land Use   | 20          |
| Sensitive Land Use    | 22          |
| Data Currency         | 23          |
| Data Suppliers        | 28          |
| Useful Contacts       | 29          |

#### 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 the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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 4           |         |           |             | 5                              |
| 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 5           |         | Yes       |             |                                |
| Pollution Incidents to Controlled Waters                      | pg 5           |         |           |             | 8                              |
| Prosecutions Relating to Authorised Processes                 | pg 6           |         |           |             | 1                              |
| Registered Radioactive Substances                             |                |         |           |             |                                |
| River Quality   | pg 7           |         |           |             | 2                              |
| River Quality Biology Sampling Points                         | pg 7           |         |           |             | 2                              |
| Substantiated Pollution Incident Register                     | pg 8           |         | 1         |             |                                |
| River Quality Chemistry Sampling Points                       |                |         |           |             |                                |
| Water Abstractions  | pg 8           |         |           |             | 1 (*4)                         |
| Water Industry Act Referrals                                  |                |         |           |             |                                |
| Groundwater Vulnerability                                     | pg 9           | Yes     | n/a       | n/a         | n/a                            |
| Drift Deposits  | pg 9           | 2       | n/a       | n/a         | n/a                            |
| Bedrock Aquifer Designations                                  | pg 9           | Yes     | n/a       | n/a         | n/a                            |
| Superficial Aquifer Designations                              | pg 9           | Yes     | n/a       | n/a         | n/a                            |
| Source Protection Zones                                       |                |         |           |             |                                |
| Extreme Flooding from Rivers or Sea without Defences          |                |         |           | n/a         | n/a                            |
| Flooding from Rivers or Sea without Defences                  |                |         |           | n/a         | n/a                            |
| Areas Benefiting from Flood Defences                          |                |         |           | n/a         | n/a                            |
| Flood Water Storage Areas                                     |                |         |           | n/a         | n/a                            |
| Flood Defences  |                |         |           | n/a         | n/a                            |
| OS Water Network Lines  | pg 10          |         | 5         | 8           | 38                             |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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          |         |           |             | 2                              |
| Potentially Infilled Land (Water)                                   | pg 16          |         | 1         |             |                                |
| Registered Landfill Sites   |                |         |           |             |                                |
| Registered Waste Transfer Sites                                     |                |         |           |             |                                |
| Registered Waste Treatment or Disposal Sites                        |                |         |           |             |                                |
| Hazardous Substances  |                |         |           |             |                                |
| Control of Major Accident Hazards Sites (COMAH)                     | pg 17          |         |           | 2           |                                |
| Explosive Sites   |                |         |           |             |                                |
| Notification of Installations Handling Hazardous Substances (NIHHS) | pg 17          |         |           |             | 1                              |
| Planning Hazardous Substance Consents                               | pg 17          |         |           |             | 1                              |
| Planning Hazardous Substance Enforcements                           |                |         |           |             |                                |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Geological  |                |         |           |             |                                |
| BGS 1:625,000 Solid Geology                                       | pg 18          | Yes     | n/a       | n/a         | n/a                            |
| BGS Estimated Soil Chemistry                                      | pg 18          | Yes     |           |             |                                |
| BGS Recorded Mineral Sites  | pg 18          |         |           |             | 3                              |
| BGS Urban Soil Chemistry  |                |         |           |             |                                |
| BGS Urban Soil Chemistry Averages                                 |                |         |           |             |                                |
| CBSCB Compensation District                                       |                |         | n/a       | n/a         | n/a                            |
| Coal Mining Affected Areas  | pg 18          | Yes     | n/a       | n/a         | n/a                            |
| Mining Instability  | pg 18          | Yes     | n/a       | n/a         | n/a                            |
| Man-Made Mining Cavities  |                |         |           |             |                                |
| Natural Cavities  |                |         |           |             |                                |
| Non Coal Mining Areas of Great Britain                            |                |         |           | n/a         | n/a                            |
| Potential for Collapsible Ground Stability Hazards                | pg 18          | Yes     |           | n/a         | n/a                            |
| Potential for Compressible Ground Stability Hazards               |                |         |           | n/a         | n/a                            |
| Potential for Ground Dissolution Stability Hazards                |                |         |           | n/a         | n/a                            |
| Potential for Landslide Ground Stability Hazards                  | pg 19          | Yes     |           | n/a         | n/a                            |
| Potential for Running Sand Ground Stability Hazards               | pg 19          | Yes     |           | n/a         | n/a                            |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 19          | Yes     |           | n/a         | n/a                            |
| Radon Potential - Radon Affected Areas                            |                |         | n/a       | n/a         | n/a                            |
| Radon Potential - Radon Protection Measures                       |                |         | n/a       | n/a         | n/a                            |
| Industrial Land Use   |                |         |           |             |                                |
| Contemporary Trade Directory Entries                              |                |         |           |             |                                |
| Fuel Station Entries  |                |         |           |             |                                |
| Points of Interest - Commercial Services                          |                |         |           |             |                                |
| Points of Interest - Education and Health                         |                |         |           |             |                                |
| Points of Interest - Manufacturing and Production                 | pg 20          |         |           | 2           | 1                              |
| Points of Interest - Public Infrastructure                        | pg 20          |         |           |             | 8                              |
| Points of Interest - Recreational and Environmental               |                |         |           |             |                                |
| Gas Pipelines   | pg 21          | 3       |           |             |                                |
| Underground Electrical Cables                                     |                |         |           |             |                                |



| Data Type                            | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|--------------------------------------|----------------|---------|-----------|-------------|--------------------------------|
| Sensitive Land Use                   |                |         |           |             |                                |
| Ancient Woodland                     | pg 22          | 1       | 1         | 1           | 5                              |
| Areas of Adopted Green Belt          |                |         |           |             |                                |
| Areas of Unadopted Green Belt        |                |         |           |             |                                |
| Areas of Outstanding Natural Beauty  |                |         |           |             |                                |
| Environmentally Sensitive Areas      |                |         |           |             |                                |
| Forest Parks                         |                |         |           |             |                                |
| Local Nature Reserves                |                |         |           |             |                                |
| Marine Nature Reserves               |                |         |           |             |                                |
| National Nature Reserves             |                |         |           |             |                                |
| National Parks                       |                |         |           |             |                                |
| Nitrate Sensitive Areas              |                |         |           |             |                                |
| Nitrate Vulnerable Zones             |                |         |           |             |                                |
| Ramsar Sites                         |                |         |           |             |                                |
| Sites of Special Scientific Interest |                |         |           |             |                                |
| Special Areas of Conservation        |                |         |           |             |                                |
| Special Protection Areas             |                |         |           |             |                                |
| World Heritage Sites                 |                |         |           |             |                                |



## **Agency & Hydrological**

| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (S)   | 0                                  | 1       | 265150<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 265350<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (S)  | 0                                  | 1       | 265050<br>201900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (SE)  | 0                                  | 1       | 265150<br>202100 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (S)  | 0                                  | 1       | 265050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 201550           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (S)   | 0                                  | 1       | 202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                    | (SE)  | 0                                  | 1       | 201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 201700<br>265250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 201850<br>265400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | el (SE)   | 0                                  | 1       | 201550<br>265400 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | C4NE  | 0                                  | 1       | 201600           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve | (E)   | 1                                  | 1       | 202741           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (SE)  | 21                                 | 1       | 201550           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (SE)  | 22                                 | 1       | 202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | C4NW  | 29                                 | 1       | 202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                       | (SE)  | 41                                 | 1       | 202650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve |   | 48                                 | 1       | 202200           |
|           | BGS Groundwater Flooding Susceptibility  |   |                                    |         | 201900<br>265350 |
|           | BGS Groundwater Flooding Susceptibility  | (SE)  | 58                                 | 1       | 202050           |
|           | Flooding Type: Limited Potential for Groundwater Flooding to Occur  BGS Groundwater Flooding Susceptibility                      | C8SE<br>(NE)                                    | 113                                | 1       | 265000<br>202950 |
|           | Flooding Type: Limited Potential for Groundwater Flooding to Occur   | (S)   | 115                                | 1       | 264850<br>202050 |



## **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 117                                | 1       | 265500<br>201850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 132                                | 1       | 265000<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 139                                | 1       | 265550<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 139                                | 1       | 265550<br>201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 140                                | 1       | 264750                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 168                                | 1       | 201550<br>265550<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 172                                | 1       | 265000<br>201550           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 199                                | 1       | 265750<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 212                                | 1       | 264850<br>201950           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 228                                | 1       | 265650<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 241                                | 1       | 265650<br>202150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 249                                | 1       | 264850<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C4NE<br>(E)                                     | 255                                | 1       | 265000<br>202750           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 264                                | 1       | 265900<br>202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (SE)  | 291                                | 1       | 265700<br>201950           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 292                                | 1       | 265700<br>201900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 292                                | 1       | 265700<br>202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SE)  | 311                                | 1       | 265900<br>201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C4NE<br>(E)                                     | 324                                | 1       | 265050<br>202800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 330                                | 1       | 265250<br>202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 339                                | 1       | 265700<br>202200           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 341                                | 1       | 265750<br>201950           |



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|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (S)   | 346                                | 1       | 264400<br>201550 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C4NE<br>(E)                                     | 346                                | 1       | 265200<br>202850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C4NW<br>(E)                                     | 347                                | 1       | 264714<br>202741 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (SE)  | 349                                | 1       | 265750<br>202250 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C4NE<br>(E)                                     | 367                                | 1       | 265100<br>202850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (E)   | 372                                | 1       | 265300<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 379                                | 1       | 265250<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SE)  | 391                                | 1       | 265800<br>202000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | C8SE<br>(E)                                     | 392                                | 1       | 265200<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 398                                | 1       | 265800<br>202150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | C8SE<br>(E)                                     | 412                                | 1       | 265150<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (E)   | 422                                | 1       | 265300<br>202950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C4NE<br>(E)                                     | 423                                | 1       | 265000<br>202800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SE)  | 424                                | 1       | 265750<br>202300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | C8SE<br>(NE)                                    | 428                                | 1       | 265200<br>202950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C8SE<br>(NE)                                    | 436                                | 1       | 265000<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SE)  | 450                                | 1       | 265800<br>202200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C8SE<br>(NE)                                    | 457                                | 1       | 265150<br>202950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 466                                | 1       | 263700<br>201500 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | C8SE<br>(NE)                                    | 488                                | 1       | 265200<br>203000 |



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|-----------|---|--|---|------------------------------------|---------|------------------|
| 1         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Dwr Cymru Cyfyngedig Water Supply Grid Felindre Chlor.Overflow Natural Resources Wales Not Supplied Bp0180001 1 2nd October 1989 2nd October 1989 14th March 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 100m  | C3SE<br>(SW)                                    | 534                                | 2       | 264500<br>202400 |
| 2         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Dwr Cymru Cyfyngedig Undefined Or Other Felindre Wtw (Septic Tank Disc Natural Resources Wales River Loughor Bc0011901 1 22nd May 1970 22nd May 1970 19th October 1992 Unspecified Not Supplied Unnamed Trib. River Lliw Consent expired Located by supplier to within 100m  | C3SE<br>(SW)                                    | 556                                | 2       | 264500<br>202500 |
| 3         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw W'Water Em Emerge Natural Resources Wales River Loughor Be0033201 1 24th June 1970 24th June 1970 7th July 1997 Unspecified Not Supplied Trib River Lliw Consent expired Located by supplier to within 100m  | C8SE<br>(NE)                                    | 569                                | 2       | 264900<br>202900 |
| 4         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw Natural Resources Wales River Loughor Bc0011902 2 1st January 2010 24th September 2009 Not Supplied Trade Discharges - Process Effluent - Water Company (Wtw) Freshwater Stream/River  Unnamed Trib. Of River Lliw New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m | C3SW<br>(W)                                     | 945                                | 2       | 264100<br>202500 |



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| Map<br>ID | Details   |  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|--|---|------------------------------------|---------|------------------|
| 4         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy: | Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw Natural Resources Wales River Loughor BC0011902 1 22nd May 1970 22nd May 1970 31st December 2009 Trade Discharges - Process Effluent - Water Company (Wtw) Freshwater Stream/River Unnamed Trib. Of River Lliw New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m | C3SW<br>(W)                                     | 945                                | 2       | 264100<br>202500 |
| 5         | Location: Prosecution Text: Prosecution Act: Hearing Date: Verdict: Fine: Cost:   | ing to Controlled Waters  Water Treatment Works, FELINDRE, . Ea News Release 02/12/1999 (Ref Sm329/99Ir), Two Offences Of Discharging Trade Effluent Into The River Lliw Wra91 S85(3): Saffa75 S4 29th November 1999 Guilty 7750 3812.67 Manually positioned to the address or location  | C3SE<br>(SW)                                    | 489                                | 3       | 264545<br>202395 |
|           | Nearest Surface Wa  | ater Feature   | C4SE<br>(SE)                                    | 1                                  | -       | 265065<br>202348 |
| 6         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:  | to Controlled Waters  Not Given Felindre Wtw Environment Agency, Welsh Region Chemicals - Other Inorganic Accident 18th April 1997 31955 Not Given Not Given Leakage Category 1 - Major Incident Located by supplier to within 100m  | C3SE<br>(SW)                                    | 550                                | 3       | 264505<br>202495 |
| 6         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:  | Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Crude Sewage Accidental Spillage/Leakage 6th April 1991 84 Not Given Not Given Leakage Category 2 - Significant Incident Located by supplier to within 100m   | C3SE<br>(SW)                                    | 555                                | 3       | 264500<br>202495 |
| 6         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:  | to Controlled Waters  Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Algae Accidental Spillage/Leakage 6th April 1991 427 Not Given Not Given Leakage Category 3 - Minor Incident Located by supplier to within 100m   | C3SE<br>(SW)                                    | 556                                | 3       | 264500<br>202500 |



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|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Pollution Incidents   |   |   |                                    |         |                  |
| 7         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy: | Not Given Penfedi, Isaf Farm, FELINDRE Environment Agency, Welsh Region Unknown Not Supplied 19th May 1992 4709 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m  | C3NE<br>(W)                                     | 710                                | 3       | 264500<br>202800 |
|           | Pollution Incidents   | to Controlled Waters  |   |                                    |         |                  |
| 8         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:                      | Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Crude Sewage Accidental Spillage/Leakage 5th April 1991 475 Not Given Not Given Leakage Category 2 - Significant Incident Located by supplier to within 100m | C3SW<br>(SW)                                    | 895                                | 3       | 264150<br>202495 |
|           | Pollution Incidents   | to Controlled Waters  |   |                                    |         |                  |
| 8         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy: | Water Company Sewage: Water Treatment Works Penfedi Isaf, FELINDRE Environment Agency, Welsh Region Light Oil Not Supplied 20th February 1991 2451 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m                                       | C3SW<br>(W)                                     | 939                                | 3       | 264105<br>202495 |
|           | Pollution Incidents   | to Controlled Waters  |   |                                    |         |                  |
| 8         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy: | Not Given Penfedi Isaf, FELINDRE Environment Agency, Welsh Region Filter Backwash Water Not Supplied 19th February 1991 2452 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m   | C3SW<br>(W)                                     | 944                                | 3       | 264100<br>202495 |
|           | Pollution Incidents   | to Controlled Waters  |   |                                    |         |                  |
| 9         | Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:                      | Water Company Sewage: Water Treatment Works Opposite, Felindre Water Treatment Works Environment Agency, Welsh Region Light Oil Not Supplied 18th February 1991 2480 Not Given Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m     | C3SW<br>(SW)                                    | 896                                | 3       | 264150<br>202500 |
|           | Prosecutions Relati   |   |   |                                    |         |                  |
| 10        | Location: Prosecution Text: Prosecution Act: Hearing Date: Verdict: Fine: Costs: Positional Accuracy:   | Felindre Water Treatment Works, Felindre Mis-handling sludge waste Epa90 S33(1)(C) 6th October 2006 Guilty 54000 2500 Manually positioned to the address or location  | C3SE<br>(SW)                                    | 504                                | 3       | 264532<br>202414 |



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|           | River Quality  |   |   |                                    |         |                  |
|           | Name:<br>GQA Grade:<br>Reach:<br>Estimated Distance<br>(km):                             | Lliw<br>River Quality B<br>Conf.Nant Y Crimp - Conf Un Named Trib.<br>4.8                             | C8SW<br>(NW)                                    | 714                                | 3       | 264591<br>202891 |
|           | Flow Rate:<br>Flow Type:<br>Year:  | Flow less than 0.62 cumecs<br>River<br>2000   |   |                                    |         |                  |
|           | River Quality  |   |   |                                    |         |                  |
|           | Name:<br>GQA Grade:<br>Reach:<br>Estimated Distance<br>(km):<br>Flow Rate:<br>Flow Type: | Lliw River Quality B Conf Un Named Trib - Lower Lliw Res .5 Flow less than 0.31 cumecs River          | C8SW<br>(NW)                                    | 714                                | 3       | 264591<br>202891 |
|           | Year:  | 2000  |   |                                    |         |                  |
|           | River Quality Biolog   |   |   |                                    |         |                  |
| 11        | Year:  | Located by supplier to within 100m 1990   | C8SW<br>(NW)                                    | 716                                | 3       | 264600<br>202900 |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade B - Good<br>1995  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2000  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2002  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:<br>GQA Grade:  | River Quality Biology GQA Grade Not Supplied<br>2003<br>River Quality Biology GQA Grade A - Very Good |   |                                    |         |                  |
|           | Year:<br>GQA Grade:<br>Year:   | 2004<br>River Quality Biology GQA Grade A - Very Good<br>2005   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good<br>2006   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good<br>2007   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good<br>2008   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2009  |   |                                    |         |                  |
|           | GQA Grade:   | River Quality Biology GQA Grade B - Good  |   |                                    |         |                  |
| 12        | Name:<br>Reach:<br>Estimated Distance:   | Loughor Lliw<br>Confluence Un Named Tributary To Lower Lliw Reservoir                                 | C8NW<br>(N)                                     | 964                                | 3       | 264800<br>203300 |
|           | Year:  | Located by supplier to within 100m<br>1990  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade B - Good<br>1995  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2000  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:<br>GQA Grade:  | River Quality Biology GQA Grade A - Very Good<br>2002<br>River Quality Biology GQA Grade Not Supplied |   |                                    |         |                  |
|           | Year:<br>GQA Grade:  | 2003<br>River Quality Biology GQA Grade A - Very Good   |   |                                    |         |                  |
|           | Year:<br>GQA Grade:<br>Year:   | 2004<br>River Quality Biology GQA Grade A - Very Good<br>2005   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good<br>2006   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good<br>2007   |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2008  |   |                                    |         |                  |
|           | GQA Grade:<br>Year:  | River Quality Biology GQA Grade A - Very Good 2009  |   |                                    |         |                  |
|           | GQA Grade:   | River Quality Biology GQA Grade B - Good  |   |                                    |         |                  |



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|           | Substantiated Pollu   |   |   |                                    |         |                  |
| 13        | Authority:<br>Incident Date:<br>Incident Reference:<br>Water Impact:<br>Air Impact:<br>Land Impact:<br>Positional Accuracy:<br>Pollutant:   | Natural Resources Wales 10th May 2007 493773 Category 2 - Significant Incident Category 4 - No Impact Category 4 - No Impact Located by supplier to within 10m Inert Materials And Wastes: Soils And Clay   | C4SW<br>(S)                                     | 205                                | 2       | 264841<br>202246 |
|           | Water Abstractions  |   |   |                                    |         |                  |
| 14        | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:                   | Mr M Glasbrook 22/59/4/0003 100 Spring In Field No. 5700 At Lletty-Thomas Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field No. 5700 At Lletty-Thomas Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m | C8SW<br>(N)                                     | 920                                | 3       | 264580<br>203130 |
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Dwr Cymru Cyfyngedig 22/59/4/0065/01 2 Lower Lliw Reservoir - Point B Natural Resources Wales Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 9th July 2014 Not Supplied Located by supplier to within 10m   | C8NE<br>(N)                                     | 1034                               | 2       | 264890<br>203440 |
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | -   | Dwr Cymru Cyfyngedig 22/59/4/0065 101 Lower Lliw Reservoir - Point B Natural Resources Wales Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 01 January 31 December 1st April 2011 Not Supplied Located by supplier to within 10m  | C8NE<br>(N)                                     | 1034                               | 2       | 264890<br>203440 |
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Positional Accuracy:                       | Dwr Cymru Cyf 22/59/4/0065 100 Lower Lliw Reservoir Environment Agency, Welsh Region Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Lower Lliw Reservoir 01 January 31 December 1st April 2000 Not Supplied Located by supplier to within 100m   | C8NE<br>(N)                                     | 1034                               | 3       | 264890<br>203440 |



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|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: | Mr D Morgan 22/59/4/0005 100 Spring 1 At Pant Y Fallen Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring 1 At Pant Y Fallen Farm 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m | C12SW<br>(N)                                    | 1439                               | 3       | 264830<br>203860 |
|           | Groundwater Vulne<br>Soil Classification:   | Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Sheet 35 West Glamorgan   | C4NW<br>(SE)                                    | 0                                  | 3       | 264860<br>202592 |
|           | Scale:  | 1:100,000   |   |                                    |         |                  |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:   | Prability  Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000   | (SE)  | 0                                  | 3       | 265287<br>202367 |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:   | Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000  | (SE)  | 0                                  | 3       | 265994<br>201841 |
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:  | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000   |   | 0                                  | 3       | 265077<br>201596 |
|           | Drift Deposits Drift Deposit: Map Sheet: Scale:   | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000   | C4NW<br>(E)                                     | 0                                  | 3       | 264714<br>202741 |
|           | Bedrock Aquifer De Aquifer Designation:   | esignations<br>Secondary Aquifer - A  | C4NW<br>(E)                                     | 0                                  | 1       | 264714<br>202741 |
|           | Bedrock Aquifer De<br>Aquifer Designation:  | esignations<br>Secondary Aquifer - A  | C4NE<br>(E)                                     | 0                                  | 1       | 265000<br>202741 |
|           | Superficial Aquifer<br>Aquifer Designation:   | <b>Designations</b> Secondary Aquifer - A   | C4SE<br>(SE)                                    | 0                                  | 1       | 265153<br>202345 |
|           | Superficial Aquifer<br>Aquifer Designation:   | <b>Designations</b><br>Secondary Aquifer - A  | (SE)  | 0                                  | 1       | 265704<br>202282 |
|           | Superficial Aquifer<br>Aquifer Designation:   | <b>Designations</b><br>Secondary Aquifer - A  | (S)   | 0                                  | 1       | 264391<br>201549 |
|           | Superficial Aquifer<br>Aquifer Designation:   | <b>Designations</b> Unproductive Strata   | C4NE<br>(E)                                     | 0                                  | 1       | 265000<br>202741 |
|           | None  | rom Rivers or Sea without Defences  |   |                                    |         |                  |
|           | None  | rs or Sea without Defences  |   |                                    |         |                  |
|           | Areas Benefiting fro  | om Flood Defences   |   |                                    |         |                  |



## **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | Flood Water Storage Areas None  |   |                                    |         |                  |
|           | Flood Defences None   |   |                                    |         |                  |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 15        | Watercourse Form: Inland river Watercourse Length: 37.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                | C4SE<br>(SE)                                    | 1                                  | 4       | 265065<br>202348 |
| 16        | OS Water Network Lines  Watercourse Form: Inland river  Watercourse Length: 232.1  Watercourse Level: On ground surface  Permanent: True  Watercourse Name: Not Supplied  Catchment Name: Loughor  Primacy: 1 | C4SE<br>(SE)                                    | 2                                  | 4       | 264904<br>202305 |
| 17        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | C4SE<br>(SE)                                    | 3                                  | 4       | 265060<br>202346 |
| 18        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 144.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | C4SE<br>(SE)                                    | 56                                 | 4       | 264916<br>202458 |
| 19        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 134.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | C4NE<br>(E)                                     | 236                                | 4       | 265205<br>202704 |
| 20        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1        | C4NE<br>(E)                                     | 331                                | 4       | 265142<br>202785 |
| 21        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 166.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1      | C8SE<br>(NE)                                    | 331                                | 4       | 265132<br>202947 |
| 22        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 237.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | C4NW<br>(SE)                                    | 448                                | 4       | 264762<br>202691 |



# **Agency & Hydrological**

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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 23        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                 | C8SE<br>(NE)                                    | 486                                | 4       | 265161<br>202965 |
| 24        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | C8SE<br>(NE)                                    | 487                                | 4       | 265130<br>202955 |
| 25        | OS Water Network Lines  Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                   | C8SE<br>(NE)                                    | 488                                | 4       | 265189<br>202978 |
| 26        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | C4NE<br>(NE)                                    | 489                                | 4       | 264917<br>202855 |
| 27        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 229.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1  | C8SE<br>(NE)                                    | 493                                | 4       | 264916<br>202936 |
| 28        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 34.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | C8SE<br>(NE)                                    | 510                                | 4       | 265208<br>203030 |
| 29        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8SE<br>(NE)                                    | 549                                | 4       | 265064<br>203028 |
| 30        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | C8SE<br>(NE)                                    | 552                                | 4       | 264928<br>202894 |
| 31        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 42.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C8SE<br>(NE)                                    | 559                                | 4       | 264927<br>202901 |



# **Agency & Hydrological**

| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
| 32        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 182.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C8SE<br>(NE)                                    | 562                                | 4       | 265146<br>203052 |
| 33        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                  | C8SE<br>(NE)                                    | 590                                | 4       | 265058<br>203031 |
| 34        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1                             | C8SW<br>(N)                                     | 593                                | 4       | 264771<br>202903 |
| 35        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 310.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8NE<br>(NE)                                    | 593                                | 4       | 265198<br>203270 |
| 36        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 104.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8SE<br>(NE)                                    | 596                                | 4       | 264984<br>203057 |
| 37        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | C4NW<br>(NE)                                    | 597                                | 4       | 264781<br>202871 |
| 38        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | C4NW<br>(NE)                                    | 602                                | 4       | 264779<br>202875 |
| 39        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 184.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1   | C8SW<br>(N)                                     | 629                                | 4       | 264715<br>202896 |
| 40        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 165.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8SE<br>(NE)                                    | 669                                | 4       | 264952<br>203075 |



# **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 41        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: 9.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | C8SE<br>(NE)                                    | 688                                | 4       | 264946<br>203065 |
| 42        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | C8SE<br>(NE)                                    | 690                                | 4       | 264950<br>203069 |
| 43        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 408.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1    | C4NW<br>(NW)                                    | 716                                | 4       | 264568<br>202874 |
| 44        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 106.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1    | C8SW<br>(NW)                                    | 726                                | 4       | 264604<br>202915 |
| 45        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 403.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1    | C8SW<br>(N)                                     | 752                                | 4       | 264685<br>202995 |
| 46        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 197.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C8SW<br>(N)                                     | 771                                | 4       | 264653<br>203001 |
| 47        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8SW<br>(N)                                     | 779                                | 4       | 264855<br>203116 |
| 48        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1     | C3NE<br>(W)                                     | 889                                | 4       | 264310<br>202850 |
| 49        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 59.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1       | C3NE<br>(W)                                     | 889                                | 4       | 264310<br>202850 |



# **Agency & Hydrological**

| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
| 50        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 472.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1    | C3NE<br>(W)                                     | 891                                | 4       | 264304<br>202845 |
| 51        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 560.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 2     | C3NE<br>(W)                                     | 893                                | 4       | 264305<br>202850 |
| 52        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 113.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C7SE<br>(NW)                                    | 911                                | 4       | 264326<br>202907 |
| 53        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C3SW<br>(SW)                                    | 926                                | 4       | 264105<br>202389 |
| 54        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C8NE<br>(NE)                                    | 943                                | 4       | 265110<br>203433 |
| 55        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | C3SW<br>(SW)                                    | 944                                | 4       | 264083<br>202393 |
| 56        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | C8NW<br>(N)                                     | 945                                | 4       | 264778<br>203262 |
| 57        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1      | C8NW<br>(N)                                     | 948                                | 4       | 264773<br>203259 |
| 58        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | C8NW<br>(N)                                     | 948                                | 4       | 264773<br>203259 |



# **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 59        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 72.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C3SW<br>(SW)                                    | 949                                | 4       | 264081<br>202396 |
| 60        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 213.7 Watercourse Level: On ground surface True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1               | C8NW<br>(N)                                     | 949                                | 4       | 264777<br>203263 |
| 61        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 118.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1            | C8NE<br>(N)                                     | 959                                | 4       | 264926<br>203376 |
| 62        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1      | C3SW<br>(W)                                     | 975                                | 4       | 264078<br>202541 |
| 63        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 192.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | C3NW<br>(W)                                     | 975                                | 4       | 264083<br>202645 |
| 64        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | C7SE<br>(NW)                                    | 995                                | 4       | 264295<br>203000 |
| 65        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | C7SE<br>(NW)                                    | 1000                               | 4       | 264294<br>203006 |

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## **Waste**

| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | Local Authority La                       | ndfill Coverage   |   |                                    |         |                  |
|           | Name:                                    | City and County of Swansea<br>- Has no landfill data to supply    |   | 0                                  | 5       | 264714<br>202741 |
|           | Potentially Infilled                     | Land (Non-Water)  |   |                                    | Contact |                  |
| 66        | Bearing Ref:<br>Use:<br>Date of Mapping: | NE<br>Unknown Filled Ground (Pit, quarry etc)<br>1991             | C8SE<br>(NE)                                    | 629                                | 10      | 264934<br>202979 |
|           | Potentially Infilled                     | Land (Non-Water)  |   |                                    |         |                  |
| 67        | Bearing Ref:<br>Use:<br>Date of Mapping: | W<br>Unknown Filled Ground (Pit, quarry etc)<br>1991              | C3NW<br>(W)                                     | 934                                | 10      | 264173<br>202702 |
|           | Potentially Infilled                     | Land (Water)  |   |                                    |         |                  |
| 68        | Use:<br>Date of Mapping:                 | Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1938 | C4NE<br>(NE)                                    | 244                                | 10      | 264939<br>202837 |

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## **Hazardous Substances**

| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | Control of Major Ac  | cident Hazards Sites (COMAH)  |   |                                    |         |                  |
| 69        | Name:<br>Location:<br>Reference:<br>Type:<br><b>Status:</b><br>Positional Accuracy:  | Welsh Water / Dwr Cymru Felindre Water Treatment Works, Felindre, SWANSEA, West Glamorgan, SA5 7NP Not Supplied Lower Tier Active Manually positioned to the address or location  | C3SE<br>(SW)                                    | 491                                | 6       | 264542<br>202392 |
|           | Control of Major Ac  | cident Hazards Sites (COMAH)  |   |                                    |         |                  |
| 69        | Name:<br>Location:<br>Reference:<br>Type:<br>Status:<br>Positional Accuracy:   | United Utilities Water Plc Felindre Water Treatment Works, Felindre, SWANSEA, West Glamorgan, SA5 7NP 20602 Lower Tier Record Ceased To Be Supplied Under COMAH Regulations Manually positioned to the address or location  | C3SE<br>(SW)                                    | 491                                | 6       | 264542<br>202393 |
|           | Notification of Insta  | Ilations Handling Hazardous Substances (NIHHS)  |   |                                    |         |                  |
| 70        | Name:<br>Location:<br><b>Status:</b><br>Positional Accuracy:   | Welsh Water Development Authority Felindre Treatment Plant, SWANSEA, West Glamorgan, SA5 7NP Not Active Automatically positioned in the proximity of the address  | C8SW<br>(N)                                     | 842                                | 6       | 264845<br>203181 |
|           | Planning Hazardous   | s Substance Consents  |   |                                    |         |                  |
| 71        | Name: Location:  Authority: Application Ref: Hazardous Substance: Maximum Quantity: Application date: Decision: Positional Accuracy: | Dwr Cymru - Welsh Water Felindre Water Treatment Works, Felindre, MORRISTON, West Glamorgan, SA5 7NP City and County of Swansea, Planning Department Hs 5/92 Part A, Toxic Substance, Chlorine, where amount held is greater than or equal to 10 tonnes 25 2nd September 1992 New application granted conditionallyGranted Manually positioned to the address or location | C8NW<br>(N)                                     | 901                                | 7       | 264830<br>203244 |

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| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| -         | BGS 1:625,000 Solid<br>Description:  | d Geology South Wales Upper Coal Measures Formation   | C4NW<br>(E)                                     | 0                                  | 1       | 264714<br>202741 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg   | C4NW<br>(E)                                     | 0                                  | 1       | 264714<br>202741 |
| 72        | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Gelli-Gron , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151728 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m         | C8SE<br>(NE)                                    | 621                                | 1       | 264937<br>202972 |
| 73        | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy: | Waterworks Cottage , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151686 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m | C8NE<br>(N)                                     | 893                                | 1       | 264910<br>203289 |
| 74        | BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:                      |   | C3NW<br>(W)                                     | 976                                | 1       | 264137<br>202724 |
|           | BGS Measured Urba<br>No data available<br>BGS Urban Soil Che   | •   |   |                                    |         |                  |
|           | No data available  Coal Mining Affecte  Description:   | d Areas  In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.               | C4NW<br>(E)                                     | 0                                  | 8       | 264714<br>202741 |
|           | Mining Instability Mining Evidence: Source: Boundary Quality:  | Inconclusive Coal Mining Ove Arup & Partners As Supplied  | C4NW<br>(E)                                     | 0                                  | -       | 264714<br>202741 |
|           | Non Coal Mining Ar   |   |   |                                    |         |                  |
|           | Potential for Collaps<br>Hazard Potential:<br>Source:  | sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service  | C4NW<br>(E)                                     | 0                                  | 1       | 264714<br>202741 |



# **Geological**

| ap<br>D |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR  |
|---------|--|---|---|------------------------------------|---------|--|
|         | Potential for Collap<br>Hazard Potential:<br>Source: | sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service  | C4NE<br>(E)                                     | 0                                  | 1       | 265000<br>20274                                    |
|         | Hazard Potential:                                    | ressible Ground Stability Hazards No Hazard   | C4NW  | 0                                  | 1       | 264714   |
|         | Potential for Compr<br>Hazard Potential:<br>Source:  | British Geological Survey, National Geoscience Information Service  ressible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service            | (E)<br>C4NE<br>(E)                              | 0                                  | 1       | 20274 <sup>2</sup><br>265000<br>20274 <sup>2</sup> |
|         |  | d Dissolution Stability Hazards   | (L)   |                                    |         | 20274  |
|         | Hazard Potential:<br>Source:                         | No Hazard British Geological Survey, National Geoscience Information Service  | C4NW<br>(E)                                     | 0                                  | 1       | 264714<br>20274                                    |
|         | Potential for Ground<br>Hazard Potential:<br>Source: | d Dissolution Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service  | C4NE<br>(E)                                     | 0                                  | 1       | 26500<br>20274                                     |
|         | Potential for Landsl<br>Hazard Potential:<br>Source: | ide Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service  | C4NW<br>(E)                                     | 0                                  | 1       | 26471-<br>20274                                    |
|         | Potential for Landsl<br>Hazard Potential:<br>Source: | ide Ground Stability Hazards  Very Low British Geological Survey, National Geoscience Information Service   | C4NE<br>(E)                                     | 0                                  | 1       | 26500<br>20274                                     |
|         | Potential for Runnin<br>Hazard Potential:<br>Source: | ng Sand Ground Stability Hazards<br>Very Low<br>British Geological Survey, National Geoscience Information Service  | C4NW<br>(E)                                     | 0                                  | 1       | 26471<br>20274                                     |
|         | Potential for Runnin                                 | ng Sand Ground Stability Hazards  |   |                                    |         |  |
|         | Hazard Potential:<br>Source:                         | Very Low<br>British Geological Survey, National Geoscience Information Service  | C4NE<br>(E)                                     | 0                                  | 1       | 265000<br>20274                                    |
|         | Potential for Shrink<br>Hazard Potential:<br>Source: | ing or Swelling Clay Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service  | C4SE<br>(SE)                                    | 0                                  | 1       | 26515<br>20234                                     |
|         | Potential for Shrink<br>Hazard Potential:<br>Source: | ing or Swelling Clay Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service   | C4NW<br>(E)                                     | 0                                  | 1       | 26471<br>20274                                     |
|         | Potential for Shrink                                 | ing or Swelling Clay Ground Stability Hazards   |   |                                    |         |  |
|         | Hazard Potential:<br>Source:                         | Very Low<br>British Geological Survey, National Geoscience Information Service  | C4NE<br>(E)                                     | 0                                  | 1       | 265000<br>20274                                    |
|         | Potential for Shrink<br>Hazard Potential:<br>Source: | ing or Swelling Clay Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service  | C4SW<br>(S)                                     | 200                                | 1       | 26479<br>20231                                     |
|         | Radon Potential - R                                  | adon Affected Areas   |   |                                    |         |  |
|         | Affected Area:<br>Source:                            | The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service | C4NE<br>(E)                                     | 0                                  | 1       | 26499<br>20274                                     |
|         |  | adon Affected Areas   |   |                                    |         |  |
|         | Affected Area: Source:                               | The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service | C4NW<br>(E)                                     | 0                                  | 1       | 26471-<br>20274                                    |
|         |  | adon Protection Measures  |   |                                    |         |  |
|         |  | No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service                                | C4NE<br>(E)                                     | 0                                  | 1       | 26499<br>20274                                     |
|         | Radon Potential - R                                  | adon Protection Measures  No radon protective measures are necessary in the construction of new dwellings or extensions  British Geological Survey, National Geoscience Information Service     | C4NW<br>(E)                                     | 0                                  | 1       | 26471<br>20274                                     |

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# **Industrial Land Use**

| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
| 75        | Name:<br>Location:<br>Category:<br>Class Code: | Manufacturing and Production Jones Trevalyn, Felindre, Swansea, SA5 7NL Farming Poultry Farming, Equipment and Supplies Positioned to address or location | C4SW<br>(S)                                     | 392                                | 9       | 264664<br>202469 |
| 76        | Name:<br>Location:<br>Category:<br>Class Code: | Manufacturing and Production  Works SA5 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location                  | C4SW<br>(SW)                                    | 486                                | 9       | 264561<br>202460 |
| 77        | Name:<br>Location:<br>Category:<br>Class Code: | Manufacturing and Production Sheep Wash SA5 Farming Sheep Dips and Washes Positioned to address or location   | C3NE<br>(W)                                     | 708                                | 9       | 264425<br>202696 |
| 78        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | C3SE<br>(SW)                                    | 560                                | 9       | 264478<br>202225 |
| 78        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | C3SE<br>(SW)                                    | 621                                | 9       | 264418<br>202217 |
| 78        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | C3SE<br>(SW)                                    | 644                                | 9       | 264394<br>202217 |
| 79        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | C3SE<br>(SW)                                    | 664                                | 9       | 264373<br>202221 |
| 80        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location   | C3SE<br>(SW)                                    | 772                                | 9       | 264264<br>202224 |
| 80        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Beds SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location  | C3SE<br>(SW)                                    | 808                                | 9       | 264222<br>202278 |
| 81        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure Sludge Beds SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location  | C3SW<br>(SW)                                    | 832                                | 9       | 264198<br>202361 |
| 82        | Name:<br>Location:<br>Category:<br>Class Code: | Public Infrastructure  Weir SA5 Water Weirs, Sluices and Dams Positioned to an adjacent address or location   | C8NW<br>(N)                                     | 928                                | 9       | 264775<br>203238 |

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# **Industrial Land Use**

| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | Gas Pipelines  |  |   |                                    |         |                  |
| 83        | Name:<br>Nat Grid:<br>Diameter (mm):<br>Building Proximity<br>Distance (m):<br>Status:<br>Pipe Length (m):<br>Pipe Number: | FM28 - Felindre to Three Cocks<br>Owned By National Grid<br>1200<br>132<br>Active<br>107292.6<br>Feeder 28 | C4SW<br>(S)                                     | 0                                  | 10      | 264867<br>202222 |
|           | Gas Pipelines  |  |   |                                    |         |                  |
| 84        | Name:<br>Nat Grid:<br>Diameter (mm):<br>Building Proximity<br>Distance (m):<br>Status:<br>Pipe Length (m):<br>Pipe Number: | FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28                  | C4SW<br>(S)                                     | 0                                  | 10      | 264868<br>202233 |
|           | Gas Pipelines  |  |   |                                    |         |                  |
| 85        | Name:<br>Nat Grid:<br>Diameter (mm):<br>Building Proximity<br>Distance (m):<br>Status:<br>Pipe Length (m):<br>Pipe Number: | FM28 - Felindre to Cilfrew<br>Owned By National Grid<br>1200<br>132<br>Active<br>17048.8<br>Feeder 28      | C4SE<br>(SE)                                    | 0                                  | 10      | 265060<br>202293 |

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# **Sensitive Land Use**

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 86        | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7060<br>16001.14<br>Ancient and Semi-Natural Woodland | (SE)  | 0                                  | 2       | 265459<br>201573 |
| 87        | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>882<br>7755.99<br>Ancient and Semi-Natural Woodland   | C4SW<br>(S)                                     | 207                                | 2       | 264788<br>202499 |
| 88        | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>880<br>5527.37<br>Ancient and Semi-Natural Woodland   | (S)   | 463                                | 2       | 264557<br>201982 |
| 89        | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>878<br>4775.36<br>Ancient and Semi-Natural Woodland   | (S)   | 576                                | 2       | 264489<br>201782 |
| 90        | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>887<br>3413.32<br>Ancient and Semi-Natural Woodland   | C8SW (N)  | 722                                | 2       | 264709<br>202980 |
| 91        | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>879<br>19270.88<br>Ancient and Semi-Natural Woodland  | (SW)  | 727                                | 2       | 263670<br>201727 |
| 92        | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>881<br>5855.63<br>Ancient and Semi-Natural Woodland   | C3SW<br>(SW)                                    | 972                                | 2       | 264051<br>202234 |
| 93        | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>883<br>5980.93<br>Ancient and Semi-Natural Woodland   | C3NW<br>(W)                                     | 972                                | 2       | 264183<br>202806 |

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| Agency & Hydrological   | Version        | Update Cycle          |
|---|----------------|-----------------------|
| Contaminated Land Register Entries and Notices                        |                |                       |
| City and County of Swansea - Environmental Health Department          | January 2015   | Annual Rolling Update |
| Carmarthenshire County Council - Environmental Health Department      | October 2014   | Annual Rolling Update |
| Discharge Consents  |                |                       |
| Environment Agency - Welsh Region                                     | August 2014    | Quarterly             |
| Natural Resources Wales   | August 2017    | Quarterly             |
| Enforcement and Prohibition Notices Environment Agency - Welsh Region | March 2013     | As notified           |
|   | Widion 2010    | 7.6 Houned            |
| Integrated Pollution Controls   | Ontob on 2000  | Not Applicable        |
| Environment Agency - Welsh Region                                     | October 2008   | Not Applicable        |
| Integrated Pollution Prevention And Control                           |                |                       |
| Natural Resources Wales   | August 2017    | Quarterly             |
| Environment Agency - Welsh Region                                     | July 2017      | Quarterly             |
| Local Authority Integrated Pollution Prevention And Control           |                |                       |
| Swansea Bay Port Health Authority                                     | April 2014     | Annually              |
| City and County of Swansea - Environmental Health Department          | June 2014      | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department      | March 2015     | Annual Rolling Updat  |
| Local Authority Pollution Prevention and Controls                     |                |                       |
| Swansea Bay Port Health Authority                                     | April 2014     | Annually              |
| City and County of Swansea - Environmental Health Department          | June 2014      | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department      | March 2015     | Annual Rolling Updat  |
| Local Authority Pollution Prevention and Control Enforcements         |                |                       |
| Swansea Bay Port Health Authority                                     | April 2014     | Annually              |
| City and County of Swansea - Environmental Health Department          | June 2014      | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department      | September 2013 | Annual Rolling Updat  |
| Nearest Surface Water Feature   |                | a ekam                |
| Ordnance Survey   | May 2017       |                       |
| Pollution Incidents to Controlled Waters                              |                |                       |
|   | December 1998  | Not Applicable        |
| Environment Agency - Welsh Region                                     | December 1998  | Not Applicable        |
| Prosecutions Relating to Authorised Processes                         |                |                       |
| Environment Agency - Welsh Region                                     | March 2013     | As notified           |
| Natural Resources Wales   | March 2013     | As notified           |
| Prosecutions Relating to Controlled Waters                            |                |                       |
| Environment Agency - Welsh Region                                     | March 2013     | As notified           |
| Natural Resources Wales   | March 2013     | As notified           |
| Registered Radioactive Substances                                     |                |                       |
| Natural Resources Wales   | January 2015   | As notified           |
| Environment Agency - Welsh Region                                     | January 2015   |                       |
| River Quality   |                |                       |
| Environment Agency - Head Office                                      | November 2001  | Not Applicable        |
| River Quality Biology Sampling Points                                 |                |                       |
| Environment Agency - Head Office                                      | July 2012      | Annually              |
| Substantiated Pollution Incident Register                             |                |                       |
| Natural Resources Wales   | August 2018    | Quarterly             |
| Environment Agency Wales - South West Area                            | July 2017      | Quarterly             |
| Water Abstractions  |                |                       |
| Environment Agency - Welsh Region                                     | July 2017      | Quarterly             |
| Natural Resources Wales   | July 2017      | Quarterly             |
| Water Industry Act Referrals  |                |                       |
| Natural Resources Wales   | August 2017    | Quarterly             |
| Environment Agency - Welsh Region                                     | July 2017      | Quarterly             |

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| Agency & Hydrological   | Version       | Update Cycle   |
|---|---------------|----------------|
| Groundwater Vulnerability   |               |                |
| Environment Agency - Head Office                                    | April 2015    | Not Applicable |
| Drift Deposits  |               |                |
| Environment Agency - Head Office                                    | January 1999  | Not Applicable |
| Bedrock Aquifer Designations  |               |                |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |
| Superficial Aquifer Designations                                    |               |                |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |
| Source Protection Zones   |               |                |
| Natural Resources Wales   | November 2016 | As notified    |
| Extreme Flooding from Rivers or Sea without Defences                | A 4.00:-      |                |
| Natural Resources Wales   | August 2017   | Quarterly      |
| Flooding from Rivers or Sea without Defences                        | A             | Overstant.     |
| Natural Resources Wales   | August 2017   | Quarterly      |
| Areas Benefiting from Flood Defences Natural Resources Wales        | August 2017   | Quartarly      |
|   | August 2017   | Quarterly      |
| Flood Water Storage Areas Natural Resources Wales                   | August 2017   | Quarterly      |
| Flood Defences  | August 2017   | Quarterly      |
| Natural Resources Wales   | August 2017   | Quarterly      |
| OS Water Network Lines  | 7.tagust 2017 | Quarterly      |
| Ordnance Survey   | July 2017     | 6 Weekly       |
| Surface Water 1 in 30 year Flood Extent                             |               |                |
| Natural Resources Wales   | October 2013  | As notified    |
| Surface Water 1 in 100 year Flood Extent                            |               |                |
| Natural Resources Wales   | October 2013  | As notified    |
| Surface Water 1 in 1000 year Flood Extent                           |               |                |
| Natural Resources Wales   | October 2013  | As notified    |
| Surface Water Suitability   |               |                |
| Natural Resources Wales   | October 2013  | As notified    |
| BGS Groundwater Flooding Susceptibility                             |               |                |
| British Geological Survey - National Geoscience Information Service | May 2013      | Annually       |

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| Waste  | Version                        | Update Cycle                              |
|--|--------------------------------|---|
| BGS Recorded Landfill Sites  |                                |   |
| British Geological Survey - National Geoscience Information Service  | June 1996                      | Not Applicable                            |
| Historical Landfill Sites  |                                |   |
| Natural Resources Wales  | May 2017                       | Quarterly                                 |
| Integrated Pollution Control Registered Waste Sites  |                                |   |
| Environment Agency - Welsh Region  | October 2008                   | Not Applicable                            |
| Licensed Waste Management Facilities (Landfill Boundaries)   |                                |   |
| Environment Agency Wales - South West Area   | May 2017                       | Quarterly                                 |
| Natural Resources Wales  | May 2017                       | Quarterly                                 |
| Licensed Waste Management Facilities (Locations)   |                                |   |
| Natural Resources Wales  | August 2017                    | Quarterly                                 |
| Environment Agency Wales - South West Area   | July 2017                      | Quarterly                                 |
| Local Authority Landfill Coverage  |                                | N . A . E . I .                           |
| Carmarthenshire County Council   | May 2000                       | Not Applicable                            |
| City and County of Swansea - Environmental Health Department   | May 2000                       | Not Applicable                            |
| Local Authority Recorded Landfill Sites  | Ma 0000                        | Not Applicable                            |
| Carmarthenshire County Council City and County of Swansea - Environmental Health Department  | May 2000                       | Not Applicable                            |
|  | May 2000                       | Not Applicable                            |
| Potentially Infilled Land (Non-Water) Landmark Information Group Limited   | December 1999                  | Not Applicable                            |
| ·  | December 1999                  | Not Applicable                            |
| Potentially Infilled Land (Water)  | December 1999                  | Not Applicable                            |
| Landmark Information Group Limited   | December 1999                  | Not Applicable                            |
| Registered Landfill Sites  | Manah 2002                     | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Registered Waste Transfer Sites  | Manuels 0000                   | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Registered Waste Treatment or Disposal Sites   | March 2002                     | Not Applicable                            |
| Environment Agency Wales - South West Area   | March 2003                     | Not Applicable                            |
| Hazardous Substances   | Version                        | Update Cycle                              |
| Control of Major Accident Hazards Sites (COMAH)  |                                |   |
| Health and Safety Executive  | September 2017                 | Bi-Annually                               |
| Explosive Sites  |                                |   |
| Health and Safety Executive  | March 2017                     | Bi-Annually                               |
| Notification of Installations Handling Hazardous Substances (NIHHS)  |                                |   |
| Health and Safety Executive  | November 2000                  | Not Applicable                            |
| Planning Hazardous Substance Enforcements  |                                |   |
| Carmarthenshire County Council - Area Planning Office (East Area)  | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Area Planning Office (South Area)   | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Environment Department (West Area)  | February 2016                  | Annual Rolling Updat                      |
| City and County of Swansea - Planning Department   | January 2016                   | Annual Rolling Updat                      |
| Planning Hazardous Substance Consents  | F                              |   |
|  | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Area Planning Office (East Area)  | · ·                            | Assertal Dell's and Line                  |
| Carmarthenshire County Council - Area Planning Office (East Area)  Carmarthenshire County Council - Area Planning Office (South Area)  Carmarthenshire County Council - Environment Department (West Area) | February 2016<br>February 2016 | Annual Rolling Updat Annual Rolling Updat |

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| Geological  | Version         | Update Cycle    |
|---|-----------------|-----------------|
| BGS 1:625,000 Solid Geology   |                 |                 |
| British Geological Survey - National Geoscience Information Service   | January 2009    | Not Applicable  |
| BGS Estimated Soil Chemistry  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | October 2015    | As notified     |
| BGS Recorded Mineral Sites  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | April 2017      | Bi-Annually     |
| CBSCB Compensation District   |                 |                 |
| Cheshire Brine Subsidence Compensation Board (CBSCB)  | August 2011     | Not Applicable  |
| Coal Mining Affected Areas  |                 |                 |
| The Coal Authority - Property Searches  | March 2014      | As notified     |
| Mining Instability  |                 |                 |
| Ove Arup & Partners   | October 2000    | Not Applicable  |
|   | 00(000) 2000    | 140t Applicable |
| Non Coal Mining Areas of Great Britain  | Mov 2015        | Not Applicable  |
| British Geological Survey - National Geoscience Information Service   | May 2015        | Not Applicable  |
| Potential for Collapsible Ground Stability Hazards  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | June 2015       | Annually        |
| Potential for Compressible Ground Stability Hazards   |                 |                 |
| British Geological Survey - National Geoscience Information Service   | June 2015       | Annually        |
| Potential for Ground Dissolution Stability Hazards  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | June 2015       | Annually        |
| Potential for Landslide Ground Stability Hazards  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | June 2015       | Annually        |
|   | 00 20.10        | 7               |
| Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service | June 2015       | Annually        |
|   | June 2015       | Annually        |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards   |                 |                 |
| British Geological Survey - National Geoscience Information Service   | June 2015       | Annually        |
| Radon Potential - Radon Affected Areas  |                 |                 |
| British Geological Survey - National Geoscience Information Service   | July 2011       | As notified     |
| Radon Potential - Radon Protection Measures   |                 |                 |
| British Geological Survey - National Geoscience Information Service   | July 2011       | As notified     |
|   | _               | _               |
| Industrial Land Use   | Version         | Update Cycle    |
| Contemporary Trade Directory Entries  |                 |                 |
| Thomson Directories   | September 2017  | Quarterly       |
| Fuel Station Entries  |                 |                 |
| Catalist Ltd - Experian   | August 2017     | Quarterly       |
| Gas Pipelines   |                 |                 |
| National Grid   | July 2014       | Quarterly       |
| Points of Interest - Commercial Services  |                 |                 |
| PointX  | September 2017  | Quarterly       |
| Points of Interest - Education and Health   | ·               | -               |
| PointX  | September 2017  | Quarterly       |
|   | Coptombol 2011  | Quartony        |
| Points of Interest - Manufacturing and Production   | Contomb == 0047 | O               |
| PointX  | September 2017  | Quarterly       |
| Points of Interest - Public Infrastructure  |                 |                 |
| PointX  | September 2017  | Quarterly       |
| Points of Interest - Recreational and Environmental   |                 |                 |
|   | September 2017  | Quarterly       |
| PointX  | Ocptomber 2017  |                 |
| PointX  Underground Electrical Cables   | Ocptember 2017  | ,               |

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| Sensitive Land Use   | Version      | Update Cycle   |
|--|--------------|----------------|
| Ancient Woodland   |              |                |
| Natural Resources Wales  | May 2017     | Bi-Annually    |
| Areas of Adopted Green Belt  |              |                |
| City and County of Swansea   | May 2017     | As notified    |
| Areas of Outstanding Natural Beauty  |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Environmentally Sensitive Areas  |              |                |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | January 2017 | Annually       |
| Forest Parks   |              |                |
| Forestry Commission  | April 1997   | Not Applicable |
| Local Nature Reserves  |              |                |
| Carmarthenshire County Council   | August 2017  | Bi-Annually    |
| City and County of Swansea   | August 2017  | Bi-Annually    |
| Marine Nature Reserves   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| National Nature Reserves   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| National Parks   |              |                |
| Natural Resources Wales  | August 2017  | Annually       |
| Nitrate Vulnerable Zones   |              |                |
| Natural Resources Wales  | June 2017    | Bi-Annually    |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | October 2005 |                |
| Ramsar Sites   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Sites of Special Scientific Interest   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Special Areas of Conservation  |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Special Protection Areas   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |

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# **Data Suppliers**

A selection of organisations who provide data within this report

| Data Supplier                          | Data Supplier Logo   |
|--|--|
| Ordnance Survey                        | Map data   |
| Environment Agency                     | Environment<br>Agency  |
| Scottish Environment Protection Agency | SEPA   |
| The Coal Authority                     | The Coal<br>Authority  |
| British Geological Survey              | British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL       |
| Centre for Ecology and Hydrology       | Centre for Ecology & Hydrology  NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                | Cyfoeth Naturiol Cyrru Natural Resources Wales                       |
| Scottish Natural Heritage              | scottish<br>NATURAL<br>HERITAGE<br>단구하                               |
| Natural England                        | NATURAL<br>ENGLAND   |
| Public Health England                  | Public Health<br>England   |
| Ove Arup                               | ARUP   |
| Peter Brett Associates                 | pba  |



## **Useful Contacts**

| Contact | Name and Address  | Contact Details  |
|---------|---|--|
| 1       | British Geological Survey - Enquiry Service  British Geological Survey, Kingsley Dunham 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<br>Email: enquiries@naturalresourceswales.gov.uk  |
| 3       | Environment Agency - National Customer Contact Centre (NCCC)  | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk   |
|         | PO Box 544, Templeborough, Rotherham, S60 1BY   |  |
| 4       | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS  | Telephone: 023 8079 2000<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk         |
| 5       | City and County of Swansea - Environmental Health Department  | Telephone: 01792 636000 extn 5651<br>Fax: 01792 635719   |
|         | The Guildhall, Swansea, West Glamorgan, SA1 4PE   |  |
| 6       | Health and Safety Executive  5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS  | Website: www.hse.gov.uk  |
| 7       | City and County of Swansea - Planning Department The Guildhall, Swansea, West Glamorgan, SA1 4PE  | Telephone: 01792 636000<br>Fax: 01792 635709   |
| 8       | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG   | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com       |
| 9       | PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY   | Website: www.pointx.co.uk  |
| 10      | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9966<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk        |
| -       | Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards  Chilton, Didcot, Oxfordshire, OX11 0RQ          | Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org                             |
| -       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk |

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

Order Number: 142844199\_1\_1 Date: 13-Oct-2017 rpr\_ec\_datasheet v53.0 A Landmark Information Group Service Page 29 of 29

## **Geology 1:50,000 Maps Legends**

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name         | Rock Type                   | Min and Max Age            |
|---------------|----------|-------------------|-----------------------------|----------------------------|
|               | SLIP     | Landslide Deposit | Unknown/Unclassif ied Entry | Quaternary -<br>Quaternary |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age            |
|---------------|----------|---|---|----------------------------|
|               | ALV      | Alluvium  | Clay, Silt, Sand<br>and Gravel                  | Flandrian -<br>Flandrian   |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | TILLD    | Till, Devensian                                     | Diamicton                                       | Devensian -<br>Devensian   |
|               | HMGDD    | Hummocky (Moundy)<br>Glacial Deposits,<br>Devensian | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | GFICD    | Glaciofluvial Ice Contact<br>Deposits, Devensian    | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Quaternary |
|               | HEAD     | Head  | Clay, Silt, Sand<br>and Gravel                  | Quaternary -<br>Quaternary |
|               | RTDU     | River Terrace Deposits<br>(Undifferentiated)        | Sand and Gravel                                 | Quaternary -<br>Quaternary |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                               | Min and Max Age                  |
|---------------|----------|---------------------|---|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                               | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | Ħ        | Hughes Member       | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Sandstone                               | Westphalian D -<br>Westphalian D |
|               |          | Faults              |   |                                  |
| /             | ·        | Rock Segments       |   |                                  |

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#### Geology 1:50,000 Maps

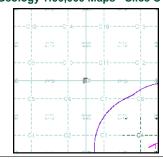
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

#### Geology 1:50,000 Maps Coverage

Map ID: Map Sheet No: Map Name: Ammanford 1977 Map Date: Available Superficial Geology Artificial Geology: Not Supplied Landslip: Available Not Supplied

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





#### **Order Details:**

Order Number: 142844199\_1\_1 Customer Reference: 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

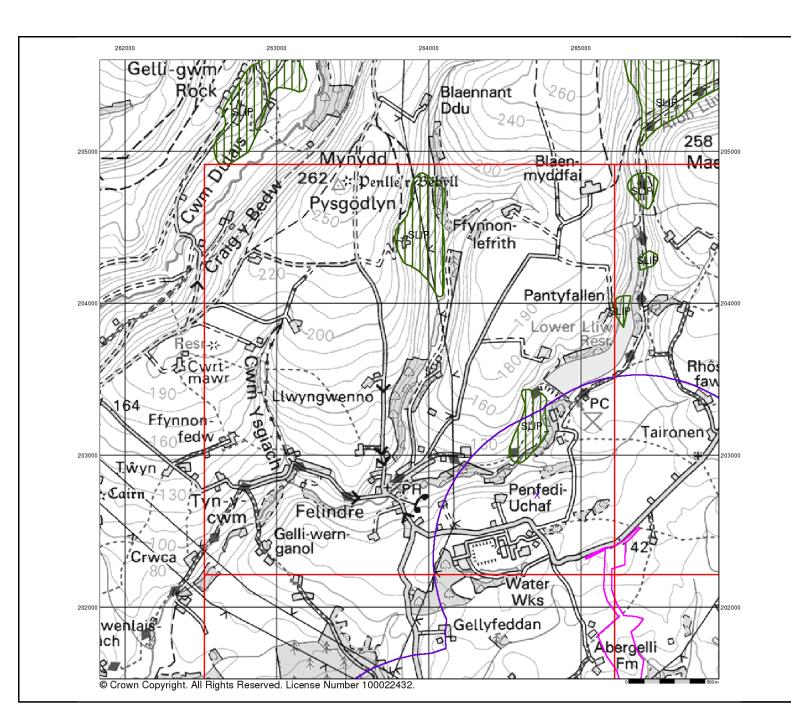
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#### **Artificial Ground and Landslip**

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.

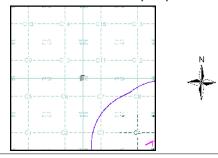
Artificial ground includes:

- 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

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 C



#### **Order Details:**

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Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

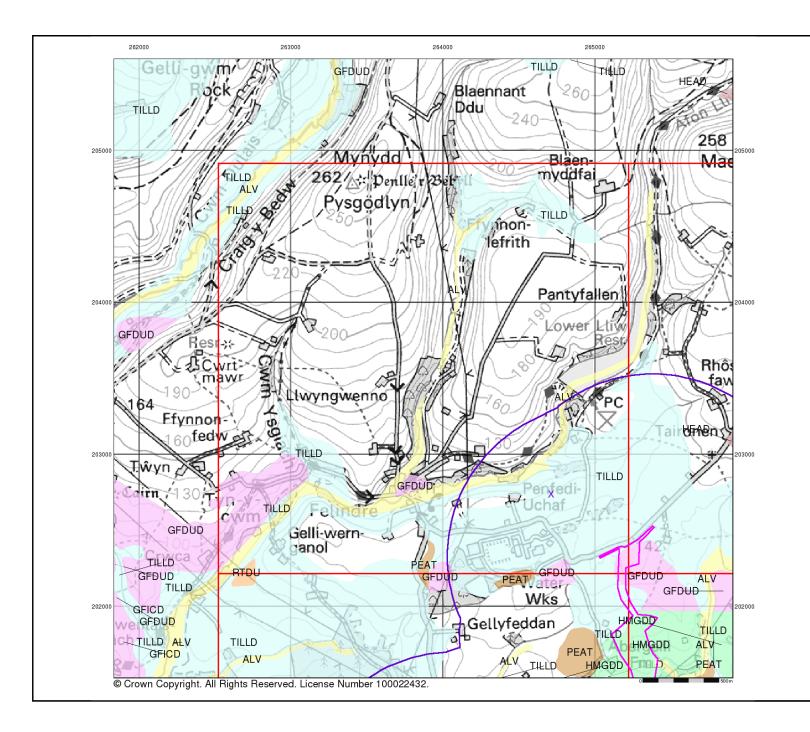
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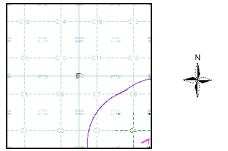
#### **Superficial Geology**

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 C



#### **Order Details:**

Order Number: Customer Reference: 142844199\_1\_1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

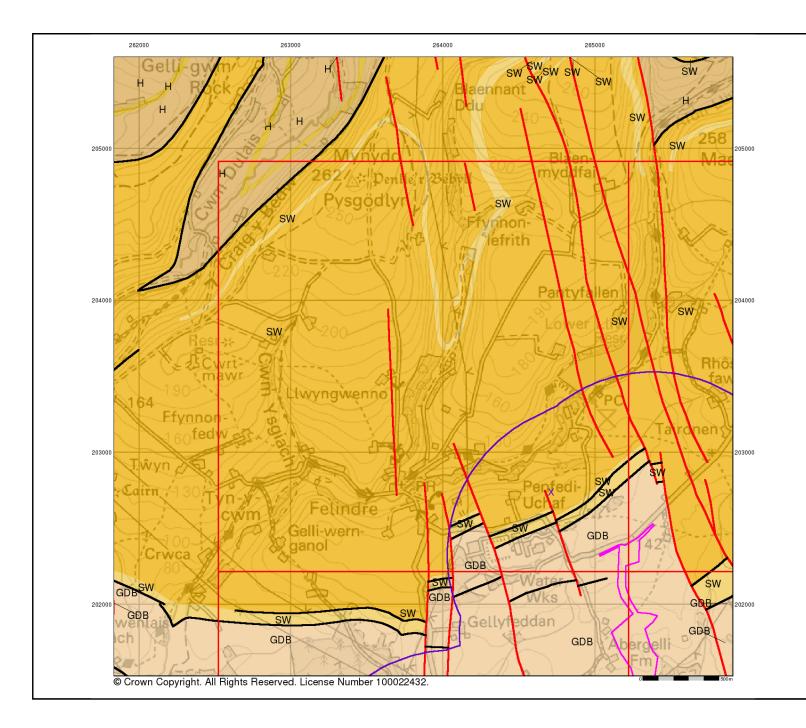
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#### **Bedrock and Faults**

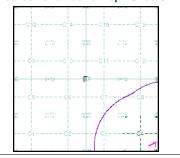
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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 C



#### **Order Details:**

Order Number: Customer Reference: 142844199\_1\_1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

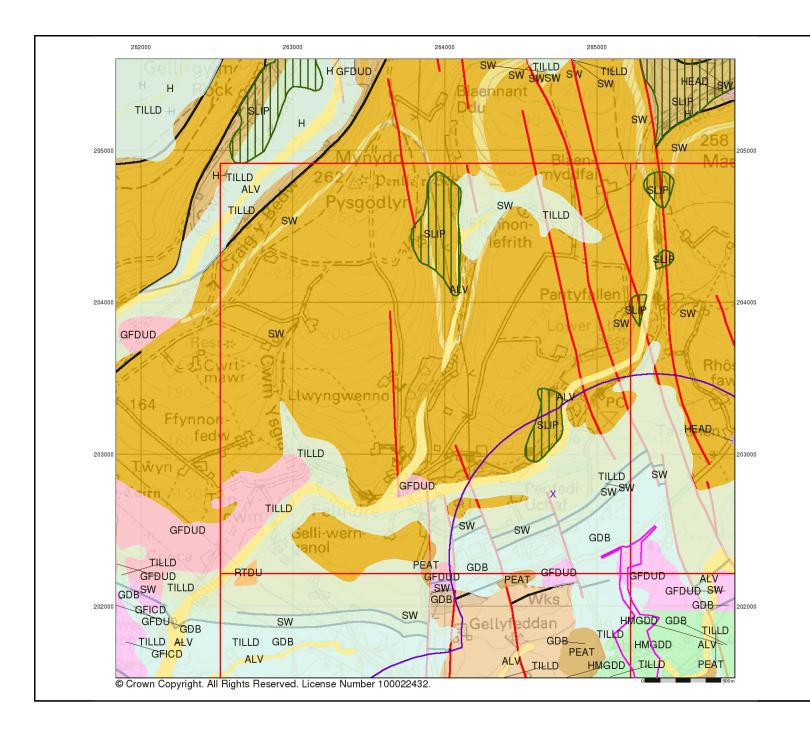
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#### **Combined Surface Geology**

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

#### Contact

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

#### Combined Geology Map - Slice C





#### **Order Details:**

Order Number: Customer Reference: 142844199 1 1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

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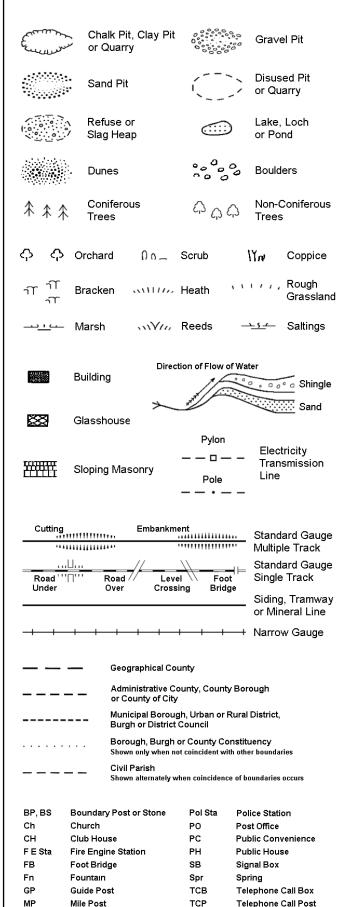
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# **Historical Mapping Legends**

## **Ordnance Survey County Series 1:10,560** Other Gravel Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over Ri∨er Railway Railway over Level Crossing Road Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary RD. Bdy.

Civil Parish Boundary

## Ordnance Survey Plan 1:10,000



## 1:10,000 Raster Mapping

|                  | Gravel Pit  |              | Refuse tip<br>or slag heap                       |
|------------------|---|--------------|--|
|                  | Rock  |              | Rock<br>(scattered)                              |
|                  | Boulders  | <i>a o</i>   | Boulders<br>(scattered)                          |
|                  | Shingle   | Mud          | Mud  |
| Sand             | Sand  |              | Sand Pit   |
| ********         | Slopes  |              | Top of cliff                                     |
|                  | General detail  |              | Underground detail                               |
|                  | - Overhead detail   |              | Narrow gauge<br>railway                          |
|                  | Multi-track<br>railway  |              | Single track railway                             |
|                  | County boundary<br>(England only)                                 | • • • • •    | Civil, parish or community boundary              |
|                  | District, Unitary,<br>Metropolitan,<br>London Borough<br>boundary |              | Constituency<br>boundary                         |
| ۵ <sup>0</sup>   | Area of wooded vegetation   | م<br>م<br>م  | Non-coniferous<br>trees                          |
| $C_{i,\lambda}$  | Non-coniferous trees (scattered)                                  | **           | Coniferous<br>trees                              |
| <b>*</b>         | Coniferous<br>trees (scattered)                                   | Ö            | Positioned tree                                  |
| \$ \$<br>\$ \$   | Orchard   | * *          | Coppice or Osiers                                |
| wīti.            | Rough<br>Grassland  | www.         | Heath  |
| On_              | Scrub   | 7 <u>₩</u> ۲ | Marsh, Salt<br>Marsh or Reeds                    |
| 6                | Water feature   | <b>←</b>     | Flow arrows                                      |
| MHW(S)           | Mean high<br>water (springs)                                      | MLW(S)       | Mean low<br>water (springs)                      |
|                  | Telephone line<br>(where shown)                                   | <b></b>      | Electricity<br>transmission line<br>(with poles) |
| ←<br>BM 123.45 m | Bench mark<br>(where shown)                                       | Δ            | Triangulation station                            |
|                  | Point feature<br>(e.g. Guide Post<br>or Mile Stone)               | $\boxtimes$  | Pylon, flare stac<br>or lighting tower           |
| •‡•              | Site of (antiquity)   |              | Glasshouse                                       |
|                  | General Building  |              | Important<br>Building                            |

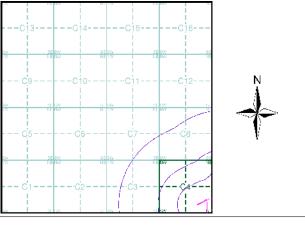
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## **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date        | Pg |
|----------------------|----------|-------------|----|
| Glamorganshire       | 1:10,560 | 1883 - 1884 | 3  |
| Glamorganshire       | 1:10,560 | 1900        | 4  |
| Glamorganshire       | 1:10,560 | 1921        | 5  |
| Glamorganshire       | 1:10,560 | 1938        | 6  |
| Glamorganshire       | 1:10,560 | 1952 - 1953 | 7  |
| Ordnance Survey Plan | 1:10,000 | 1964        | 8  |
| Ordnance Survey Plan | 1:10,000 | 1976        | 9  |
| Swansea              | 1:10,000 | 1976        | 10 |
| Ordnance Survey Plan | 1:10,000 | 1991        | 11 |
| 10K Raster Mapping   | 1:10,000 | 1999        | 12 |
| 10K Raster Mapping   | 1:10,000 | 2006        | 13 |
| VectorMap Local      | 1:10,000 | 2017        | 14 |

## **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

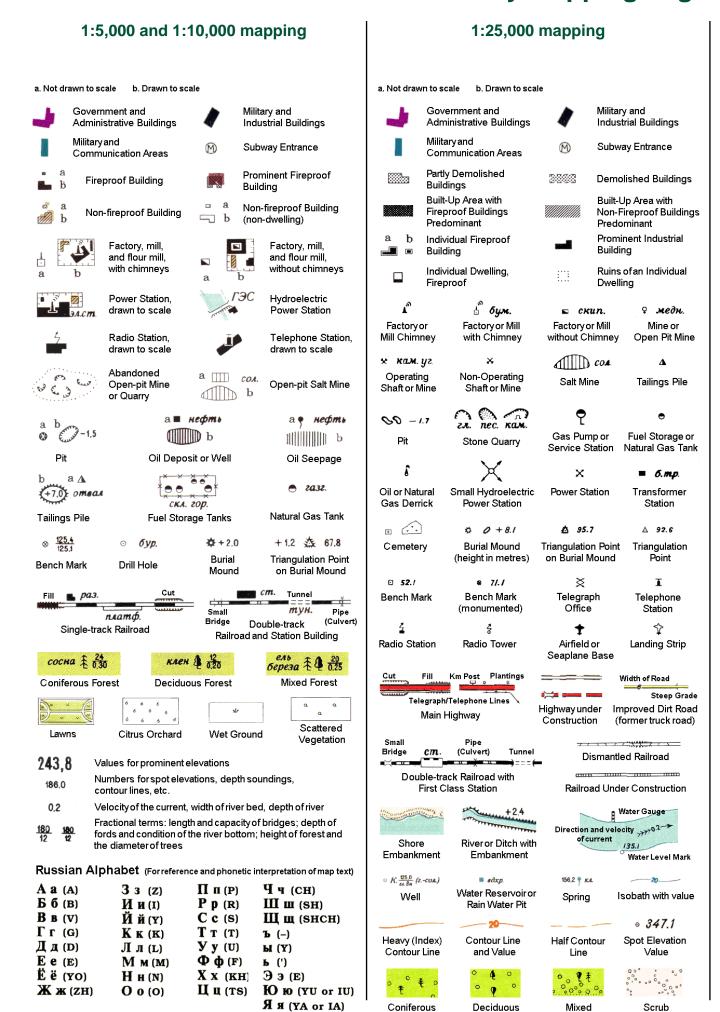
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# **Russian Military Mapping Legends**



#### **Key to Numbers on Mapping**

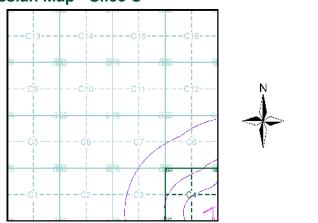
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### **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date        | Pg |
|----------------------|----------|-------------|----|
| Glamorganshire       | 1:10,560 | 1883 - 1884 | 3  |
| Glamorganshire       | 1:10,560 | 1900        | 4  |
| Glamorganshire       | 1:10,560 | 1921        | 5  |
| Glamorganshire       | 1:10,560 | 1938        | 6  |
| Glamorganshire       | 1:10,560 | 1952 - 1953 | 7  |
| Ordnance Survey Plan | 1:10,000 | 1964        | 8  |
| Ordnance Survey Plan | 1:10,000 | 1976        | 9  |
| Swansea              | 1:10,000 | 1976        | 10 |
| Ordnance Survey Plan | 1:10,000 | 1991        | 11 |
| 10K Raster Mapping   | 1:10,000 | 1999        | 12 |
| 10K Raster Mapping   | 1:10,000 | 2006        | 13 |
| VectorMap Local      | 1:10,000 | 2017        | 14 |

### Russian Map - Slice C



#### **Order Details** Order Number:

142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

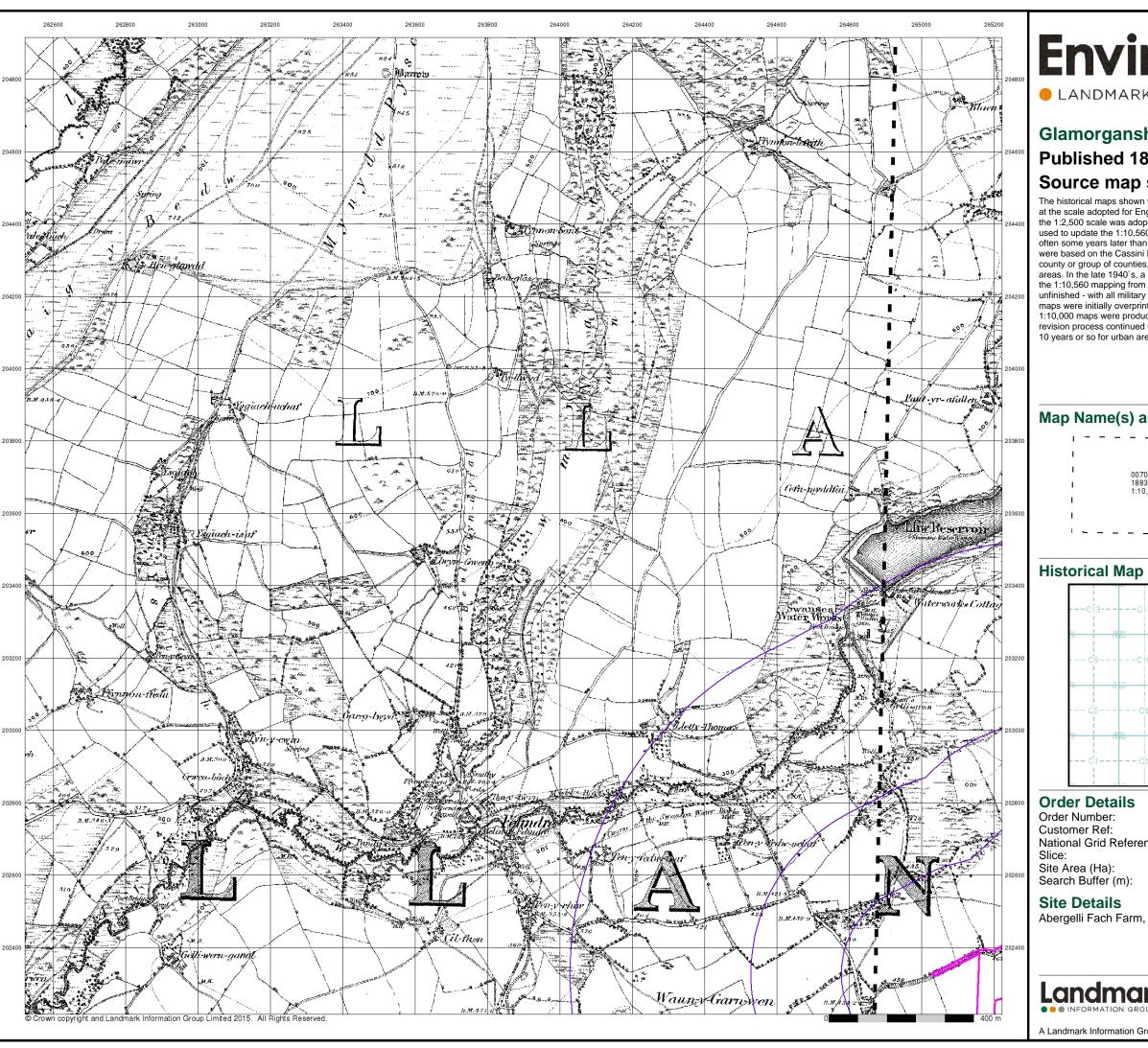
## **Site Details**

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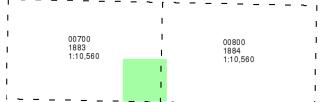
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## Glamorganshire

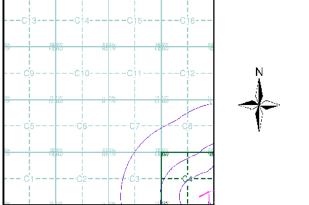
## Published 1883 - 1884 Source map scale - 1:10,560

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

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



### **Historical Map - Slice C**



142844199\_1\_1 60542910 National Grid Reference: 264710, 202740

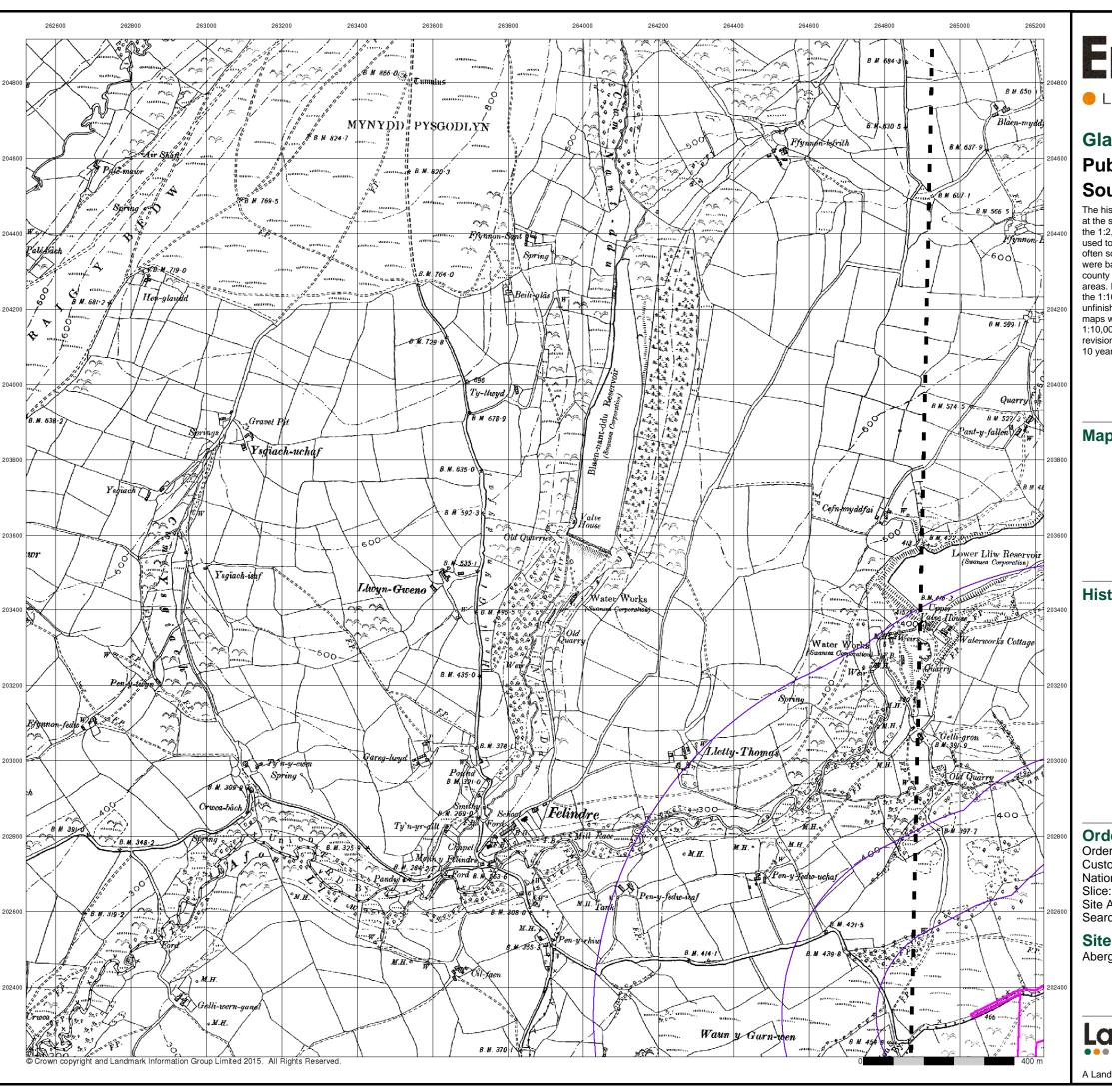
32.39

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## Glamorganshire

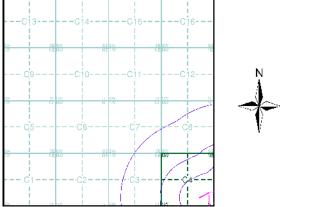
## **Published 1900** Source map scale - 1:10,560

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



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

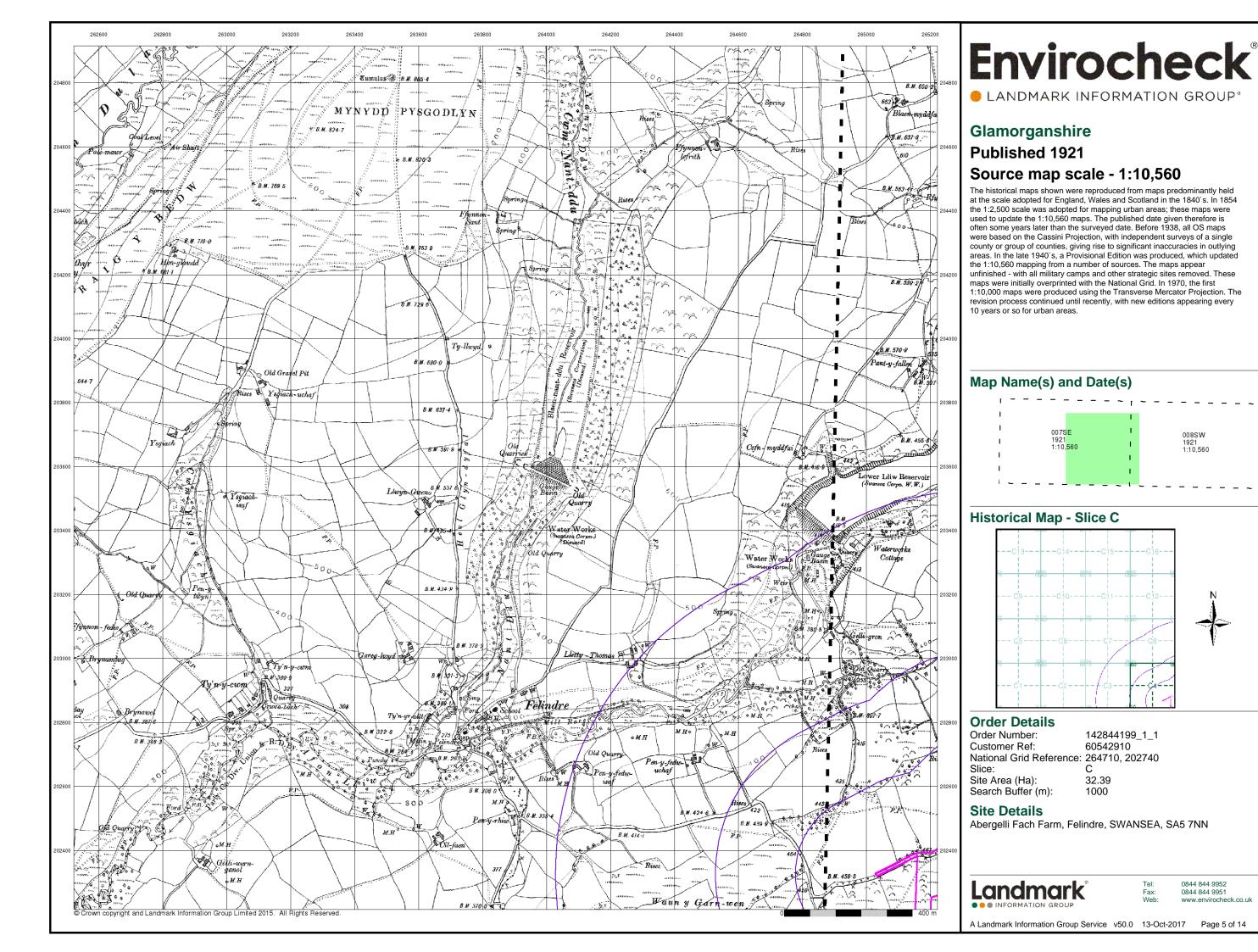
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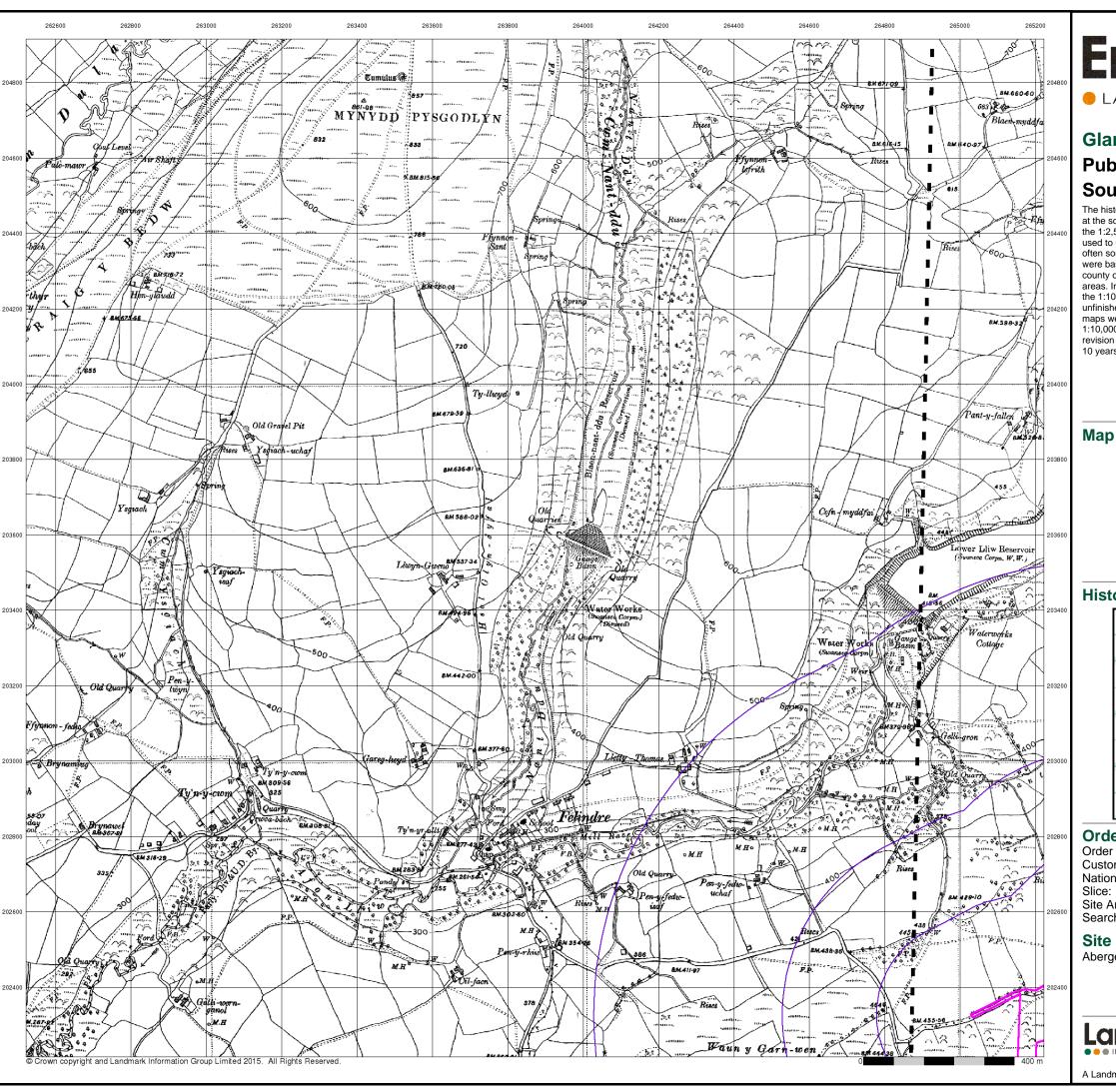
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## Glamorganshire

# **Published 1938**

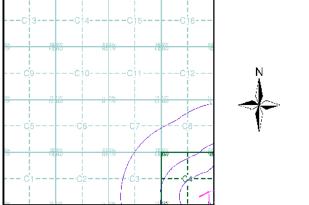
## Source map scale - 1:10,560

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

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



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

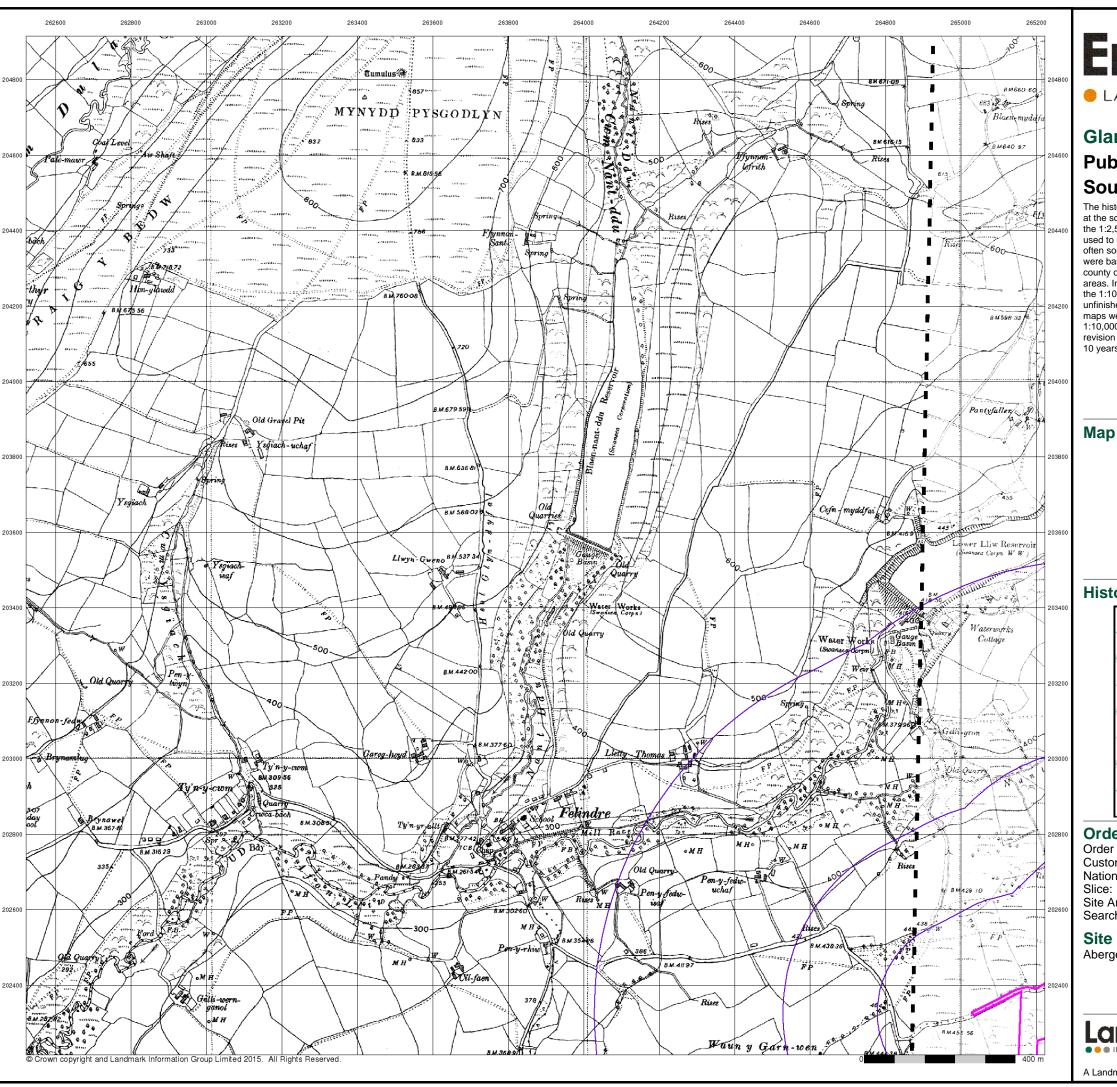
#### **Site Details**

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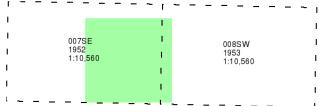
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## Glamorganshire

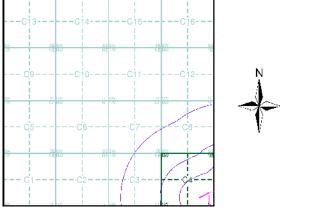
## **Published 1952 - 1953** Source map scale - 1:10,560

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

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



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

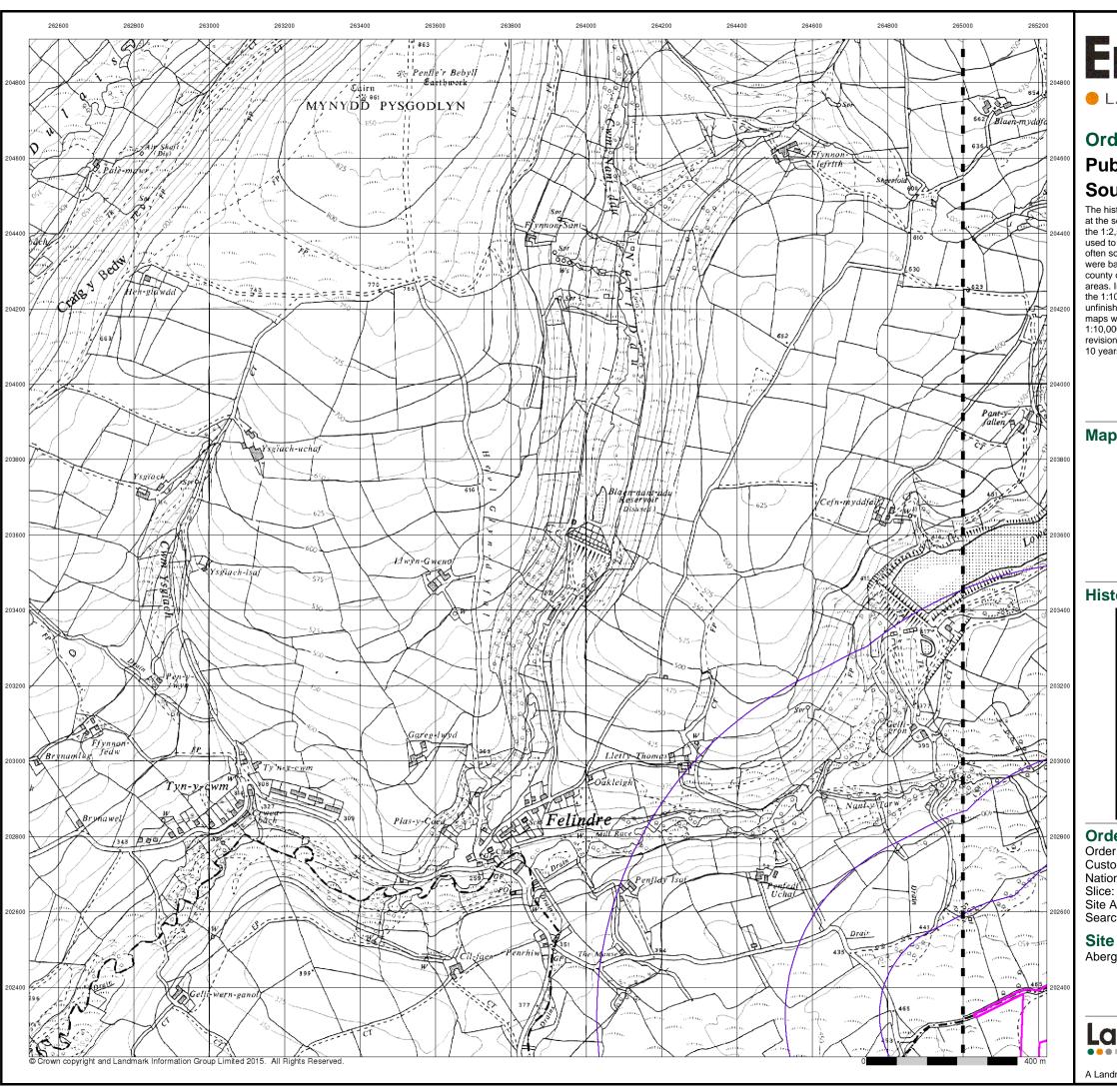
### **Site Details**

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0844 844 9952

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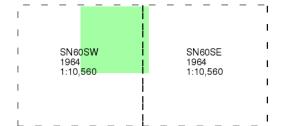


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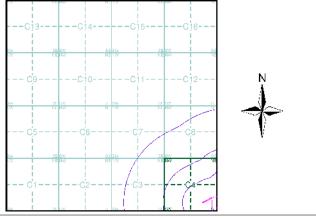
# **Ordnance Survey Plan Published 1964** Source map scale - 1:10,000

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

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



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

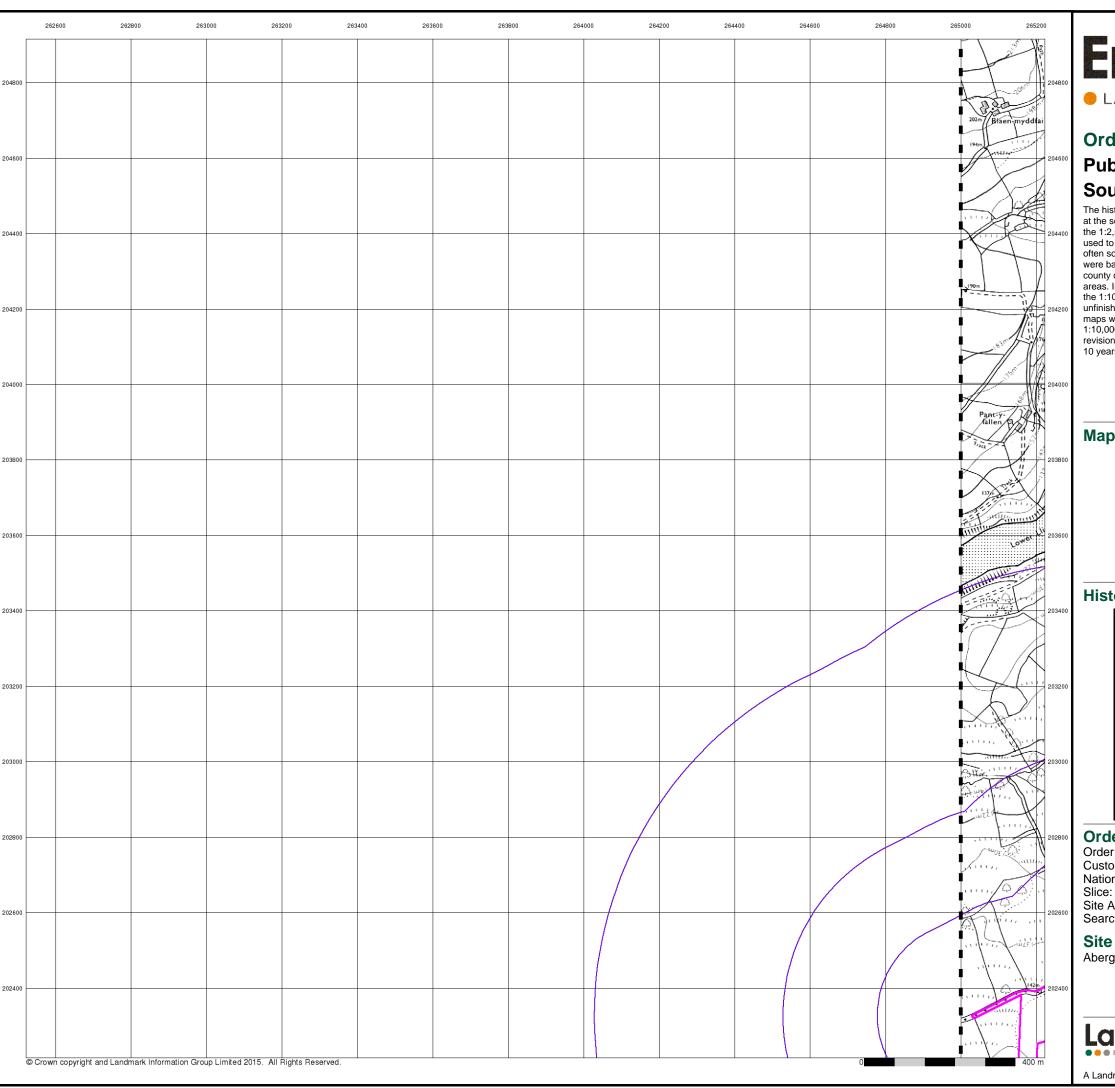
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 8 of 14

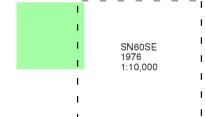


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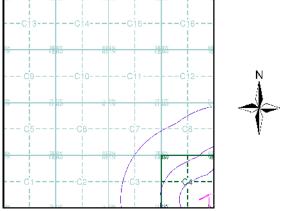
# **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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

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



### **Historical Map - Slice C**



## **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): Search Buffer (m): 32.39 1000

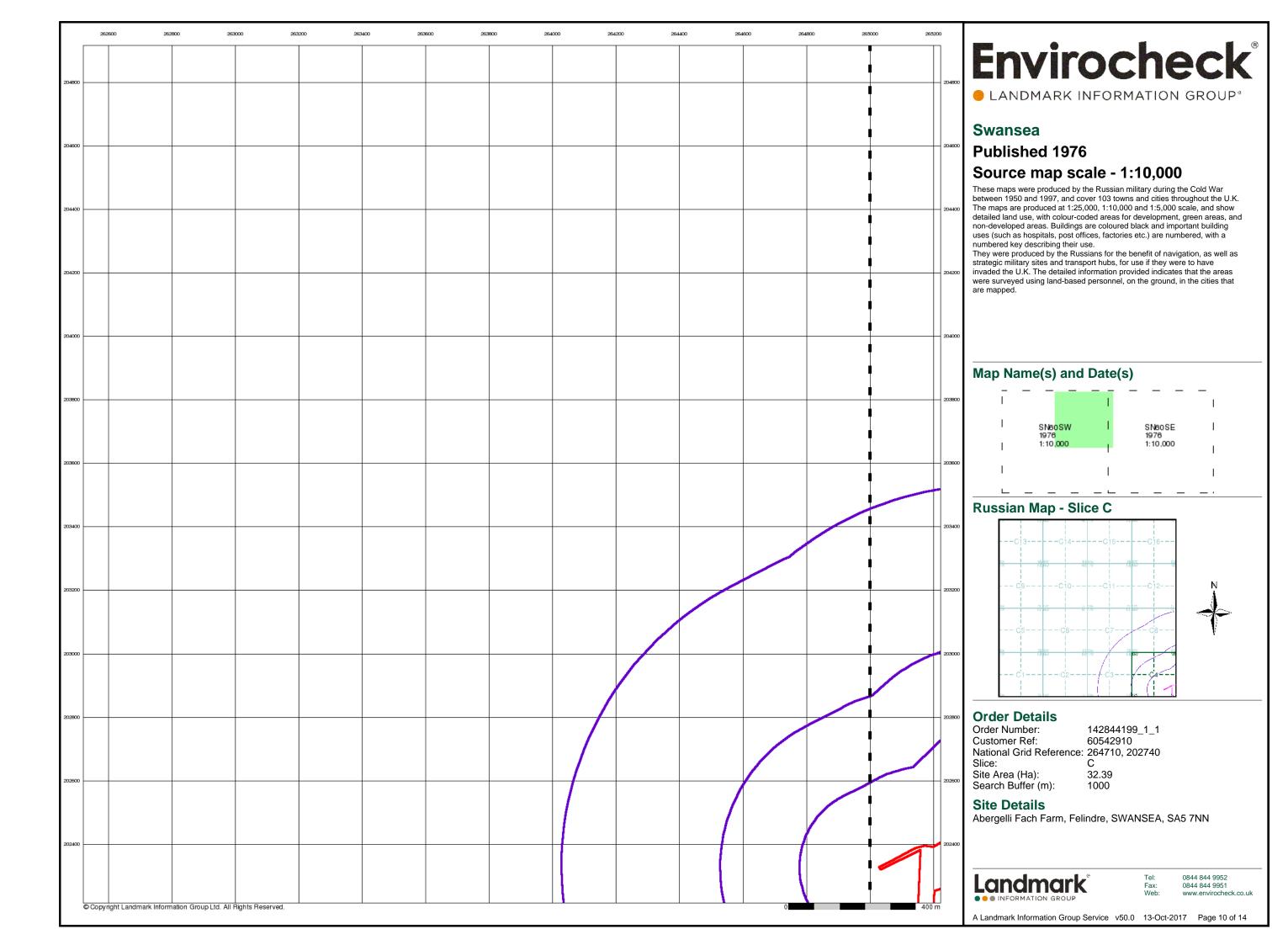
#### **Site Details**

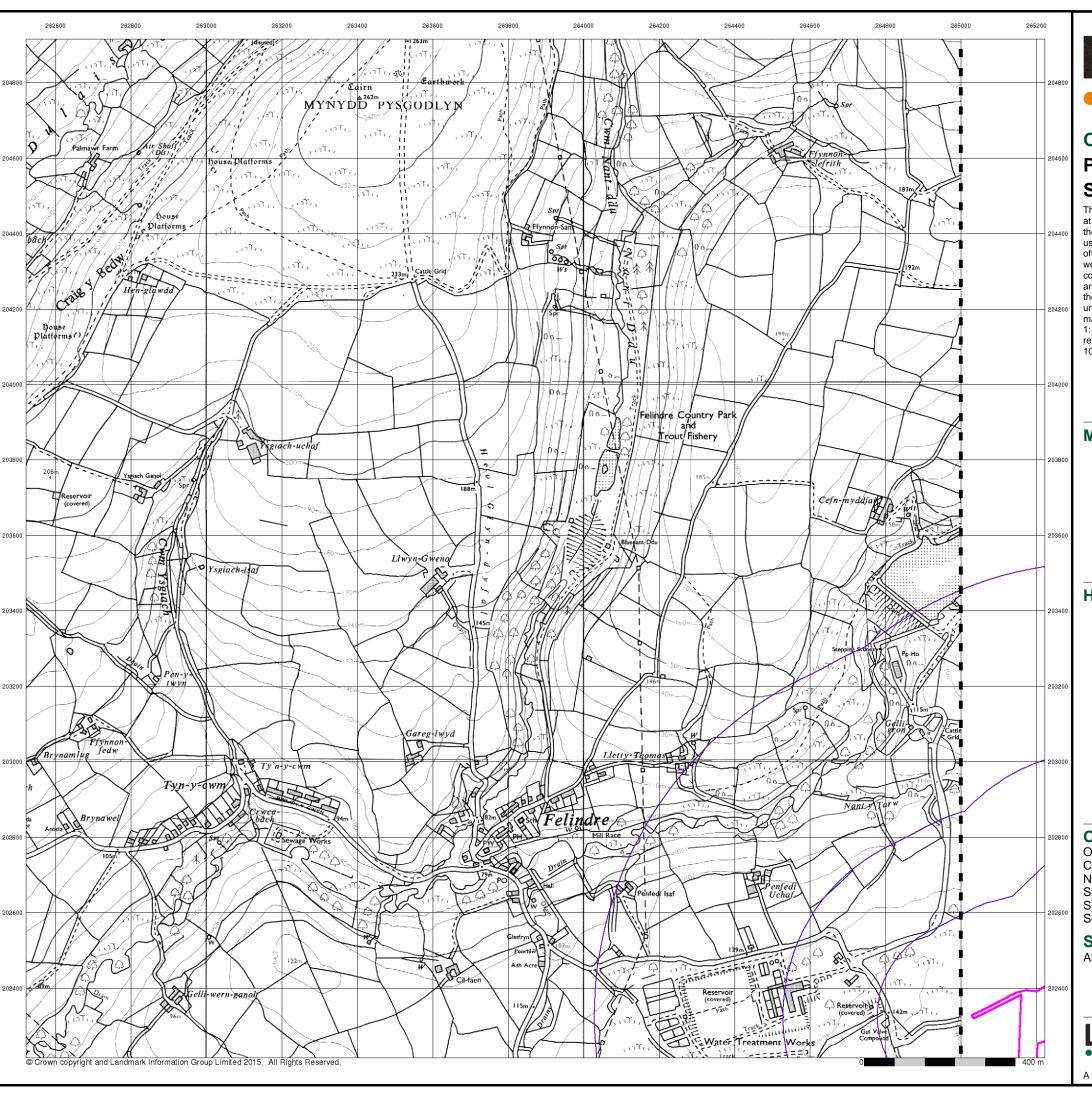
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

0844 844 9952

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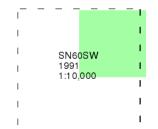
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# Ordnance Survey Plan Published 1991

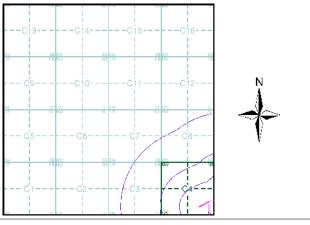
## Source map scale - 1:10,000

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

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



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

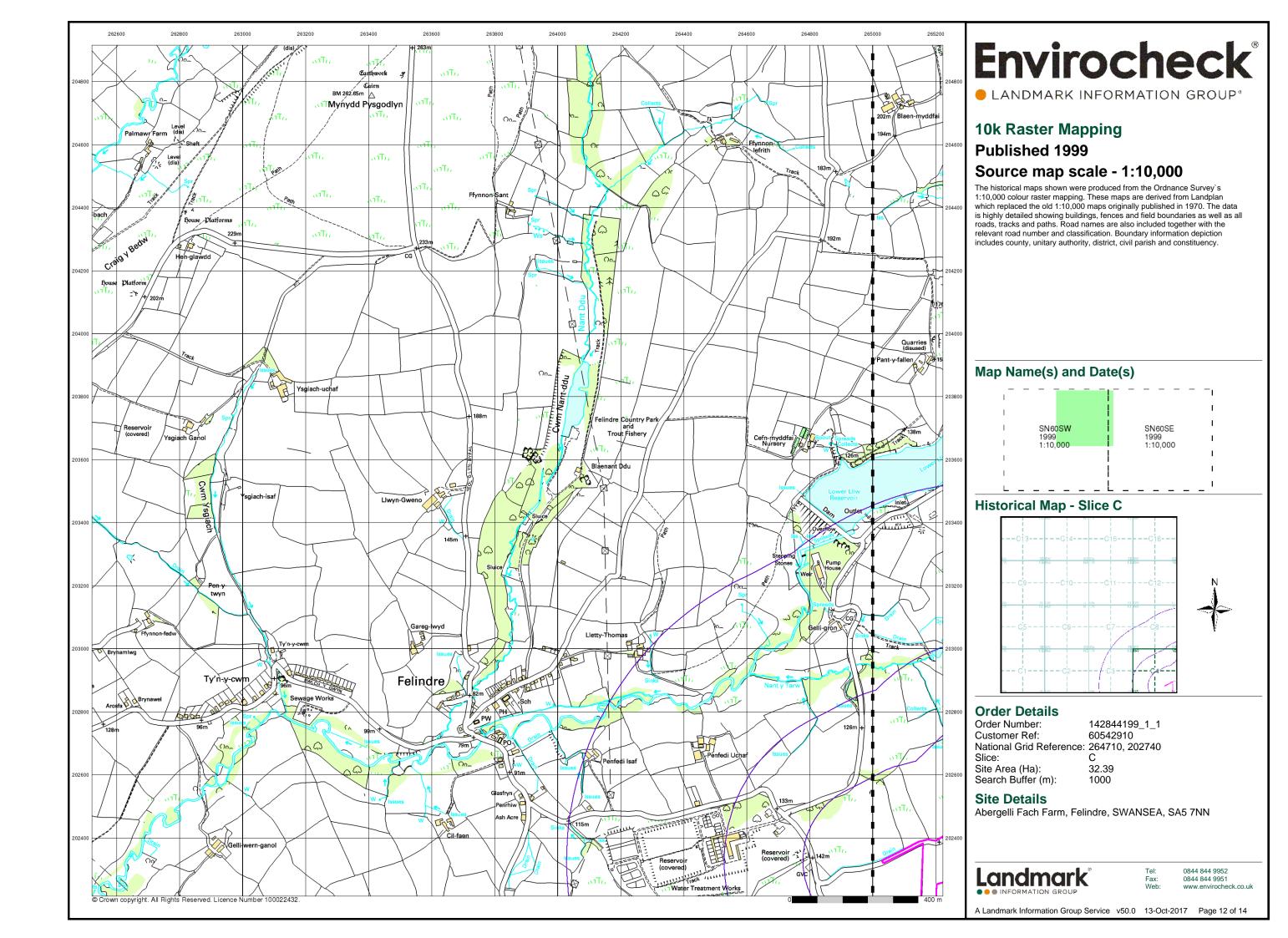
#### **Site Details**

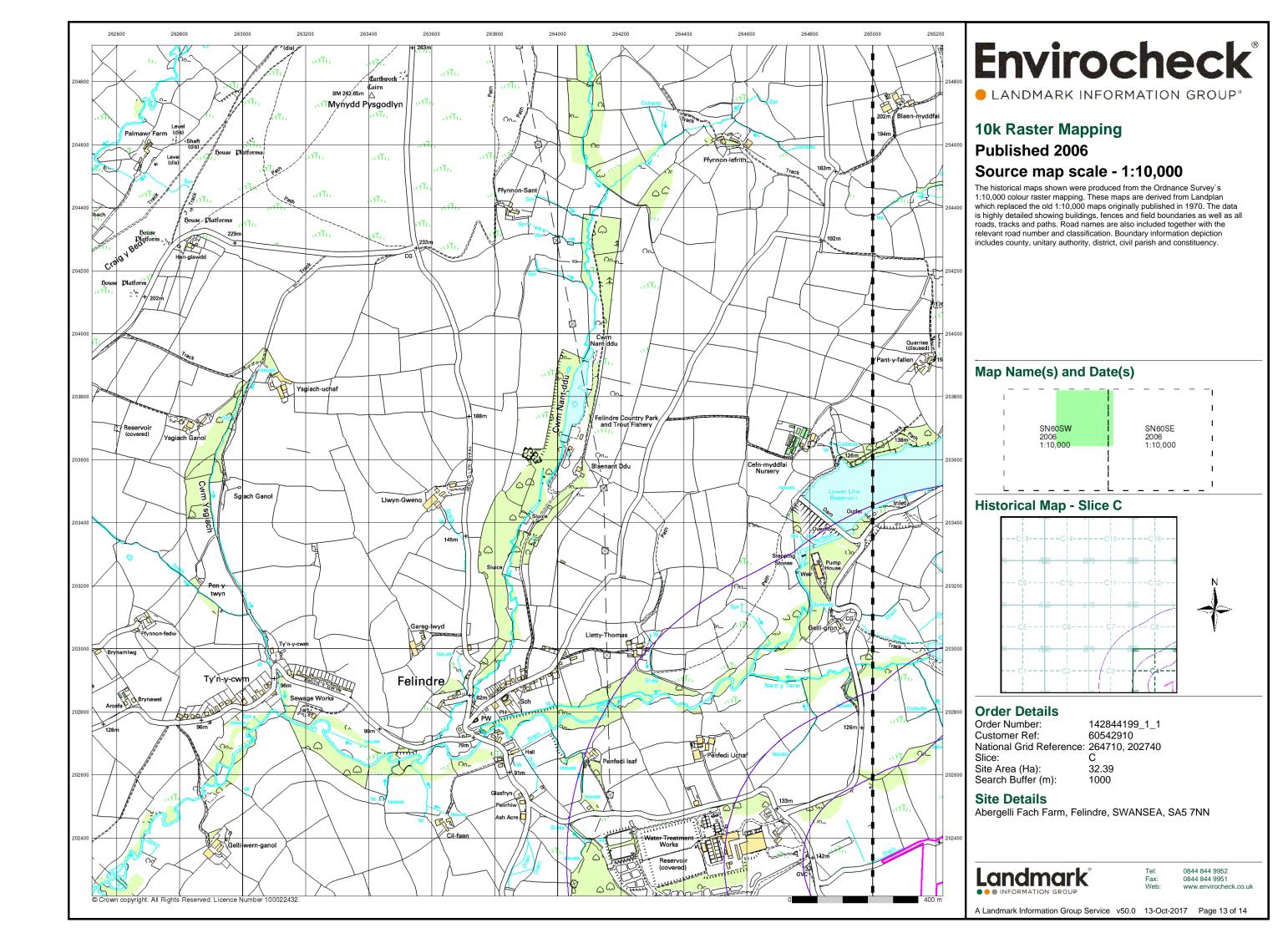
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

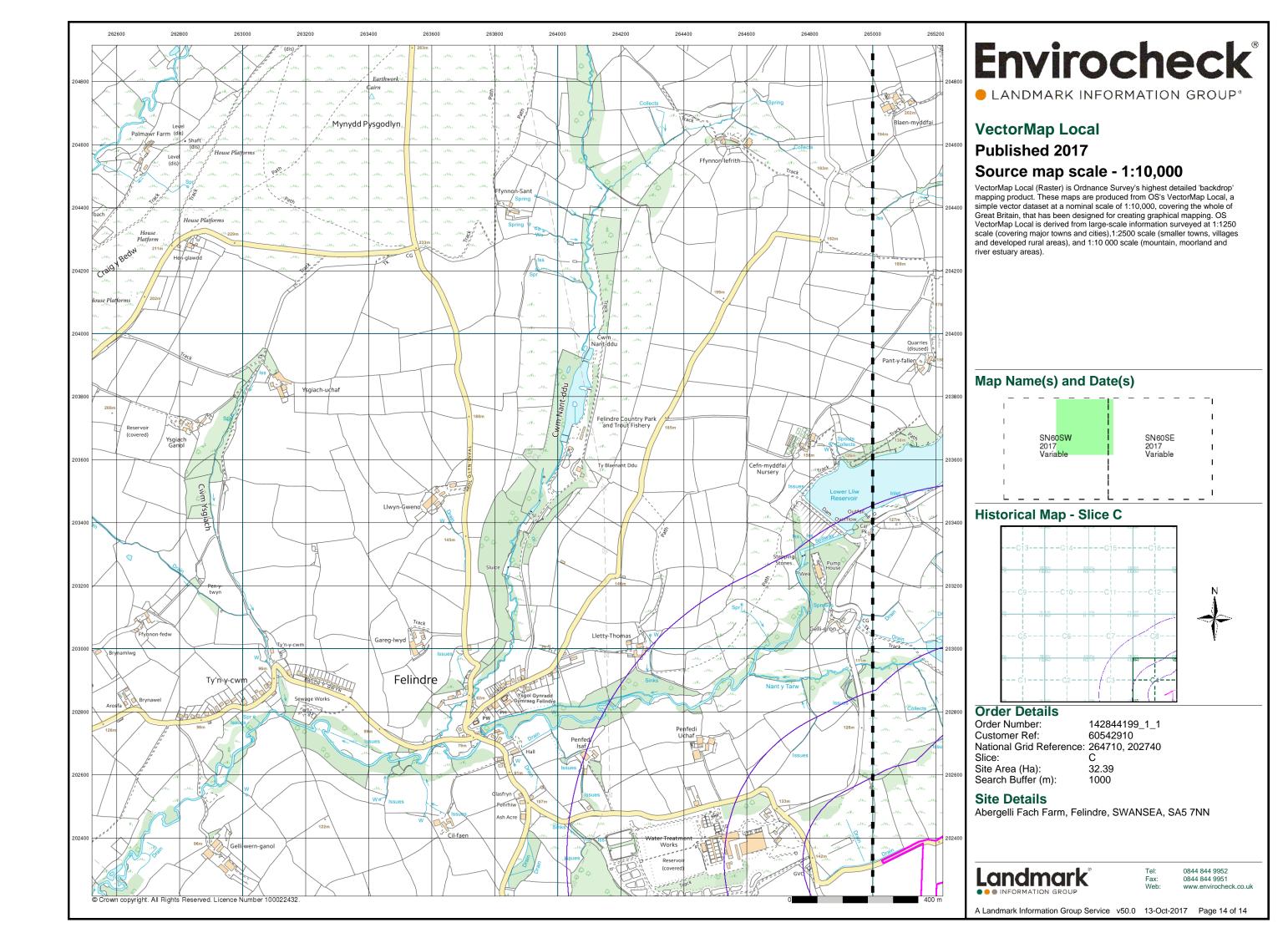
Landmark\*

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

A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 14







Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

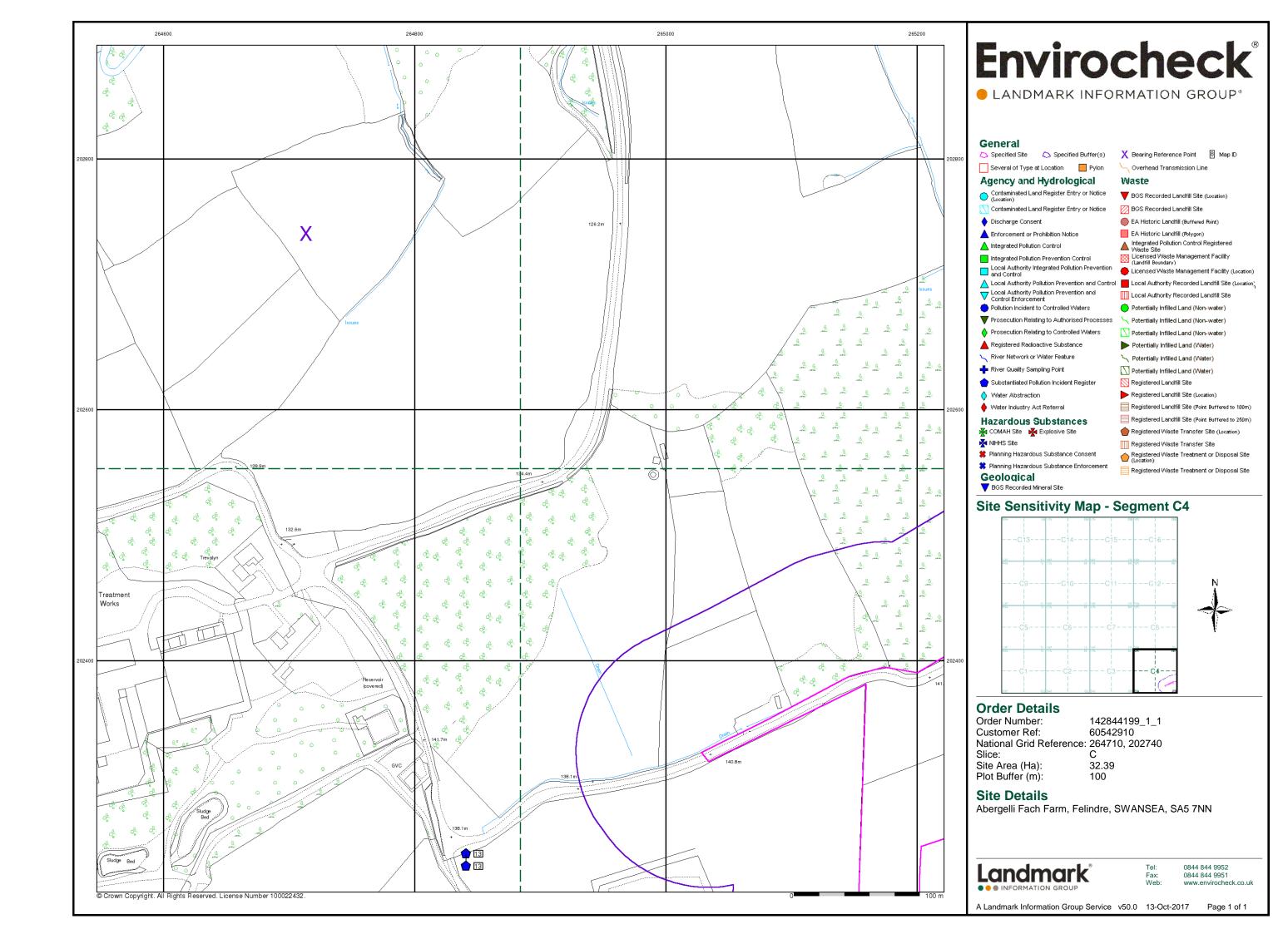
142844195 VectorMar

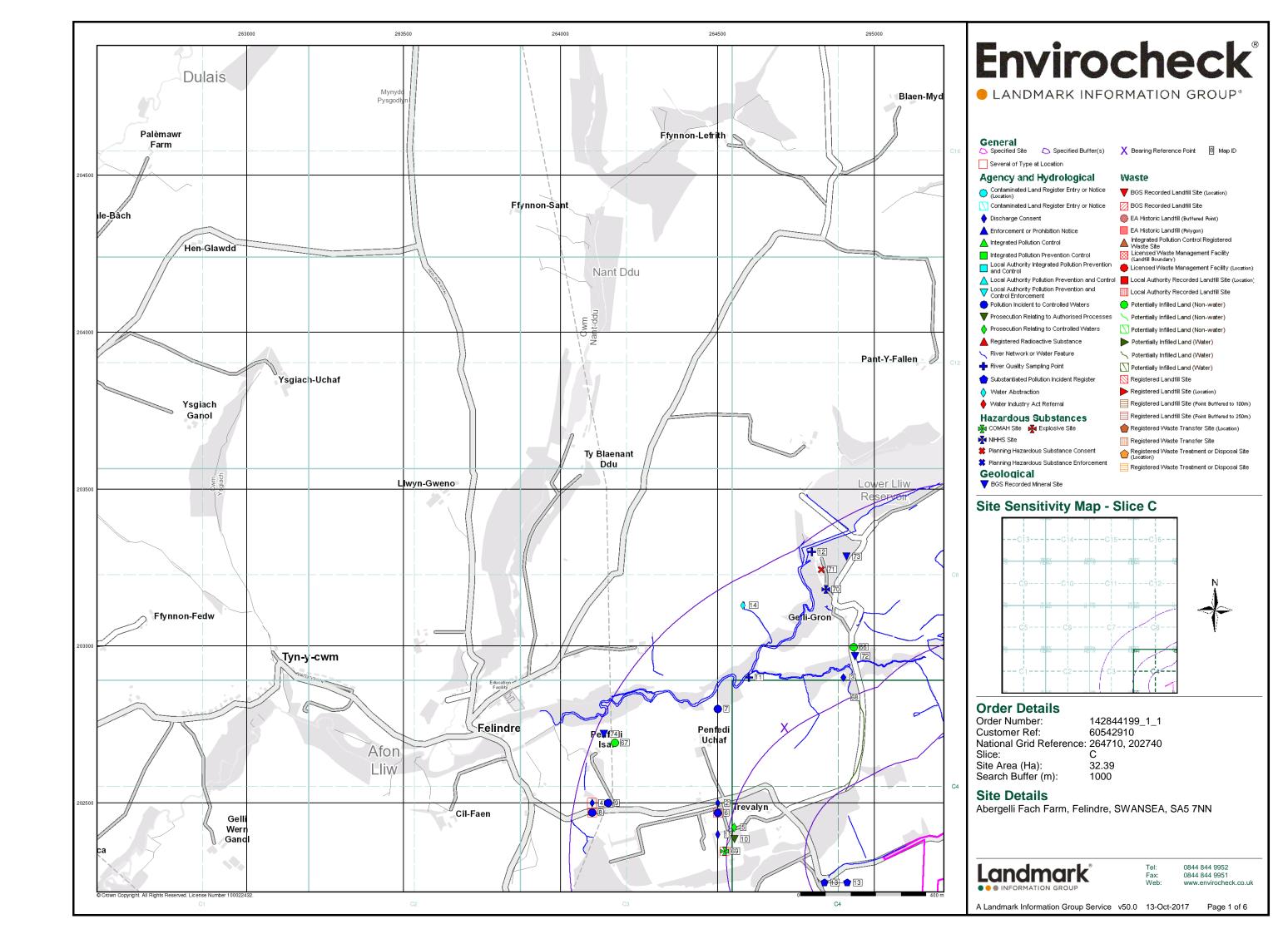
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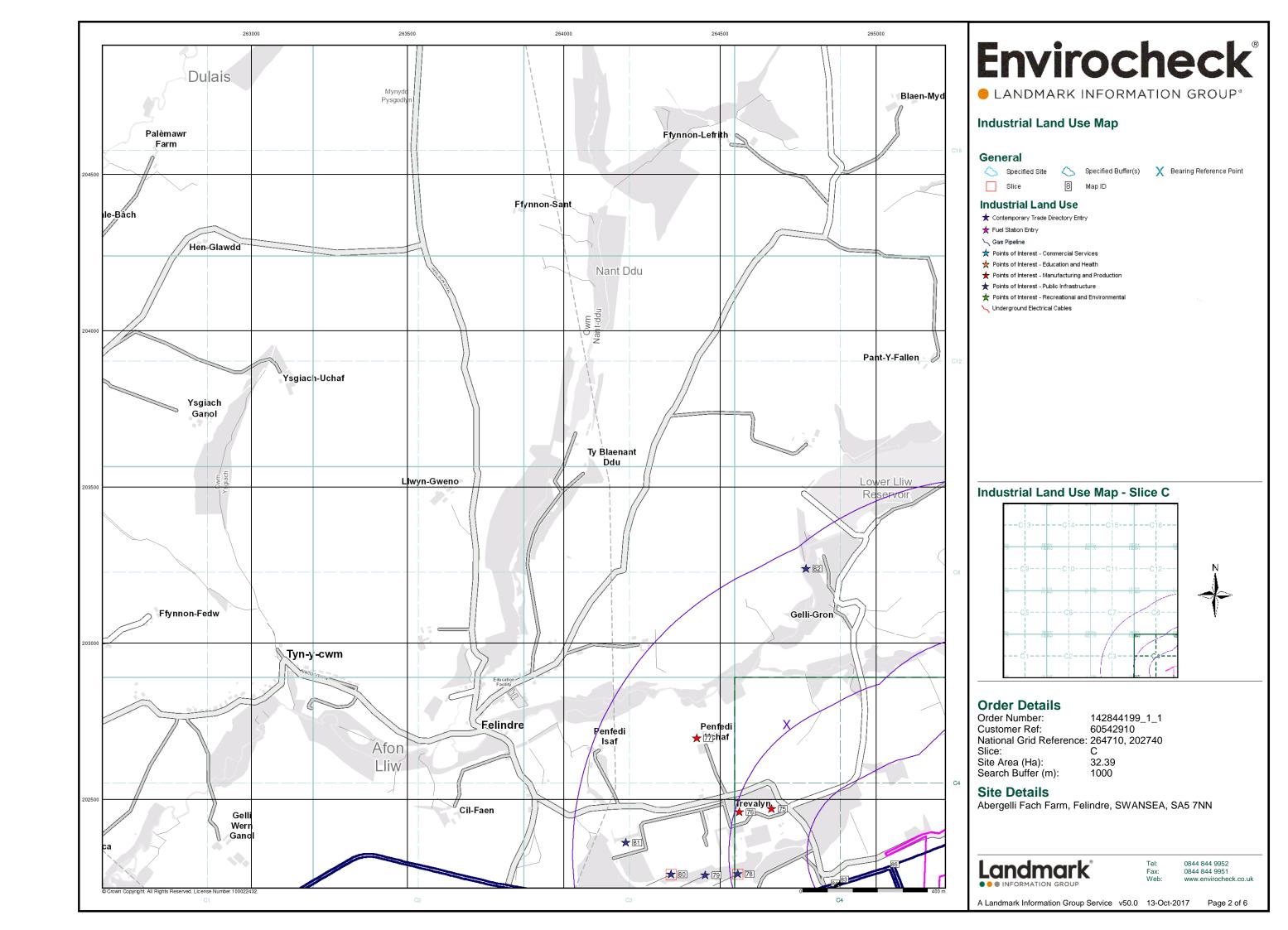
Abergelli F Felindre SWANSEA SA5 7NN

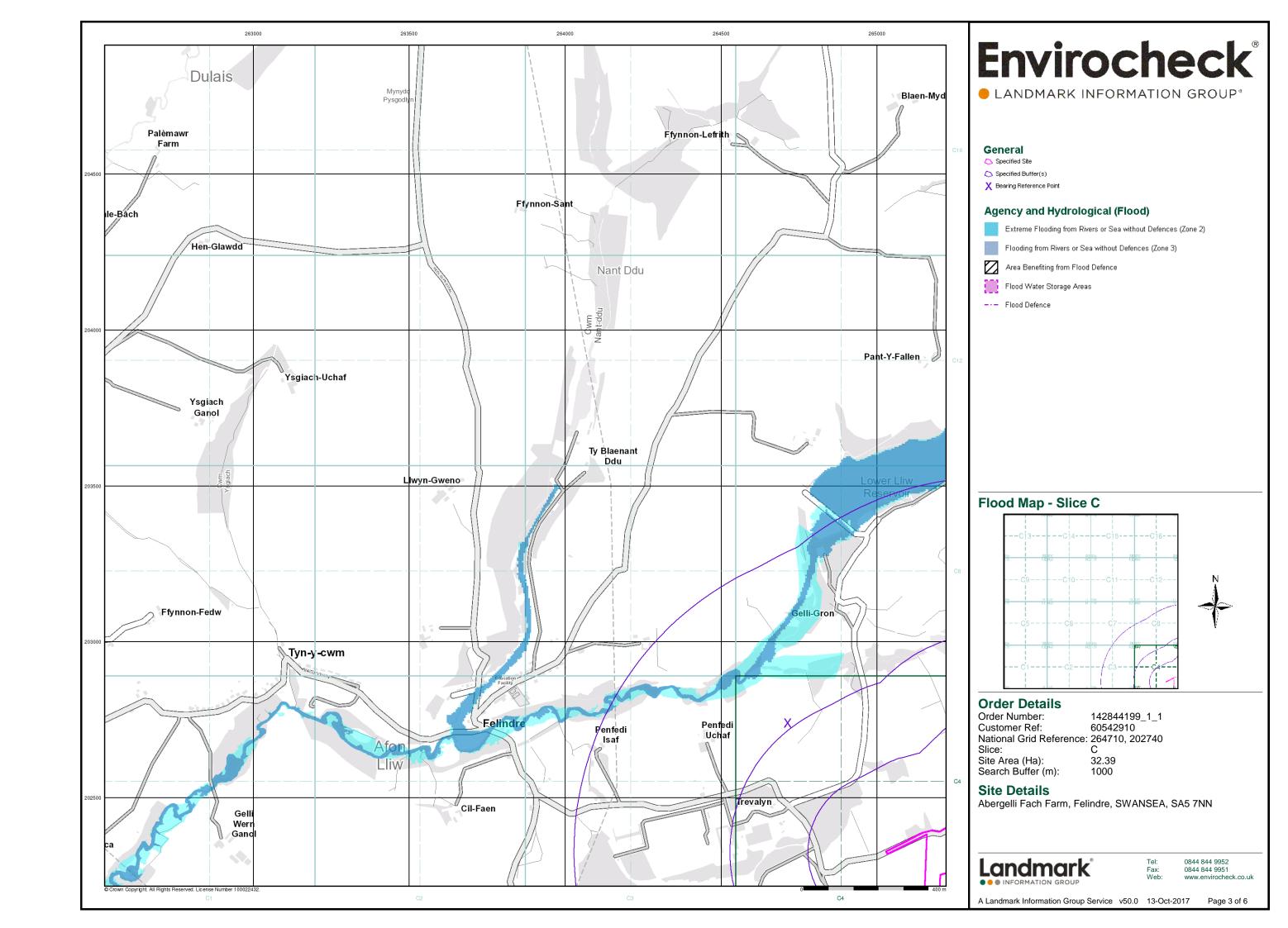
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|--------------------------|-----------------|---------------------------|---------------------------------------|
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| 142844199 Glamorgan      | 1921 1:10,560   | 1876-1875 1913-1913       | 1921-1921                             |
| 142844199 Glamorgan      | 1900 1:10,560   | 1876-1876 1897-1897       | 1900-1900                             |
| 142844199 Glamorgan 188  | 3-1884 1:10,560 | 1877-1876                 | 1884-1883                             |
| 142844199 Glamorgan 195  | 2-1953 1:10,560 | 1875-1876                 | 1948-1948 1913-1913 1952-1953         |
| 142844199 Ordnance 9     | 1976 1:10,000   | ) 1974 1975               | 1976                                  |
| 142844199 Ordnance 9     | 1964 1:10,560   | 1960-1961                 | 1964-1964                             |
| 142844199 Ordnance 9     | 1991 1:10,000   | 1990                      | 1991                                  |
| 142844199 Swansea        | 1976 1:10,000   | )                         |                                       |
| 14284419910K Raster      | 1999 1:10,000   | )                         |                                       |
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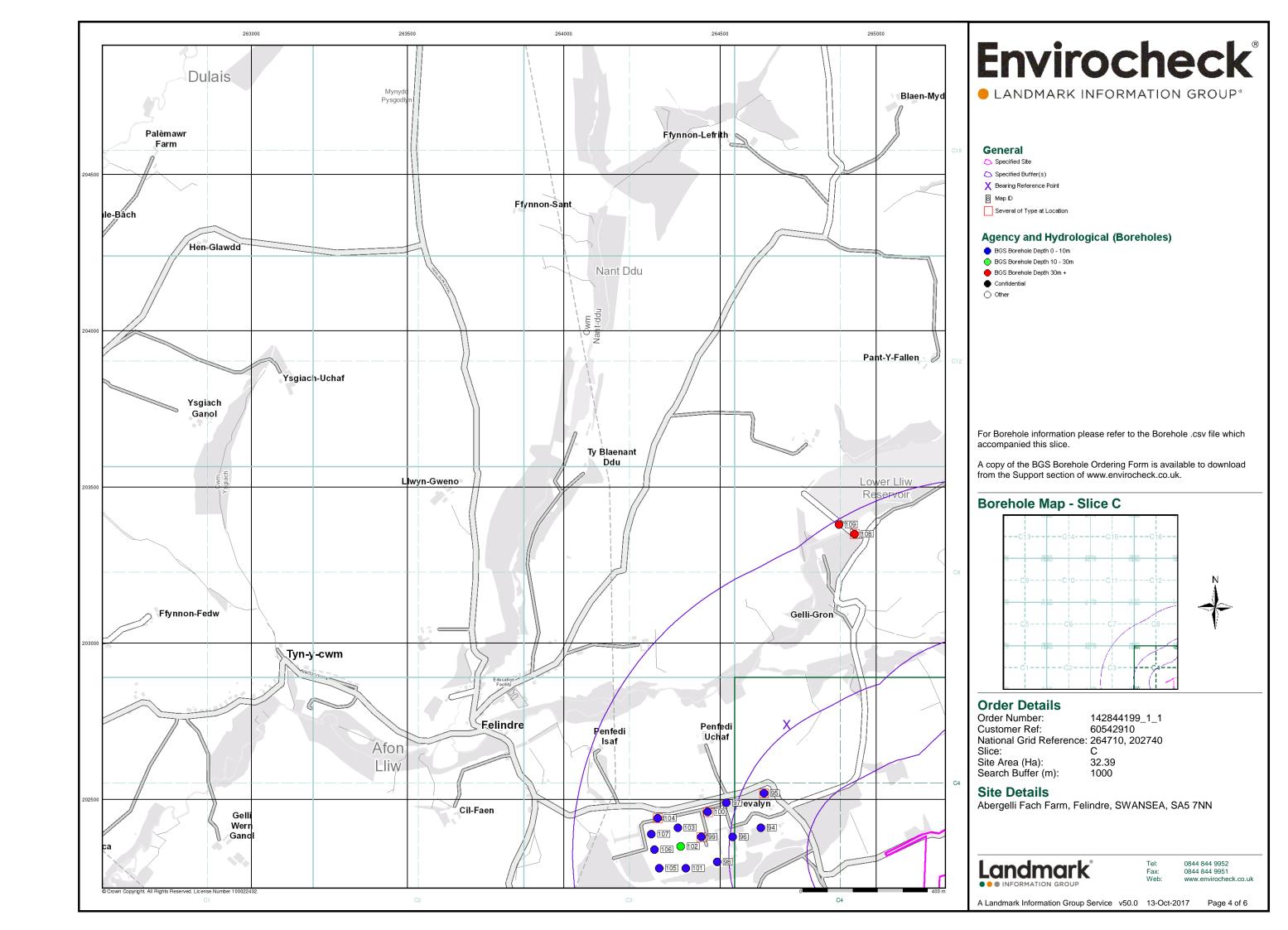
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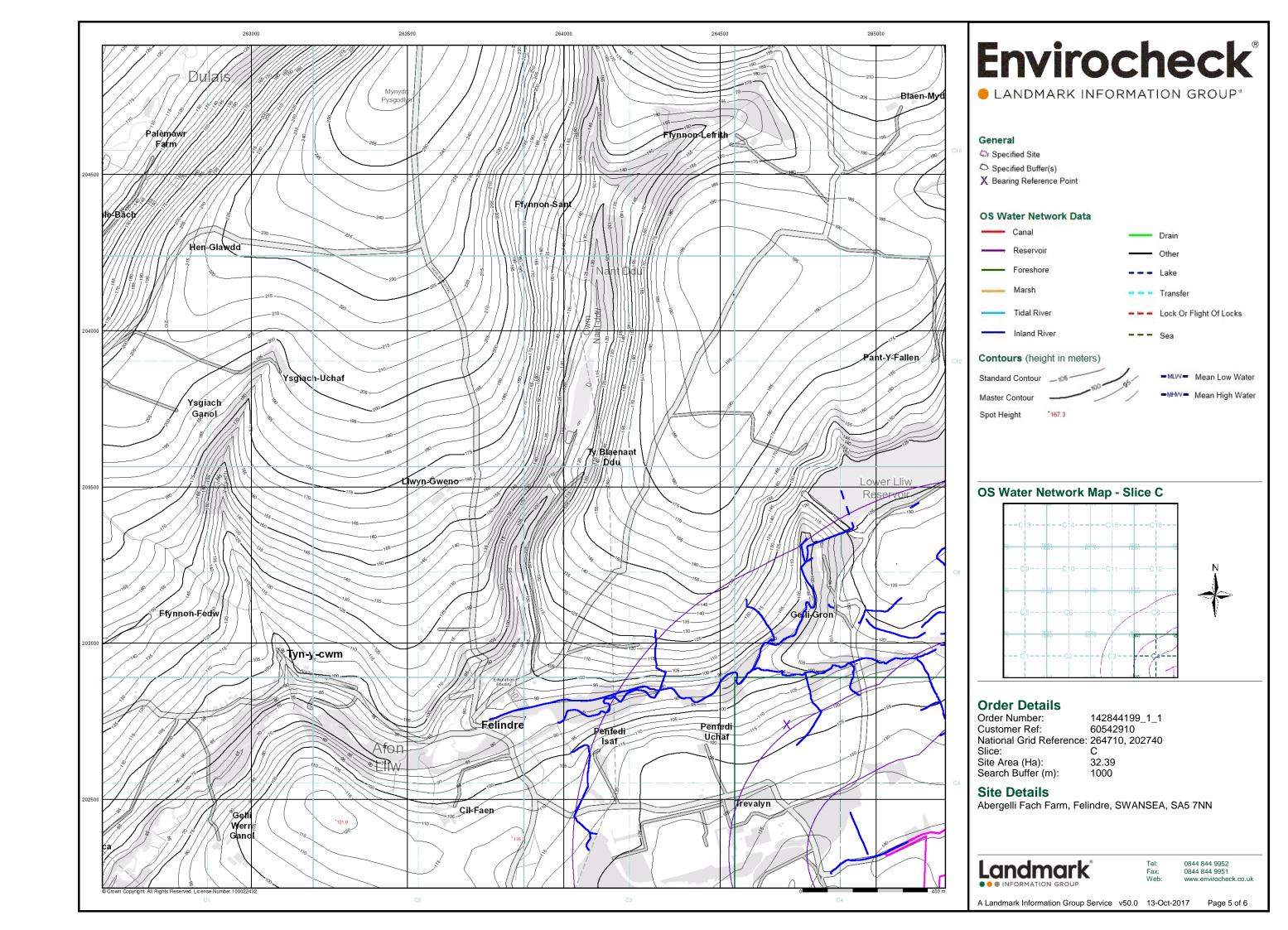


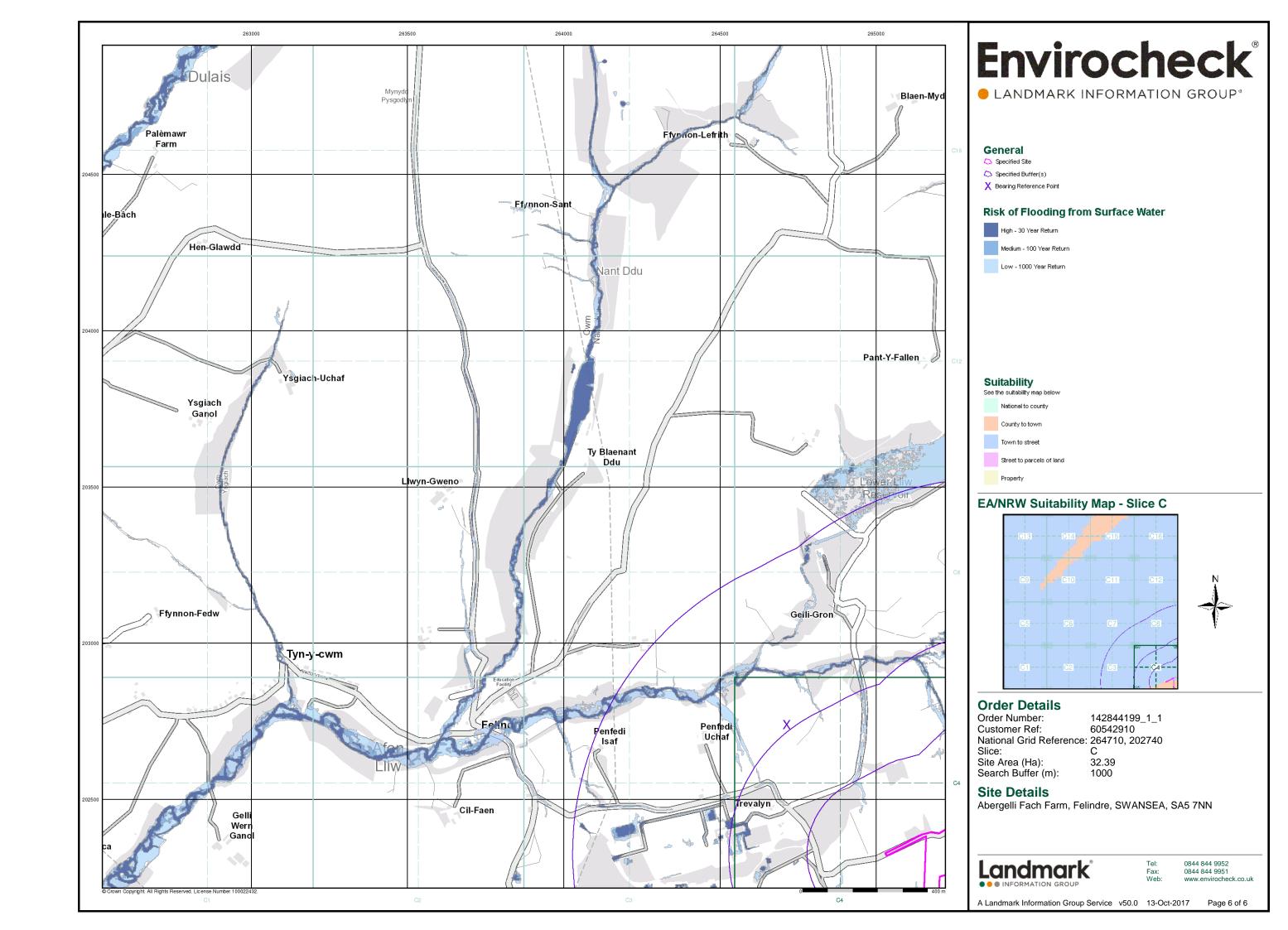


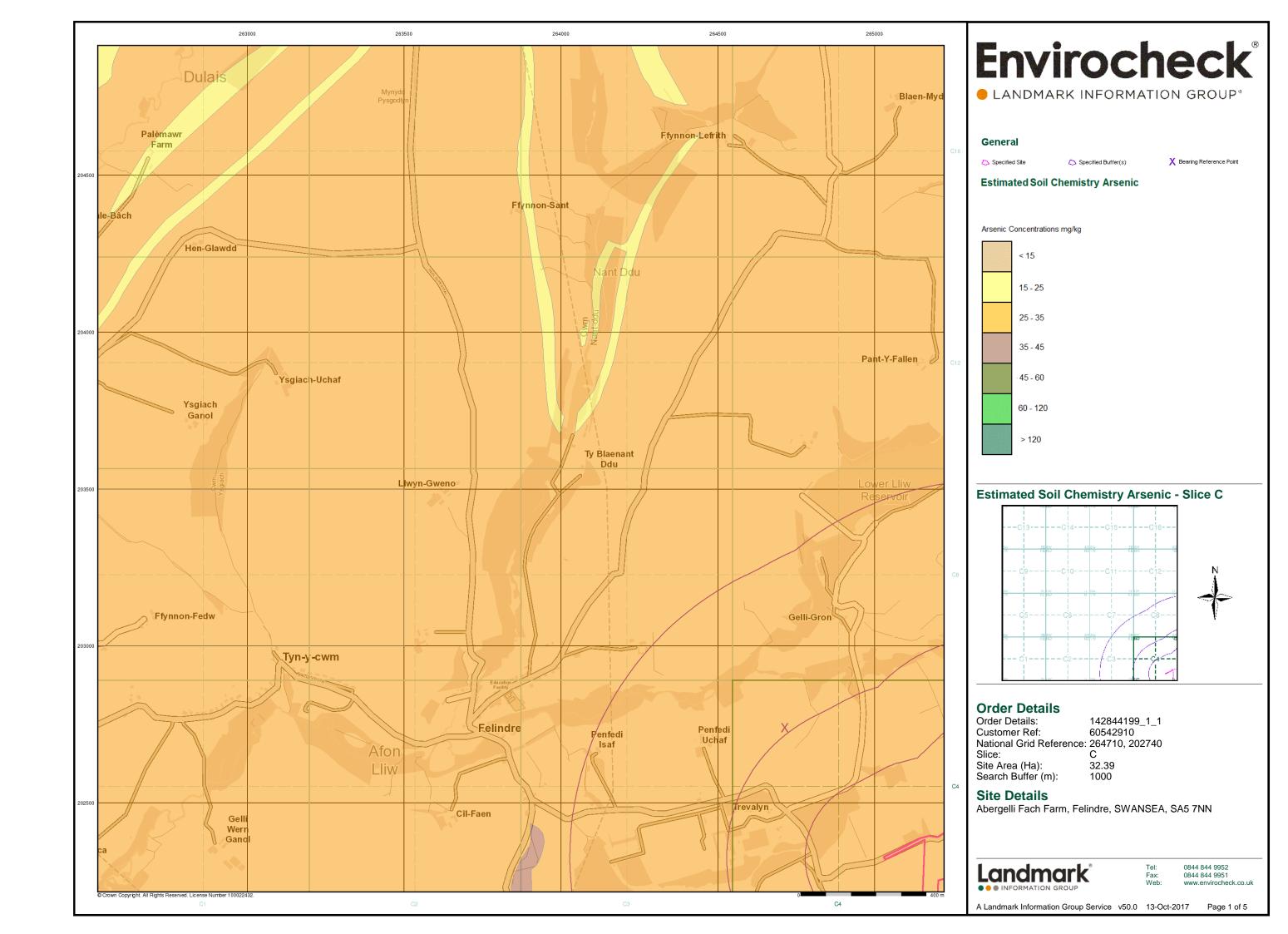


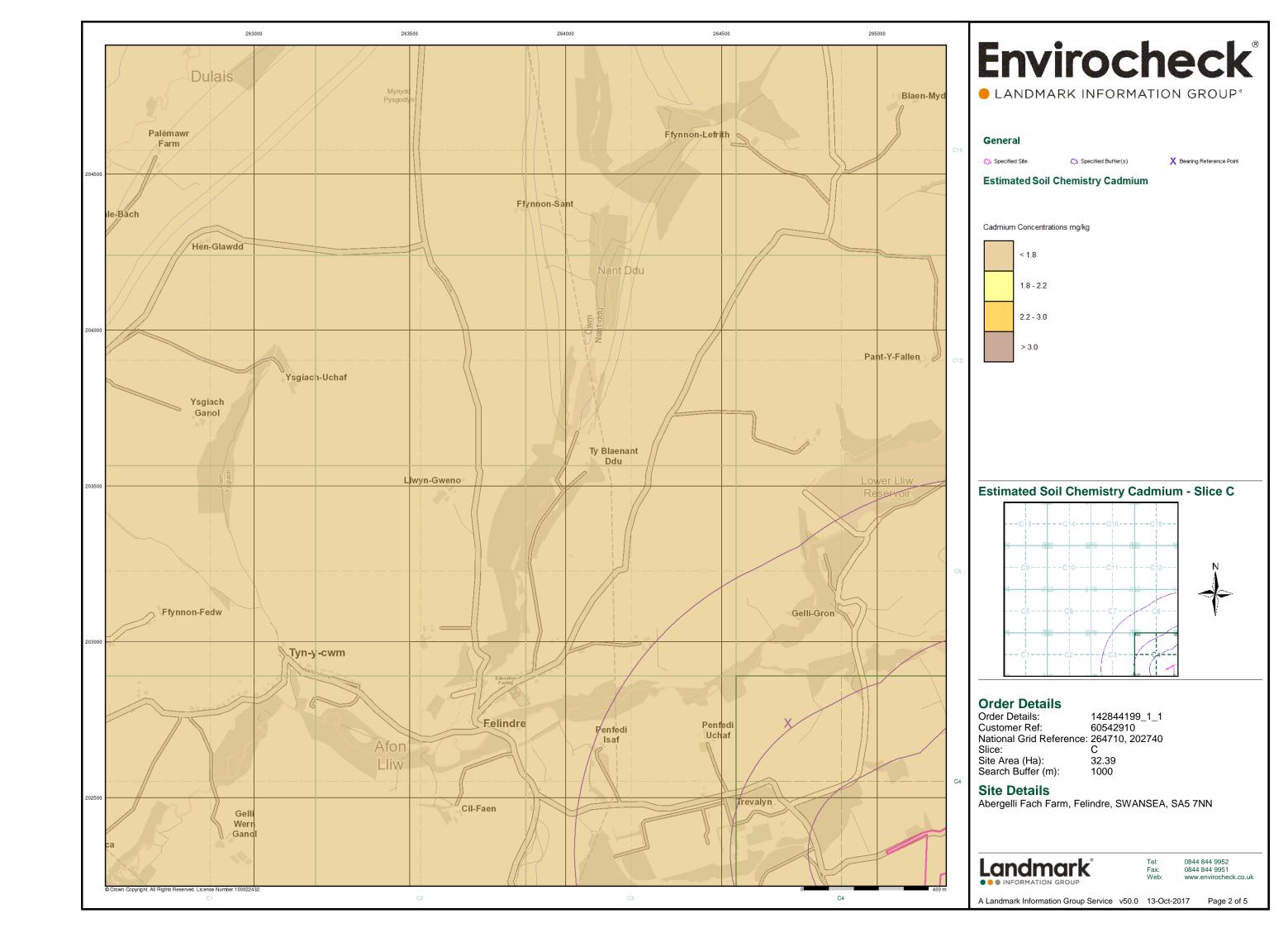


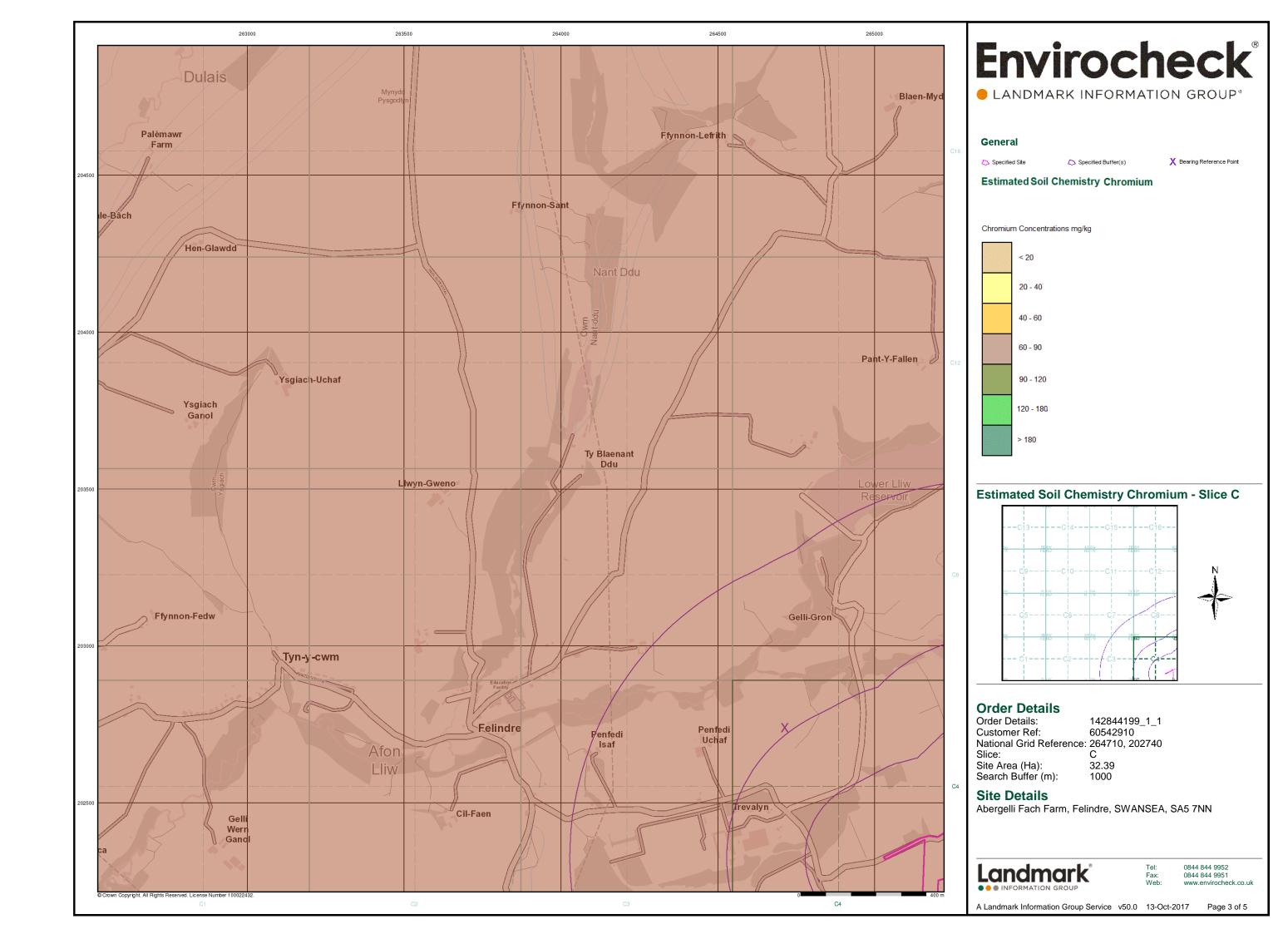


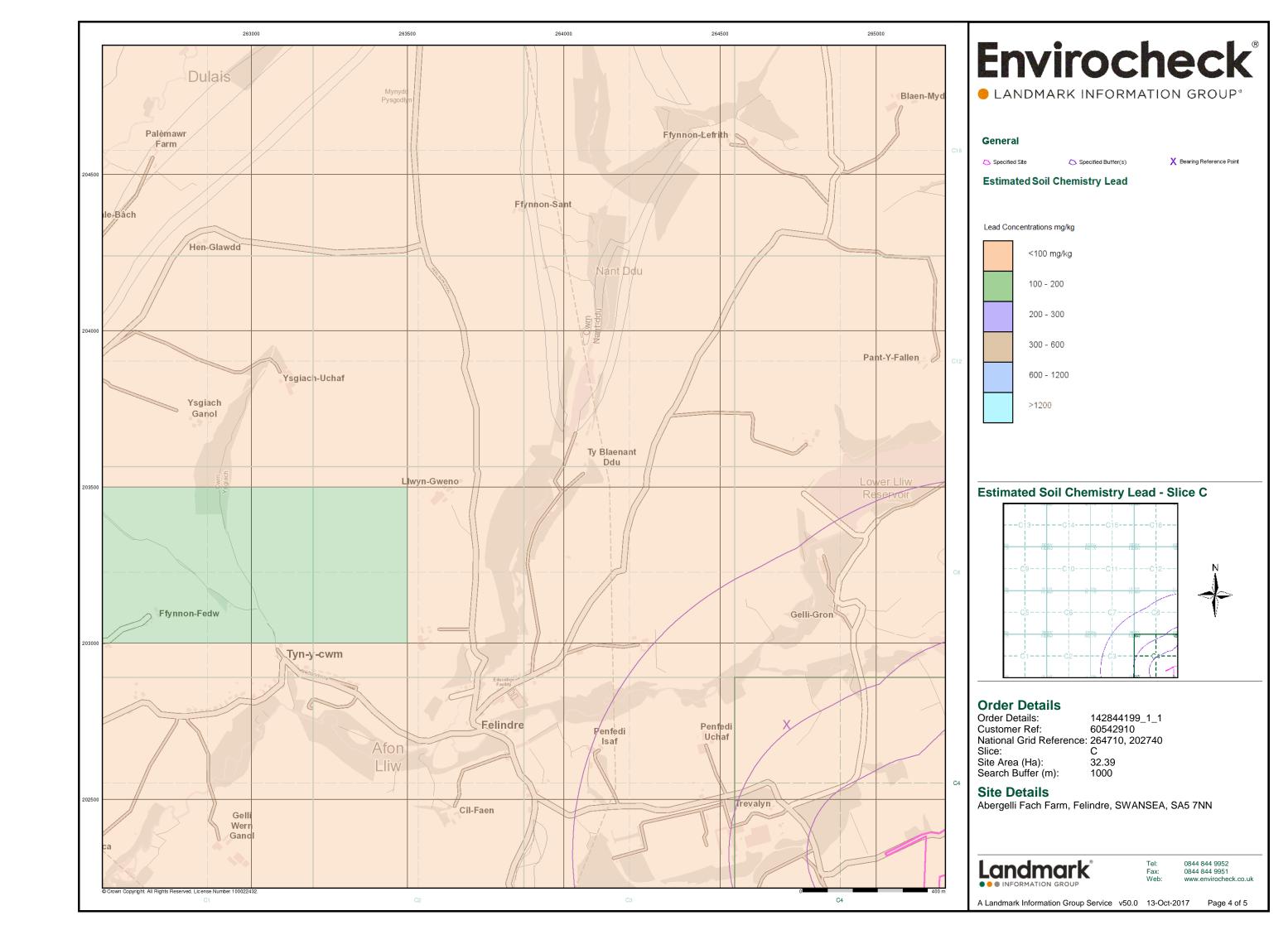


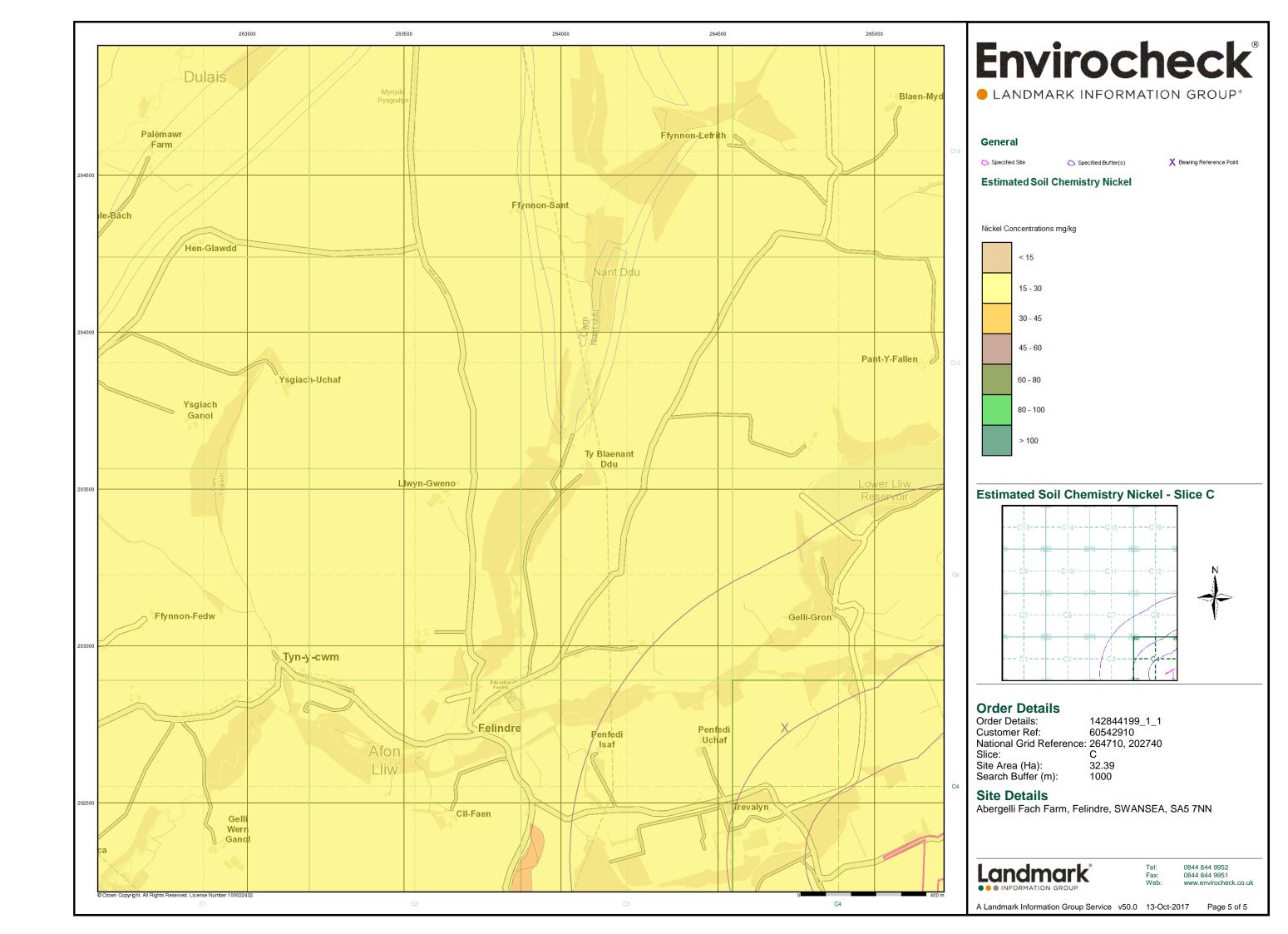












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice: C

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche BGS Boreholes

| Map ID: | Easting: | Northing: | Distance: | Quadrant | F Quadrant | f Bearing Re | BGS Refere Drille | ed Len Borehole N |
|---------|----------|-----------|-----------|----------|------------|--------------|-------------------|-------------------|
| 94      | 264630   | 202410    | 407       | C4       | SW         | S            | Sn60sw63          | 1.98 River Towr   |
| 95      | 264650   | 202520    | 425       | C4       | SW         | S            | Sn60sw62          | 5.03 River Towr   |
| 95      | 264640   | 202520    | 434       | C4       | SW         | S            | Sn60sw61          | 1.37 River Towr   |
| 96      | 264540   | 202380    | 492       | C3       | SE         | SW           | Sn60sw64          | 0.76 River Towr   |
| 97      | 264520   | 202490    | 534       | C3       | SE         | SW           | Sn60sw60          | 4.5 River Towr    |
| 98      | 264490   | 202300    | 540       | C3       | SE         | SW           | Sn60sw58          | 4.57 River Towr   |
| 99      | 264470   | 202390    | 562       | C3       | SE         | SW           | Sn60sw86          | 7.92 Felindre 4   |
| 99      | 264440   | 202380    | 591       | C3       | SE         | SW           | Sn60sw85          | 9.45 Felindre 3   |
| 100     | 264460   | 202430    | 578       | C3       | SE         | SW           | Sn60sw87          | 7.32 Felindre 5   |
| 100     | 264460   | 202470    | 587       | C3       | SE         | SW           | Sn60sw57          | 4.11 River Towr   |
| 100     | 264430   | 202430    | 608       | C3       | SE         | SW           | Sn60sw93          | 7.01 Felindre 11  |
| 101     | 264390   | 202280    | 641       | C3       | SE         | SW           | Sn60sw89          | 4.27 Felindre 7   |
| 102     | 264370   | 202360    | 660       | C3       | SE         | SW           | Sn60sw84          | 10.67 Felindre 2  |
| 103     | 264360   | 202410    | 674       | C3       | SE         | SW           | Sn60sw92          | 7.01 Felindre 10  |
| 104     | 264350   | 202440    | 688       | C3       | SE         | SW           | Sn60sw88          | 4.57 Felindre 6   |
| 104     | 264320   | 202450    | 719       | C3       | SE         | SW           | Sn60sw90          | 7.62 Felindre 8   |
| 104     | 264300   | 202440    | 738       | C3       | SE         | SW           | Sn60sw56          | 3.35 River Towr   |
| 105     | 264320   | 202280    | 710       | C3       | SE         | SW           | Sn60sw59          | 3.73 River Towr   |
| 106     | 264290   | 202340    | 739       | C3       | SE         | SW           | Sn60sw83          | 5.18 Felindre 1   |
| 107     | 264280   | 202390    | 752       | C3       | SE         | SW           | Sn60sw91          | 4.57 Felindre 9   |
| 108     | 264970   | 203320    | 890       | C8       | NE         | NE           | Sn60sw54          | 31.39 River Towr  |
| 108     | 264930   | 203350    | 935       | C8       | NE         | N            | Sn60sw49          | 59.74 River Towr  |
| 109     | 264880   | 203370    | 977       | C8       | NW         | N            | Sn60sw50          | 54.25 River Towr  |

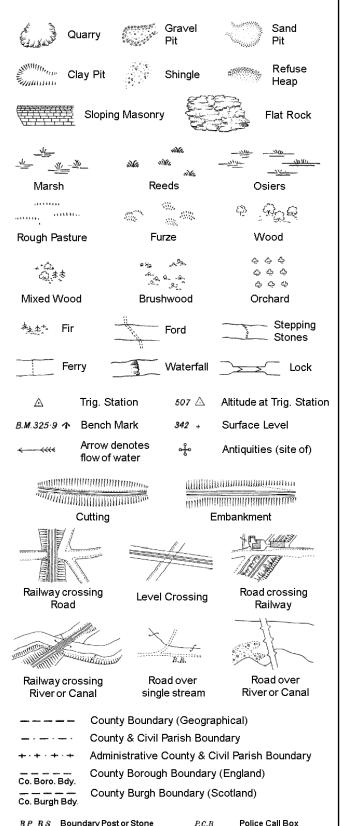
#### eck.co.uk.

#### Link to Borehole Scan:

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# **Historical Mapping Legends**

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



Pump

Sluice

Spring

Trough Well

Signal Post

Telephone Call Box

S.P

T.C.B

Sl.

 $T_T$ 

B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

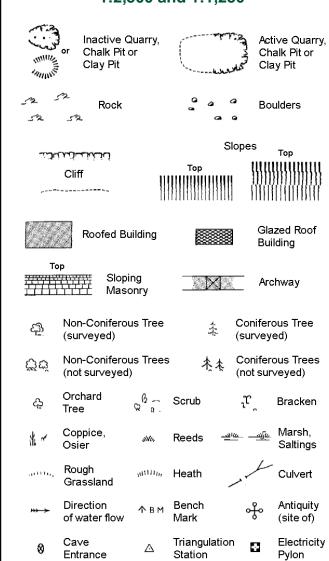
Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



**Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

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

GVC

Gas Governer

Mile Post or Mile Stone

**Guide Post** 

Manhole

Wd Pp

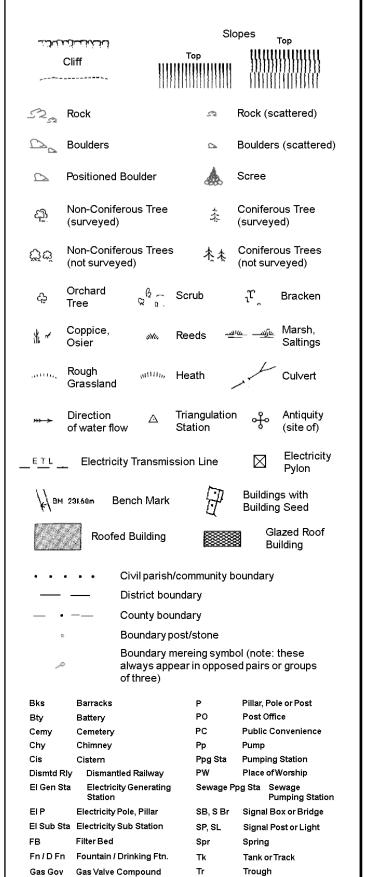
Wks

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

# 1:1,250



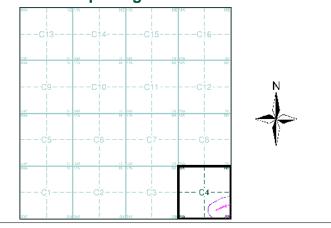
# **Envirocheck®**

LANDMARK INFORMATION GROUPS

### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date        | Pg |
|--|---------|-------------|----|
| Glamorganshire                           | 1:2,500 | 1876 - 1877 | 2  |
| Glamorganshire                           | 1:2,500 | 1898 - 1899 | 3  |
| Glamorganshire                           | 1:2,500 | 1916 - 1918 | 4  |
| Ordnance Survey Plan                     | 1:2,500 | 1961        | 5  |
| Ordnance Survey Plan                     | 1:2,500 | 1961        | 6  |
| Supply of Unpublished Survey Information | 1:2,500 | 1975        | 7  |
| Additional SIMs                          | 1:2,500 | 1986 - 1992 | 8  |
| Additional SIMs                          | 1:2,500 | 1989        | 9  |
| Large-Scale National Grid Data           | 1:2,500 | 1993        | 10 |
| Historical Aerial Photography            | 1:2,500 | 2000        | 11 |
|  | •       |             |    |

## **Historical Map - Segment C4**



### **Order Details**

Order Number: 142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 264710, 202740 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

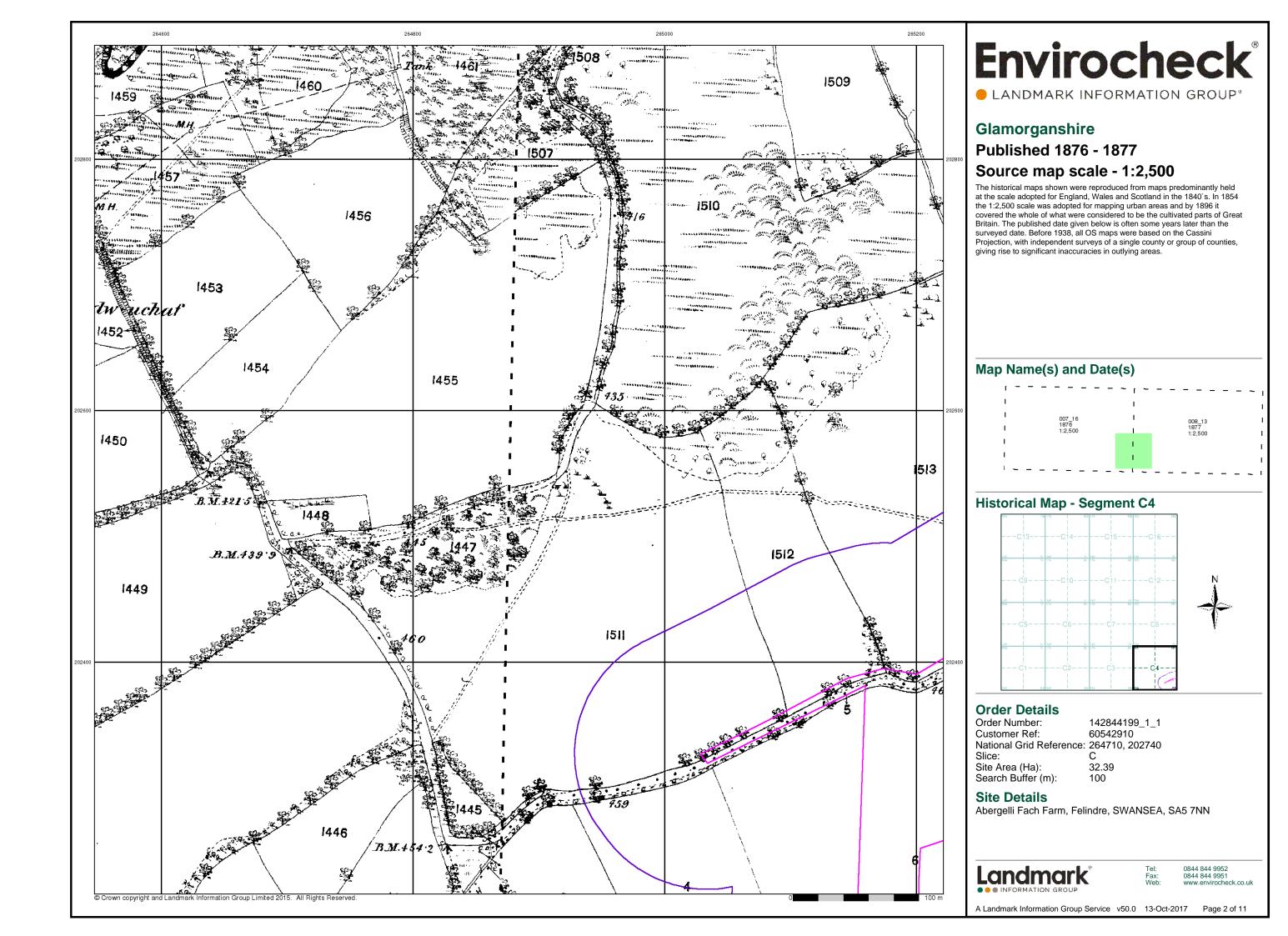
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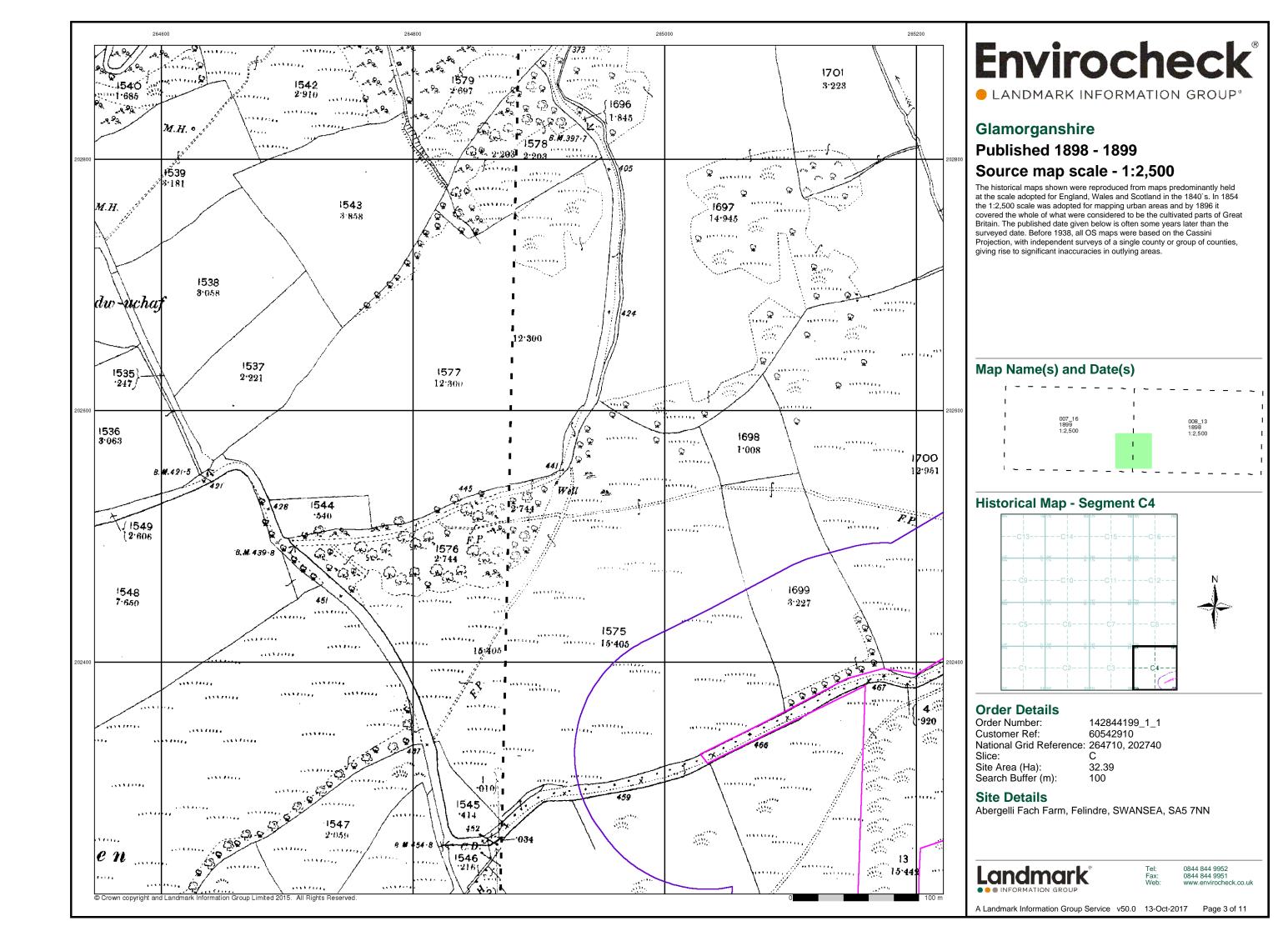
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

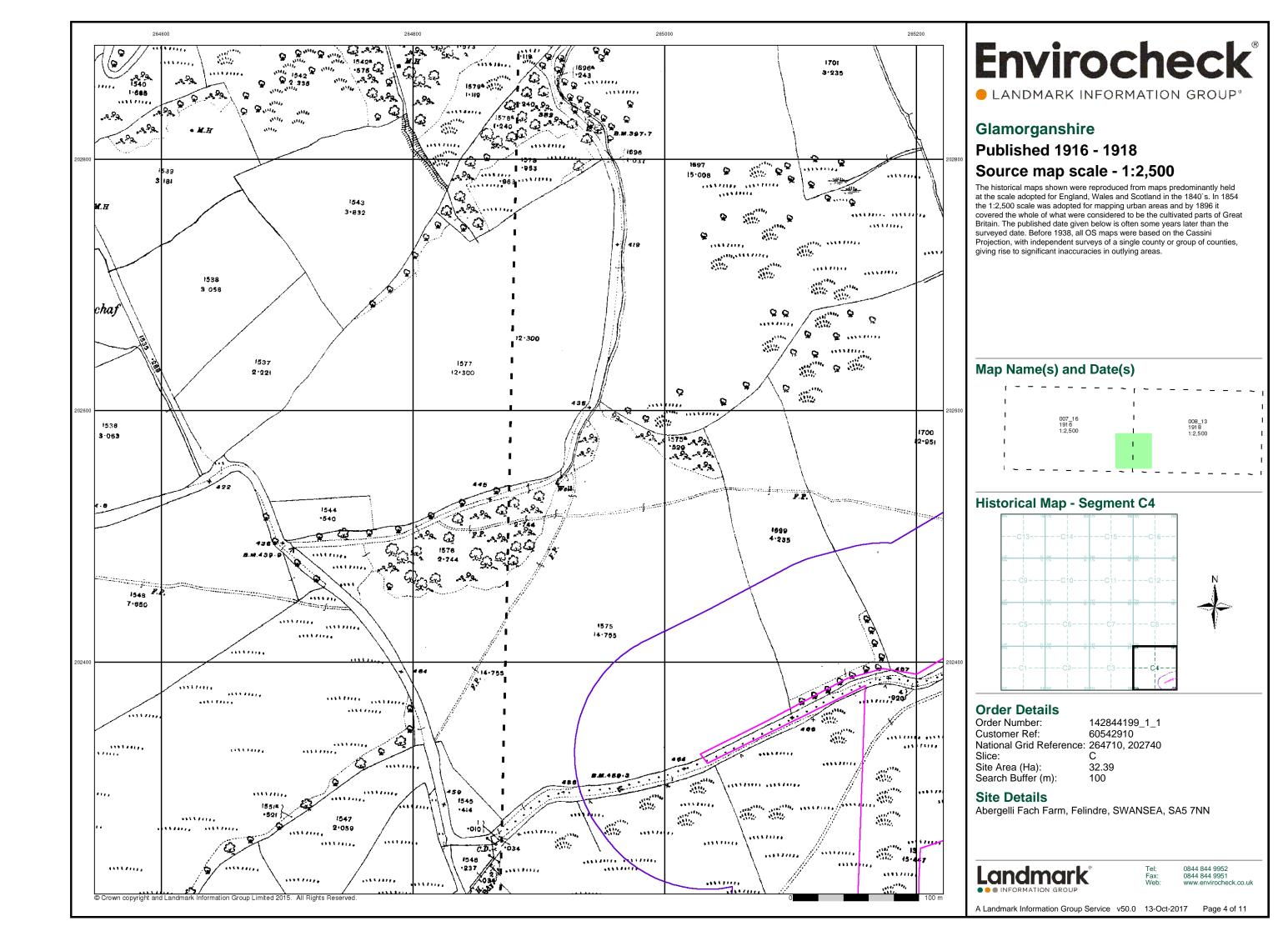


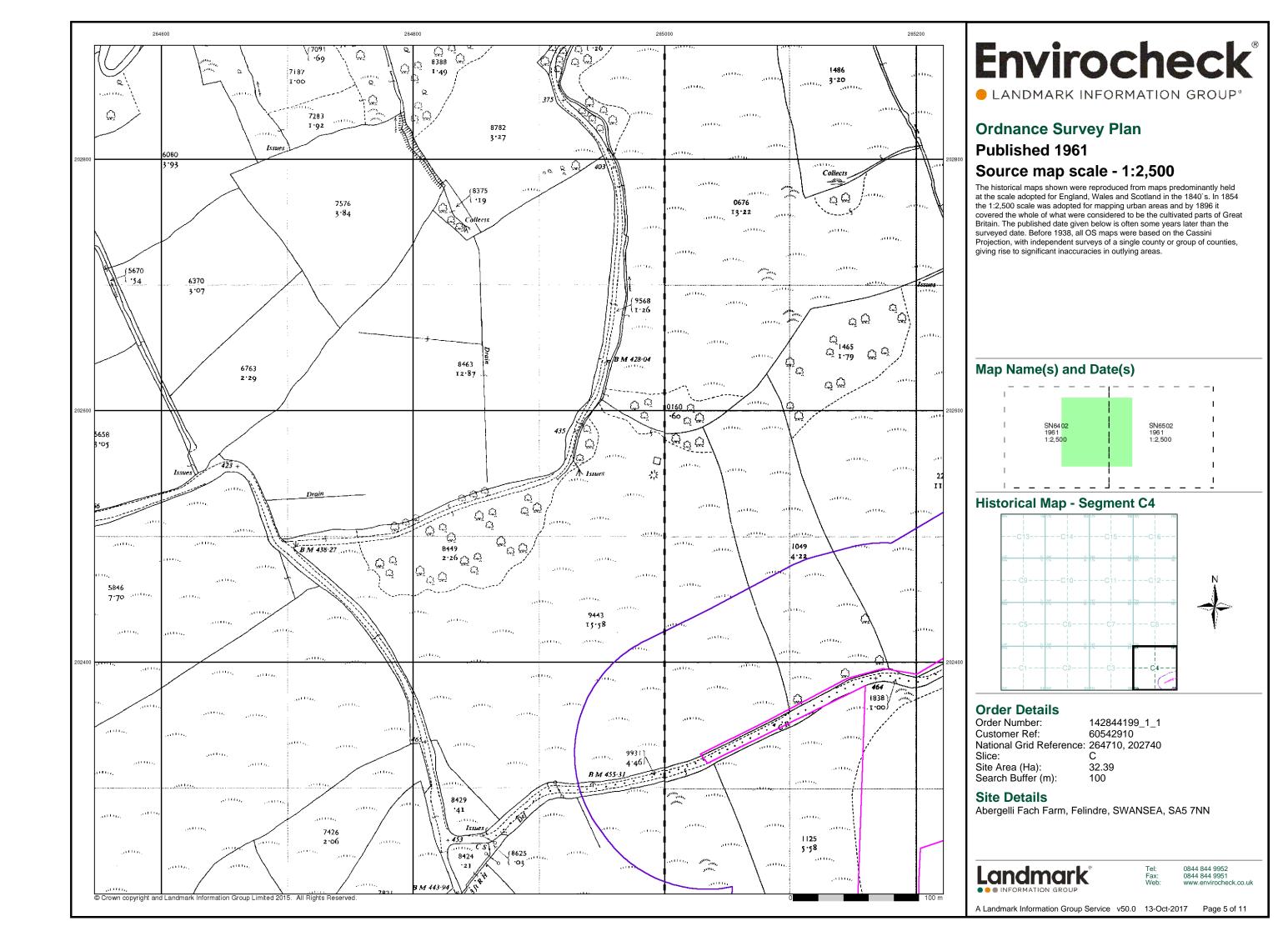
0844 844 9952 0844 844 9951

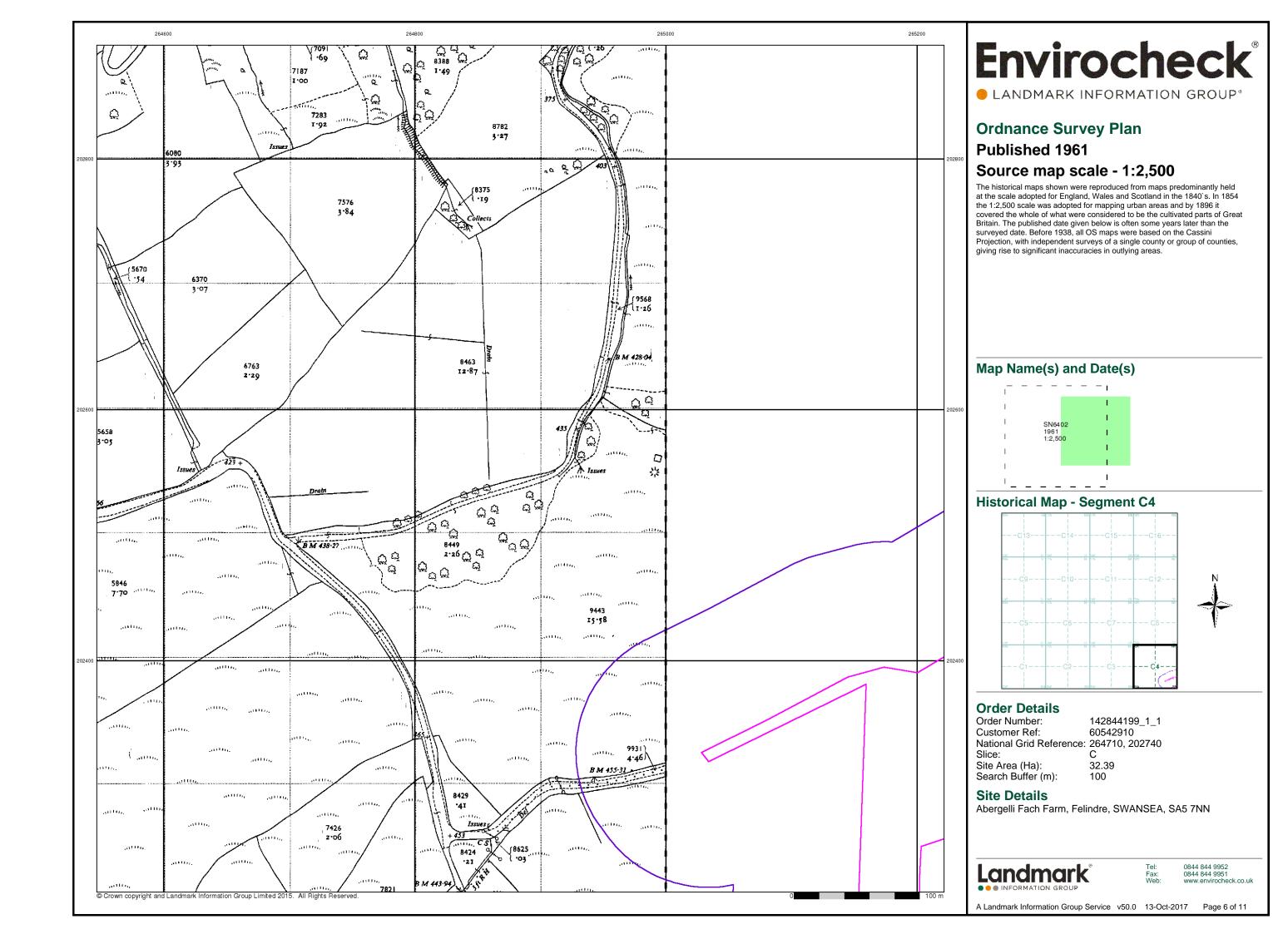
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 11

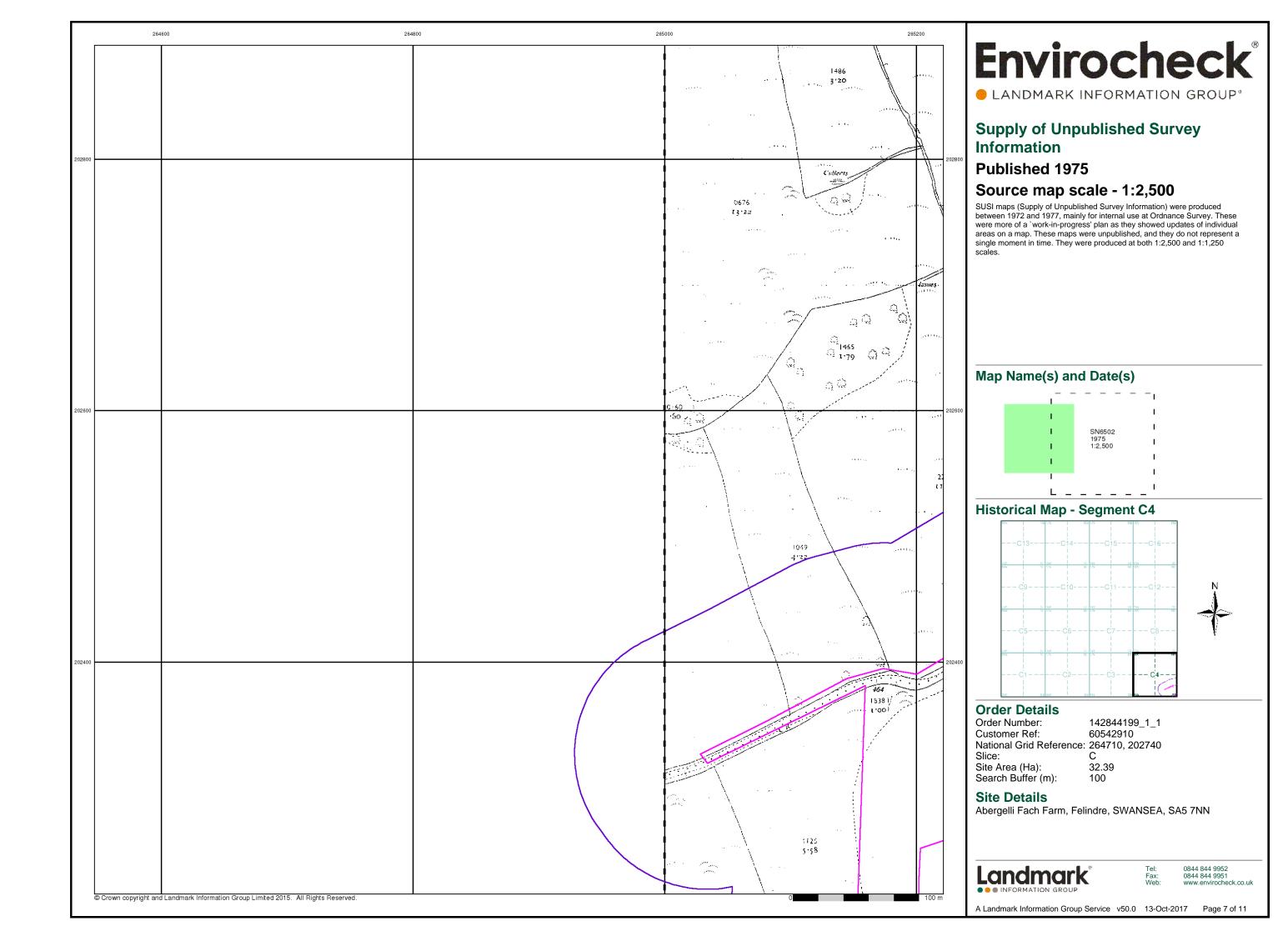


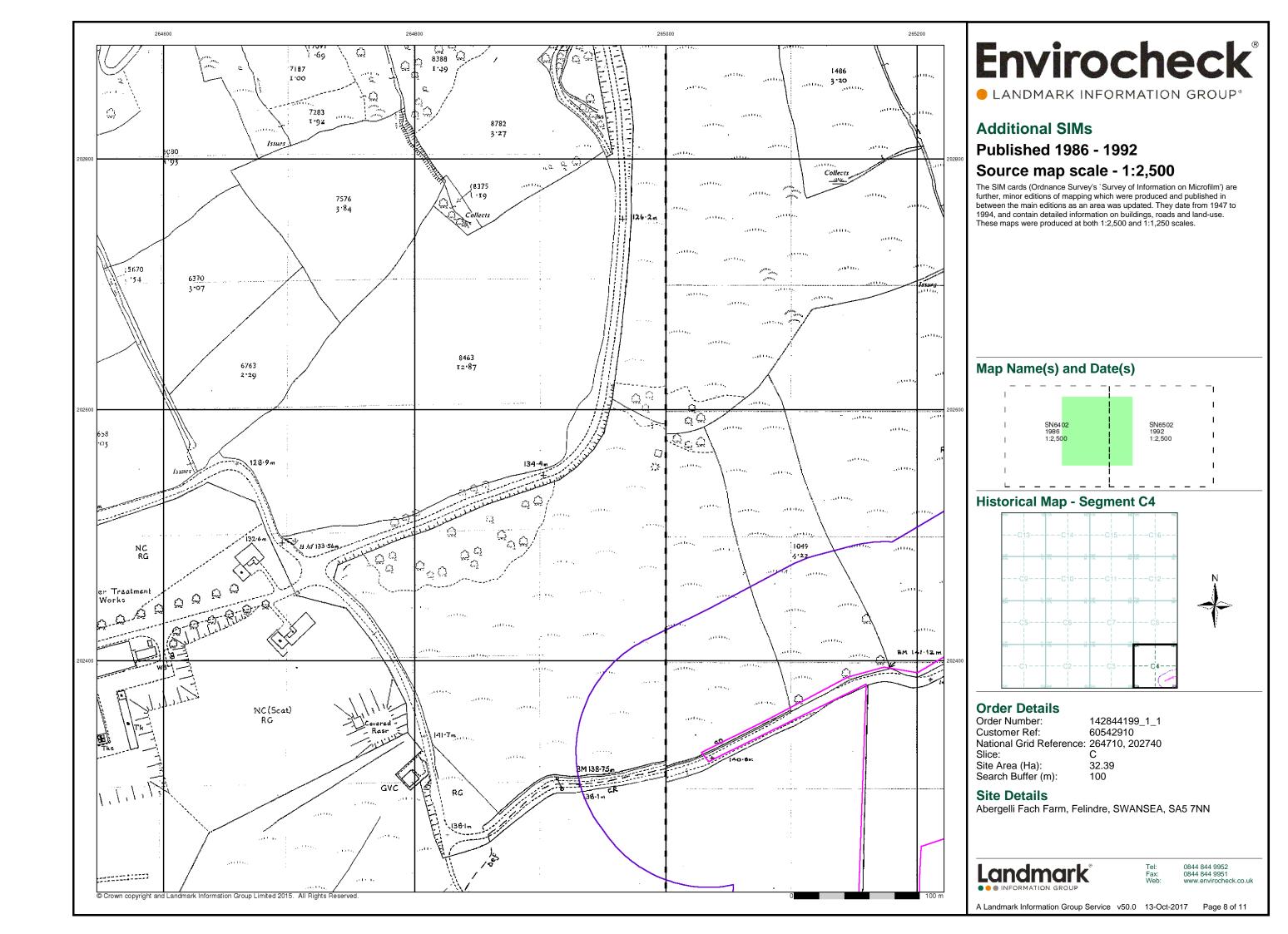


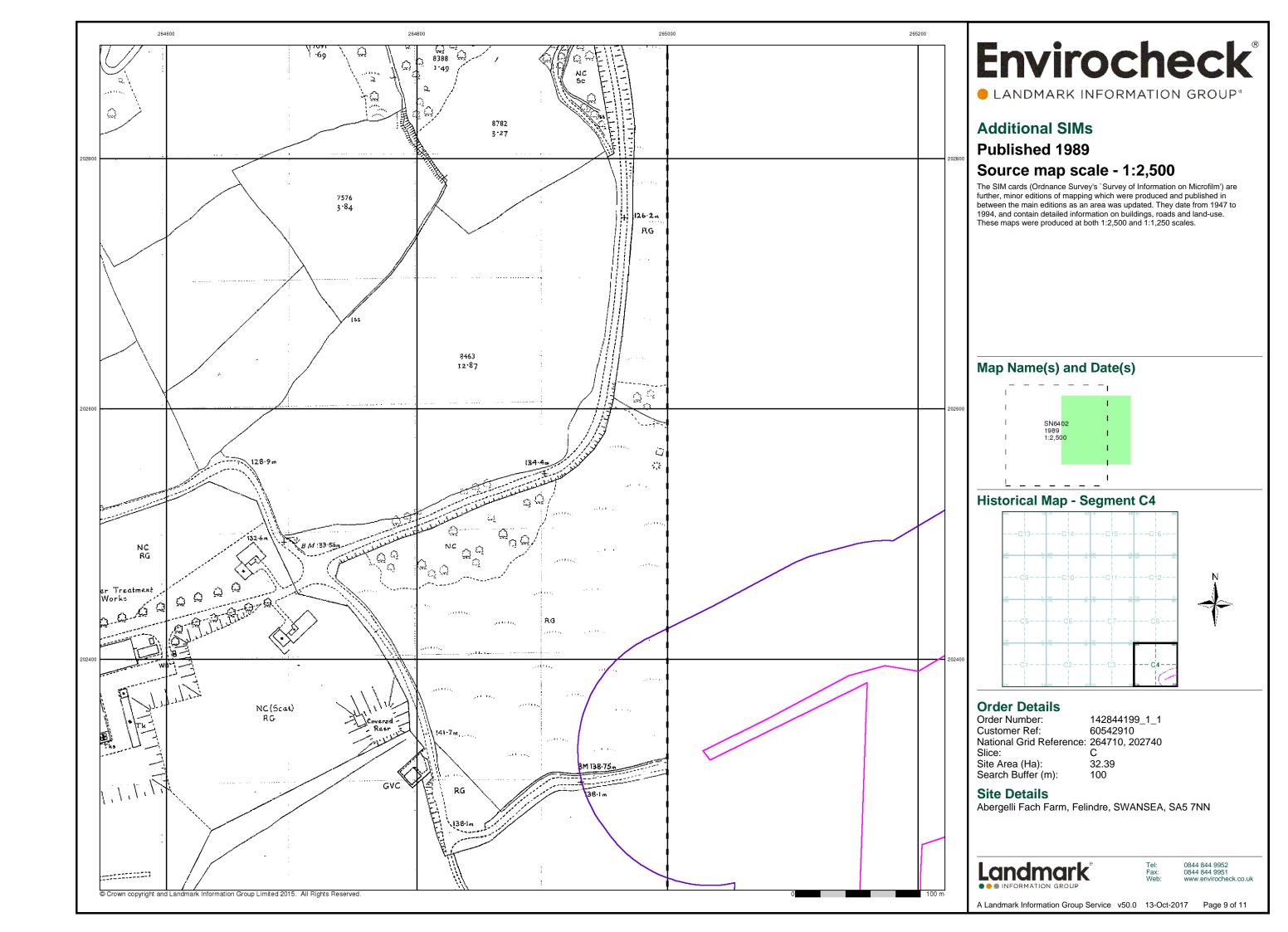


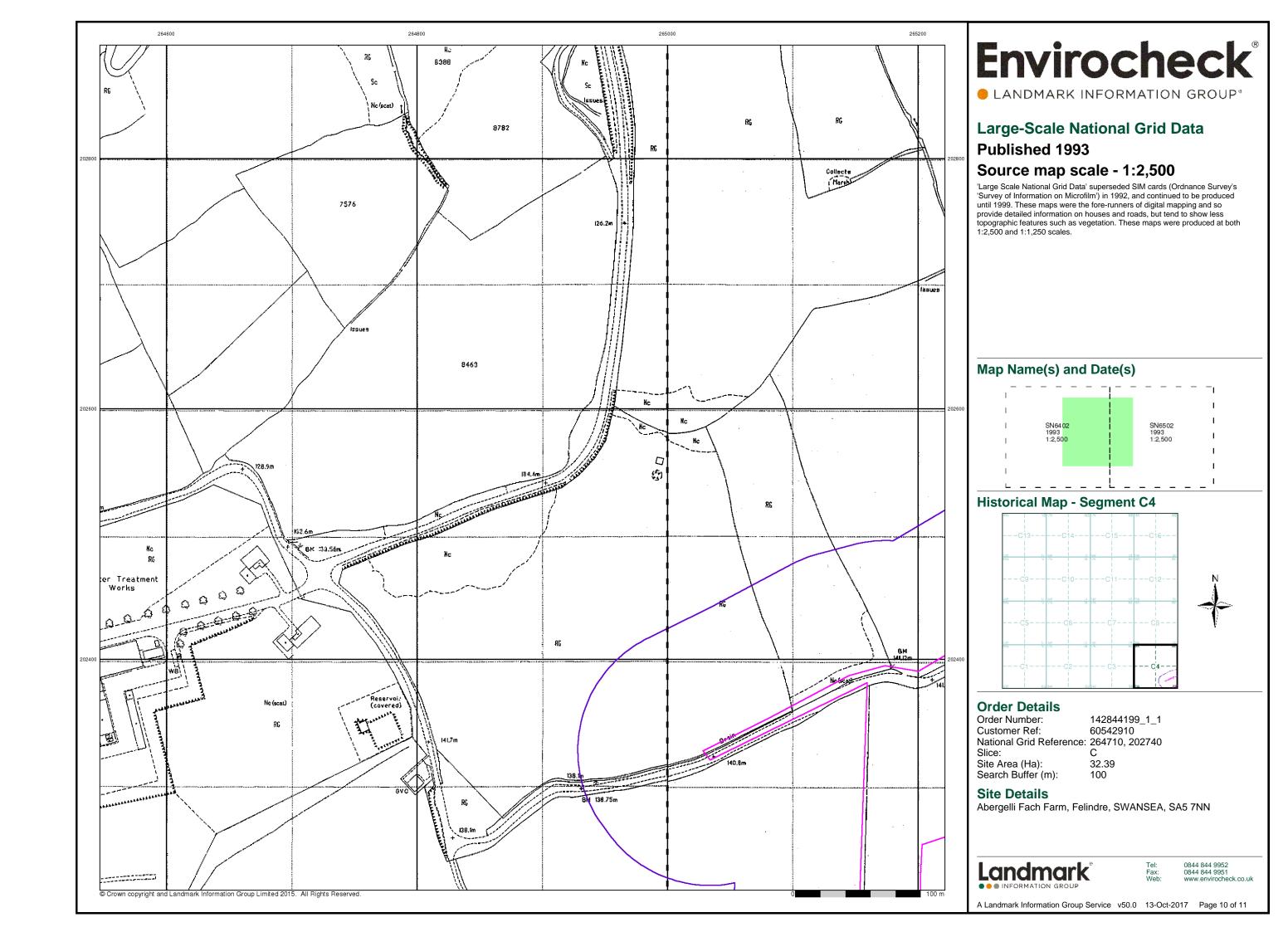


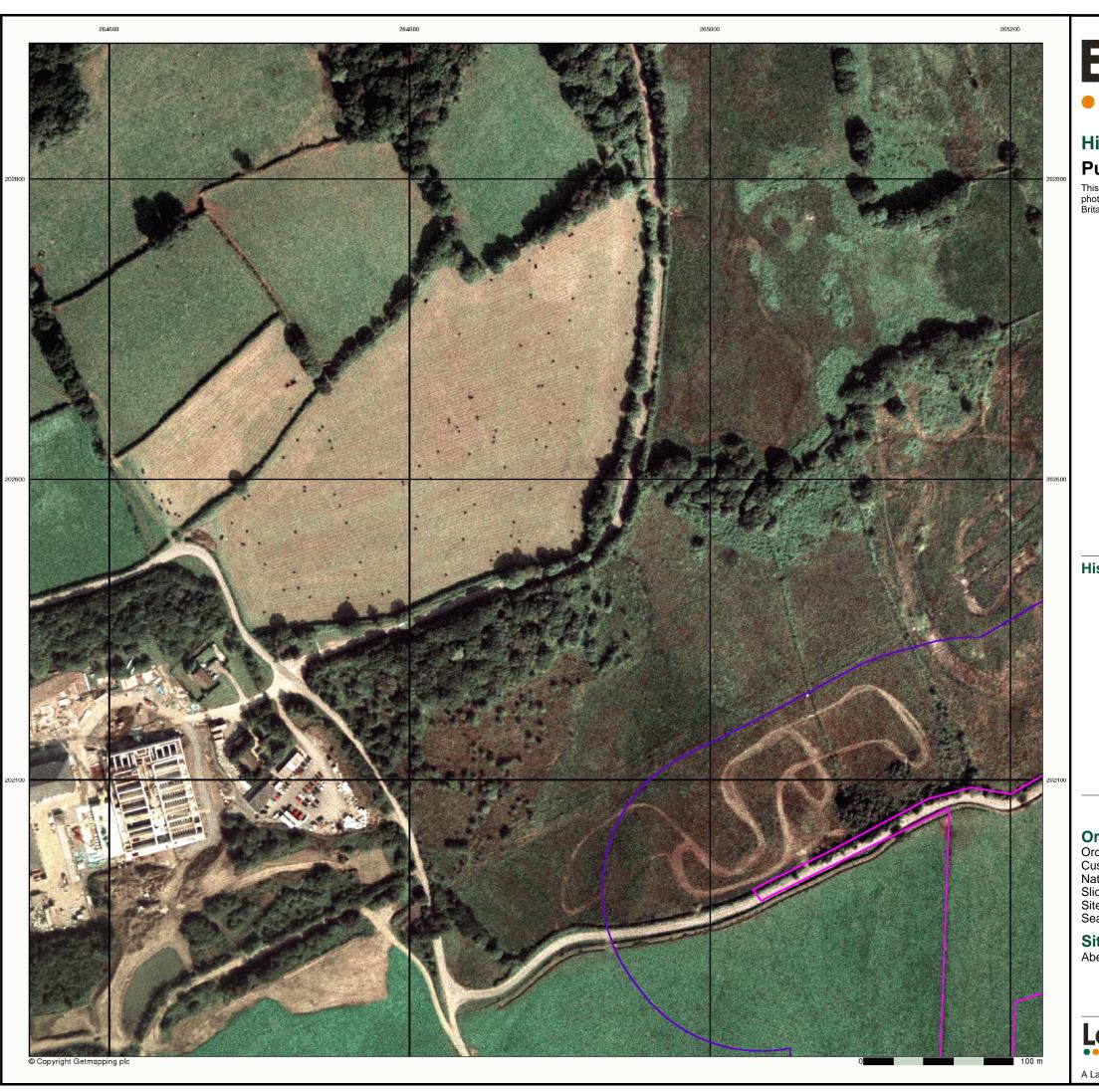










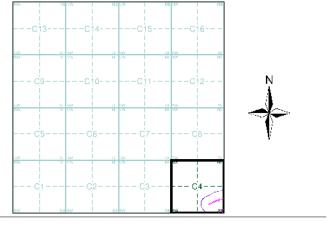


LANDMARK INFORMATION GROUP®

# **Historical Aerial Photography** Published 2000

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

## **Historical Aerial Photography - Segment C4**



### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 264710, 202740

Slice:

32.39 100 Site Area (Ha): Search Buffer (m):

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 11

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F: Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844195 Ordnance : 1961 1:2,500
142844195 Glamorgan 1876-1877 1:2,500
142844195 Ordnance : 1961 1:2,500
142844195 Glamorgan 1916-1918 1:2,500
142844195 Glamorgan 1898-1899 1:2,500
142844195 Additional 1986-1992 1:2,500
142844195 Additional 1989 1:2,500
142844195 Supply of L 1975 1:2,500
142844195 Large-Scale 1993 1:2,500





# **Geology 1:10,000 Maps Legends**

### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                        | Rock Type                      | Min and Max Age            |
|---------------|----------|----------------------------------|--------------------------------|----------------------------|
|               | WGR      | Worked Ground (Undivided)        | Void                           | Holocene - Holocene        |
|               | MGR      | Made Ground (Undivided)          | Artificial Deposit             | Holocene - Holocene        |
|               | LSGR     | Landscaped Ground<br>(Undivided) | Unknown/Unclassifie<br>d Entry | Holocene - Holocene        |
|               | WMGR     | Infilled Ground                  | Artificial Deposit             | Holocene - Holocene        |
|               | SLIP     | Landslide Deposit                | Unknown/Unclassifie<br>d Entry | Quaternary -<br>Quaternary |

### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name                                 | Rock Type                                       | Min and Max Age            |
|---------------|----------|---|---|----------------------------|
|               | ALV      | Alluvium                                  | Clay, Silt, Sand and<br>Gravel                  | Flandrian -<br>Pleistocene |
|               | TILLD    | Till, Devensian                           | Diamicton                                       | Devensian -<br>Ipswichian  |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian      | Sand and Gravel                                 | Devensian -<br>Ipswichian  |
|               | HEAD     | Head                                      | Clay, Silt, Sand and<br>Gravel                  | Quaternary -<br>Ryazanian  |
|               | RTDU     | River Terrace Deposits (Undifferentiated) | Sand and Gravel                                 | Quaternary -<br>Ryazanian  |
|               | PEAT     | Peat                                      | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Ryazanian  |

### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                         | Min and Max Age                  |
|---------------|----------|---------------------|-----------------------------------|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                         | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Mudstone, Siltstone and Sandstone | Westphalian D -<br>Westphalian D |
|               | Fault    |                     |                                   |                                  |
|               | Rock     |                     |                                   |                                  |

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### Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

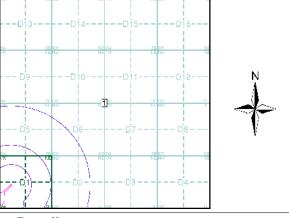
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

### Geology 1:10,000 Maps Coverage

Map ID:1Map Name:SN60SEMap Date:1972Bedrock Geology:AvailableSuperficial Geology:AvailableArtificial Geology:AvailableFaults:AvailableLandslip:AvailableRock Segments:Available

### Geology 1:10,000 Maps - Slice D



### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

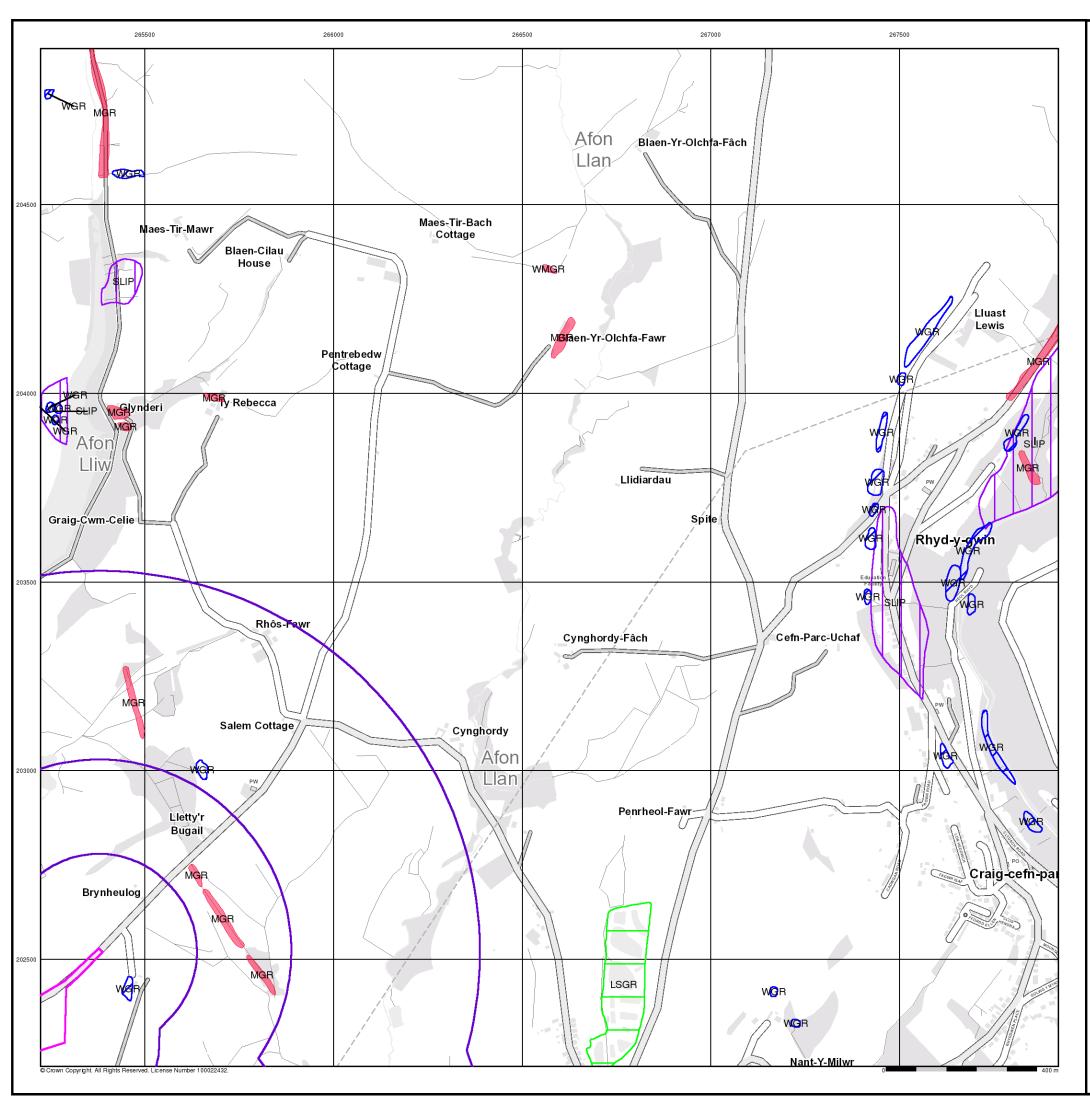
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### **Artificial Ground and Landslip**

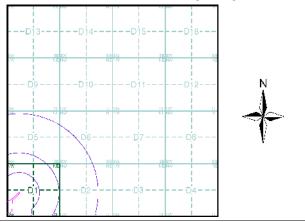
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

#### 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 D**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

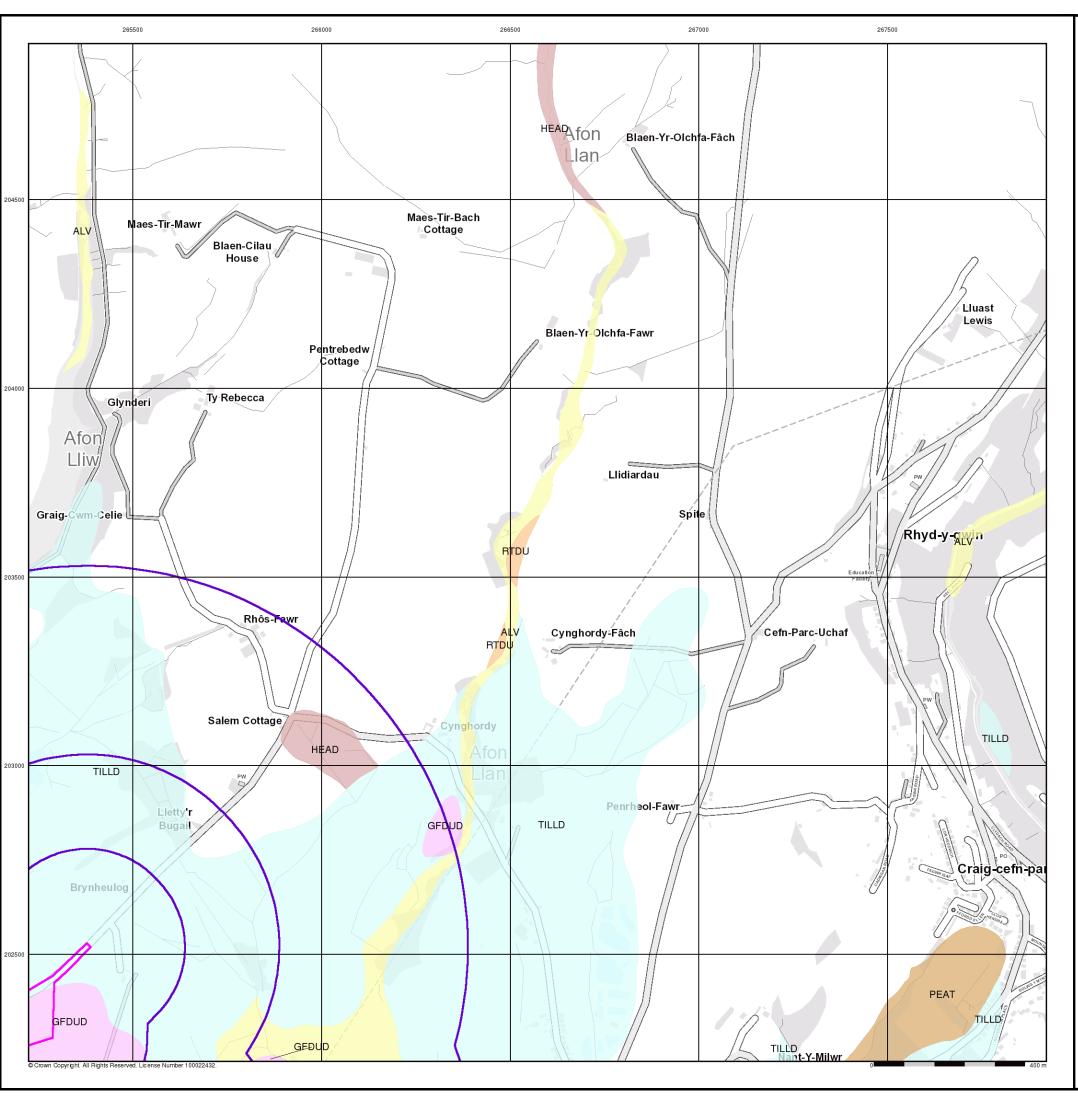
### **Site Details**

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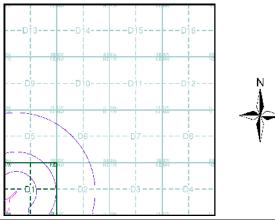
# **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, 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 D**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

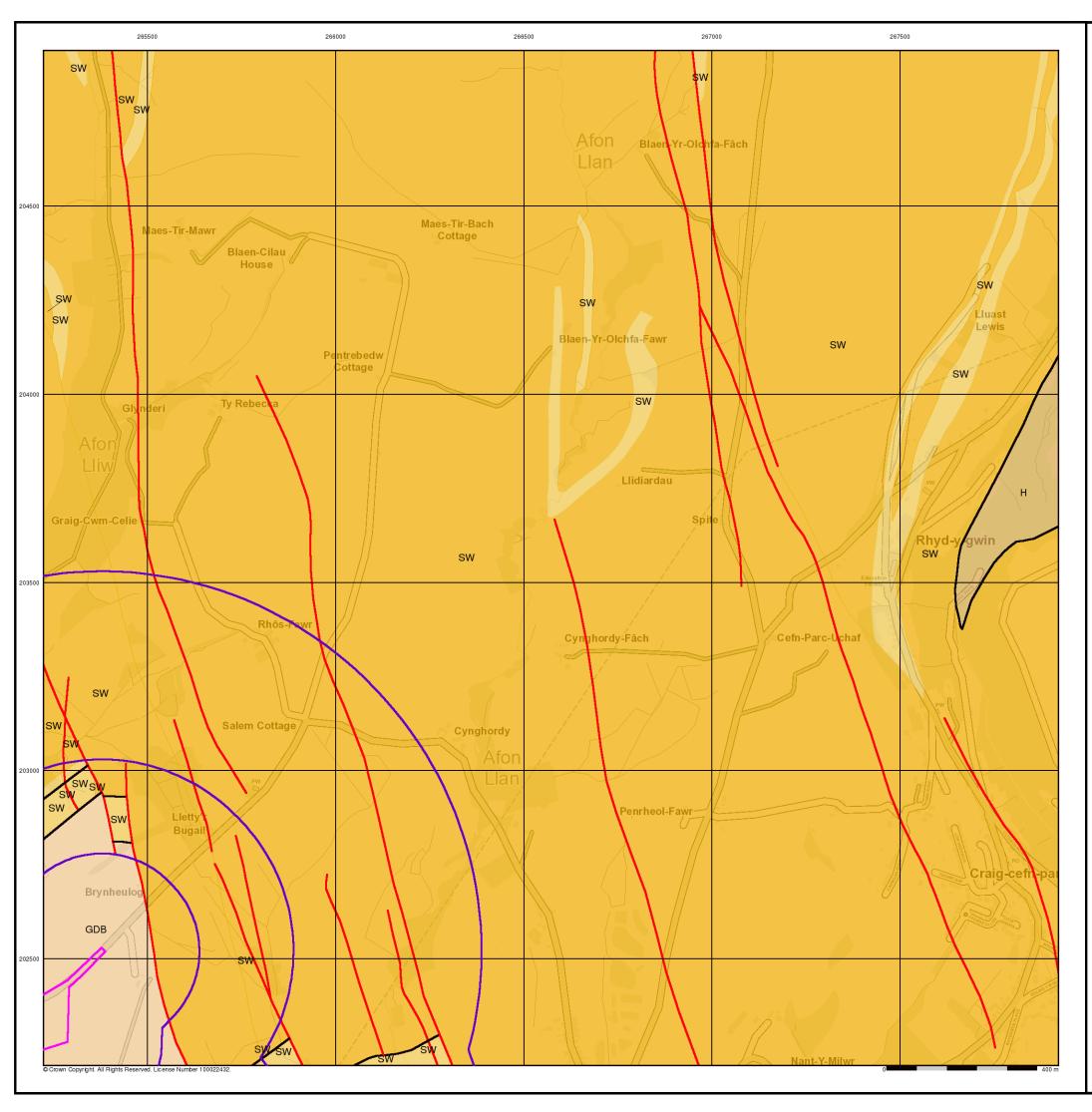
### **Site Details**

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### **Bedrock and Faults**

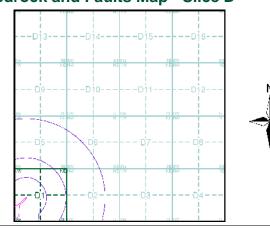
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits

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

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

### **Bedrock and Faults Map - Slice D**





Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

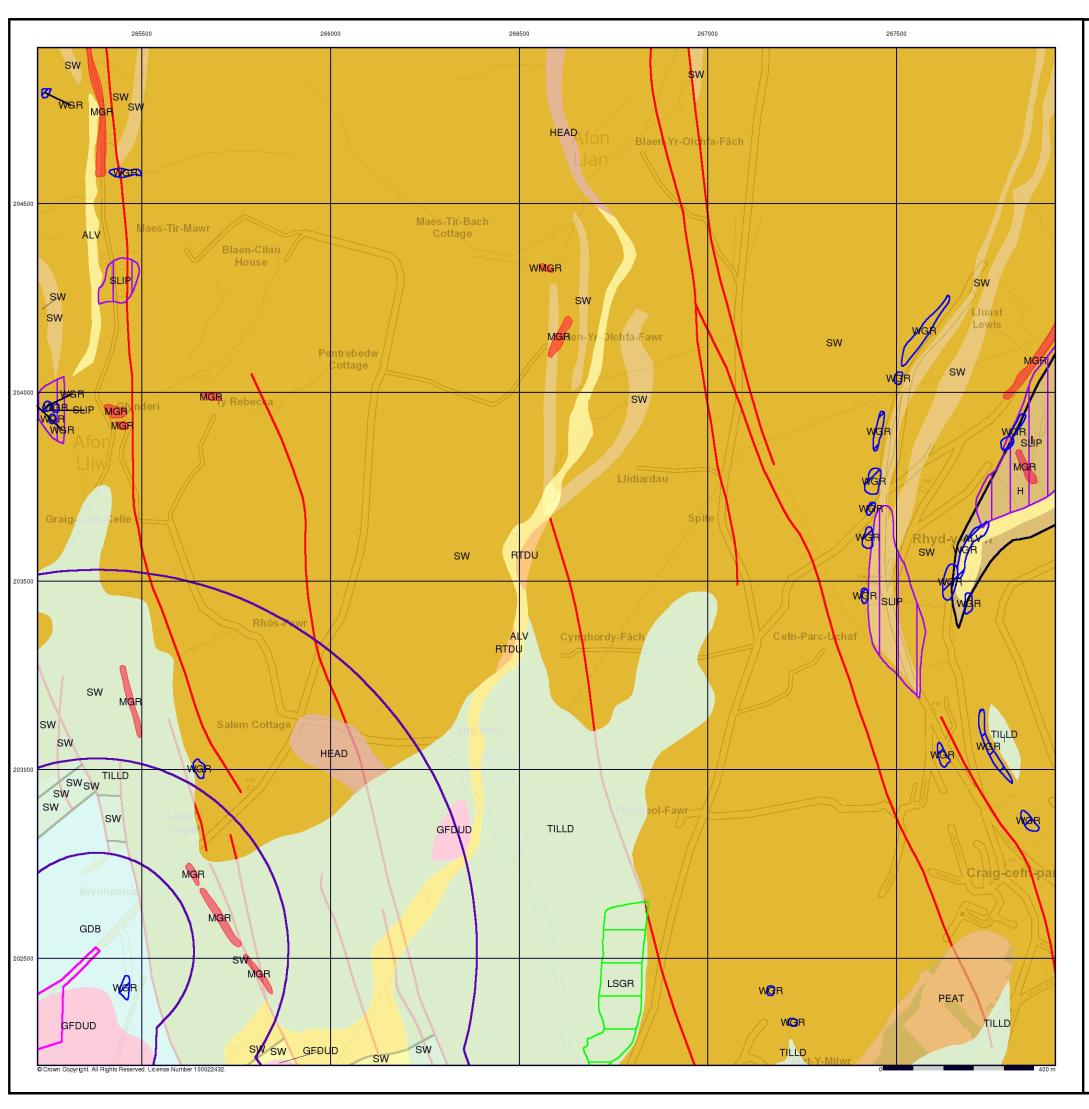
### **Site Details**

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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.

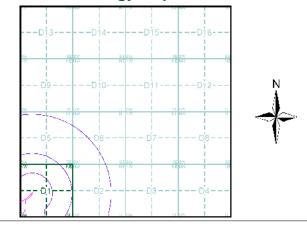
### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

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

### **Combined Geology Map - Slice D**



### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

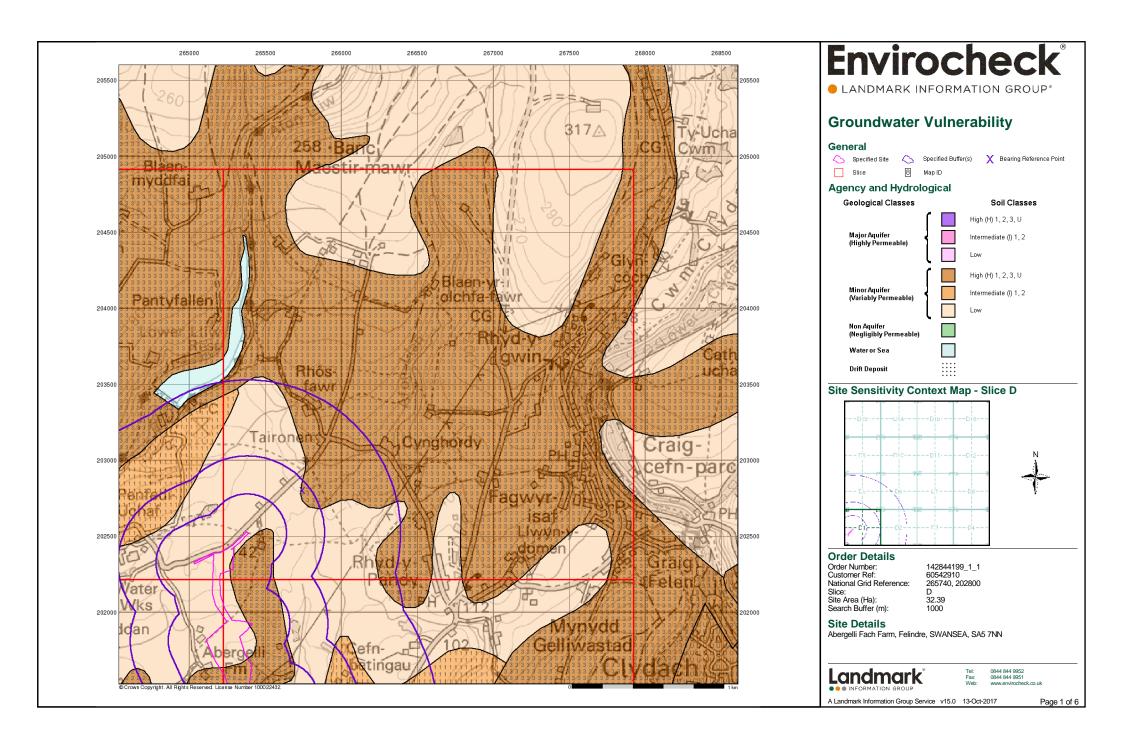
### **Site Details**

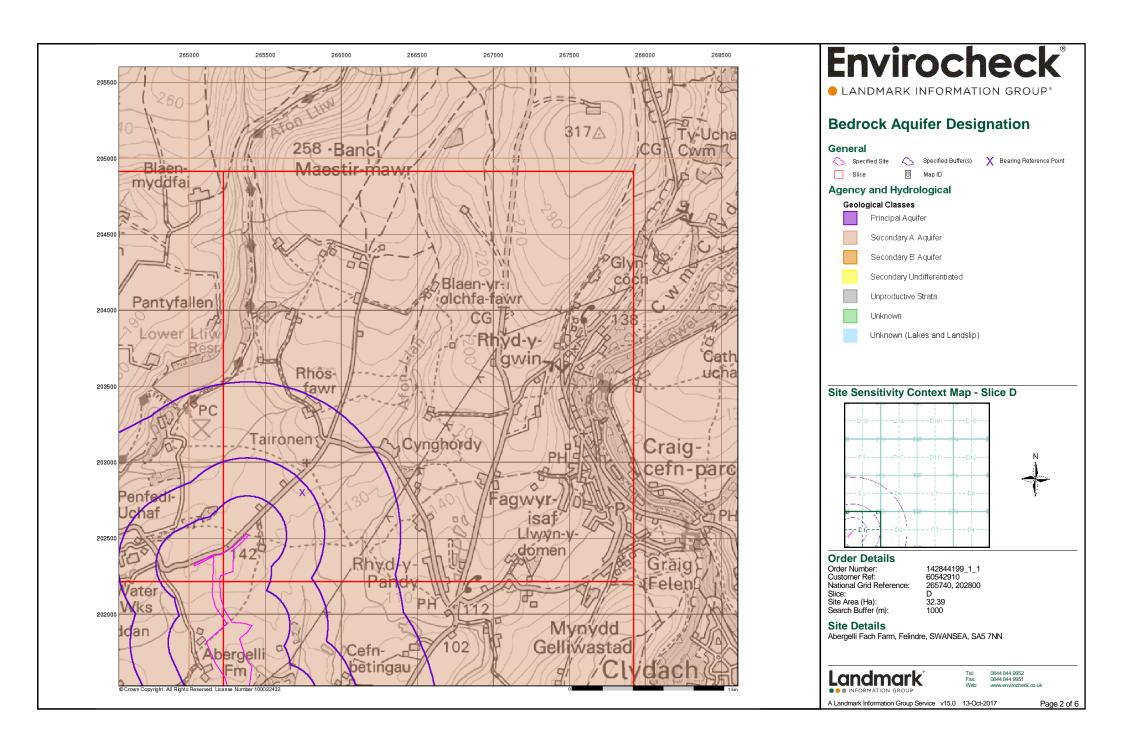
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

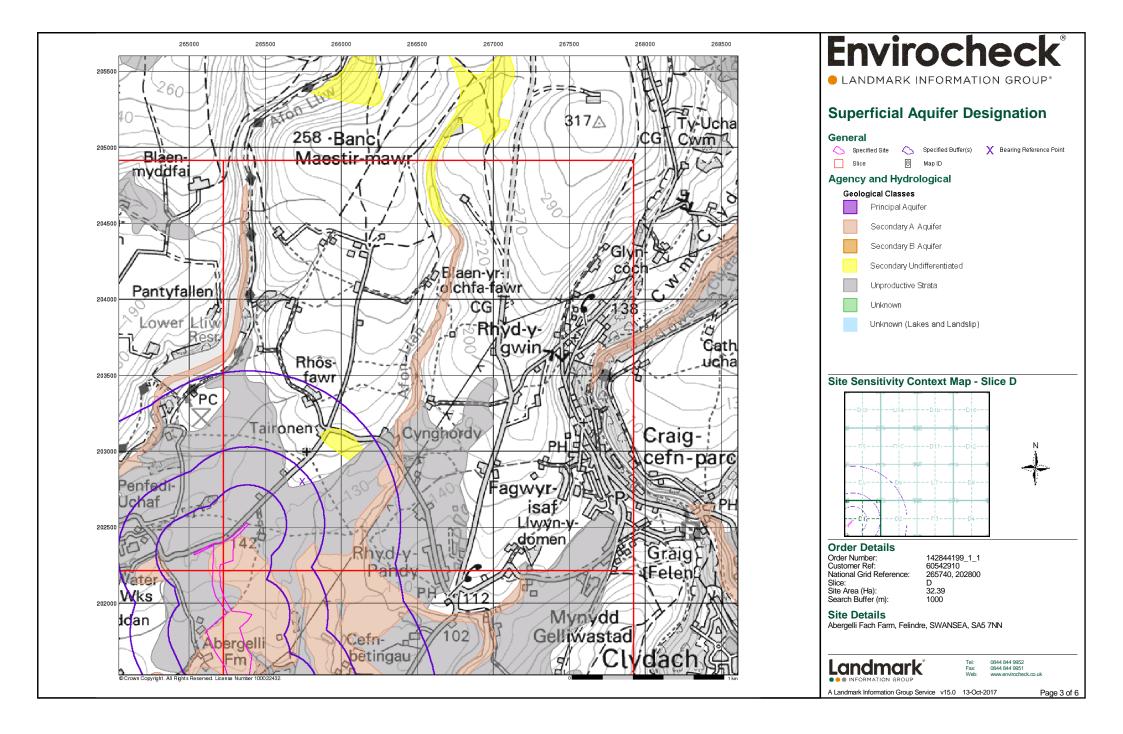


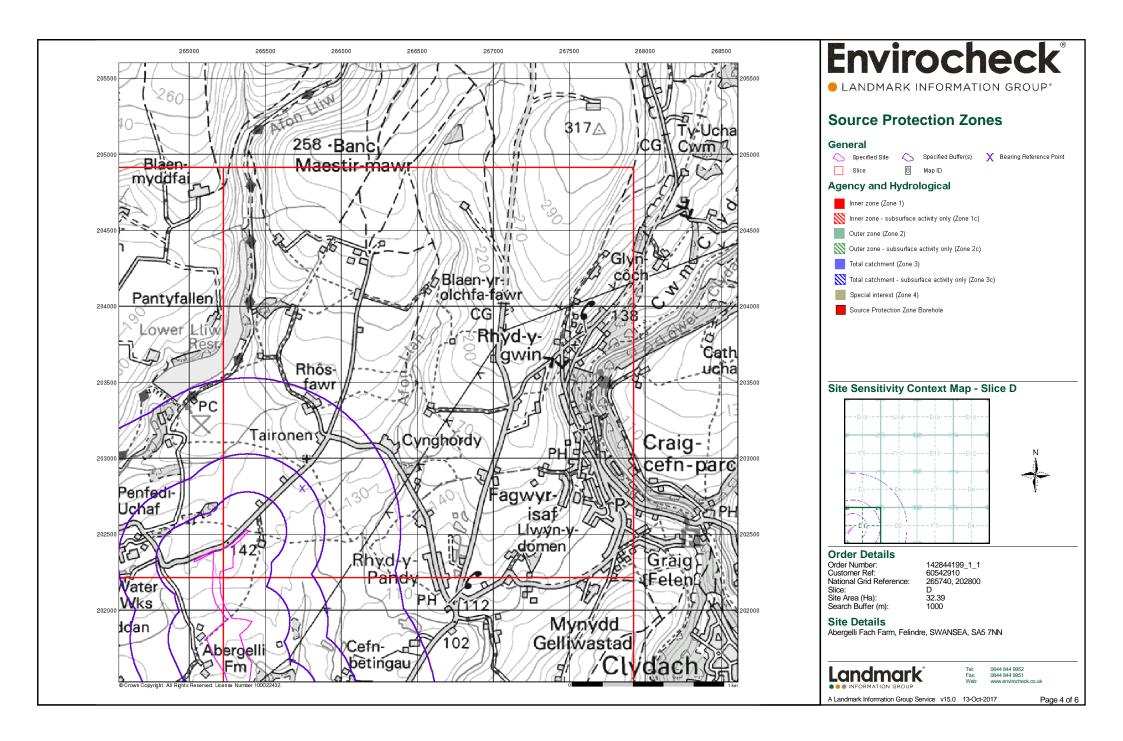
Tel: 0844 844 9952 Fax: 0844 844 9951 Web: www.envirocheck.co.uk

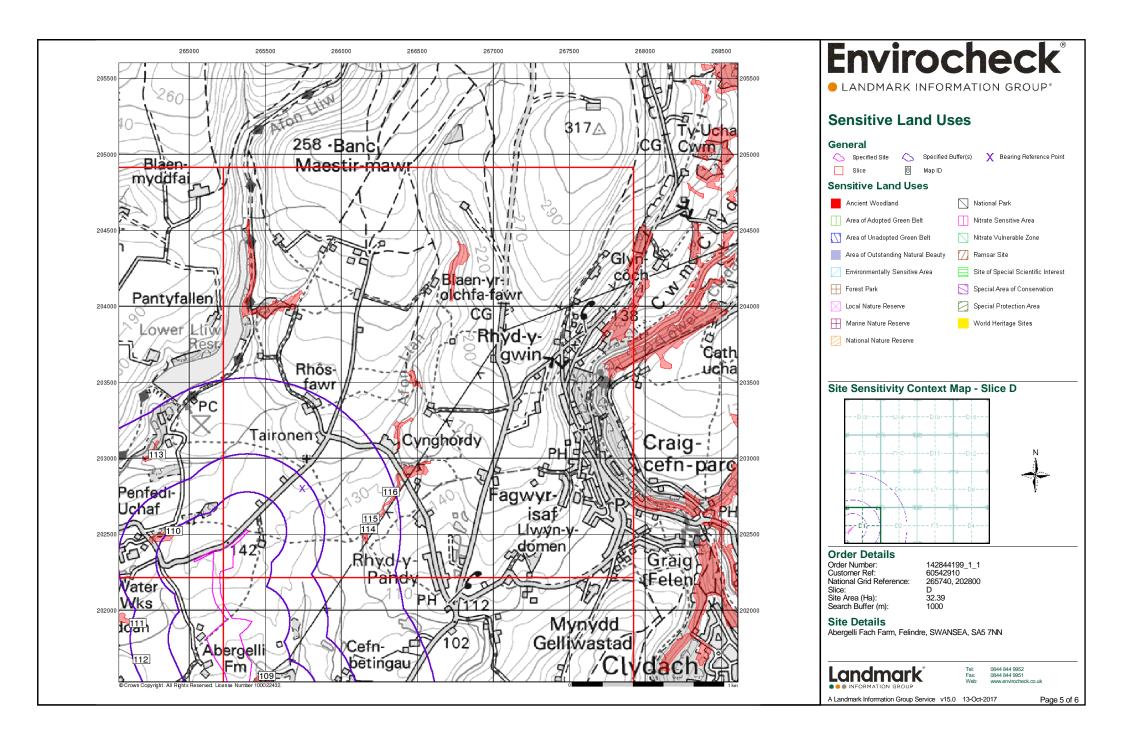
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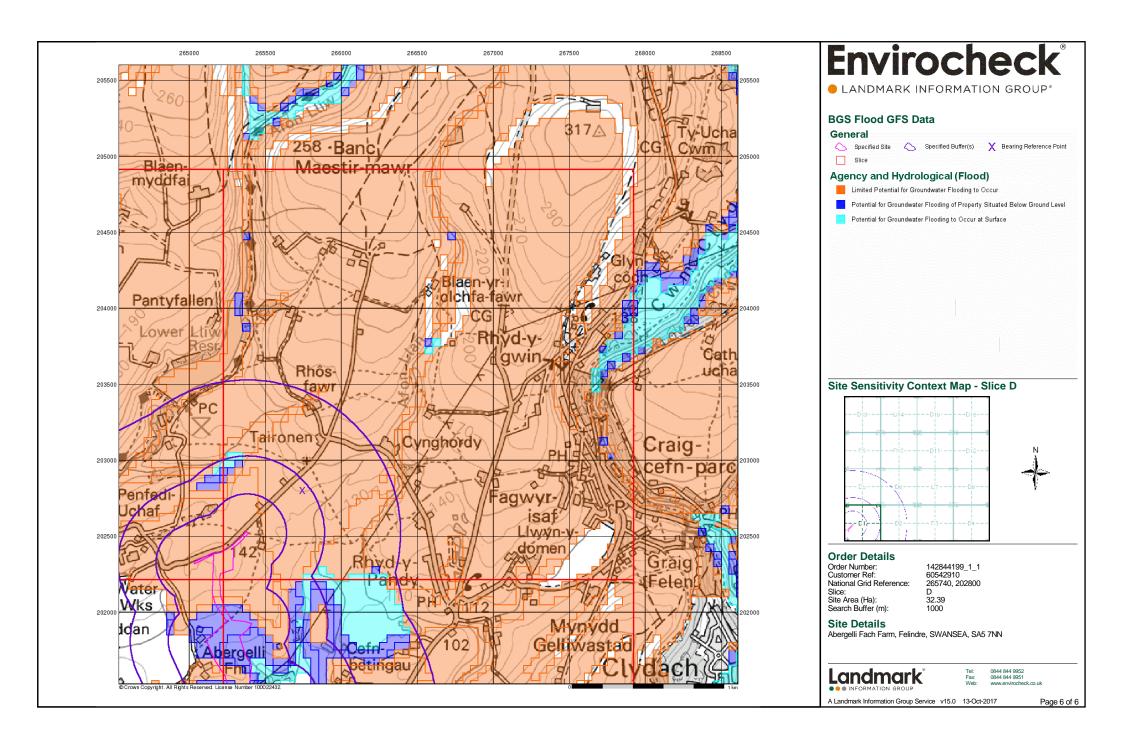














### **Envirocheck® Report:**

### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199\_1\_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

265740, 202800

Slice:

D

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







| Report Section        | Page Number |
|-----------------------|-------------|
| Summary               | -           |
| Agency & Hydrological | 1           |
| Waste                 | 20          |
| Hazardous Substances  | -           |
| Geological            | 21          |
| Industrial Land Use   | 24          |
| Sensitive Land Use    | 25          |
| Data Currency         | 26          |
| Data Suppliers        | 31          |
| Useful Contacts       | 32          |

#### 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 the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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 4           |         | 1         |             |                                |
| 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   | pg 4           |         |           |             | 1                              |
| River Quality Biology Sampling Points                         |                |         |           |             |                                |
| Substantiated Pollution Incident Register                     |                |         |           |             |                                |
| River Quality Chemistry Sampling Points                       |                |         |           |             |                                |
| Water Abstractions  | pg 4           |         |           |             | 1 (*11)                        |
| Water Industry Act Referrals                                  |                |         |           |             |                                |
| Groundwater Vulnerability                                     | pg 7           | Yes     | n/a       | n/a         | n/a                            |
| Drift Deposits  | pg 7           | 2       | 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          |                |         |           | n/a         | n/a                            |
| Flooding from Rivers or Sea without Defences                  |                |         |           | n/a         | n/a                            |
| Areas Benefiting from Flood Defences                          |                |         |           | n/a         | n/a                            |
| Flood Water Storage Areas                                     |                |         |           | n/a         | n/a                            |
| Flood Defences  |                |         |           | n/a         | n/a                            |
| OS Water Network Lines  | pg 8           |         | 4         | 36          | 60                             |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*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 20          | 1       | n/a       | n/a         | n/a                            |
| Local Authority Recorded Landfill Sites                             |                |         |           |             |                                |
| Potentially Infilled Land (Non-Water)                               | pg 20          |         |           |             | 1                              |
| 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                           |                |         |           |             |                                |



| Data Type   | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---|----------------|---------|-----------|-------------|--------------------------------|
| Geological  |                |         |           |             |                                |
| BGS 1:625,000 Solid Geology                                       | pg 21          | Yes     | n/a       | n/a         | n/a                            |
| BGS Estimated Soil Chemistry                                      | pg 21          | Yes     |           |             | Yes                            |
| BGS Recorded Mineral Sites  | pg 22          |         |           |             | 1                              |
| BGS Urban Soil Chemistry  |                |         |           |             |                                |
| BGS Urban Soil Chemistry Averages                                 |                |         |           |             |                                |
| CBSCB Compensation District                                       |                |         | n/a       | n/a         | n/a                            |
| Coal Mining Affected Areas  | pg 22          | Yes     | n/a       | n/a         | n/a                            |
| Mining Instability  | pg 22          | Yes     | n/a       | n/a         | n/a                            |
| Man-Made Mining Cavities  |                |         |           |             |                                |
| Natural Cavities  |                |         |           |             |                                |
| Non Coal Mining Areas of Great Britain                            |                |         |           | n/a         | n/a                            |
| Potential for Collapsible Ground Stability Hazards                | pg 22          | Yes     |           | n/a         | n/a                            |
| Potential for Compressible Ground Stability Hazards               | pg 22          | Yes     |           | n/a         | n/a                            |
| Potential for Ground Dissolution Stability Hazards                |                |         |           | n/a         | n/a                            |
| Potential for Landslide Ground Stability Hazards                  | pg 22          | Yes     |           | n/a         | n/a                            |
| Potential for Running Sand Ground Stability Hazards               | pg 22          | Yes     |           | n/a         | n/a                            |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 22          | Yes     |           | n/a         | n/a                            |
| Radon Potential - Radon Affected Areas                            |                |         | n/a       | n/a         | n/a                            |
| Radon Potential - Radon Protection Measures                       |                |         | n/a       | n/a         | n/a                            |
| Industrial Land Use   |                |         |           |             |                                |
| Contemporary Trade Directory Entries                              | pg 24          |         |           |             | 1                              |
| Fuel Station Entries  |                |         |           |             |                                |
| Points of Interest - Commercial Services                          |                |         |           |             |                                |
| Points of Interest - Education and Health                         |                |         |           |             |                                |
| Points of Interest - Manufacturing and Production                 | pg 24          |         |           |             | 1                              |
| Points of Interest - Public Infrastructure                        | pg 24          |         |           |             | 1                              |
| Points of Interest - Recreational and Environmental               |                |         |           |             |                                |
| Gas Pipelines   | pg 24          | 1       |           |             |                                |
| Underground Electrical Cables                                     |                |         |           |             |                                |



| Data Type                            | Page<br>Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|--------------------------------------|----------------|---------|-----------|-------------|--------------------------------|
| Sensitive Land Use                   |                |         |           |             |                                |
| Ancient Woodland                     | pg 25          | 1       | 1         | 1           | 5                              |
| Areas of Adopted Green Belt          |                |         |           |             |                                |
| Areas of Unadopted Green Belt        |                |         |           |             |                                |
| Areas of Outstanding Natural Beauty  |                |         |           |             |                                |
| Environmentally Sensitive Areas      |                |         |           |             |                                |
| Forest Parks                         |                |         |           |             |                                |
| Local Nature Reserves                |                |         |           |             |                                |
| Marine Nature Reserves               |                |         |           |             |                                |
| National Nature Reserves             |                |         |           |             |                                |
| National Parks                       |                |         |           |             |                                |
| Nitrate Sensitive Areas              |                |         |           |             |                                |
| Nitrate Vulnerable Zones             |                |         |           |             |                                |
| Ramsar Sites                         |                |         |           |             |                                |
| Sites of Special Scientific Interest |                |         |           |             |                                |
| Special Areas of Conservation        |                |         |           |             |                                |
| Special Protection Areas             |                |         |           |             |                                |
| World Heritage Sites                 |                |         |           |             |                                |

rpr\_ec\_datasheet v53.0



# **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 0                                  | 1       | 265200<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 265400<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 0                                  | 1       | 265150<br>201900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 0                                  | 1       | 265350                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 202100                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 0                                  | 1       | 201550<br>265350           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 0                                  | 1       | 202050<br>265350           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (S)   | 0                                  | 1       | 201650<br>265743           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 201800                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 201700                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 201900                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 0                                  | 1       | 201550<br>265450           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D1NW  | 0                                  | 1       | 201600                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)<br>(S)                                     | 1                                  | 1       | 202650                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 21                                 | 1       | 201550                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 22                                 | 1       | 202000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 29                                 | 1       | 202050<br>265000<br>203750 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 41                                 | 1       | 202750<br>265600<br>202200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 48                                 | 1       | 202200<br>265500<br>201000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 58                                 | 1       | 201900<br>265400<br>202050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D1NE  | 113                                | 1       | 202050                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 115                                | 1       | 202802<br>264950<br>202050 |



# **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|------------------------------------|---------|----------------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 117                                | 1       | 265550<br>201850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 132                                | 1       | 265050<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 139                                | 1       | 265650<br>201650           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 139                                | 1       | 265650                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 140                                | 1       | 265000                     |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 168                                | 1       | 201550<br>265600<br>201800 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SW)  | 172                                | 1       | 265050<br>201550           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 199                                | 1       | 265750<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 212                                | 1       | 264900<br>201950           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 228                                | 1       | 265700<br>201800           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 241                                | 1       | 265700<br>202150           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (SW)  | 249                                | 1       | 264900<br>202000           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D1NW<br>(W)                                     | 255                                | 1       | 265250<br>202802           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 264                                | 1       | 265900<br>202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (S)   | 291                                | 1       | 265743<br>201950           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 292                                | 1       | 265743<br>201900           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 292                                | 1       | 265743<br>202050           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 311                                | 1       | 265900<br>201700           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 324                                | 1       | 265200<br>202802           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D1NW<br>(W)                                     | 330                                | 1       | 265300<br>202850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (SE)  | 335                                | 1       | 266450<br>201850           |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 339                                | 1       | 265743<br>202200           |



## **Agency & Hydrological**

| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 341                                | 1       | 265750<br>201950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D1NW<br>(W)                                     | 346                                | 1       | 265250<br>202850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 347                                | 1       | 265000<br>202802 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | D1SE<br>(S)                                     | 349                                | 1       | 265850<br>202300 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (W)   | 367                                | 1       | 265200<br>202850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D5SW<br>(W)                                     | 372                                | 1       | 265350<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 375                                | 1       | 265950<br>201650 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW<br>(W)                                     | 379                                | 1       | 265300<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (S)   | 391                                | 1       | 265850<br>202050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW<br>(W)                                     | 392                                | 1       | 265250<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 398                                | 1       | 265800<br>202150 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | (W)   | 412                                | 1       | 265200<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | D5SW<br>(W)                                     | 422                                | 1       | 265350<br>202950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 423                                | 1       | 265100<br>202850 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D2NW<br>(E)                                     | 424                                | 1       | 266050<br>202700 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | D5SW<br>(NW)                                    | 428                                | 1       | 265350<br>203000 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 436                                | 1       | 265150<br>202900 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 450                                | 1       | 265800<br>202200 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | (W)   | 457                                | 1       | 265200<br>202950 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | (S)   | 479                                | 1       | 265950<br>202050 |
|           | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | D5SW<br>(NW)                                    | 488                                | 1       | 265450<br>203050 |



| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR                        |
|-----------|---|---|---|------------------------------------|---------|----------------------------|
| 1         | Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:                                     | Mr W B Llewellyn Domestic Property (Single) Abergelli Farm Felindre Swansea Natural Resources Wales River Loughor Bp0051701 1 14th August 1987 14th August 1987 14th November 1996 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 100m   | D1SW<br>(SW)                                    | 114                                | 2       | 265500<br>202500           |
|           | Nearest Surface Wa  | ,   | D1NW  | 172                                | -       | 265376                     |
|           | River Quality Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:  | Llan River Quality B Felin-Wen - Cynghordy 2.8  Flow less than 0.31 cumecs River 2000   | D2SW<br>(SE)                                    | 615                                | 3       | 202723<br>266124<br>202457 |
| 2         | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | M.E & D.G Thomas 22/59/4/0024 100 Well At Rhosfawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied Well At Rhosfawr Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m | D5NE<br>(N)                                     | 938                                | 3       | 265750<br>203390           |
|           | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Ot Supplied Ot January 10 July 1st April 2005 Not Supplied Located by supplier to within 10m                             | D3SW<br>(E)                                     | 1323                               | 2       | 266710<br>202510           |



| Map<br>ID |   | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|--|---|------------------------------------|---------|------------------|
|           | Water Abstractions  |  | D3SW  | 1222                               | 2       | 266710           |
|           | Operator:<br>Licence Number:<br>Permit Version:<br>Location:  | Mr M Jones<br>22/59/4/0066<br>1<br>Un-Named Trib Of Afon Llan  | D3SW<br>(E)                                     | 1323                               | 2       | 266710<br>202510 |
|           |   | Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 11 January 03 July 1st April 2005 Not Supplied Located by supplier to within 10m                             |   |                                    |         |                  |
|           | Water Abstractions Operator: Licence Number: Permit Version:  | Mr M Jones<br>22/59/4/0066<br>1  | D3SW<br>(E)                                     | 1323                               | 2       | 266710<br>202510 |
|           | Location:<br>Authority:<br>Abstraction:<br>Abstraction Type:<br>Source:<br>Daily Rate (m3):   | Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied   |   |                                    |         |                  |
|           | Yearly Rate (m3):<br>Details:<br>Authorised Start:<br>Authorised End:   | Not Supplied<br>Unnamed Stream (B) At Maesgwyn Trout Farm<br>01 April<br>31 October  |   |                                    |         |                  |
|           | -   | 1st April 2005<br>Not Supplied<br>Located by supplier to within 10m  |   |                                    |         |                  |
|           | Water Abstractions  |  |   |                                    |         |                  |
|           | Water Abstractions  |  | D3SW<br>(E)                                     | 1323                               | 2       | 266710<br>202510 |
|           | Operator:<br>Licence Number:<br>Permit Version:<br>Location:  | Mr M Jones<br>22/59/4/0066<br>1<br>Un-Named Trib Of Afon Llan  | D3SW<br>(SE)                                    | 1354                               | 2       | 266720<br>202280 |
|           | Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: | On-Named Tilb Of Aron Lian Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 October 1st April 2005 Not Supplied Located by supplier to within 10m |   |                                    |         |                  |



| Map<br>ID | Details   |   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Water Abstractions  |   | Dacw  | 1354                               | 2       | 200720           |
|           | Operator:<br>Licence Number:<br>Permit Version:   | Mr M Jones<br>22/59/4/0066<br>1   | D3SW<br>(SE)                                    | 1354                               | 2       | 266720<br>202280 |
|           | Location:<br>Authority:<br>Abstraction:<br>Abstraction Type:<br>Source:<br>Daily Rate (m3):<br>Yearly Rate (m3):<br>Details:  | Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Unnamed Stream (A) At Maesgwyn Trout Farm   |   |                                    |         |                  |
|           | Authorised Start:<br>Authorised End:<br>Permit Start Date:<br>Permit End Date:  | 11 January 03 July 1st April 2005 Not Supplied Located by supplier to within 10m  |   |                                    |         |                  |
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:  Water Abstractions | Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 November 31 March 1st April 2005 Not Supplied Located by supplier to within 10m                                   | D3SW<br>(SE)                                    | 1354                               | 2       | 266720<br>202280 |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:  Water Abstractions | Mr D Thomas 22/59/4/0039 100 Well At Cwmcile Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring Adjacent To Pentre Bedw Cottage 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m | D9NE<br>(N)                                     | 1600                               | 3       | 265730<br>204090 |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:   | Mr D Thomas 22/59/4/0039 100 Spring Adjacent To Pentre Bedw Cottage Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well At Cwmcile Farm 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m | D10NW<br>(N)                                    | 1748                               | 3       | 266080<br>204130 |



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| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Water Abstractions  |   |   |                                    |         |                  |
|           | Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:                                 | Mr J Williams 22/59/4/0040 100 Spring In Enc. No. 847 At Maestir Mawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Enc. No. 847 At Maestir Mawr Farm 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m | D13SW<br>(N)                                    | 1875                               | 3       | 265500<br>204400 |
|           | Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy: | Mr D Morgan 22/59/4/0005 100 Spring 2 At Pant Y Fallen Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring 2 At Pant Y Fallen Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m              | D13SW<br>(N)                                    | 1965                               | 3       | 265250<br>204490 |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:   | Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Sheet 35 West Glamorgan 1:100,000                   | D1NE<br>(W)                                     | 0                                  | 3       | 265735<br>202802 |
|           |   | ,   |   |                                    |         |                  |
|           | Groundwater Vulne Soil Classification:  Map Sheet: Scale:   | Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000  | D1SW<br>(SW)                                    | 0                                  | 3       | 265538<br>202540 |
|           | Groundwater Vulne   | · · · · · · · · · · · · · · · · · · ·   |   |                                    |         |                  |
|           | Groundwater Vulne<br>Soil Classification:<br>Map Sheet:<br>Scale:   | Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000  | (S)   | 0                                  | 3       | 265994<br>201841 |
|           | Drift Deposits Drift Deposit:  Map Sheet: Scale:  | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000   | (S)   | 0                                  | 3       | 265745<br>201652 |
|           | Drift Deposits  |   |   |                                    |         |                  |
|           | Drift Deposits Drift Deposit: Map Sheet:  | Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan   | D1NE<br>(SW)                                    | 0                                  | 3       | 265743<br>202802 |
|           | Scale:  | 1:100,000   |   |                                    |         |                  |
|           | Bedrock Aquifer De  |   | (\A/\   | 0                                  | 1       | 265000           |
|           |   | Secondary Aquifer - A   | (W)   | U                                  | 1       | 265000<br>202802 |
|           | Bedrock Aquifer De Aquifer Designation:   | esignations Secondary Aquifer - A   | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Superficial Aquifer Aquifer Designation:  | <b>Designations</b> Secondary Aquifer - A   | D1SW  | 0                                  | 1       | 265397           |



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| Map<br>ID | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|------------------------------------|---------|------------------|
|           | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A  | D1SE<br>(S)                                     | 0                                  | 1       | 265820<br>202400 |
|           | Superficial Aquifer Designations Aquifer Designation: Unproductive Strata  | D1NE<br>(S)                                     | 0                                  | 1       | 265750<br>202777 |
|           | Extreme Flooding from Rivers or Sea without Defences None  | (C)   |                                    |         | 202111           |
|           | Flooding from Rivers or Sea without Defences None  |   |                                    |         |                  |
|           | Areas Benefiting from Flood Defences None  |   |                                    |         |                  |
|           | Flood Water Storage Areas None   |   |                                    |         |                  |
|           | Flood Defences None  |   |                                    |         |                  |
| 3         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D1SE<br>(SW)                                    | 133                                | 4       | 265577<br>202541 |
| 4         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 167.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 191                                | 4       | 265719<br>202508 |
| 5         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D1SE<br>(S)                                     | 191                                | 4       | 265679<br>202523 |
| 6         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 134.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NW<br>(W)                                     | 236                                | 4       | 265237<br>202721 |
| 7         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 131.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(SW)                                    | 298                                | 4       | 265666<br>202627 |
| 8         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 273.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(SW)                                    | 315                                | 4       | 265649<br>202695 |



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| Map<br>ID | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|------------------------------------|---------|------------------|
| 9         | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 269.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(SW)                                    | 322                                | 4       | 265666<br>202717 |
| 10        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 164.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 332                                | 4       | 265719<br>202508 |
| 11        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 357                                | 4       | 265654<br>202282 |
| 12        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D1NE<br>(W)                                     | 362                                | 4       | 265599<br>202817 |
| 13        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 58.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D1NE<br>(W)                                     | 375                                | 4       | 265579<br>202846 |
| 14        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 96.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D1NE<br>(NW)                                    | 375                                | 4       | 265617<br>202855 |
| 15        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | D1SE<br>(S)                                     | 377                                | 4       | 265664<br>202254 |
| 16        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 74.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 380                                | 4       | 265666<br>202248 |
| 17        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 75.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SE<br>(NW)                                    | 416                                | 4       | 265566<br>202901 |



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| 18        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                           | D5SE<br>(NW)                                    | 416                                | 4       | 265594<br>202909 |
| 19        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 55.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(W)                                     | 417                                | 4       | 265335<br>202944 |
| 20        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | D5SW<br>(W)                                     | 421                                | 4       | 265285<br>202940 |
| 21        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 100.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | D5SW<br>(W)                                     | 422                                | 4       | 265257<br>202969 |
| 22        | OS Water Network Lines  Watercourse Form: Marsh Watercourse Length: 38.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | D1SE<br>(S)                                     | 422                                | 4       | 265807<br>202472 |
| 23        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 149.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | D1SE<br>(S)                                     | 426                                | 4       | 265826<br>202255 |
| 24        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 142.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 428                                | 4       | 265835<br>202293 |
| 25        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 133.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(S)                                     | 434                                | 4       | 265817<br>202584 |
| 26        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 89.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D1NE<br>(SE)                                    | 435                                | 4       | 265853<br>202663 |



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| 27        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                            | D5SE<br>(NW)                                    | 437                                | 4       | 265594<br>202909 |
| 28        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 33.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(W)                                     | 440                                | 4       | 265282<br>202959 |
| 29        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 149.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D1SE<br>(S)                                     | 457                                | 4       | 265830<br>202393 |
| 30        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 54.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D1SE<br>(S)                                     | 458                                | 4       | 265840<br>202452 |
| 31        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 460                                | 4       | 265527<br>202965 |
| 32        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1    | D1SE<br>(S)                                     | 460                                | 4       | 265837<br>202395 |
| 33        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | D1SE<br>(S)                                     | 467                                | 4       | 265844<br>202399 |
| 34        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 106.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(SE)                                    | 468                                | 4       | 265794<br>202752 |
| 35        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D5SW<br>(W)                                     | 473                                | 4       | 265271<br>202989 |



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| 36        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 31.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(W)                                     | 473                                | 4       | 265271<br>202989 |
| 37        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 352.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1NE<br>(SE)                                    | 487                                | 4       | 265880<br>202701 |
| 38        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 53.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | D5SW<br>(W)                                     | 488                                | 4       | 265229<br>203001 |
| 39        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 68.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(NW)                                    | 489                                | 4       | 265548<br>203014 |
| 40        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 189.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(NW)                                    | 490                                | 4       | 265498<br>203004 |
| 41        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 15.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | D5SW<br>(W)                                     | 493                                | 4       | 265245<br>203004 |
| 42        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 9.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1             | D5SW<br>(W)                                     | 495                                | 4       | 265229<br>203001 |
| 43        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1            | D5SW<br>(NW)                                    | 503                                | 4       | 265237<br>203019 |
| 44        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 34.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | D5SW<br>(NW)                                    | 510                                | 4       | 265237<br>203019 |



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| 45        | OS Water Network Lines  Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1                                    | D5SW<br>(NW)                                    | 510                                | 4       | 265258<br>203043 |
| 46        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 92.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 527                                | 4       | 265333<br>203091 |
| 47        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | D5SW<br>(NW)                                    | 527                                | 4       | 265556<br>203025 |
| 48        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SE<br>(NW)                                    | 527                                | 4       | 265590<br>203014 |
| 49        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | D5SE<br>(NW)                                    | 529                                | 4       | 265593<br>203014 |
| 50        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SE<br>(NW)                                    | 530                                | 4       | 265626<br>203002 |
| 51        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D1SE<br>(S)                                     | 542                                | 4       | 265858<br>202251 |
| 52        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 157.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SW<br>(NW)                                    | 560                                | 4       | 265479<br>203138 |
| 53        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 182.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SW<br>(NW)                                    | 562                                | 4       | 265307<br>203087 |



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| 54        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 40.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 565                                | 4       | 265360<br>203121 |
| 55        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 593                                | 4       | 265366<br>203128 |
| 56        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 310.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SW<br>(NW)                                    | 593                                | 4       | 265360<br>203121 |
| 57        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1          | D5SW<br>(NW)                                    | 617                                | 4       | 265486<br>203140 |
| 58        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 620                                | 4       | 265499<br>203146 |
| 59        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 117.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D5SE<br>(NW)                                    | 638                                | 4       | 265577<br>203145 |
| 60        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D5SW<br>(NW)                                    | 649                                | 4       | 265520<br>203162 |
| 61        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 62.4  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SW<br>(NW)                                    | 655                                | 4       | 265435<br>203199 |
| 62        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 73.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1    | D5SW<br>(NW)                                    | 655                                | 4       | 265407<br>203183 |



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| 63        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 24.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5SW<br>(NW)                                    | 665                                | 4       | 265534<br>203175 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 64        | Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5SW<br>(NW)                                    | 665                                | 4       | 265534<br>203175 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 65        | Watercourse Form: Inland river Watercourse Length: 363.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                        | D2NW<br>(SE)                                    | 692                                | 4       | 266106<br>202636 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 66        | Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                | D5SW<br>(NW)                                    | 694                                | 4       | 265457<br>203219 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 67        | Watercourse Form: Inland river Watercourse Length: 10.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                         | D5SE<br>(NW)                                    | 695                                | 4       | 265573<br>203196 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 68        | Watercourse Form: Inland river Watercourse Length: 8.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2                          | D5SE<br>(NW)                                    | 698                                | 4       | 265576<br>203198 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 69        | Watercourse Form: Inland river Watercourse Length: 0.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | D5SW<br>(NW)                                    | 701                                | 4       | 265463<br>203225 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 70        | Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5NW<br>(NW)                                    | 701                                | 4       | 265535<br>203262 |
|           | OS Water Network Lines   |   |                                    |         |                  |
| 71        | Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                         | D5SW<br>(NW)                                    | 701                                | 4       | 265463<br>203225 |



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| 72        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D5SE<br>(NW)                                    | 706                                | 4       | 265575<br>203207 |
| 73        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 54.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2         | D5SE<br>(N)                                     | 709                                | 4       | 265574<br>203211 |
| 74        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | D5NW<br>(NW)                                    | 720                                | 4       | 265459<br>203245 |
| 75        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                          | D5NW<br>(NW)                                    | 720                                | 4       | 265459<br>203245 |
| 76        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 66.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | D2SW<br>(SE)                                    | 753                                | 4       | 266143<br>202493 |
| 77        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 280.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1  | D2SW<br>(SE)                                    | 756                                | 4       | 266141<br>202413 |
| 78        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D5NE<br>(N)                                     | 760                                | 4       | 265571<br>203265 |
| 79        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 72.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5NE<br>(N)                                     | 765                                | 4       | 265570<br>203270 |
| 80        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1                             | D2NW<br>(SE)                                    | 771                                | 4       | 266182<br>202596 |



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| 81        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                            | D2SW<br>(SE)                                    | 772                                | 4       | 266153<br>202421 |
| 82        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1      | D2SW<br>(SE)                                    | 772                                | 4       | 266159<br>202433 |
| 83        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 21.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 2      | D2SW<br>(SE)                                    | 772                                | 4       | 266158<br>202454 |
| 84        | OS Water Network Lines  Watercourse Form: Inland river  Watercourse Length: 26.0  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1   | D2SW<br>(SE)                                    | 773                                | 4       | 266158<br>202454 |
| 85        | OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 27.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1           | D2SW<br>(SE)                                    | 788                                | 4       | 266162<br>202376 |
| 86        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 201.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D6SW<br>(NE)                                    | 793                                | 4       | 266014<br>203006 |
| 87        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D6SW<br>(NE)                                    | 798                                | 4       | 265971<br>203063 |
| 88        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D6SW<br>(NE)                                    | 798                                | 4       | 265971<br>203063 |
| 89        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 217.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D6SW<br>(E)                                     | 803                                | 4       | 266093<br>202903 |



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| 90        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5NE<br>(N)                                     | 823                                | 4       | 265618<br>203316 |
| 91        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 45.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2  | D5NE<br>(N)                                     | 823                                | 4       | 265641<br>203317 |
| 92        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 116.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2 | D2NW<br>(E)                                     | 838                                | 4       | 266202<br>202752 |
| 93        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1         | D6SW<br>(NE)                                    | 844                                | 4       | 265990<br>203109 |
| 94        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1   | D6SW<br>(NE)                                    | 847                                | 4       | 265992<br>203113 |
| 95        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 93.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D5NE<br>(N)                                     | 849                                | 4       | 265658<br>203331 |
| 96        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 122.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D2NW<br>(E)                                     | 852                                | 4       | 266228<br>202721 |
| 97        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 419.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1    | D2NW<br>(E)                                     | 852                                | 4       | 266234<br>202616 |
| 98        | OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D2NW<br>(E)                                     | 861                                | 4       | 266224<br>202754 |



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|-----------|---|---|------------------------------------|---------|------------------|
|           | OS Water Network Lines  |   |                                    |         |                  |
| 99        | Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                                 | D2NW<br>(E)                                     | 861                                | 4       | 266224<br>202723 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 100       | Watercourse Form: Inland river Watercourse Length: 77.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1  | D2NE<br>(E)                                     | 892                                | 4       | 266240<br>202781 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 101       | Watercourse Form: Inland river Watercourse Length: 250.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1 | D5NW<br>(N)                                     | 913                                | 4       | 265476<br>203470 |
|           | OS Water Network Lines  |   |                                    |         |                  |
| 102       | Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1                           | D2SE<br>(SE)                                    | 943                                | 4       | 266309<br>202243 |



**Waste** 

| Map<br>ID |   | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
|           | Local Authority La<br>Name:                             | ndfill Coverage City and County of Swansea - Has no landfill data to supply |   | 0                                  | 5       | 265743<br>202802 |
| 103       | Potentially Infilled Bearing Ref: Use: Date of Mapping: | Land (Non-Water)  NW Unknown Filled Ground (Pit, quarry etc) 1976           | D5SE<br>(NW)                                    | 544                                | 8       | 265647<br>203003 |





| Map<br>ID |  | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|---|---|------------------------------------|---------|------------------|
|           | BGS 1:625,000 Solid<br>Description:  | d Geology South Wales Upper Coal Measures Formation   | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                         | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg | D2NW<br>(E)                                     | 613                                | 1       | 266000<br>202802 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                         | D6SW<br>(E)                                     | 719                                | 1       | 266000<br>202897 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                         | D2SW<br>(SE)                                    | 778                                | 1       | 266190<br>202507 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                         | D2SW<br>(SE)                                    | 845                                | 1       | 266192<br>202261 |
|           | BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration: | British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg                         | D6SW<br>(NE)                                    | 871                                | 1       | 266000<br>203139 |





| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | BGS Estimated Soi<br>Source:<br>Soil Sample Type:<br>Arsenic<br>Concentration:<br>Cadmium<br>Concentration:<br>Chromium<br>Concentration:<br>Lead Concentration:<br>Nickel<br>Concentration: | British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  <1.8 mg/kg 60 - 90 mg/kg  | D2NE<br>(E)                                     | 900                                | 1       | 266240<br>202808 |
| 104       | BGS Recorded Min- Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:                                 | Waun-Fach , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151707 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m | D5SE<br>(NW)                                    | 539                                | 1       | 265652<br>202994 |
|           | BGS Measured Urb   | an Soil Chemistry  |   |                                    |         |                  |
|           | No data available  BGS Urban Soil Ch  No data available  | emistry Averages   |   |                                    |         |                  |
|           | Coal Mining Affects Description:   | d Areas  In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.      | D1NE<br>(SW)                                    | 0                                  | 6       | 265743<br>202802 |
|           | Mining Instability Mining Evidence: Source: Boundary Quality:  | Inconclusive Coal Mining Ove Arup & Partners As Supplied   | D1NE<br>(SW)                                    | 0                                  | -       | 265743<br>202802 |
|           | Non Coal Mining Ar<br>No Hazard  | reas of Great Britain  |   |                                    |         |                  |
|           | Potential for Collap<br>Hazard Potential:<br>Source:   | sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service   | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Potential for Collap<br>Hazard Potential:<br>Source:   | sible Ground Stability Hazards<br>No Hazard<br>British Geological Survey, National Geoscience Information Service  | D1SE<br>(S)                                     | 0                                  | 1       | 265820<br>202400 |
|           | Potential for Complete Hazard Potential: Source:   | ressible Ground Stability Hazards  Moderate  British Geological Survey, National Geoscience Information Service  | D1SE<br>(S)                                     | 0                                  | 1       | 265820<br>202400 |
|           | Hazard Potential:<br>Source:   | ressible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service   | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Potential for Groun Hazard Potential: Source:  | d Dissolution Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service   | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Potential for Lands Hazard Potential: Source:  | lide Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service  | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Potential for Runnin<br>Hazard Potential:<br>Source:   | ng Sand Ground Stability Hazards  Low  British Geological Survey, National Geoscience Information Service  | D1SE<br>(S)                                     | 0                                  | 1       | 265820<br>202400 |
|           | Potential for Runnin<br>Hazard Potential:<br>Source:   | ng Sand Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service   | D1NE<br>(S)                                     | 0                                  | 1       | 265750<br>202777 |
|           | Potential for Shrink Hazard Potential: Source:   | ing or Swelling Clay Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service   | D1SW<br>(SW)                                    | 0                                  | 1       | 265397<br>202422 |



## **Geological**

| Map<br>ID |                                | Details   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--------------------------------|---|---|------------------------------------|---------|------------------|
|           | Potential for Shrink           | ring or Swelling Clay Ground Stability Hazards  |   |                                    |         |                  |
|           | Hazard Potential:<br>Source:   | Very Low<br>British Geological Survey, National Geoscience Information Service  | D1NE<br>(S)                                     | 0                                  | 1       | 265750<br>202777 |
|           | Radon Potential - R            | adon Affected Areas   |   |                                    |         |                  |
|           | Affected Area:<br>Source:      | The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |
|           | Radon Potential - R            | adon Protection Measures  |   |                                    |         |                  |
|           | Protection Measure:<br>Source: | No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service                                | D1NE<br>(SW)                                    | 0                                  | 1       | 265743<br>202802 |



### **Industrial Land Use**

| Map<br>ID |  | Details  | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|--|--|---|------------------------------------|---------|------------------|
|           | Contemporary Trad  | e Directory Entries  |   |                                    |         |                  |
| 105       | Name:<br>Location:<br>Classification:<br><b>Status:</b><br>Positional Accuracy:  | Thomas M E & D G & E A Rhosfawr Farm, Morriston, Swansea, SA6 6PF Dairies Inactive Automatically positioned to the address | D5NE<br>(N)                                     | 943                                | -       | 265844<br>203349 |
|           | Points of Interest - I   | Manufacturing and Production   |   |                                    |         |                  |
| 106       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:   | Tank SA6 Industrial Features Tanks (Generic) Positioned to an adjacent address or location                                 | D5NE<br>(N)                                     | 917                                | 7       | 265794<br>203346 |
|           | Points of Interest - I   | Public Infrastructure  |   |                                    |         |                  |
| 107       | Name:<br>Location:<br>Category:<br>Class Code:<br>Positional Accuracy:   | Sluice<br>SA6<br>Water<br>Weirs, Sluices and Dams<br>Positioned to an adjacent address or location                         | D5SE<br>(N)                                     | 709                                | 7       | 265585<br>203207 |
|           | Gas Pipelines  |  |   |                                    |         |                  |
| 108       | Name:<br>Nat Grid:<br>Diameter (mm):<br>Building Proximity<br>Distance (m):<br>Status:<br>Pipe Length (m):<br>Pipe Number: | FM28 - Felindre to Cilfrew Owned By National Grid 1200 132  Active 17048.8 Feeder 28                                       | D1NE<br>(NW)                                    | 0                                  | 8       | 265738<br>202807 |



### **Sensitive Land Use**

| Map<br>ID | Details   |   | Quadrant<br>Reference<br>(Compass<br>Direction) | Estimated<br>Distance<br>From Site | Contact | NGR              |
|-----------|---|---|---|------------------------------------|---------|------------------|
| 109       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>7060<br>16001.14<br>Ancient and Semi-Natural Woodland | (S)   | 0                                  | 2       | 265510<br>201569 |
| 110       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>882<br>7755.99<br>Ancient and Semi-Natural Woodland   | (W)   | 207                                | 2       | 264897<br>202524 |
| 111       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>880<br>5527.37<br>Ancient and Semi-Natural Woodland   | (SW)  | 463                                | 2       | 264658<br>201916 |
| 112       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>878<br>4775.36<br>Ancient and Semi-Natural Woodland   | (SW)  | 576                                | 2       | 264530<br>201768 |
| 113       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>887<br>3413.32<br>Ancient and Semi-Natural Woodland   | (W)   | 722                                | 2       | 264784<br>203025 |
| 114       | Ancient Woodland Name: Reference: Area(m²): Type:             | Not Supplied<br>7139<br>2605.61<br>Ancient and Semi-Natural Woodland  | D2NW<br>(SE)                                    | 750                                | 2       | 266179<br>202558 |
| 115       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>7140<br>3219.21<br>Ancient and Semi-Natural Woodland  | D2NW<br>(SE)                                    | 812                                | 2       | 266195<br>202602 |
| 116       | Ancient Woodland<br>Name:<br>Reference:<br>Area(m²):<br>Type: | Not Supplied<br>7141<br>3530.41<br>Ancient and Semi-Natural Woodland  | D2NE<br>(E)                                     | 974                                | 2       | 266326<br>202779 |



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## **Data Currency**

| Agency & Hydrological  | Version        | Update Cycle          |
|--|----------------|-----------------------|
| Contaminated Land Register Entries and Notices                             |                |                       |
| City and County of Swansea - Environmental Health Department               | January 2015   | Annual Rolling Update |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2015     | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department           | October 2014   | Annual Rolling Updat  |
| Discharge Consents   |                |                       |
| Environment Agency - Welsh Region  | August 2014    | Quarterly             |
| Natural Resources Wales  | August 2017    | Quarterly             |
| Enforcement and Prohibition Notices  |                |                       |
| Environment Agency - Welsh Region  | March 2013     | As notified           |
| ntegrated Pollution Controls   |                |                       |
| Environment Agency - Welsh Region  | October 2008   | Not Applicable        |
| ntegrated Pollution Prevention And Control                                 |                |                       |
| Natural Resources Wales  | August 2017    | Quarterly             |
| Environment Agency - Welsh Region  | July 2017      | Quarterly             |
| ocal Authority Integrated Pollution Prevention And Control                 |                |                       |
| Swansea Bay Port Health Authority  | April 2014     | Annually              |
| Neath Port Talbot County Borough Council - Environmental Health Department | August 2012    | Annual Rolling Update |
| City and County of Swansea - Environmental Health Department               | June 2014      | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department           | March 2015     | Annual Rolling Updat  |
| ocal Authority Pollution Prevention and Controls                           |                |                       |
| Swansea Bay Port Health Authority  | April 2014     | Annually              |
| City and County of Swansea - Environmental Health Department               | June 2014      | Annual Rolling Updat  |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2014     | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department           | March 2015     | Annual Rolling Updat  |
| ocal Authority Pollution Prevention and Control Enforcements               |                |                       |
| Swansea Bay Port Health Authority  | April 2014     | Annually              |
| City and County of Swansea - Environmental Health Department               | June 2014      | Annual Rolling Updat  |
| Neath Port Talbot County Borough Council - Environmental Health Department | March 2014     | Annual Rolling Updat  |
| Carmarthenshire County Council - Environmental Health Department           | September 2013 | Annual Rolling Updat  |
| Nearest Surface Water Feature  |                |                       |
| Ordnance Survey  | May 2017       |                       |
| Pollution Incidents to Controlled Waters                                   |                |                       |
| Environment Agency - Welsh Region  | December 1998  | Not Applicable        |
| Prosecutions Relating to Authorised Processes                              |                |                       |
| Environment Agency - Welsh Region  | March 2013     | As notified           |
| Natural Resources Wales  | March 2013     | As notified           |
| Prosecutions Relating to Controlled Waters                                 |                |                       |
| Environment Agency - Welsh Region  | March 2013     | As notified           |
| Natural Resources Wales  | March 2013     | As notified           |
| Registered Radioactive Substances  |                |                       |
| Natural Resources Wales  | January 2015   | As notified           |
| Environment Agency - Welsh Region  | January 2015   |                       |
| River Quality  | ,              |                       |
| Environment Agency - Head Office   | November 2001  | Not Applicable        |
| Substantiated Pollution Incident Register                                  |                |                       |
| Natural Resources Wales  | August 2018    | Quarterly             |
| Environment Agency Wales - South West Area                                 | July 2017      | Quarterly             |
| Nater Abstractions   |                | -                     |
| Environment Agency - Welsh Region  | July 2017      | Quarterly             |
| Natural Resources Wales  | July 2017      | Quarterly             |
| Vater Industry Act Referrals   | , -            |                       |
|  | August 2017    | Quarterly             |
| Vatural Resources Wales  |                |                       |

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## **Data Currency**

| Agency & Hydrological   | Version       | Update Cycle   |  |
|---|---------------|----------------|--|
| Groundwater Vulnerability   |               |                |  |
| Environment Agency - Head Office                                    | April 2015    | Not Applicable |  |
| Drift Deposits  |               |                |  |
| Environment Agency - Head Office                                    | January 1999  | Not Applicable |  |
| Bedrock Aquifer Designations  |               |                |  |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |  |
| Superficial Aquifer Designations                                    |               |                |  |
| British Geological Survey - National Geoscience Information Service | August 2015   | As notified    |  |
| Source Protection Zones   |               |                |  |
| Natural Resources Wales   | November 2016 | As notified    |  |
| Extreme Flooding from Rivers or Sea without Defences                |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flooding from Rivers or Sea without Defences                        |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Areas Benefiting from Flood Defences                                |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flood Water Storage Areas   |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| Flood Defences  |               |                |  |
| Natural Resources Wales   | August 2017   | Quarterly      |  |
| OS Water Network Lines  |               |                |  |
| Ordnance Survey   | July 2017     | 6 Weekly       |  |
| Surface Water 1 in 30 year Flood Extent                             |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water 1 in 100 year Flood Extent                            |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water 1 in 1000 year Flood Extent                           |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| Surface Water Suitability   |               |                |  |
| Natural Resources Wales   | October 2013  | As notified    |  |
| BGS Groundwater Flooding Susceptibility                             |               |                |  |
| British Geological Survey - National Geoscience Information Service | May 2013      | Annually       |  |

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## **Data Currency**

| Waste   | Version                        | Update Cycle                              |
|---|--------------------------------|---|
| BGS Recorded Landfill Sites   |                                |   |
| British Geological Survey - National Geoscience Information Service   | June 1996                      | Not Applicable                            |
| Historical Landfill Sites   |                                |   |
| Natural Resources Wales   | May 2017                       | Quarterly                                 |
| ntegrated Pollution Control Registered Waste Sites  |                                |   |
| Environment Agency - Welsh Region   | October 2008                   | Not Applicable                            |
| Licensed Waste Management Facilities (Landfill Boundaries)  |                                |   |
| Environment Agency Wales - South West Area  | May 2017                       | Quarterly                                 |
| Natural Resources Wales   | May 2017                       | Quarterly                                 |
| Licensed Waste Management Facilities (Locations)  |                                |   |
| Natural Resources Wales   | August 2017                    | Quarterly                                 |
| Environment Agency Wales - South West Area  | July 2017                      | Quarterly                                 |
| Local Authority Landfill Coverage   |                                |   |
| Carmarthenshire County Council  | May 2000                       | Not Applicable                            |
| City and County of Swansea - Environmental Health Department  | May 2000                       | Not Applicable                            |
| Neath Port Talbot County Borough Council - Environmental Health Department  | May 2000                       | Not Applicable                            |
| ocal Authority Recorded Landfill Sites  |                                |   |
| Carmarthenshire County Council  | May 2000                       | Not Applicable                            |
| City and County of Swansea - Environmental Health Department  | May 2000                       | Not Applicable                            |
| Neath Port Talbot County Borough Council - Environmental Health Department  | September 2003                 | Not Applicable                            |
| Potentially Infilled Land (Non-Water)   |                                |   |
| Landmark Information Group Limited  | December 1999                  | Not Applicable                            |
| Potentially Infilled Land (Water)   |                                |   |
| _andmark Information Group Limited  | December 1999                  | Not Applicable                            |
| <u> </u>  | Describer 1999                 | 140t / tppilodolo                         |
| Registered Landfill Sites   | March 2003                     | Not Applicable                            |
| Environment Agency Wales - South West Area  | Water 2003                     | Not Applicable                            |
| Registered Waste Transfer Sites   | Marrala 0000                   | Not Applicable                            |
| Environment Agency Wales - South West Area  | March 2003                     | Not Applicable                            |
| Registered Waste Treatment or Disposal Sites  | Marrah 0000                    | Not Applicable                            |
| Environment Agency Wales - South West Area  | March 2003                     | Not Applicable                            |
| Hazardous Substances  | Version                        | Update Cycle                              |
| Control of Major Accident Hazards Sites (COMAH)   |                                | 5   |
| Health and Safety Executive   | September 2017                 | Bi-Annually                               |
| Explosive Sites   |                                |   |
| Health and Safety Executive   | March 2017                     | Bi-Annually                               |
| Notification of Installations Handling Hazardous Substances (NIHHS)   |                                |   |
| Health and Safety Executive   | November 2000                  | Not Applicable                            |
| Planning Hazardous Substance Enforcements   |                                |   |
| Carmarthenshire County Council - Area Planning Office (East Area)   | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Area Planning Office (South Area)  | February 2016                  | Annual Rolling Updat                      |
| Carmarthenshire County Council - Environment Department (West Area)   | February 2016                  | Annual Rolling Updat                      |
| City and County of Swanson Planning Donartment  | January 2016                   | Annual Rolling Updat                      |
|   | October 2015                   | Annual Rolling Updat                      |
|   | 00.000.20.0                    |   |
| Neath Port Talbot County Borough Council - Planning Department  | 33333.23.3                     |   |
| Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents   | February 2016                  | Annual Rolling Updat                      |
| Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents  Carmarthenshire County Council - Area Planning Office (East Area)  |                                | Annual Rolling Updat Annual Rolling Updat |
| City and County of Swansea - Planning Department  Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents  Carmarthenshire County Council - Area Planning Office (East Area)  Carmarthenshire County Council - Area Planning Office (South Area)  Carmarthenshire County Council - Environment Department (West Area) | February 2016                  | Annual Rolling Updat                      |
| Planning Hazardous Substance Consents Carmarthenshire County Council - Area Planning Office (East Area) Carmarthenshire County Council - Area Planning Office (South Area)  | February 2016<br>February 2016 |   |

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## **Data Currency**

| Geological   | Version        | Update Cycle    |
|--|----------------|-----------------|
| BGS 1:625,000 Solid Geology  | January 2000   | Niet Anglieghie |
| British Geological Survey - National Geoscience Information Service                              | January 2009   | Not Applicable  |
| BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service | October 2015   | As notified     |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service   | April 2017     | Bi-Annually     |
| CBSCB Compensation District  | 7,0111 2017    | Di / timaany    |
| Cheshire Brine Subsidence Compensation Board (CBSCB)   | August 2011    | Not Applicable  |
| Coal Mining Affected Areas   |                |                 |
| The Coal Authority - Property Searches   | March 2014     | As notified     |
| Mining Instability   |                |                 |
| Ove Arup & Partners  | October 2000   | 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                              | June 2015      | Annually        |
| Potential for Compressible Ground Stability Hazards  |                |                 |
| British Geological Survey - National Geoscience Information Service                              | June 2015      | Annually        |
| Potential for Ground Dissolution Stability Hazards   |                |                 |
| British Geological Survey - National Geoscience Information Service                              | June 2015      | Annually        |
| Potential for Landslide Ground Stability Hazards   |                |                 |
| British Geological Survey - National Geoscience Information Service                              | June 2015      | Annually        |
| Potential for Running Sand Ground Stability Hazards  |                | ,               |
| British Geological Survey - National Geoscience Information Service                              | June 2015      | Annually        |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards                                |                | ,               |
| British Geological Survey - National Geoscience Information Service                              | June 2015      | Annually        |
| Radon Potential - Radon Affected Areas   |                | ,               |
| British Geological Survey - National Geoscience Information Service                              | July 2011      | As notified     |
| Radon Potential - Radon Protection Measures  |                |                 |
| British Geological Survey - National Geoscience Information Service                              | July 2011      | As notified     |
| Industrial Land Use  | Version        | Update Cycle    |
|  | 70.000         | opuato cycle    |
| Contemporary Trade Directory Entries   |                |                 |
| Thomson Directories  | September 2017 | Quarterly       |
| Fuel Station Entries   |                |                 |
| Catalist Ltd - Experian  | August 2017    | Quarterly       |
| Gas Pipelines  |                |                 |
| National Grid  | July 2014      | Quarterly       |
| Points of Interest - Commercial Services PointX  | September 2017 | Quarterly       |
| Points of Interest - Education and Health  | ,              | ,               |
| PointX   | September 2017 | Quarterly       |
| Points of Interest - Manufacturing and Production  | ·              |                 |
| PointX   | September 2017 | Quarterly       |
| Points of Interest - Public Infrastructure   | ,              | ,               |
| PointX   | September 2017 | Quarterly       |
| Points of Interest - Recreational and Environmental  | ,              | ,               |
| PointX   | September 2017 | Quarterly       |
| Underground Electrical Cables  |                | ,               |
| National Grid  | December 2015  | Bi-Annually     |
| national Office  | December 2013  | Di-Ailliually   |

Order Number: 142844199\_1\_1 Date: 13-Oct-2017 rpr\_ec\_datasheet v53.0 A Landmark Information Group Service



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## **Data Currency**

| Sensitive Land Use   | Version      | Update Cycle   |
|--|--------------|----------------|
| Ancient Woodland   |              |                |
| Natural Resources Wales  | May 2017     | Bi-Annually    |
| Areas of Adopted Green Belt  |              |                |
| City and County of Swansea   | May 2017     | As notified    |
| Areas of Outstanding Natural Beauty  |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Environmentally Sensitive Areas  |              |                |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | January 2017 | Annually       |
| Forest Parks   |              |                |
| Forestry Commission  | April 1997   | Not Applicable |
| Local Nature Reserves  |              |                |
| Carmarthenshire County Council   | August 2017  | Bi-Annually    |
| City and County of Swansea   | August 2017  | Bi-Annually    |
| Neath Port Talbot County Borough Council   | August 2017  | Bi-Annually    |
| Marine Nature Reserves   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| National Nature Reserves   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| National Parks   |              |                |
| Natural Resources Wales  | August 2017  | Annually       |
| Nitrate Vulnerable Zones   |              |                |
| Natural Resources Wales  | June 2017    | Bi-Annually    |
| The National Assembly for Wales - GI Services (Department of Planning & Countryside) | October 2005 |                |
| Ramsar Sites   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Sites of Special Scientific Interest   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Special Areas of Conservation  |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |
| Special Protection Areas   |              |                |
| Natural Resources Wales  | August 2017  | Bi-Annually    |

Order Number: 142844199\_1\_1 Date: 13-Oct-2017 rpr\_ec\_datasheet v53.0 A Landmark Information Group Service Page 30 of 32



## **Data Suppliers**

A selection of organisations who provide data within this report

| Data Supplier                          | Data Supplier Logo   |
|--|--|
| Ordnance Survey                        | Map data   |
| Environment Agency                     | Environment<br>Agency  |
| Scottish Environment Protection Agency | SEPA   |
| The Coal Authority                     | The Coal<br>Authority  |
| British Geological Survey              | British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL       |
| Centre for Ecology and Hydrology       | Centre for Ecology & Hydrology  NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                | Cyfoeth Naturiol Naturiol Natural Resources Wules                    |
| Scottish Natural Heritage              | scottish<br>NATURAL<br>HERITAGE<br>단장소리                              |
| Natural England                        | NATURAL<br>ENGLAND   |
| Public Health England                  | Public Health<br>England   |
| Ove Arup                               | ARUP   |
| Peter Brett Associates                 | peterbrett   |



## **Useful Contacts**

| Contact | Name and Address  | Contact Details  |
|---------|---|--|
| 1       | British Geological Survey - Enquiry Service  British Geological Survey, Kingsley Dunham 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<br>Email: enquiries@naturalresourceswales.gov.uk  |
| 3       | Environment Agency - National Customer Contact<br>Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY                                   | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk   |
| 4       | Ordnance Survey  Adanac Drive, Southampton, Hampshire, SO16 0AS   | Telephone: 023 8079 2000<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk         |
| 5       | City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE                                    | Telephone: 01792 636000 extn 5651<br>Fax: 01792 635719   |
| 6       | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG   | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com       |
| 7       | PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY   | Website: www.pointx.co.uk  |
| 8       | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD  | Telephone: 0844 844 9966<br>Fax: 0844 844 9951<br>Email: helpdesk@landmark.co.uk<br>Website: www.landmark.co.uk        |
| -       | Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ           | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>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 |

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

## **Geology 1:50,000 Maps Legends**

#### **Artificial Ground and Landslip**

| Map<br>Colour | Lex Code | Rock Name                    | Rock Type                   | Min and Max Age            |
|---------------|----------|------------------------------|-----------------------------|----------------------------|
|               | WGR      | Worked Ground<br>(Undivided) | Void                        | Holocene -<br>Holocene     |
|               | SLIP     | Landslide Deposit            | Unknown/Unclassif ied Entry | Quaternary -<br>Quaternary |

#### **Superficial Geology**

| Map<br>Colour | Lex Code | Rock Name   | Rock Type                                       | Min and Max Age            |
|---------------|----------|---|---|----------------------------|
|               | ALV      | Alluvium  | Clay, Silt, Sand<br>and Gravel                  | Flandrian -<br>Flandrian   |
|               | GFDUD    | Glaciofluvial Deposits,<br>Devensian                | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | TILLD    | Till, Devensian                                     | Diamicton                                       | Devensian -<br>Devensian   |
|               | HMGDD    | Hummocky (Moundy)<br>Glacial Deposits,<br>Devensian | Sand and Gravel                                 | Devensian -<br>Devensian   |
|               | PEAT     | Peat  | Peat [Unlithified<br>Deposits Coding<br>Scheme] | Quaternary -<br>Quaternary |
|               | HEAD     | Head  | Clay, Silt, Sand<br>and Gravel                  | Quaternary -<br>Quaternary |

#### **Bedrock and Faults**

| Map<br>Colour | Lex Code | Rock Name           | Rock Type                               | Min and Max Age                  |
|---------------|----------|---------------------|---|----------------------------------|
|               | GDB      | Grovesend Formation | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Sandstone                               | Westphalian D -<br>Westphalian D |
|               | SW       | Swansea Member      | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Mudstone,<br>Siltstone and<br>Sandstone | Westphalian D -<br>Westphalian D |
|               | Н        | Hughes Member       | Sandstone                               | Westphalian D -<br>Westphalian D |
|               |          | Faults              |   |                                  |
|               |          | Rock Segments       |   |                                  |

## **Envirocheck**®

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#### Geology 1:50,000 Maps

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

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

### Geology 1:50,000 Maps Coverage

 Map ID:
 1

 Map Sheet No:
 230

 Map Name:
 Ammanford

 Map Date:
 1977

 Bedrock Geology:
 Available

 Superficial Geology:
 Available

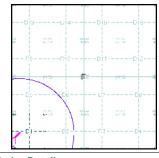
 Artificial Geology:
 Available

 Faults:
 Not Supplied

 Landslip:
 Available

 Rock Segments:
 Not Supplied

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





#### Order Details:

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

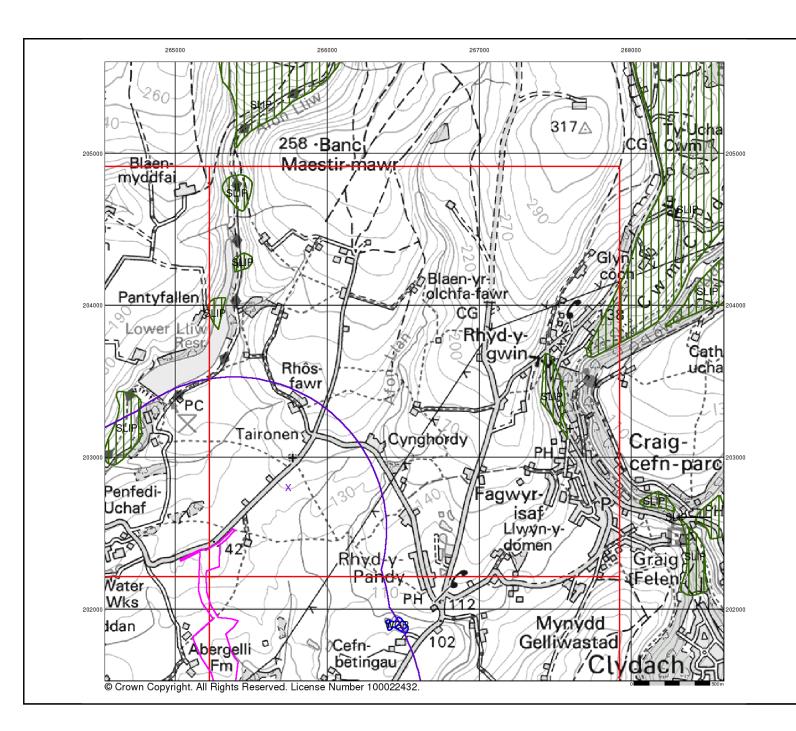
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Artificial Ground and Landslip**

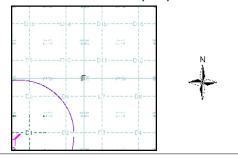
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

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 D



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: Actional Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

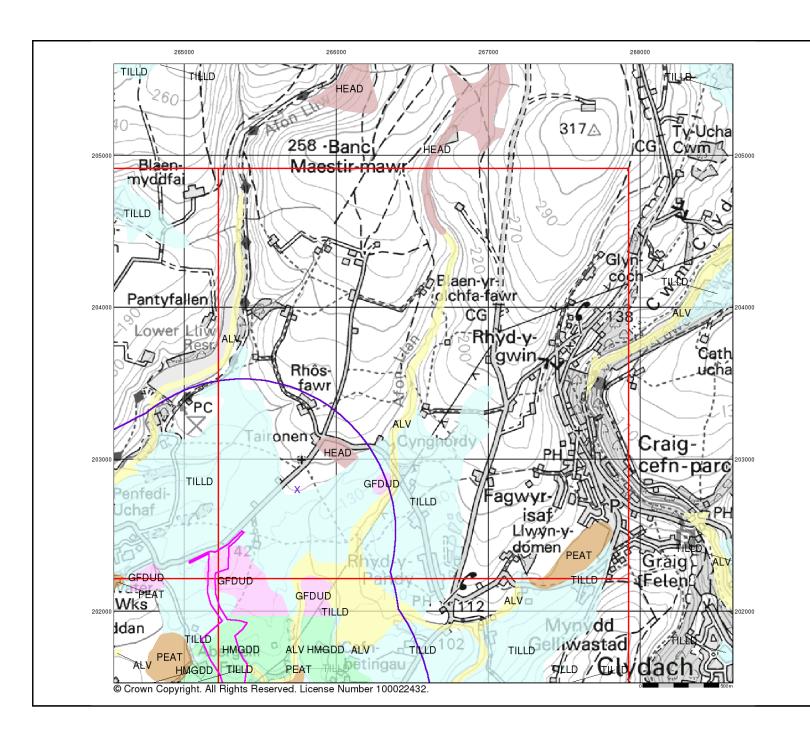
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iel: 0844 844 9952 ax: 0844 844 9951 Veb: www.envirocheck.

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Page 2 of 5



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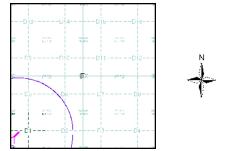
#### **Superficial Geology**

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 D



#### **Order Details:**

Order Number: Customer Reference: 142844199\_1\_1 60542910 National Grid Reference: 265740, 202800 D 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

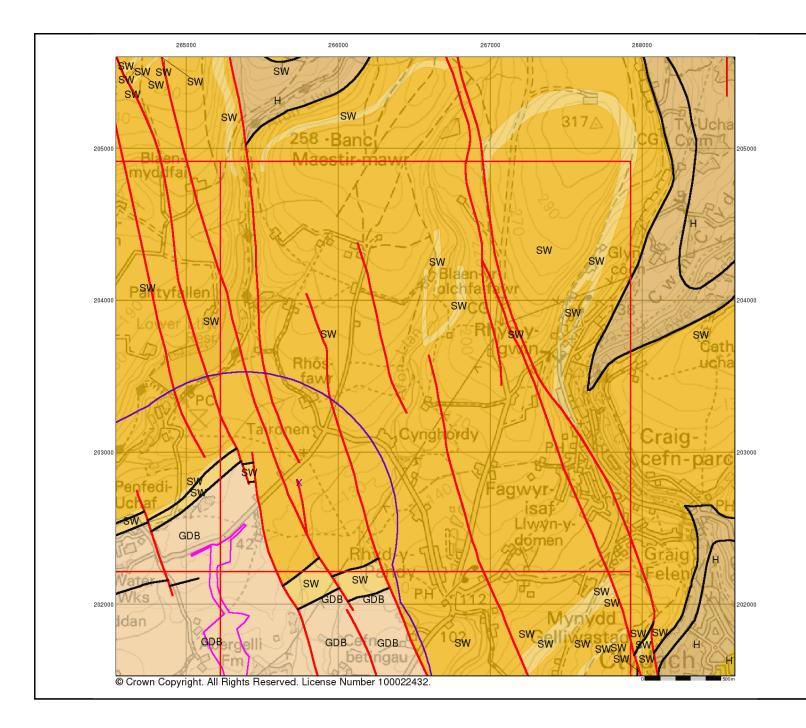
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#### **Bedrock and Faults**

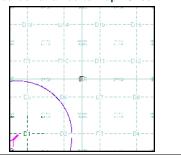
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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 lader, 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 D



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

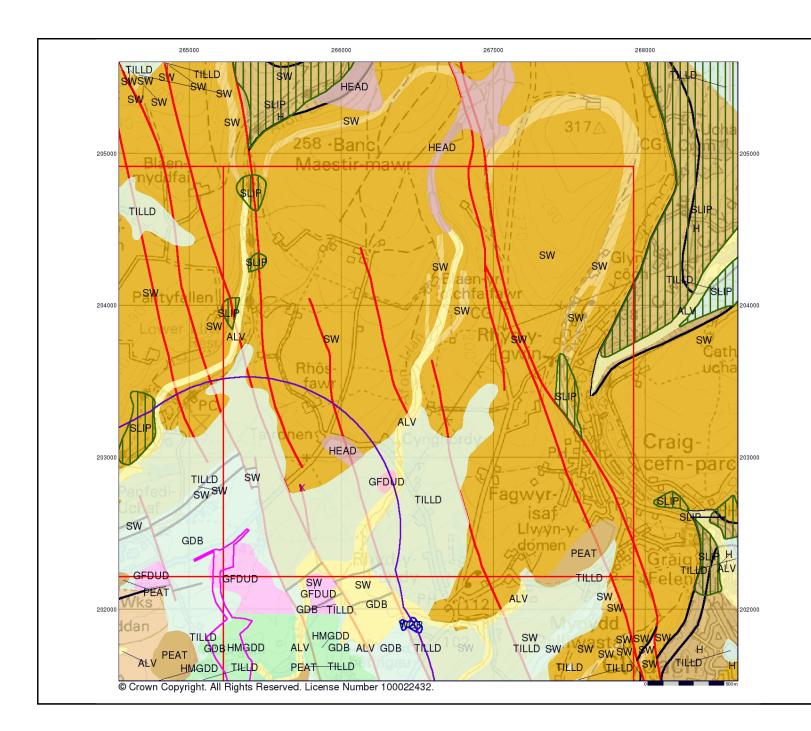
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#### **Combined Surface Geology**

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

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

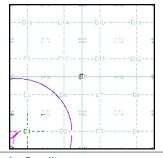
#### **Additional Information**

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

#### Contact

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

#### Combined Geology Map - Slice D



#### **Order Details:**

Order Number: 142844199\_1\_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

#### Site Details:

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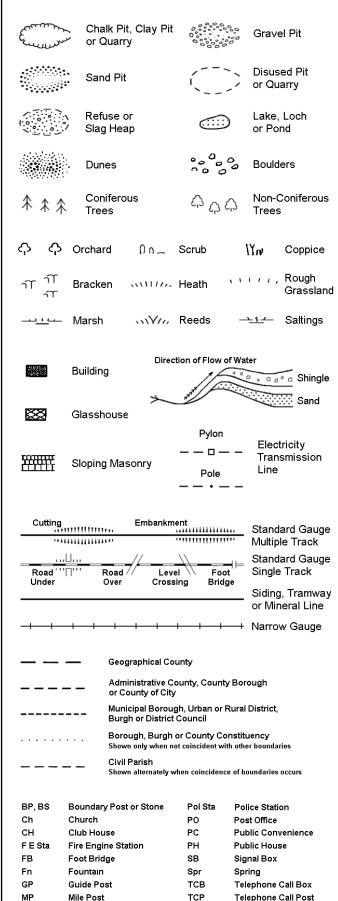
## **Historical Mapping Legends**

## Other Gravel Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over Ri∨er Railway Railway over Level Crossing Road Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary RD. Bdy.

Civil Parish Boundary

**Ordnance Survey County Series 1:10,560** 

## Ordnance Survey Plan 1:10,000



## 1:10,000 Raster Mapping

|                  | Gravel Pit  |                | Refuse tip<br>or slag heap                       |
|------------------|---|----------------|--|
|                  | Rock  |                | Rock<br>(scattered)                              |
|                  | Boulders  |                | Boulders<br>(scattered)                          |
|                  | Shingle   | Mud            | Mud  |
| Sand             | Sand  |                | Sand Pit   |
| ********         | Slopes  |                | Top of cliff                                     |
|                  | General detail  |                | Underground<br>detail                            |
|                  | - Overhead detail   | <del></del>    | Narrow gauge<br>railway                          |
|                  | Multi-track<br>railway  |                | Single track railway                             |
|                  | County boundary<br>(England only)                                 | • • • • •      | Civil, parish or<br>community<br>boundary        |
|                  | District, Unitary,<br>Metropolitan,<br>London Borough<br>boundary |                | Constituency<br>boundary                         |
| ۵ <sup>۵</sup>   | Area of wooded<br>∨egetation                                      | ۵ <sup>۵</sup> | Non-coniferous<br>trees                          |
| $\Diamond$       | Non-coniferous<br>trees (scattered)                               | **             | Coniferous<br>trees                              |
| * *              | Coniferous<br>trees (scattered)                                   | Ċ̄             | Positioned tree                                  |
| 4 4<br>4 4       | Orchard   | * *            | Coppice<br>or Osiers                             |
| ωĨ <i>n</i>      | Rough<br>Grassland  | www.           | Heath  |
| On_              | Scrub   | 7 <u>₩</u> ۲   | Marsh, Salt<br>Marsh or Reeds                    |
| 6                | Water feature   | <b>← ←</b>     | Flow arrows                                      |
| MHW(S)           | Mean high<br>water (springs)                                      | MLW(S)         | Mean low<br>water (springs)                      |
|                  | Telephone line<br>(where shown)                                   | <b></b>        | Electricity<br>transmission line<br>(with poles) |
| ←<br>BM 123.45 m | Bench mark<br>(where shown)                                       | Δ              | Triangulation station                            |
|                  | Point feature<br>(e.g. Guide Post<br>or Mile Stone)               | $\boxtimes$    | Pylon, flare stack<br>or lighting tower          |
| •‡•              | Site of (antiquity)   |                | Glasshouse                                       |
|                  | General Building  |                | Important  |

Building

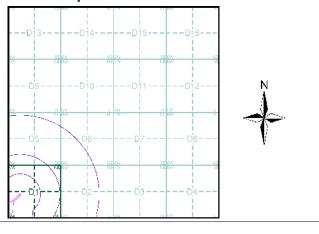
## **Envirocheck®**

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## **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date | Pg |
|----------------------|----------|------|----|
| Glamorganshire       | 1:10,560 | 1884 | 3  |
| Glamorganshire       | 1:10,560 | 1900 | 4  |
| Glamorganshire       | 1:10,560 | 1921 | 5  |
| Glamorganshire       | 1:10,560 | 1938 | 6  |
| Glamorganshire       | 1:10,560 | 1953 | 7  |
| Ordnance Survey Plan | 1:10,000 | 1964 | 8  |
| Ordnance Survey Plan | 1:10,000 | 1976 | 9  |
| Swansea              | 1:10,000 | 1976 | 10 |
| 10K Raster Mapping   | 1:10,000 | 1999 | 11 |
| 10K Raster Mapping   | 1:10,000 | 2006 | 12 |
| VectorMap Local      | 1:10,000 | 2017 | 13 |

## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800
Slice: D

Slice: Site Area

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



l: 0844 844 9952 x: 0844 844 9951 eb: www.envirocheck

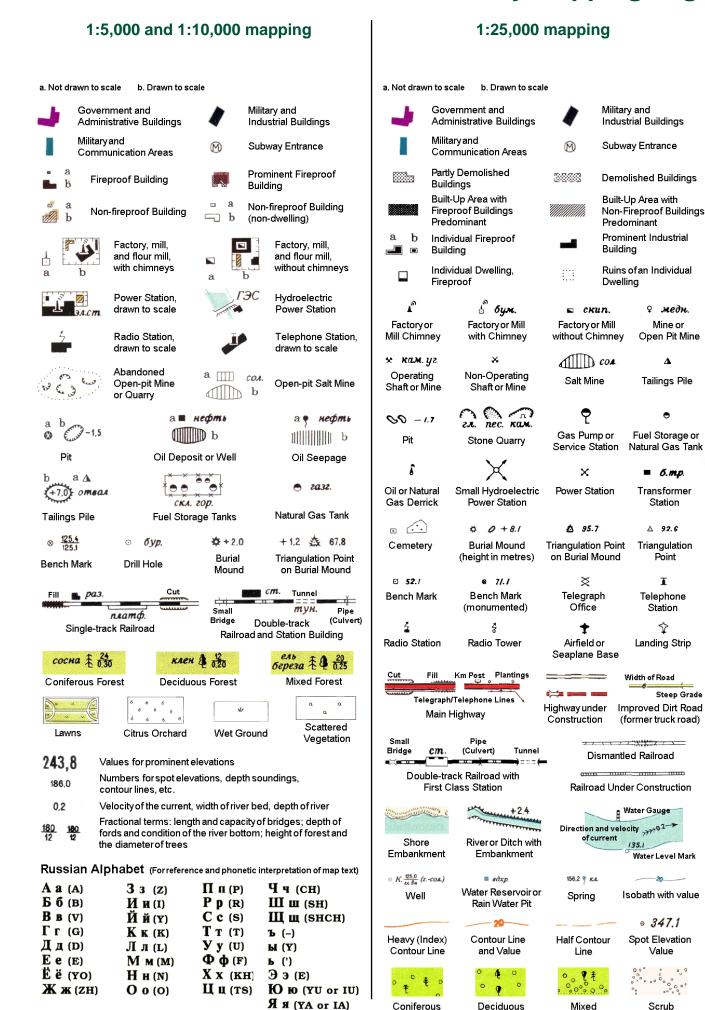
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13

## **Russian Military Mapping Legends**

Deciduous

Mixed

Scrub



### **Key to Numbers on Mapping**

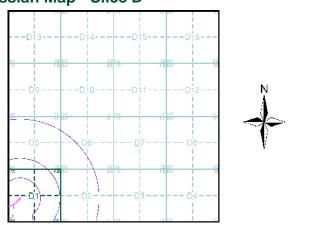
# **Envirocheck®**

LANDMARK INFORMATION GROUP

### **Historical Mapping & Photography included:**

| Mapping Type         | Scale    | Date | Pg |
|----------------------|----------|------|----|
| Glamorganshire       | 1:10,560 | 1884 | 3  |
| Glamorganshire       | 1:10,560 | 1900 | 4  |
| Glamorganshire       | 1:10,560 | 1921 | 5  |
| Glamorganshire       | 1:10,560 | 1938 | 6  |
| Glamorganshire       | 1:10,560 | 1953 | 7  |
| Ordnance Survey Plan | 1:10,000 | 1964 | 8  |
| Ordnance Survey Plan | 1:10,000 | 1976 | 9  |
| Swansea              | 1:10,000 | 1976 | 10 |
| 10K Raster Mapping   | 1:10,000 | 1999 | 11 |
| 10K Raster Mapping   | 1:10,000 | 2006 | 12 |
| VectorMap Local      | 1:10,000 | 2017 | 13 |

## Russian Map - Slice D



#### **Order Details** Order Number:

142844199\_1\_1 60542910 Customer Ref: National Grid Reference: 265740, 202800 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 1000

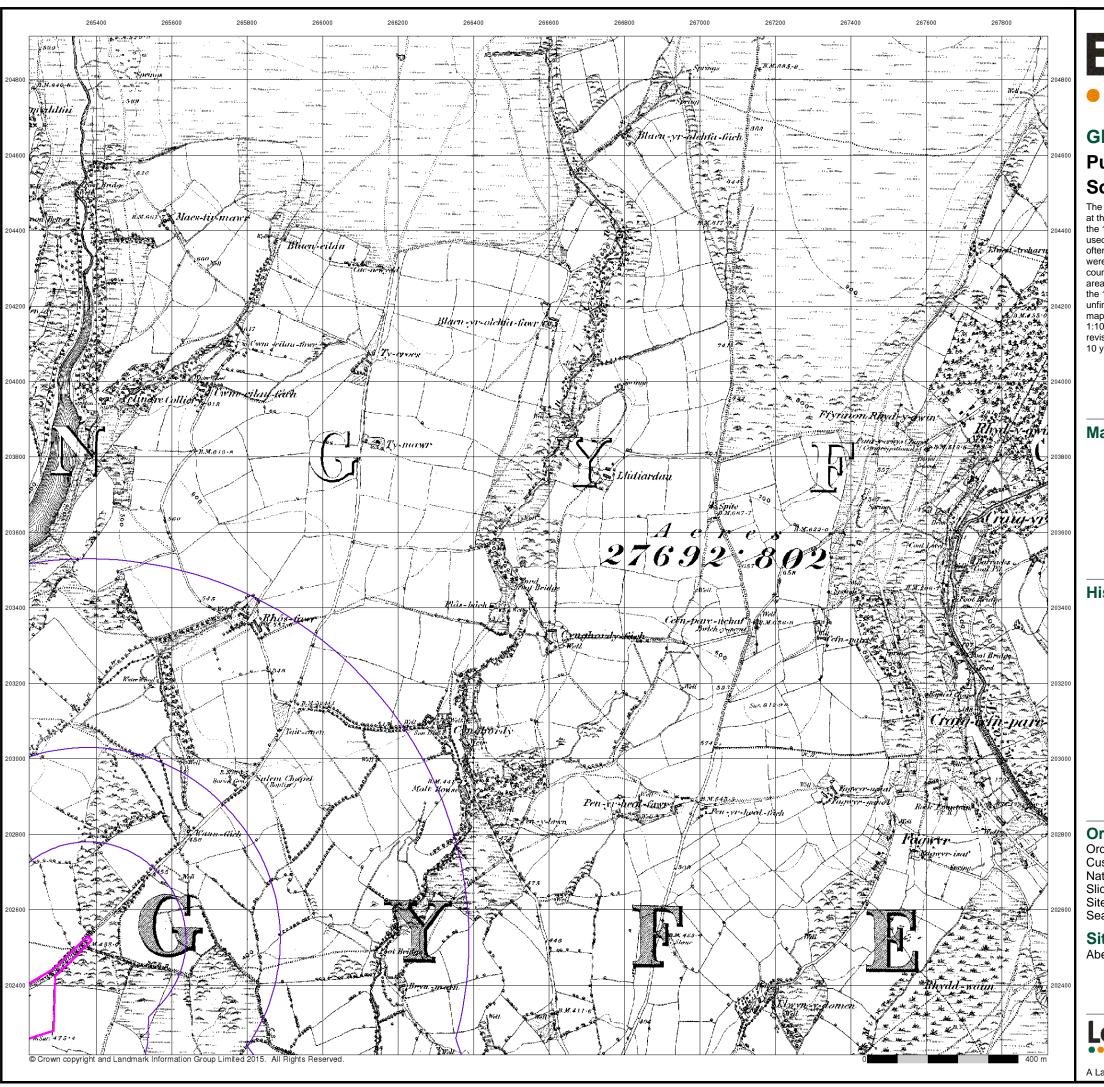
**Site Details** 

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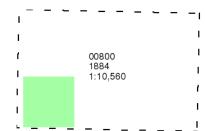
## **Glamorganshire**

## Published 1884

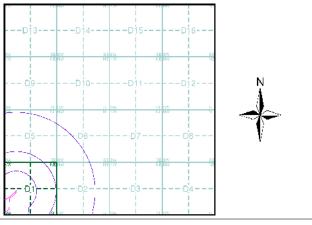
## Source map scale - 1:10,560

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

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



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

olice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

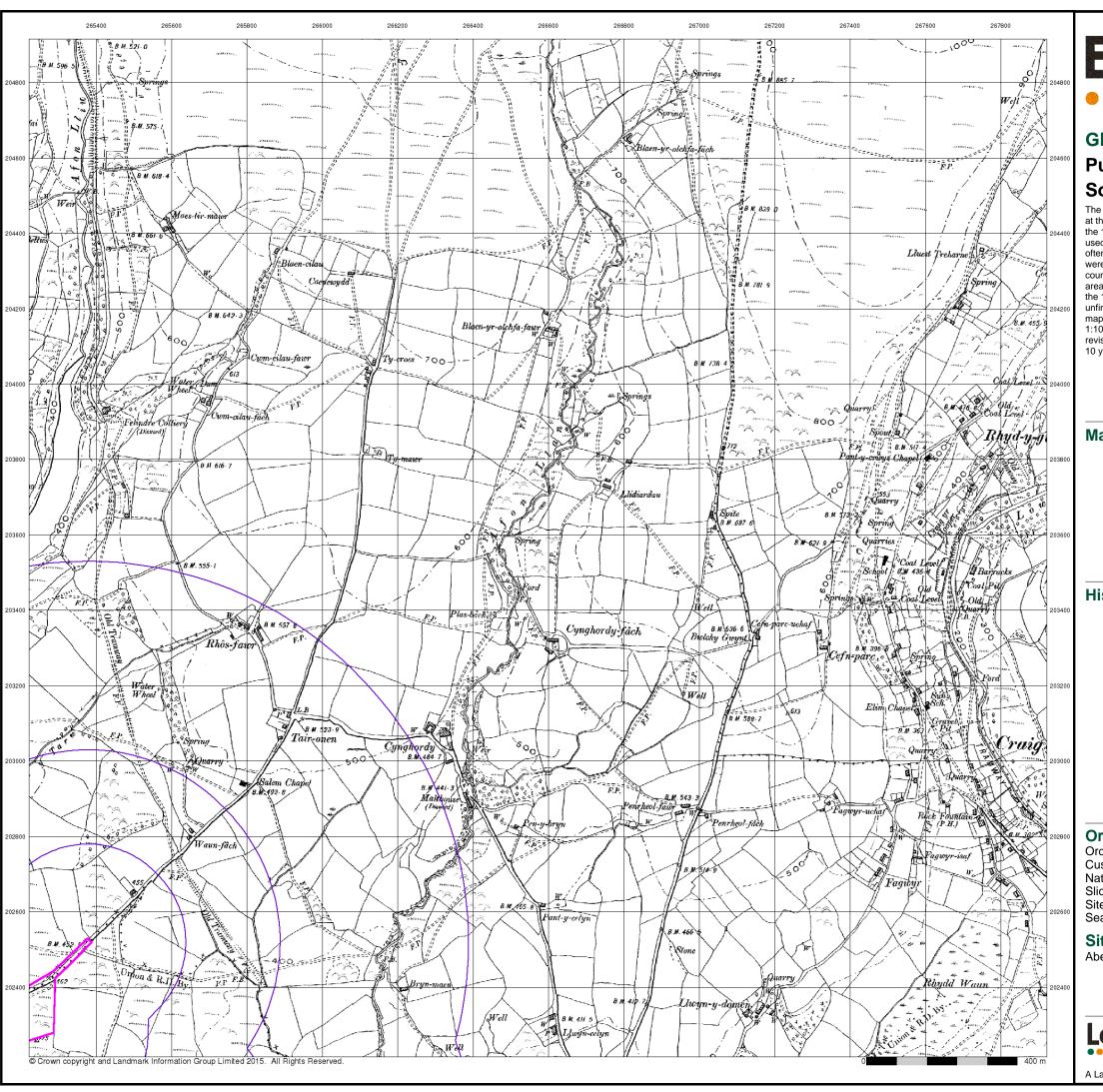
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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

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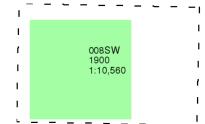
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## **Glamorganshire**

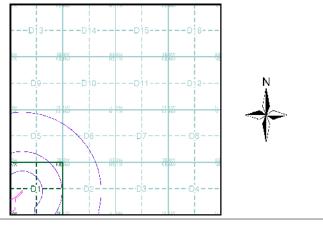
## Published 1900 Source map scale - 1:10,560

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

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



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

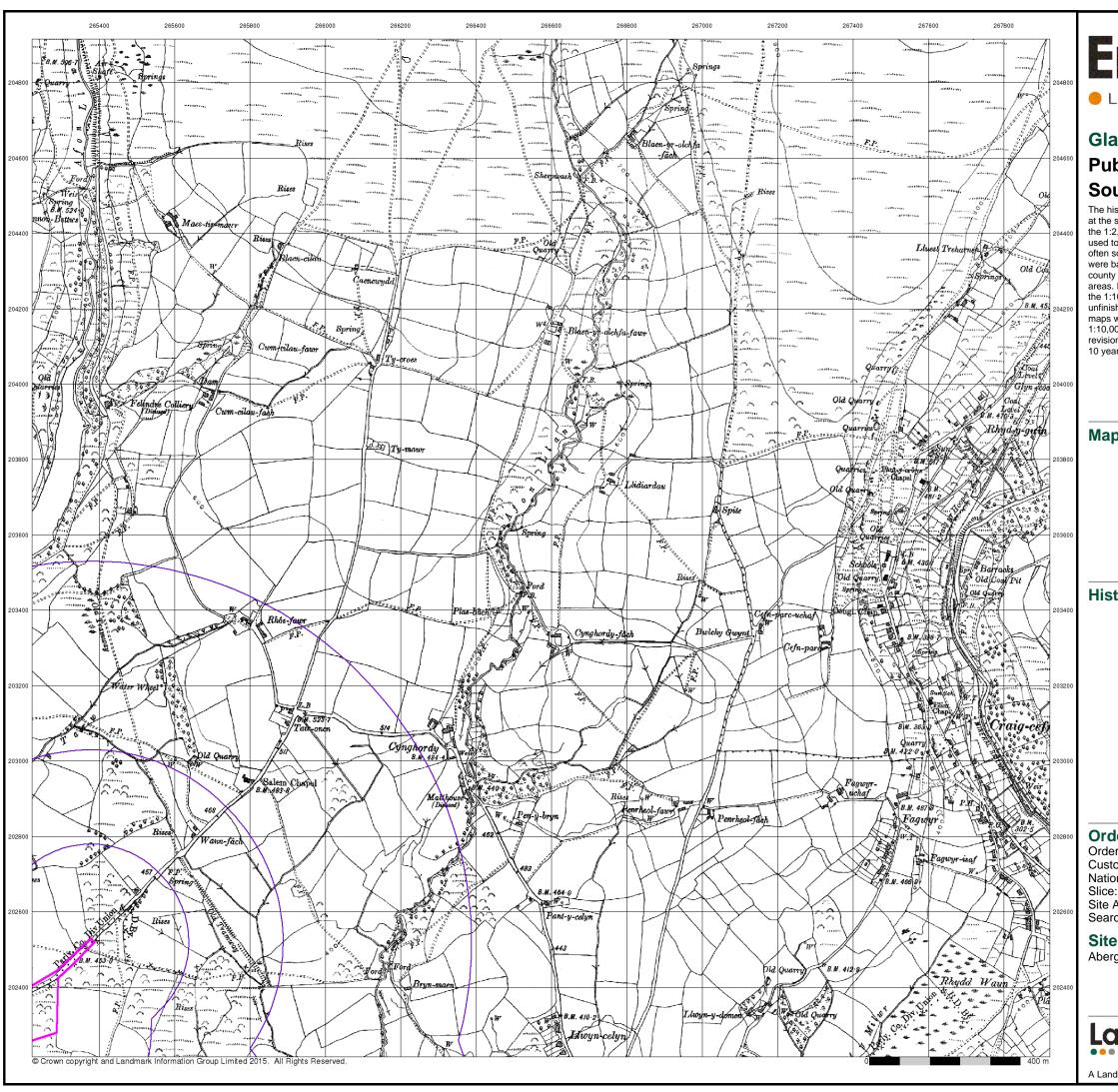
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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

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## Glamorganshire

## **Published 1921**

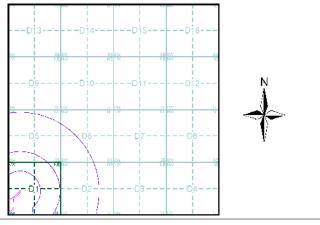
## Source map scale - 1:10,560

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

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



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

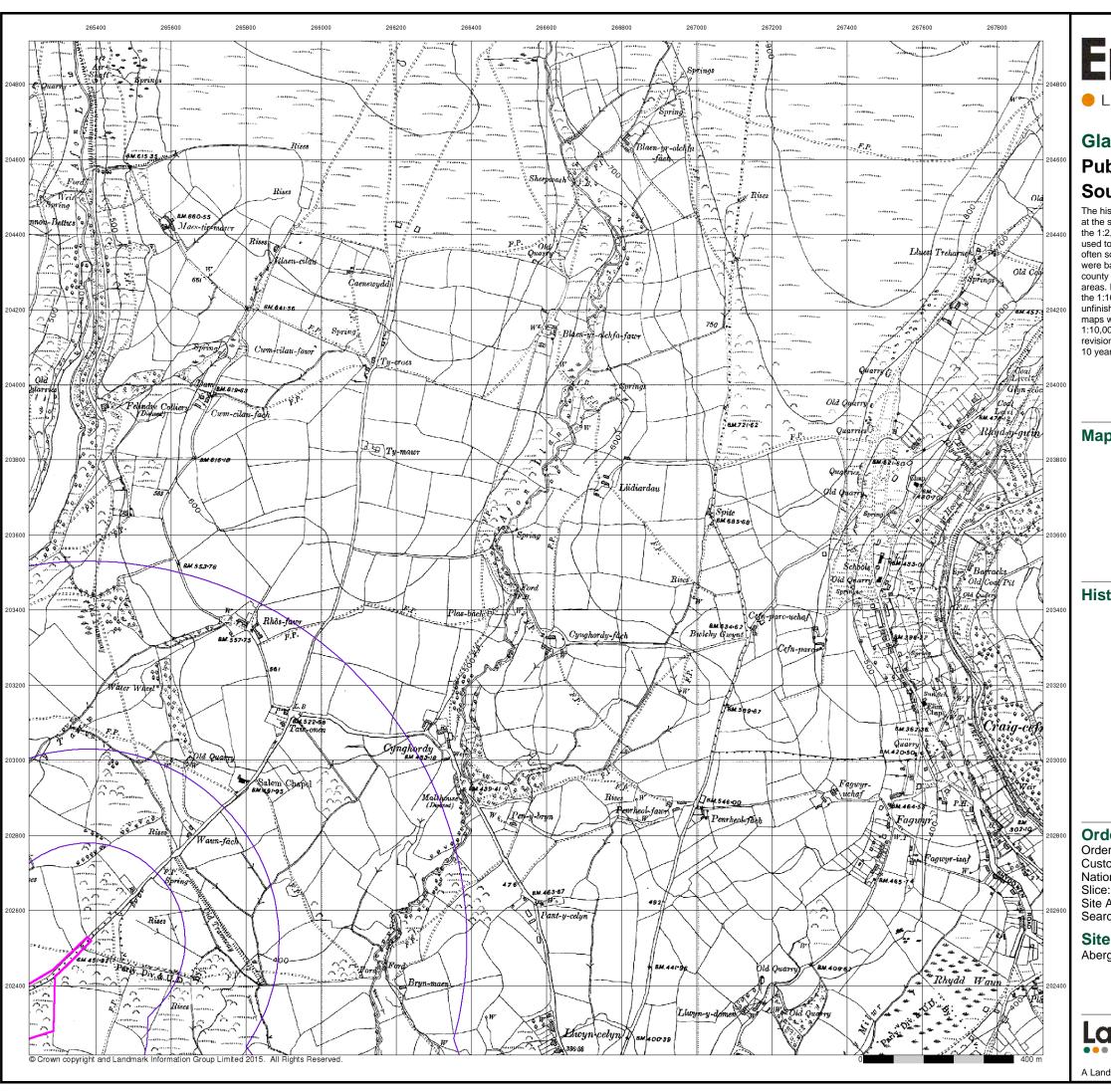
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 5 of 13



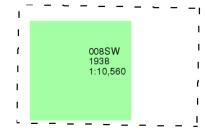
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## Glamorganshire

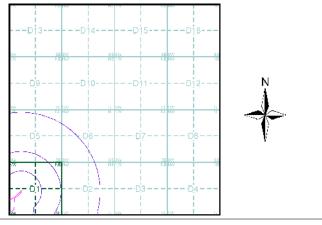
## **Published 1938** Source map scale - 1:10,560

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

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



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

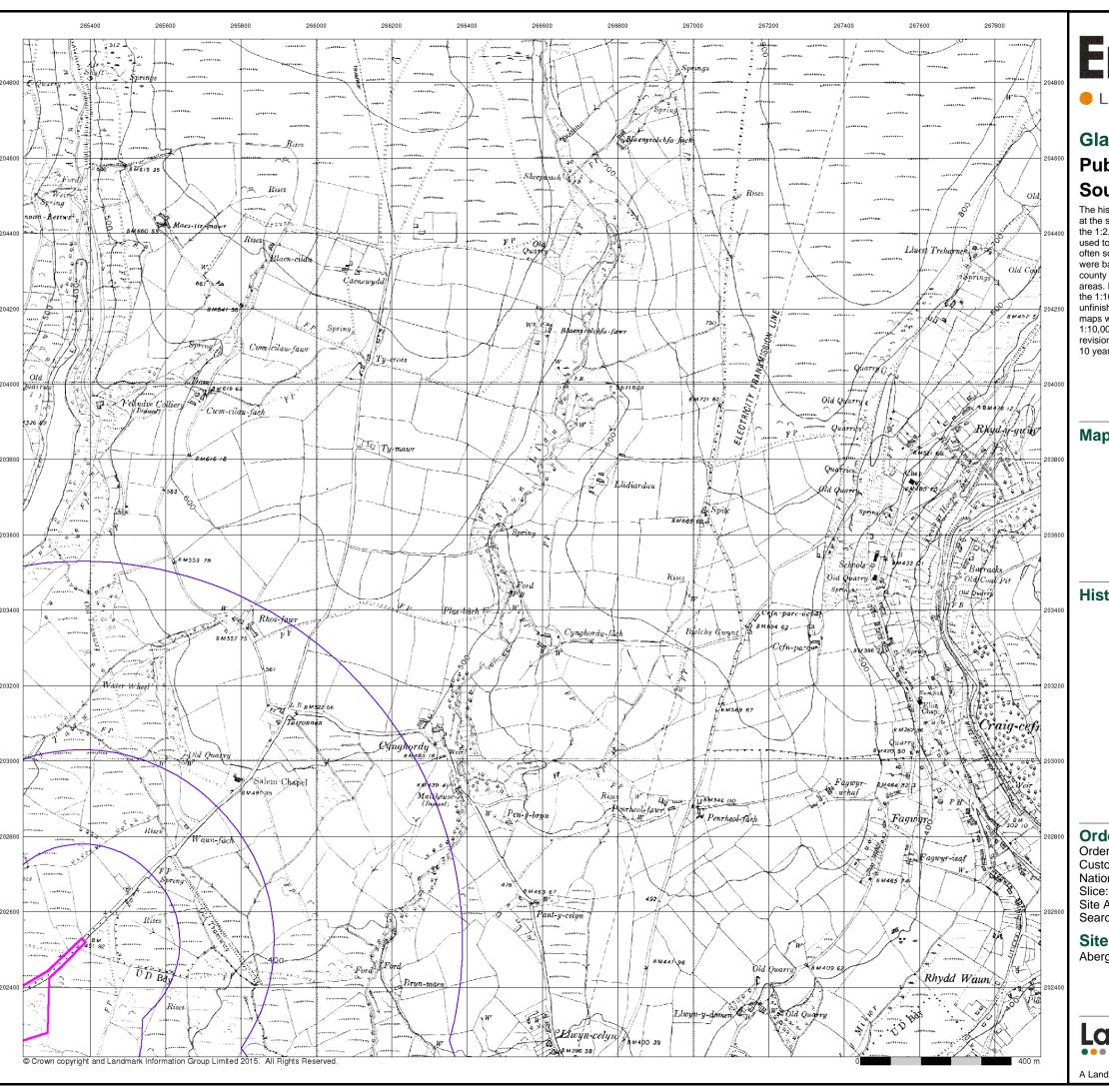
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 13



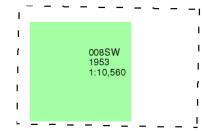
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## Glamorganshire **Published 1953**

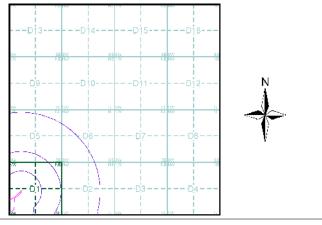
## Source map scale - 1:10,560

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

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



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

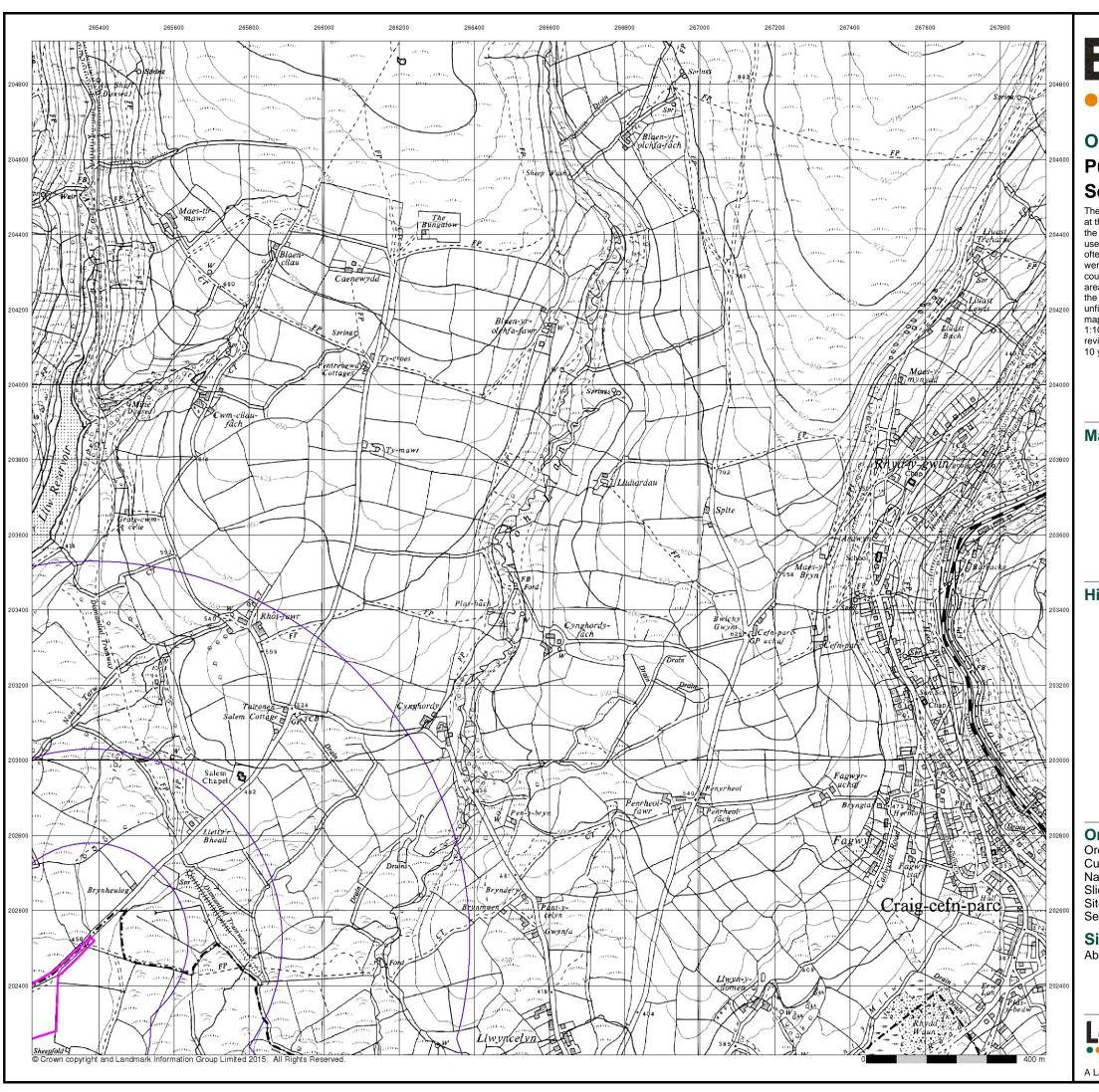
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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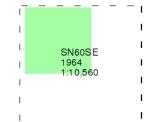


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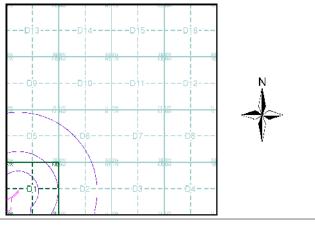
# Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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

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



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

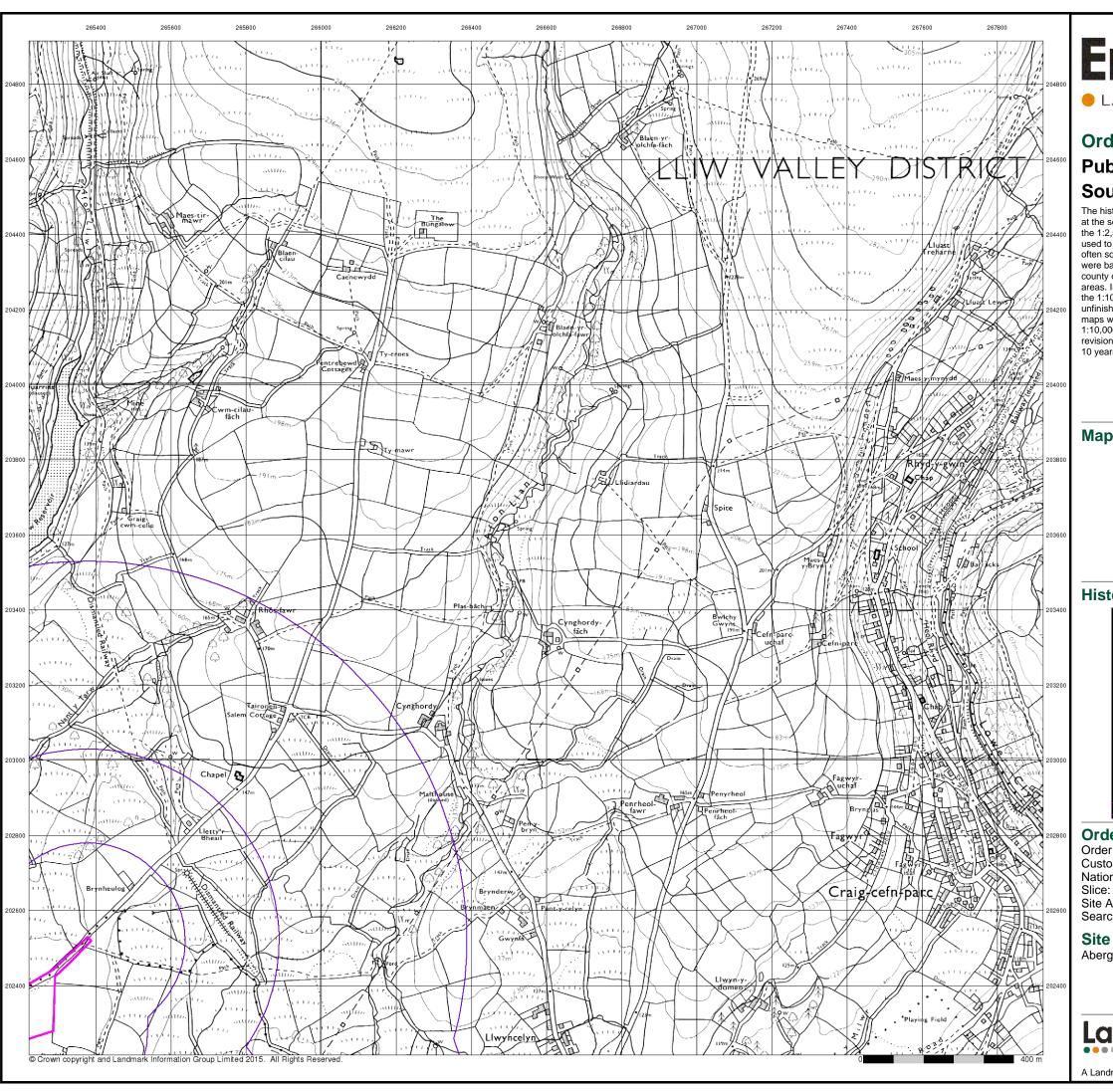
### **Site Details**

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Landmark\*

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

A Landmark Information Group Service v50.0 13-Oct-2017 Page 8 of 13

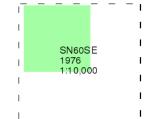


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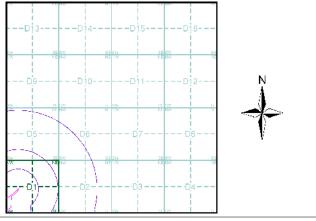
## **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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

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



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199\_1\_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

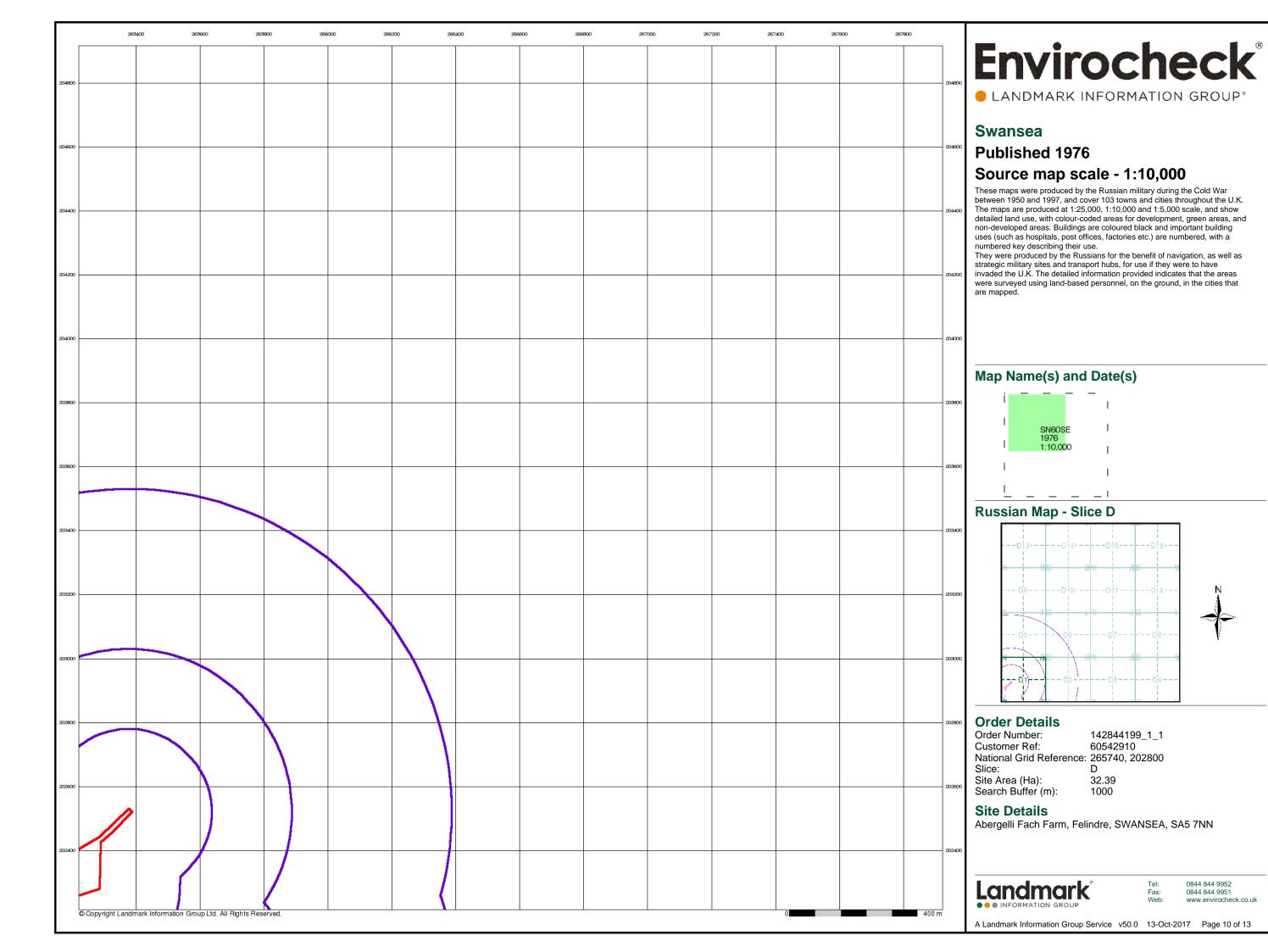
### **Site Details**

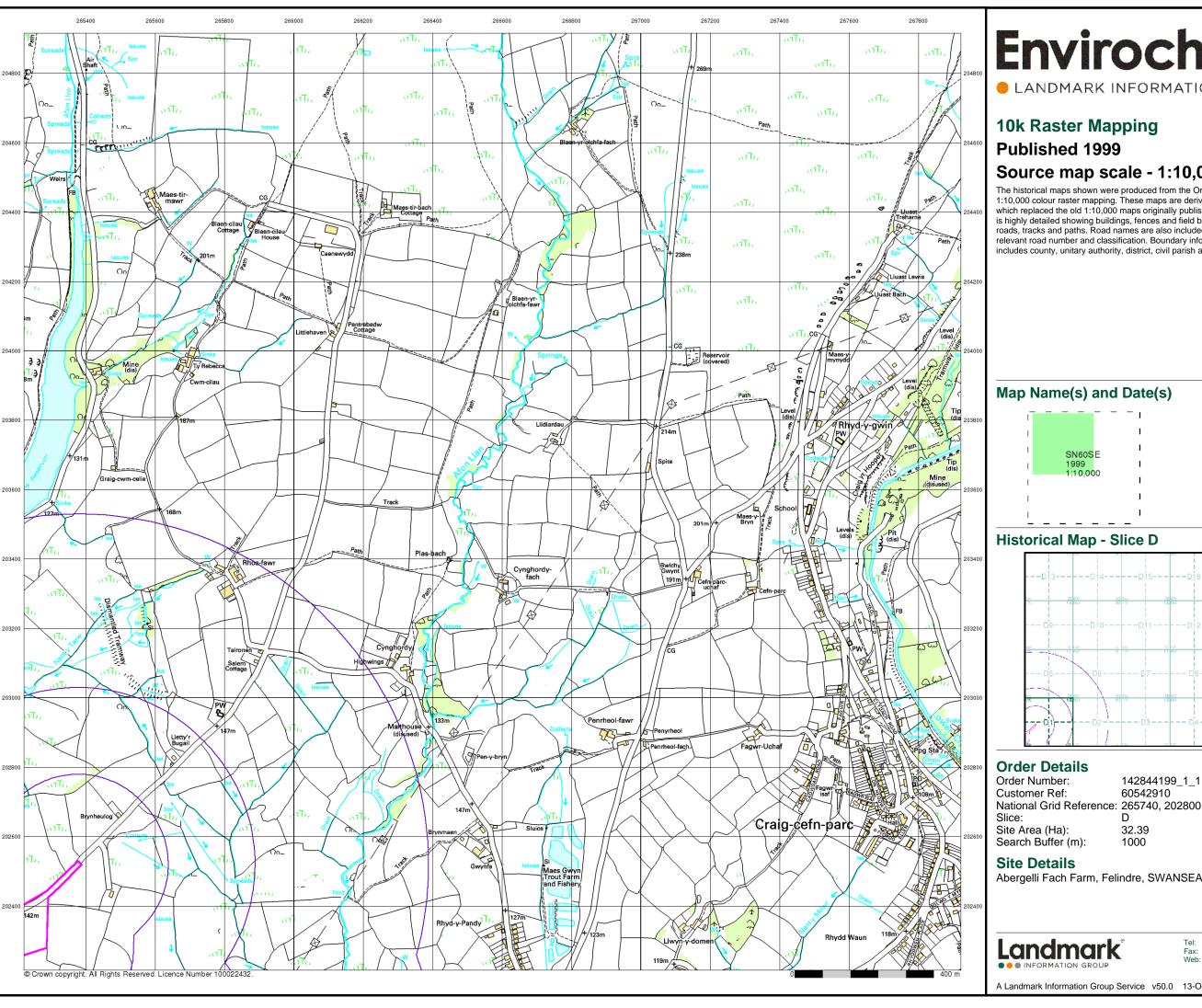
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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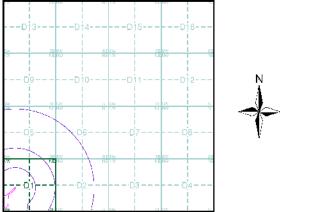




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# Source map scale - 1:10,000

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

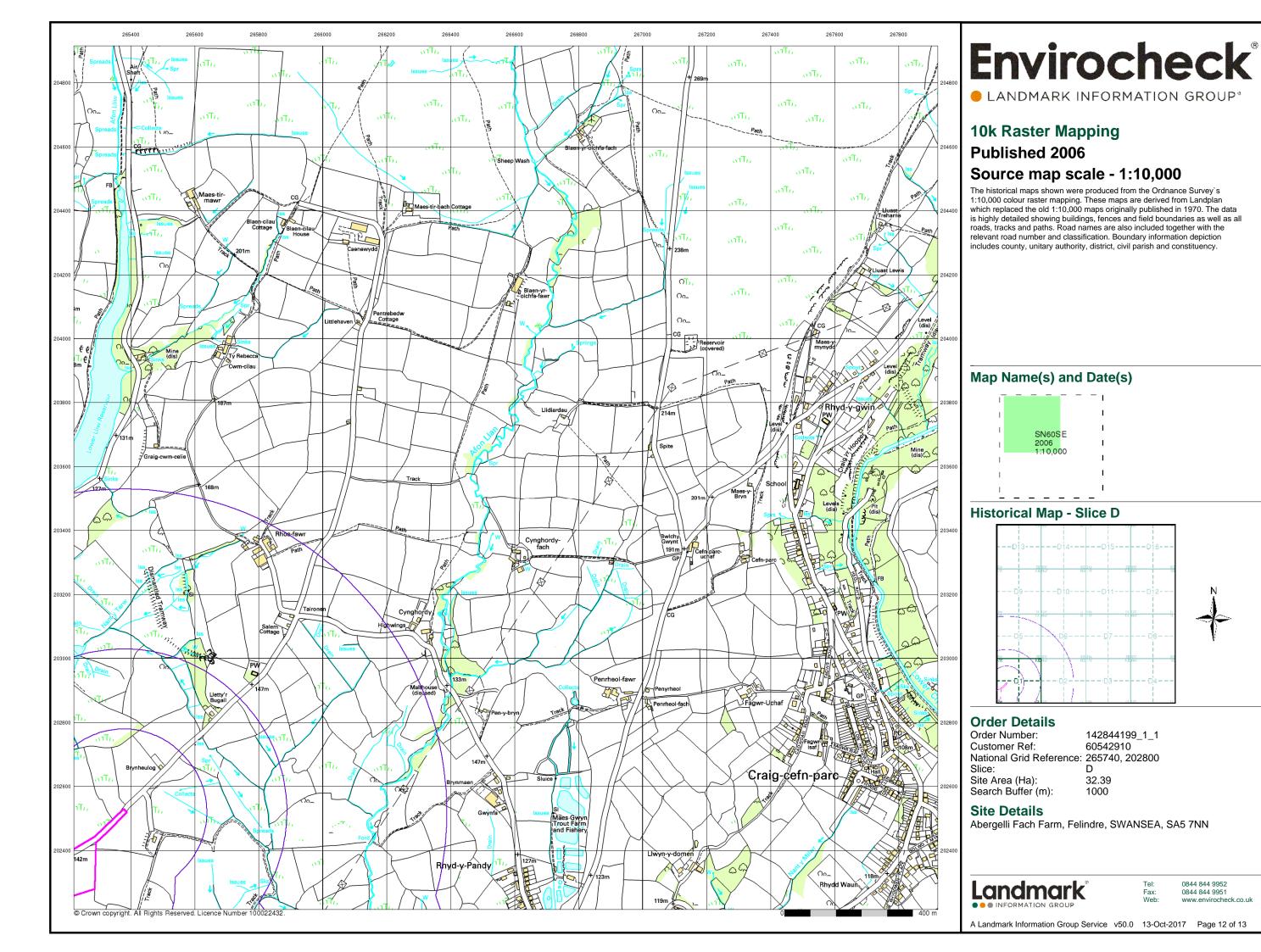


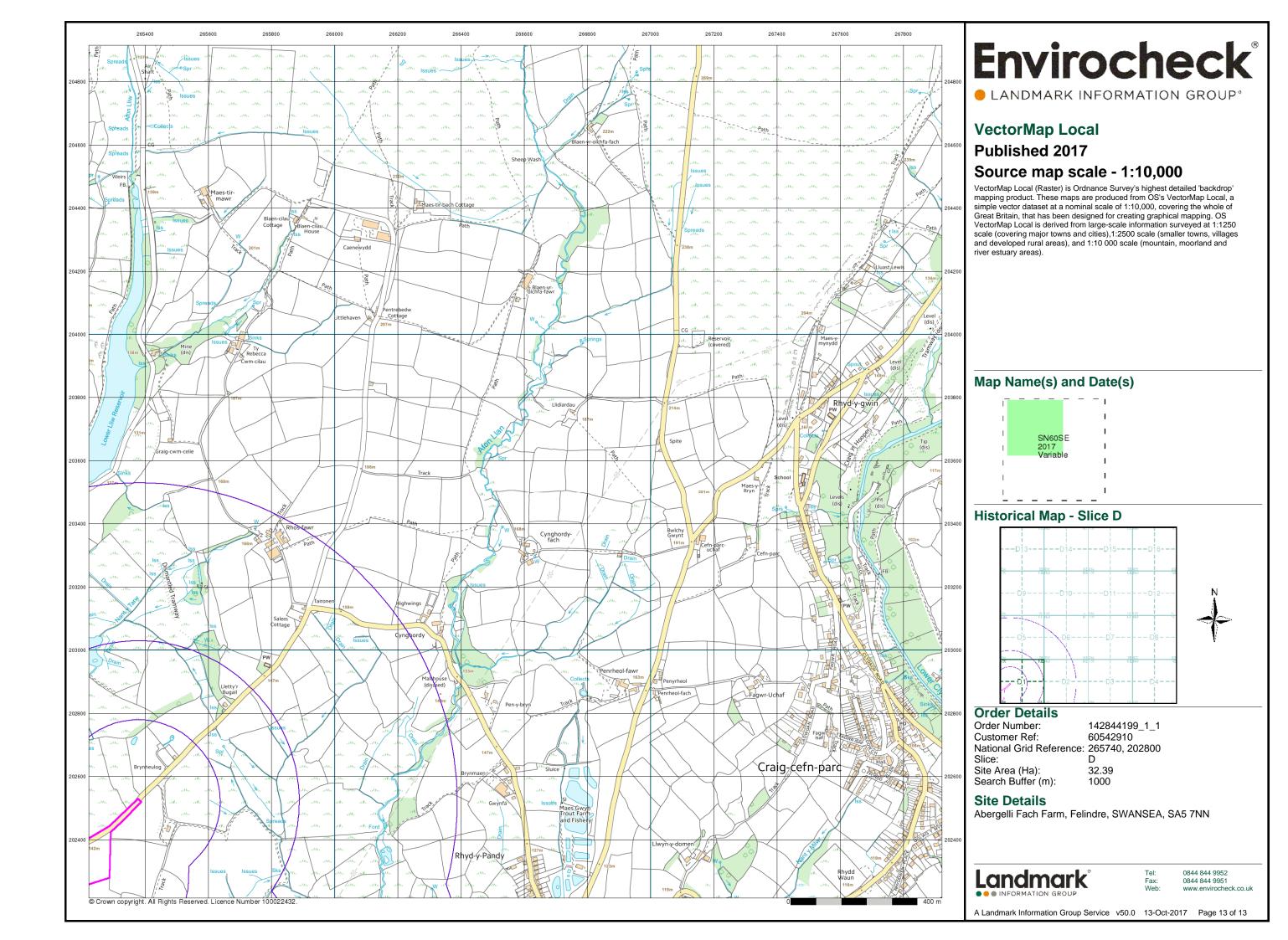
National Grid Reference: 265740, 202800

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 13





Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

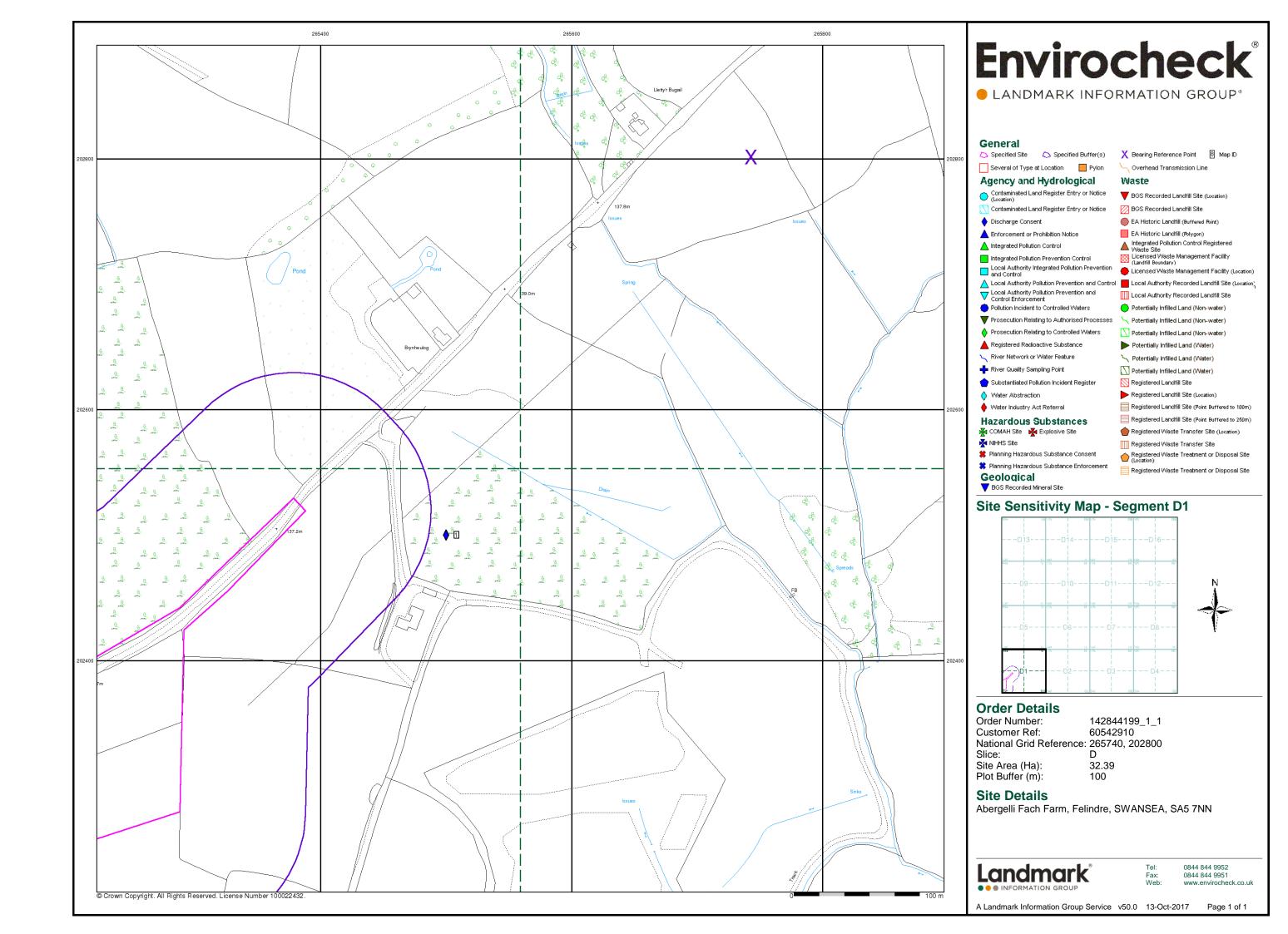
Slice:

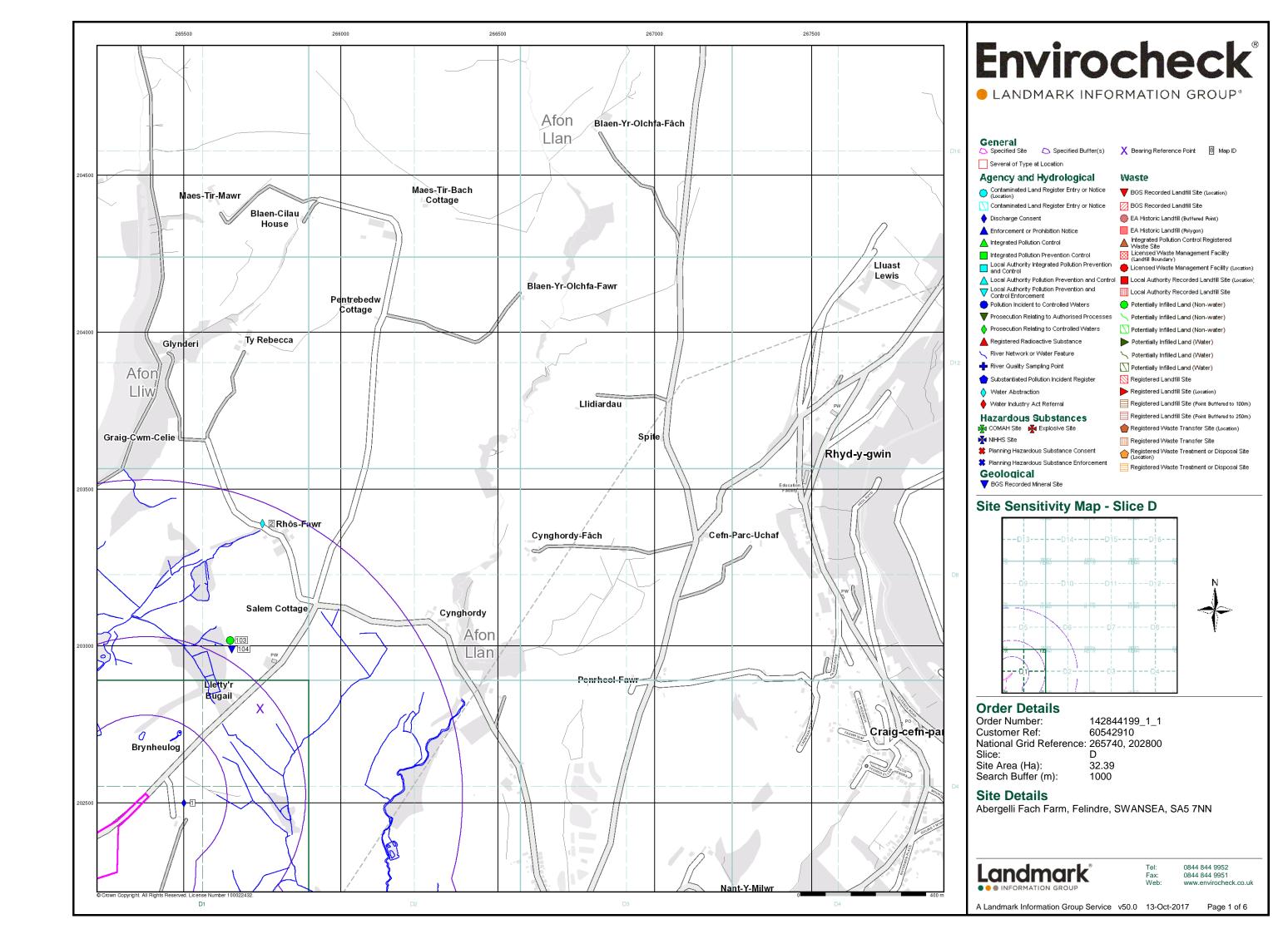
Site Area (Ha): 32.39 Search Buffer (m): 1000

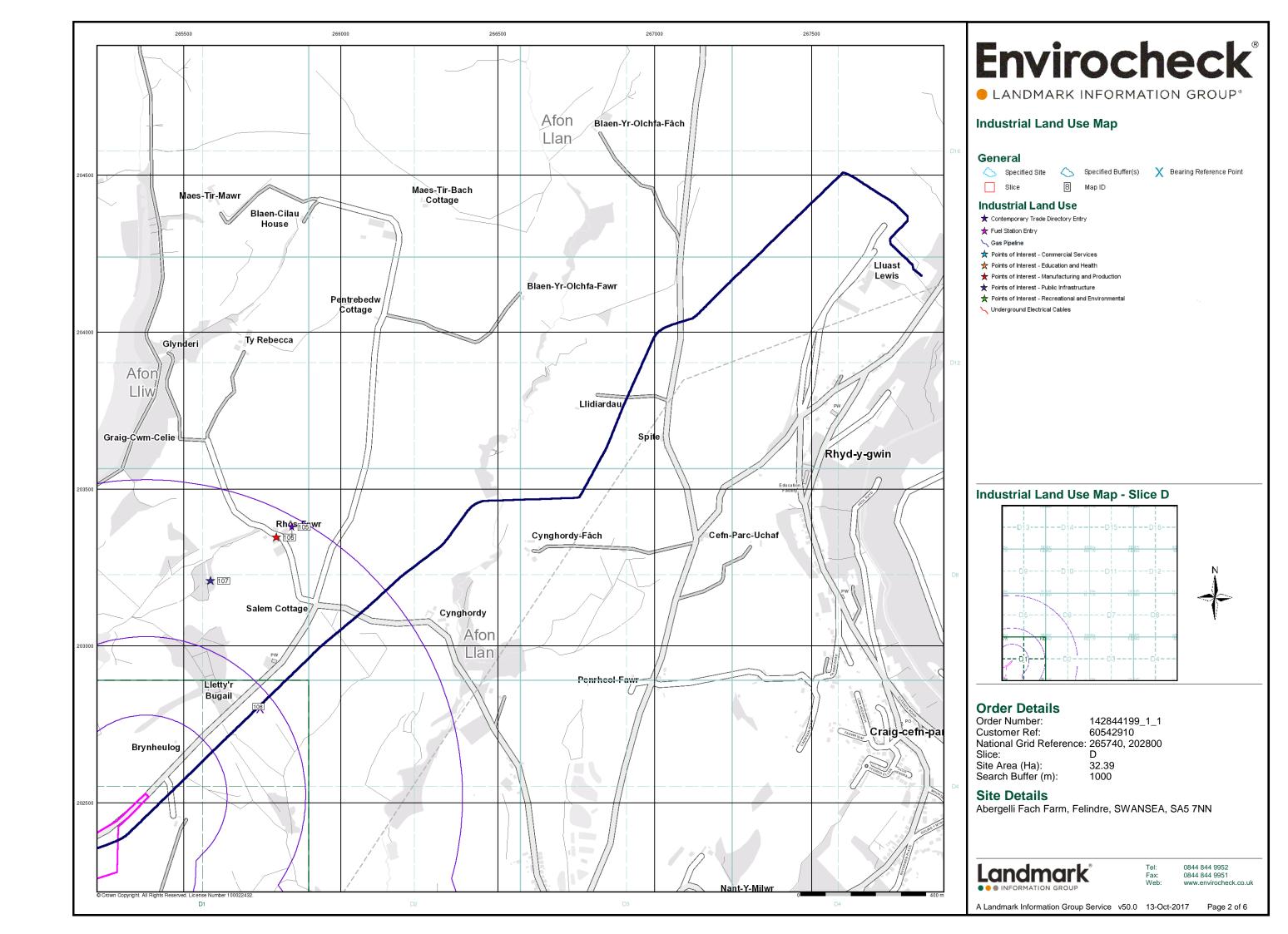
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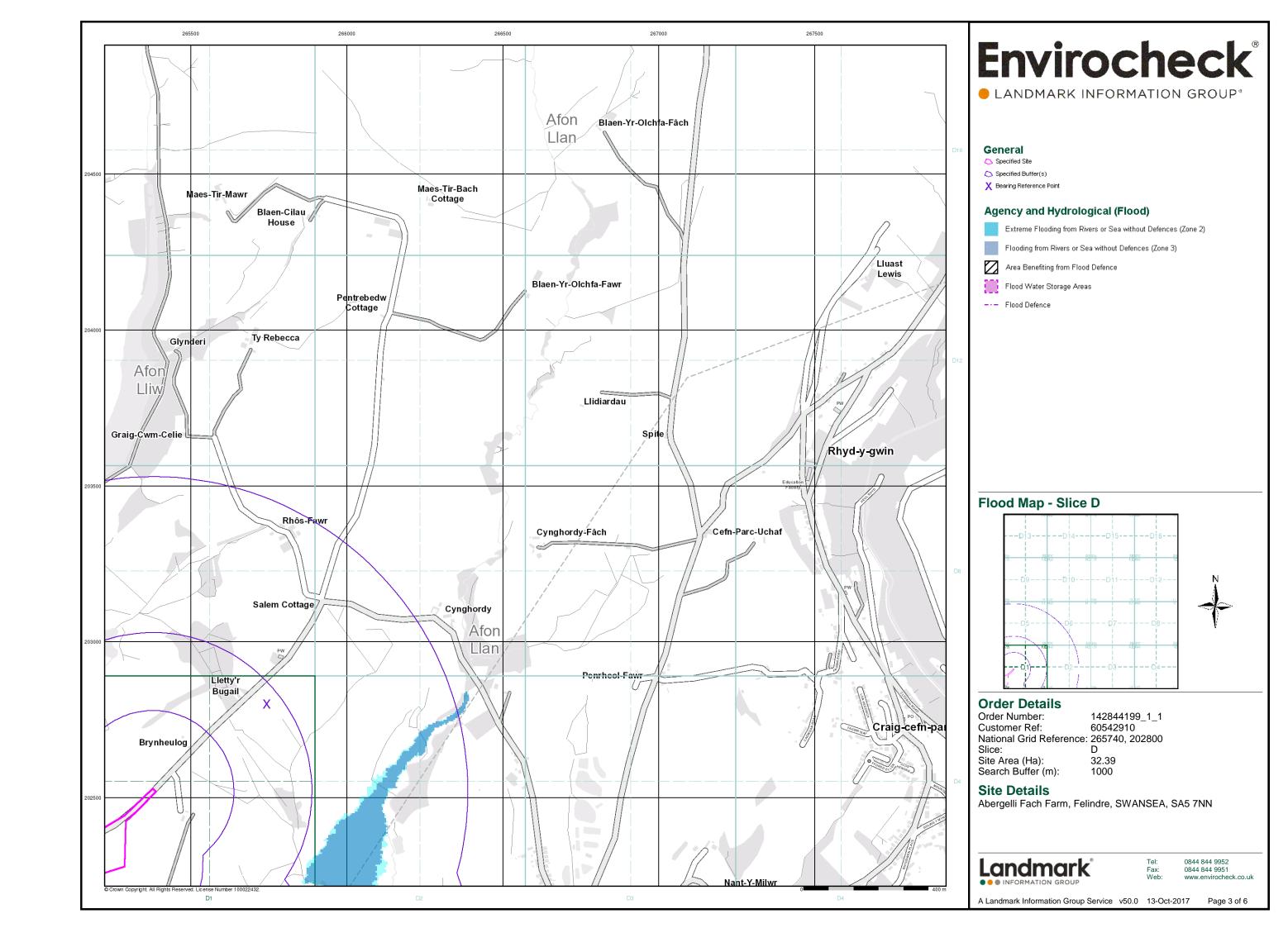
Abergelli F Felindre SWANSEA SA5 7NN

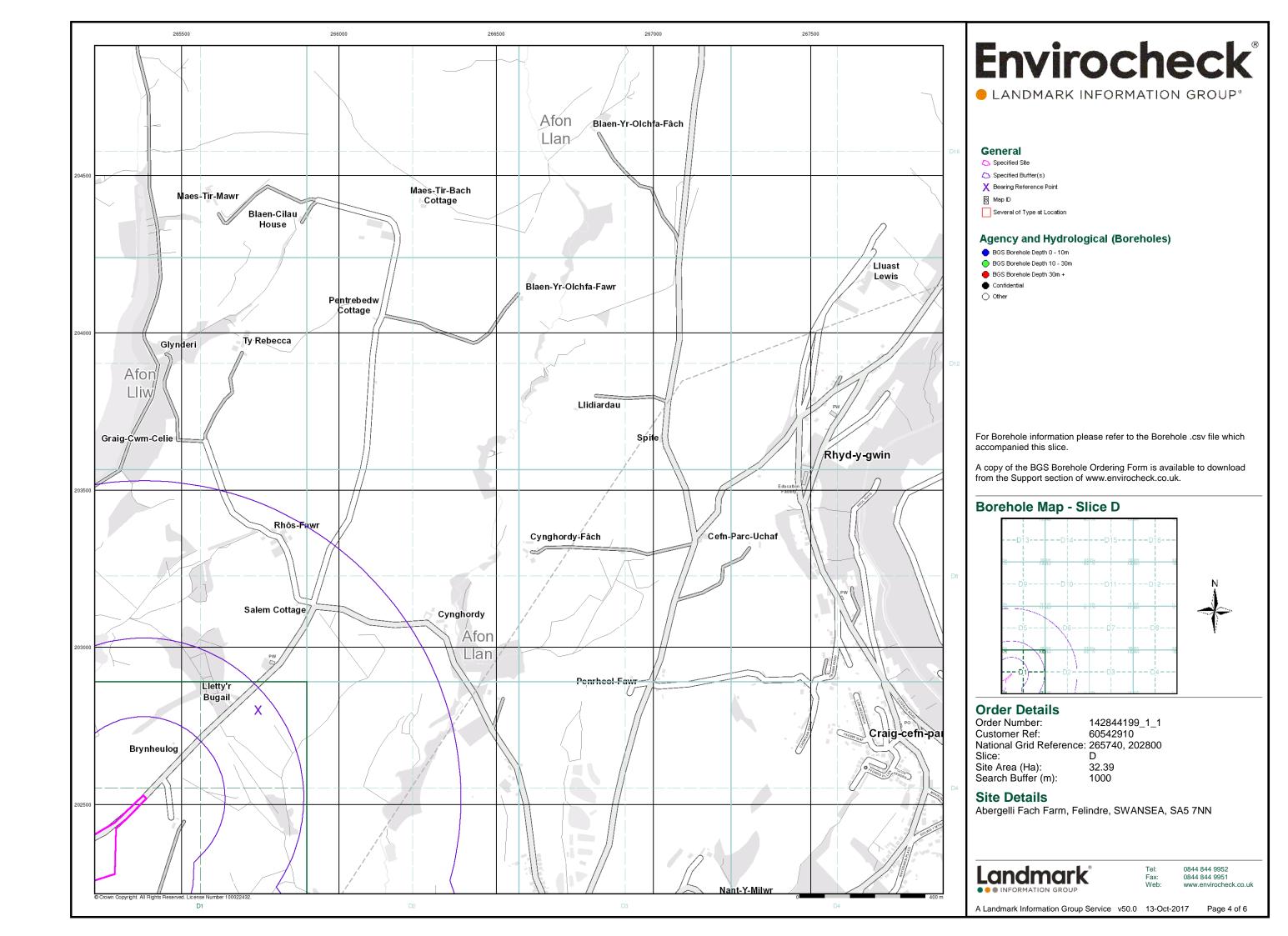
| File Name Map Series Published Source Sca Survey Dat Revision D; Addition D Edition Dat Published Date |               |      |      |      |      |      |  |  |
|--|---------------|------|------|------|------|------|--|--|
| 142844199 Glamorgan  | 1938 1:10,560 | 1876 |      | 1938 | 1913 |      |  |  |
| 142844199 Glamorgan  | 1921 1:10,560 | 1876 | 1913 |      | 1921 |      |  |  |
| 142844199 Glamorgan  | 1900 1:10,560 | 1876 | 1897 |      | 1900 |      |  |  |
| 142844199 Glamorgan  | 1884 1:10,560 | 1877 |      |      |      | 1884 |  |  |
| 142844199 Glamorgan  | 1953 1:10,560 | 1876 |      | 1948 | 1913 | 1953 |  |  |
| 142844199 Ordnance 9   | 1976 1:10,000 | 1974 | 1975 |      |      | 1976 |  |  |
| 142844199 Ordnance 9   | 1964 1:10,560 | 1961 |      |      |      | 1964 |  |  |
| 14284419 <sup>§</sup> Swansea  | 1976 1:10,000 |      |      |      |      |      |  |  |
| 14284419510K Raster  | 1999 1:10,000 |      |      |      |      |      |  |  |
| 14284419510K Raster  | 2006 1:10,000 |      |      |      |      |      |  |  |
| 142844195 VectorMar  | 2017 Variable |      |      |      |      |      |  |  |

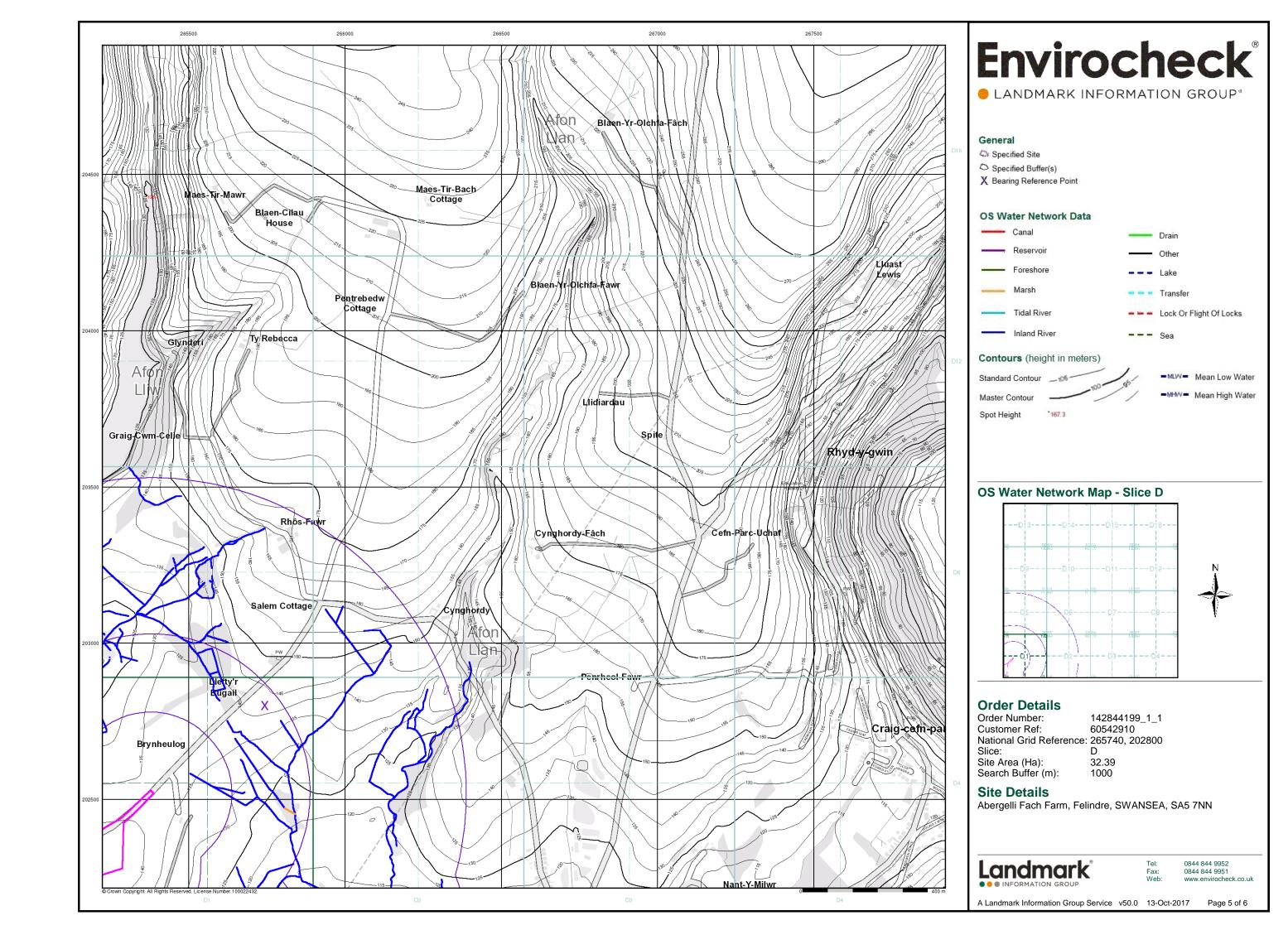


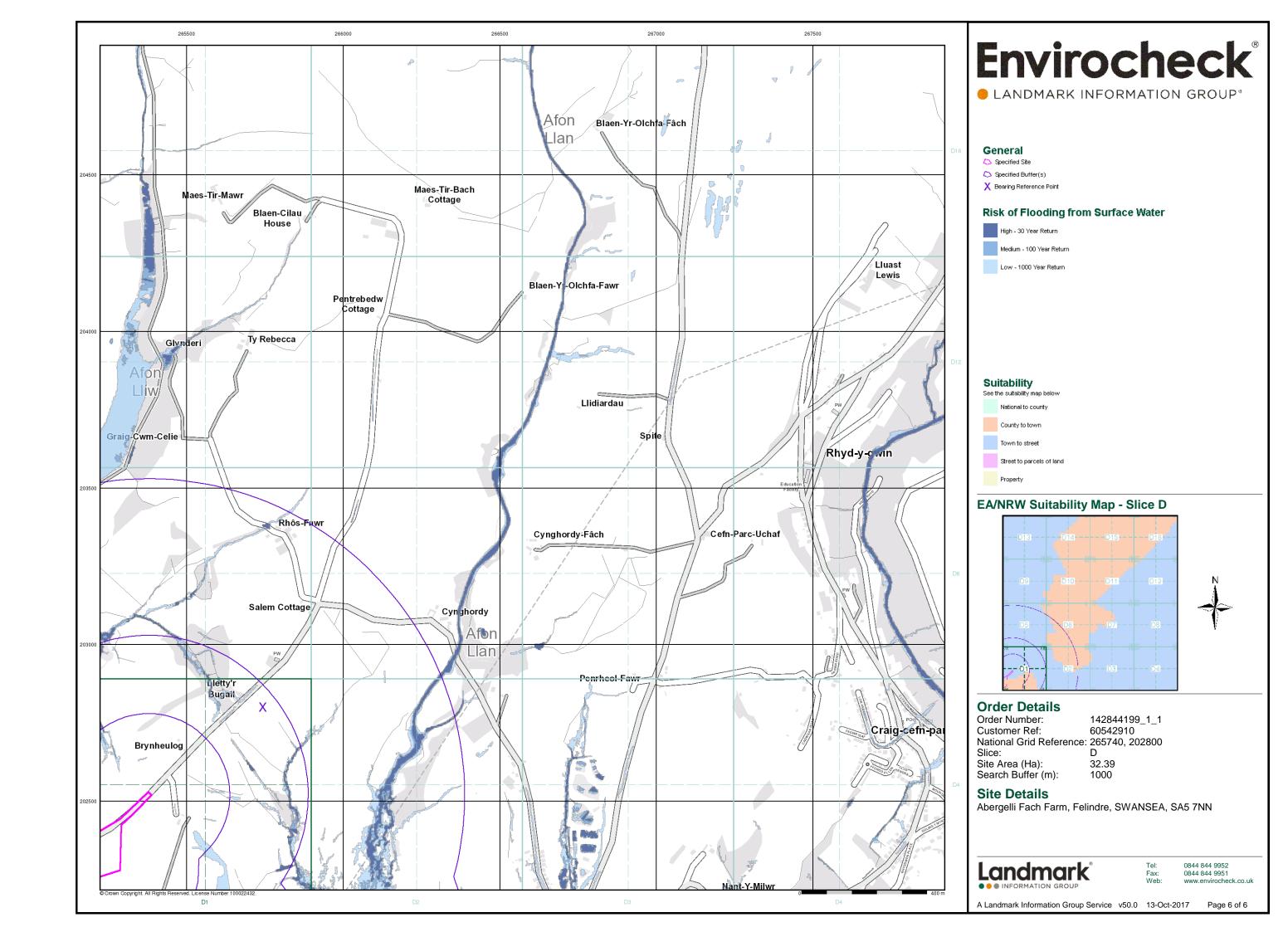


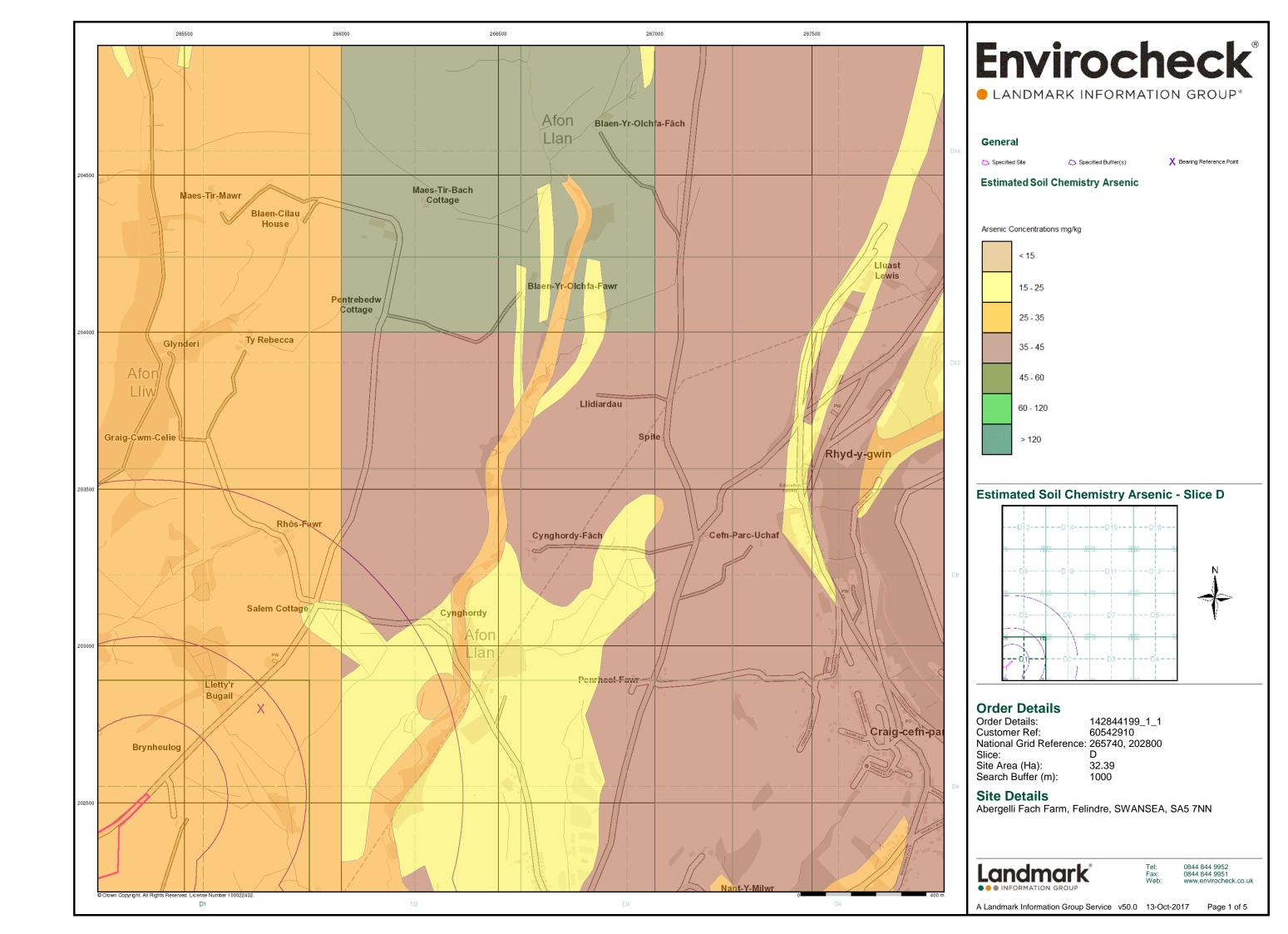


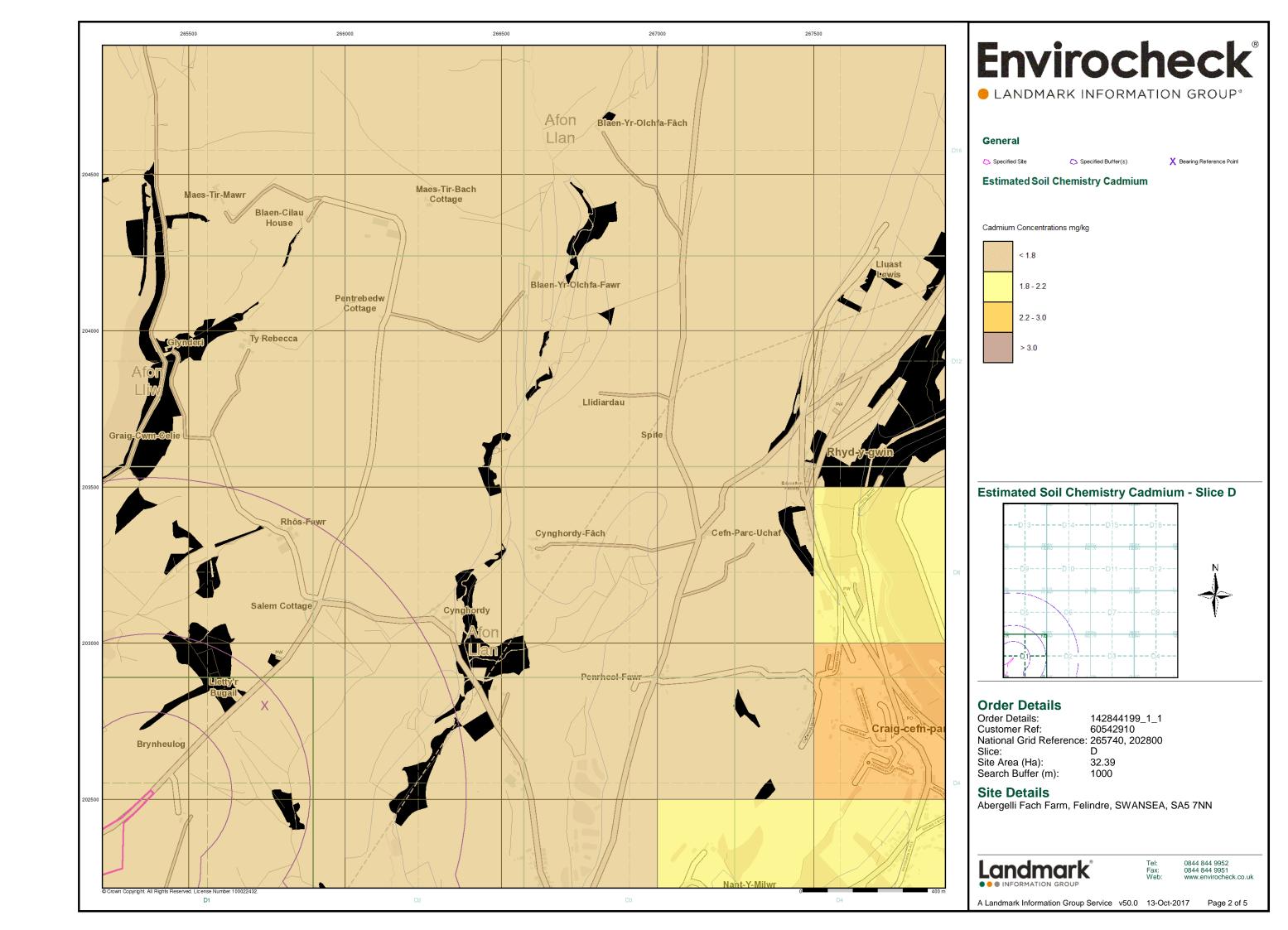


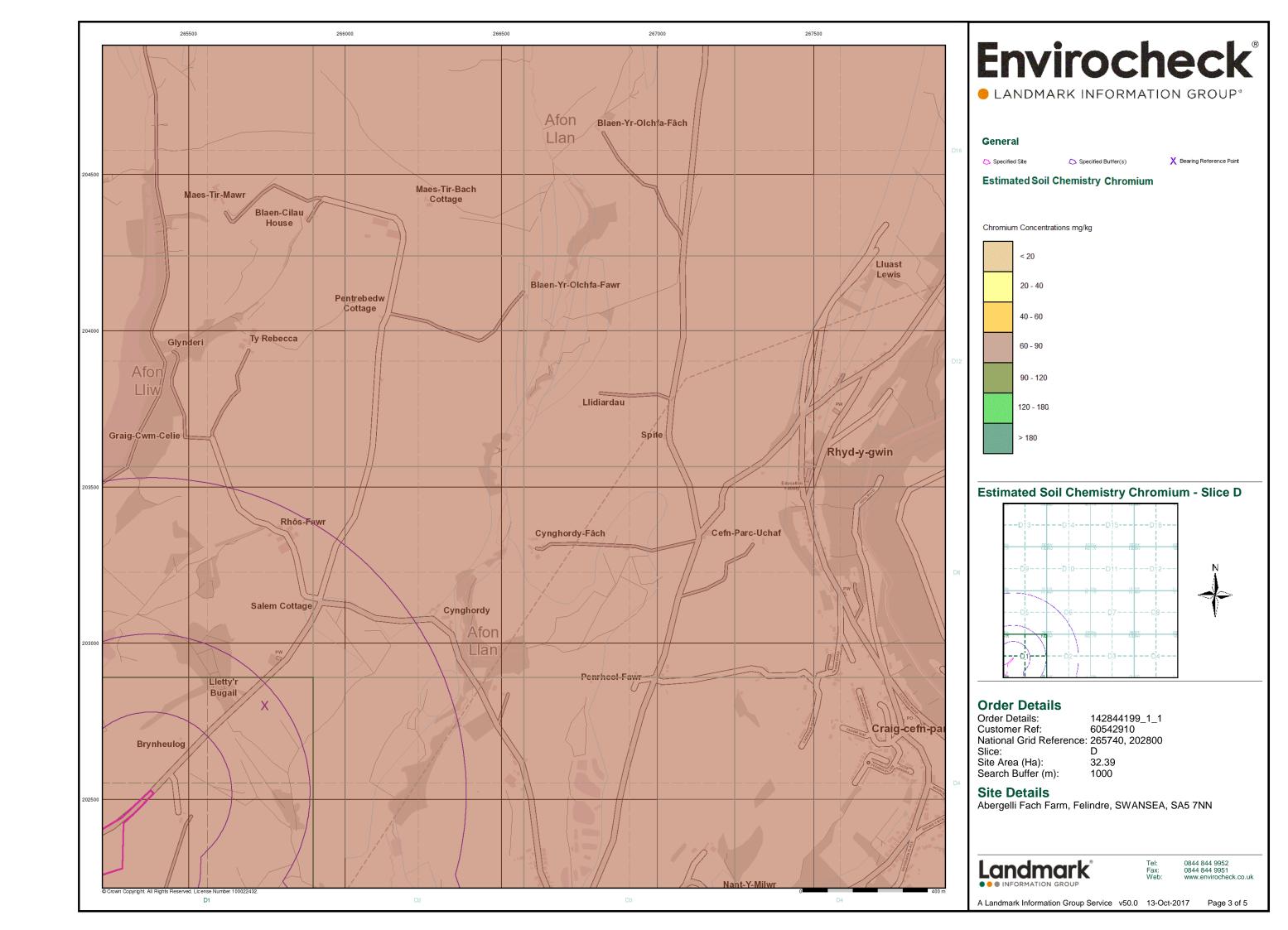


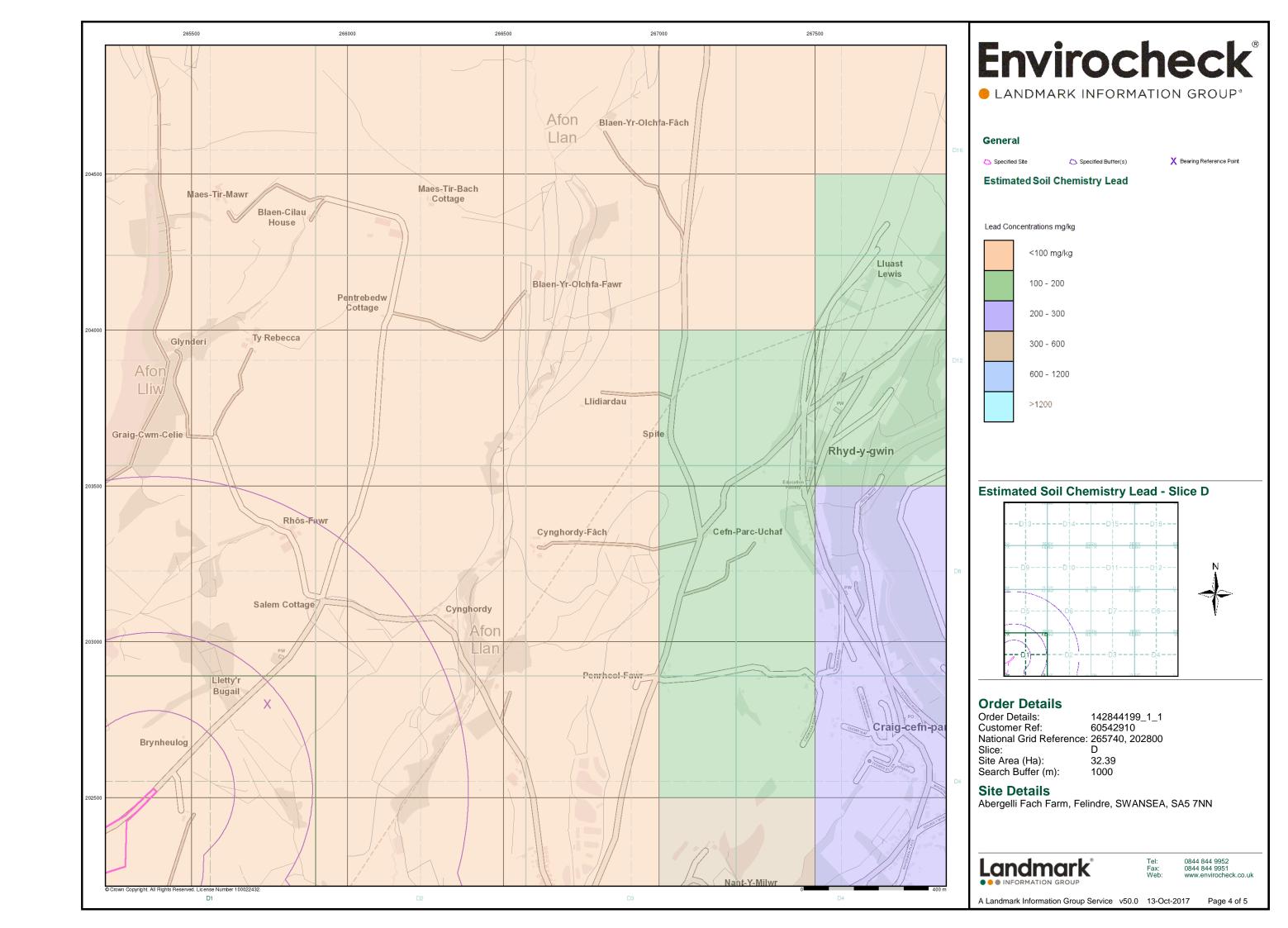


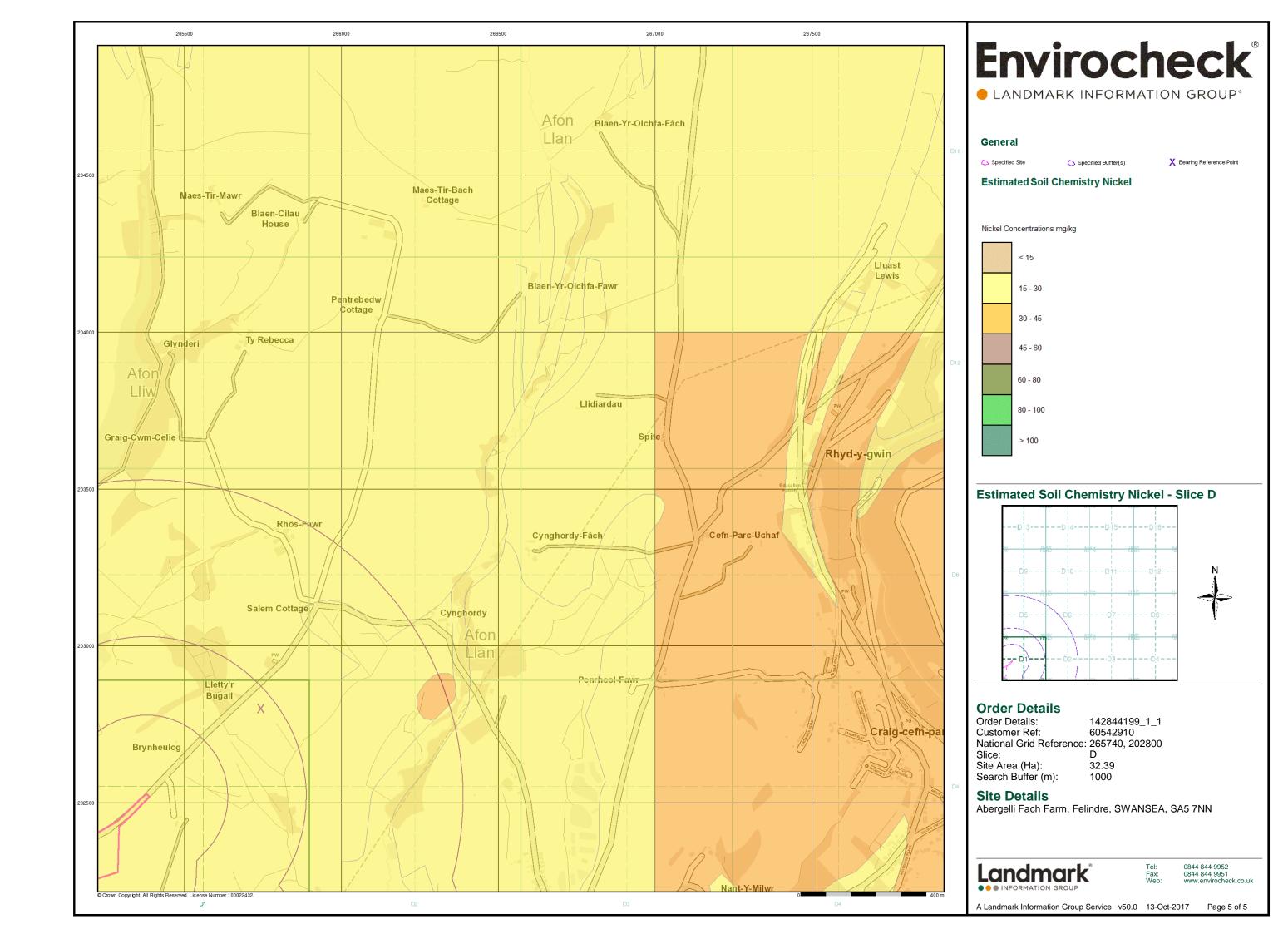












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

Slice: D

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

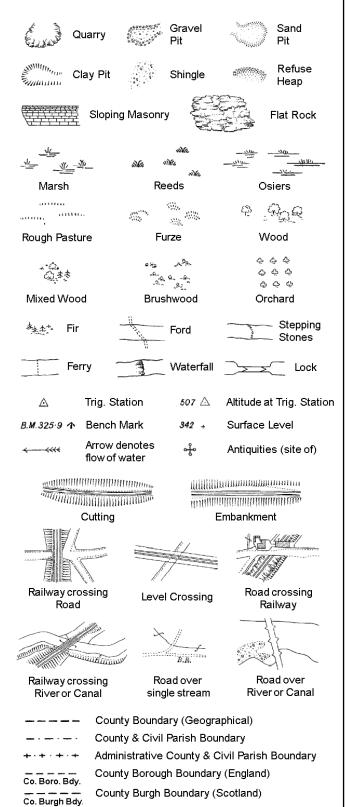
A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche

**BGS** Boreholes

eck.co.uk.

### **Historical Mapping Legends**

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



B.R.

E.P

F.B.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

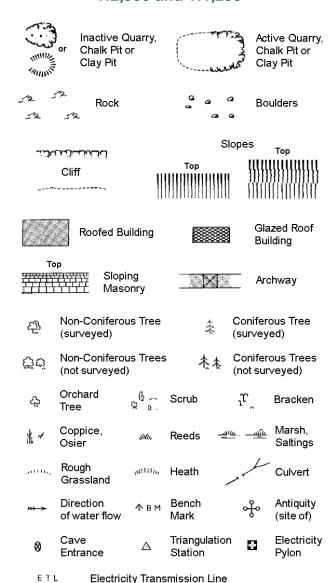
Spring

Trough Well

S.P

Sl.

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



|  |         |              | County Bo   | undary (C   | Geographical)        |  |
|--|---------|--------------|---|-------------|----------------------|--|
|  | · — ·   |              | County & C  | Di∨il Paris | h Boundary           |  |
|  |         |              | Civil Parish Boundary                               |             |                      |  |
|  | L B Bdy |              | Admin. County or County Bor. Boundary               |             |                      |  |
|  |         |              | London Borough Boundary                             |             |                      |  |
|  |         |              | Symbol marking point where boundary mereing changes |             |                      |  |
|  | вн      | Beer House   |   | Р           | Pillar, Pole or Post |  |
|  | BP, BS  | Boundary Po  | ost or Stone  | PO          | Post Office          |  |
|  | Cn, C   | Capstan, Cra | ine   | PC          | Public Convenience   |  |
|  | Chy     | Chimney      |   | PH          | Public House         |  |
|  | D Fn    | Drinking Fou | ıntain  | Pp          | Pump                 |  |

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

## 1:1,250

| Slopes                   |                         |                      |                     |   |  |  |
|--------------------------|-------------------------|----------------------|---------------------|---|--|--|
| وأملاند                  | لكنابات                 |                      | Sic                 | Top                                     |  |  |
|                          | Cliff                   | *******              | Гор                 |   |  |  |
| ,                        |                         |                      |                     |   |  |  |
|                          |                         | [[]]]                | шашы                | [11][1][[][[][][][][][][][][][][][][][] |  |  |
| 523                      | Rock                    |                      | 7,5                 | Rock (scattered)                        |  |  |
| $ \mathcal{Q}^{\sigma} $ | Boulders                |                      | <u>a</u>            | Boulders (scattered)                    |  |  |
|                          | Positioned              | l Boulder            |                     | Scree                                   |  |  |
| (월                       | Non-Conit               | erous Tree           | \$                  | Coniferous Tree<br>(surveyed)           |  |  |
| స్తోల్                   | Non-Conit<br>(not surve | erous Trees<br>yed)  | 春春                  | Coniferous Trees<br>(not surveyed)      |  |  |
| දා                       | Orchard<br>Tree         | ç <sup>6</sup> û. So | rub                 | <sub>າ</sub> ຕຸ Bracken                 |  |  |
| * ~                      | Coppice,<br>Osier       | ₩ Re                 | eds 🛥               | الله <u>سال</u> ه Marsh,<br>Saltings    |  |  |
| artitu,                  | Rough<br>Grassland      | <sub>лини</sub> , Не | eath                | Culvert                                 |  |  |
| ** <del>*</del>          | Direction of water fl   |                      | angulation<br>ation | Antiquity (site of)                     |  |  |
| E_TL                     | _ Electric              | city Transmissio     | n Line              | Electricity Pylon                       |  |  |
| / <del>/</del> / вм      | 231.6úm                 | Bench Mark           |                     | Buildings with<br>Building Seed         |  |  |
|                          | Roof                    | ed Building          |                     | Glazed Roof<br>Building                 |  |  |
|                          |                         | Ci∨il parish/co      | mmunity b           | oundary                                 |  |  |
|                          |                         | District bound       |                     | •                                       |  |  |
| _                        |                         |                      | -                   |   |  |  |
| _ •                      |                         | County bounds        | -                   |   |  |  |
| c                        |                         | Boundary post        | /stone              |   |  |  |
| ×                        |                         |                      |                     | ol (note: these<br>ed pairs or groups   |  |  |
| Bks                      | Barracks                |                      | Р                   | Pillar, Pole or Post                    |  |  |
| Bty                      | Battery                 |                      | PO                  | Post Office                             |  |  |
| Cemy                     | Cemetery                |                      | PC                  | Public Convenience                      |  |  |
| Chy                      | Chimney                 |                      | Рр                  | Pump                                    |  |  |
| Cis                      | Cistern                 |                      | Ppg Sta             | Pumping Station                         |  |  |
| Dismtd F                 | Rly Dismar              | itled Railway        | PW                  | Place of Worship                        |  |  |
| El Gen S                 | ta Electric<br>Station  | city Generating      | Sewage P            | pg Sta Sewage<br>Pumping Station        |  |  |
| EIP                      | Electricity             | Pole, Pillar         | SB, S Br            | Signal Box or Bridge                    |  |  |
| El Sub S                 | ta Electricity          | Sub Station          | SP, SL              | Signal Post or Light                    |  |  |

Filter Bed

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

Mile Post or Mile Stone

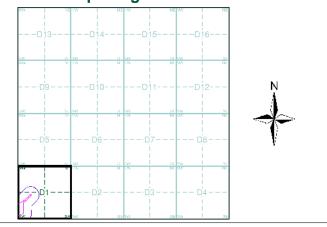
## **Envirocheck®**

LANDMARK INFORMATION GROUP®

### **Historical Mapping & Photography included:**

| Mapping Type                             | Scale   | Date | Pg |
|--|---------|------|----|
| Glamorganshire                           | 1:2,500 | 1877 | 2  |
| Glamorganshire                           | 1:2,500 | 1898 | 3  |
| Glamorganshire                           | 1:2,500 | 1918 | 4  |
| Ordnance Survey Plan                     | 1:2,500 | 1961 | 5  |
| Supply of Unpublished Survey Information | 1:2,500 | 1975 | 6  |
| Additional SIMs                          | 1:2,500 | 1992 | 7  |
| Large-Scale National Grid Data           | 1:2,500 | 1993 | 8  |
| Historical Aerial Photography            | 1:2,500 | 2000 | 9  |

### **Historical Map - Segment D1**



### **Order Details**

Order Number: 142844199\_1\_1 **Customer Ref:** 60542910 National Grid Reference: 265740, 202800 Slice: Site Area (Ha): 32.39

Search Buffer (m): **Site Details** 

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tr

Wd Pp

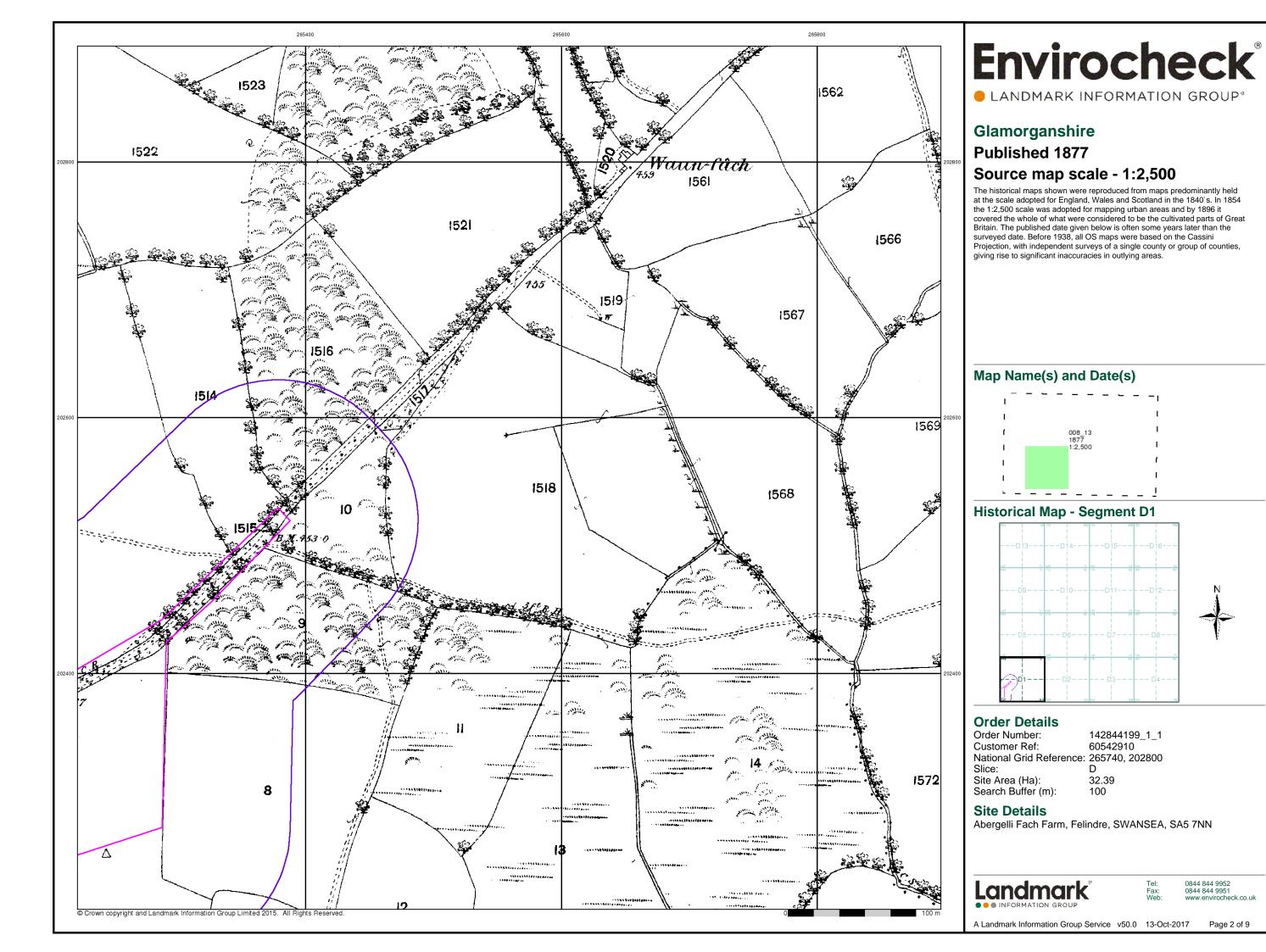
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

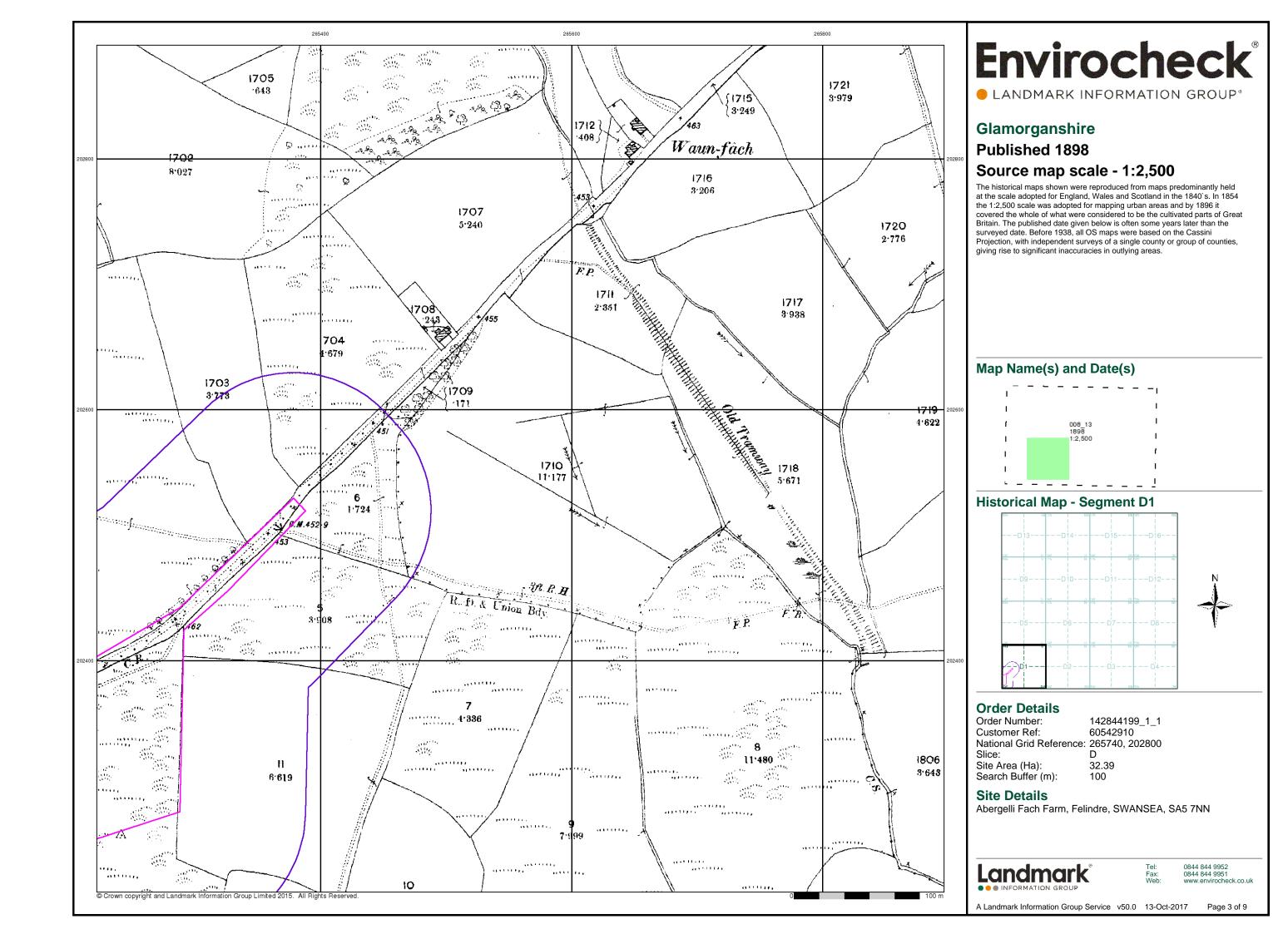
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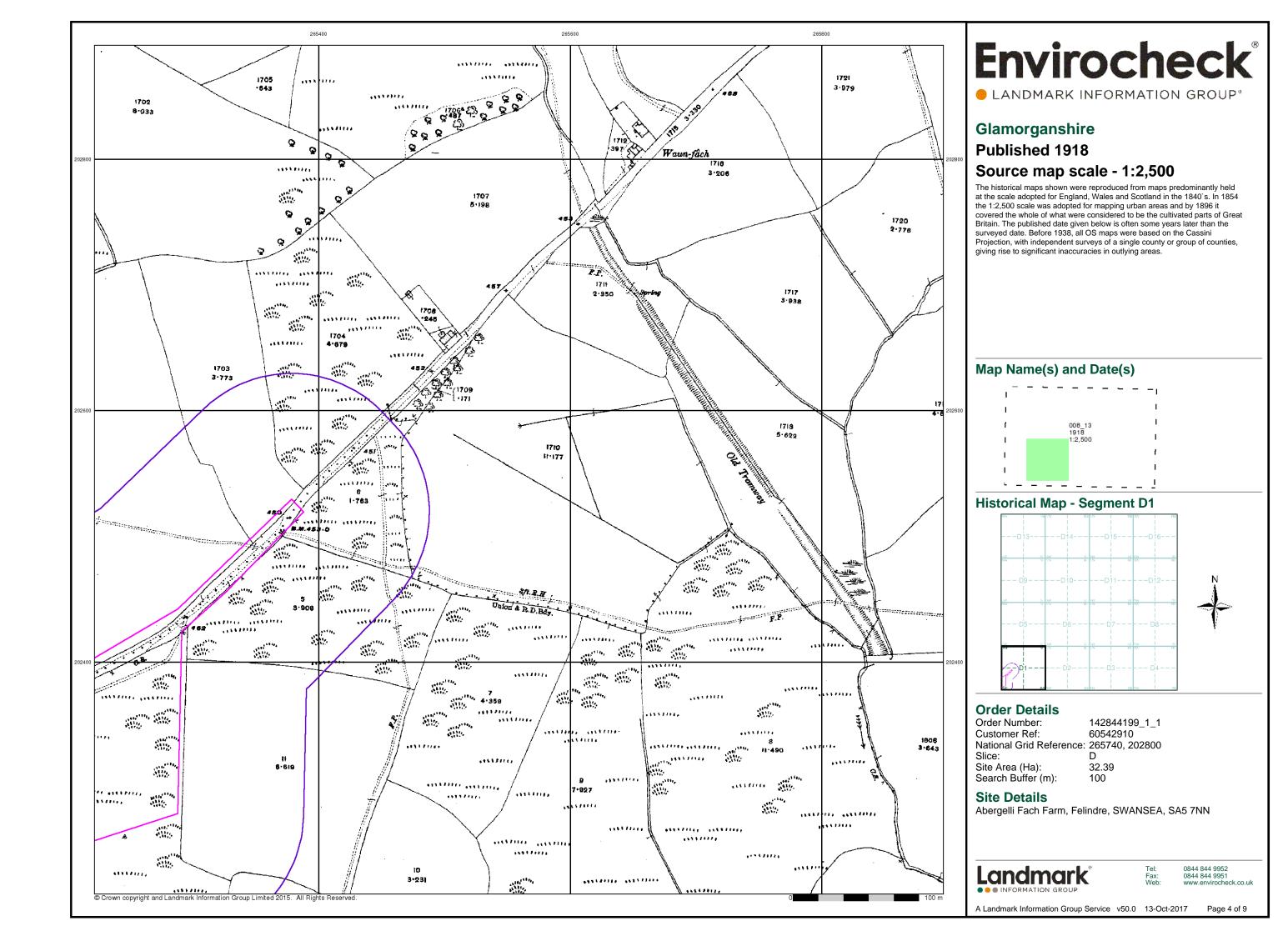


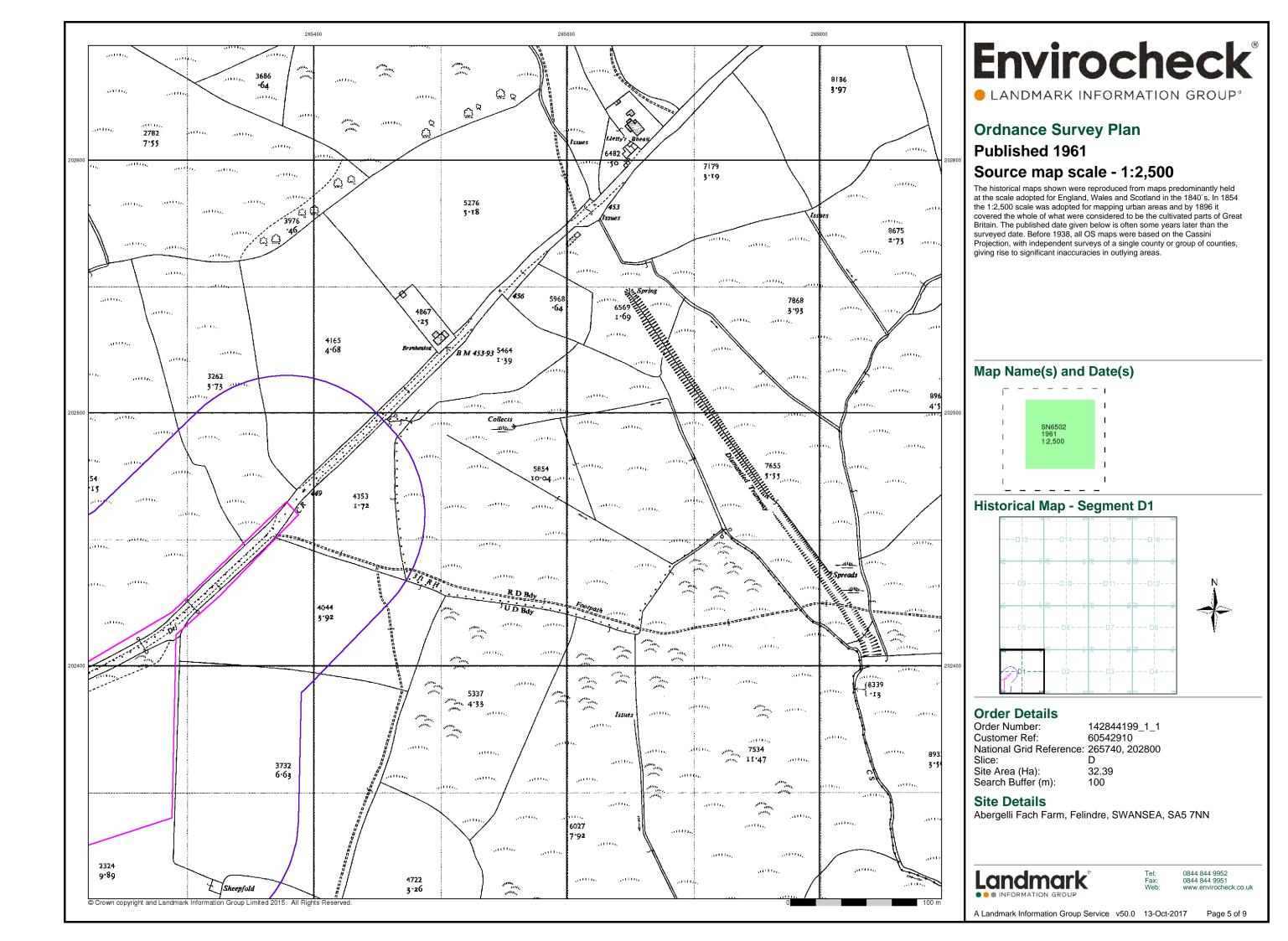
0844 844 9952 0844 844 9951

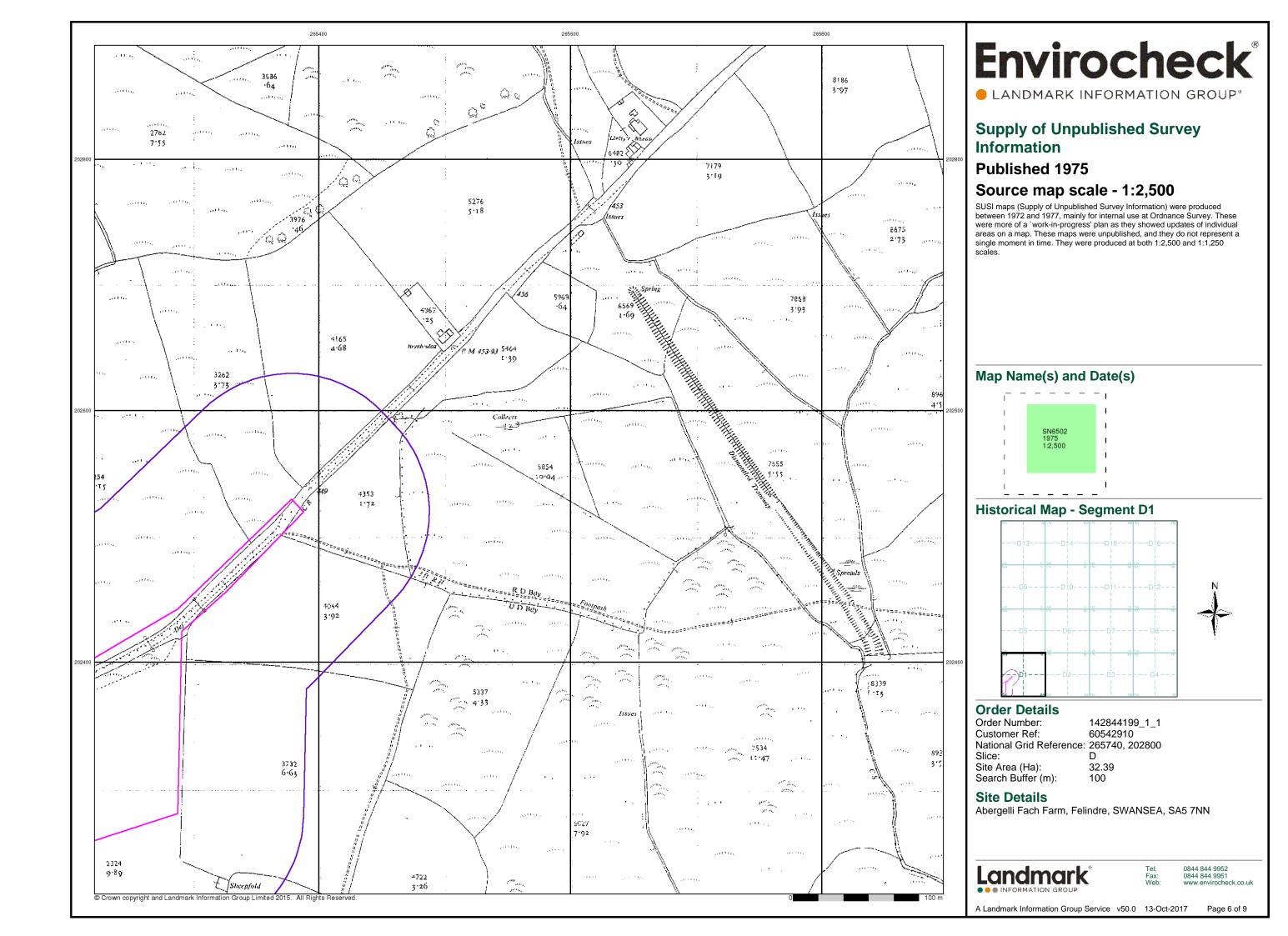
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 9

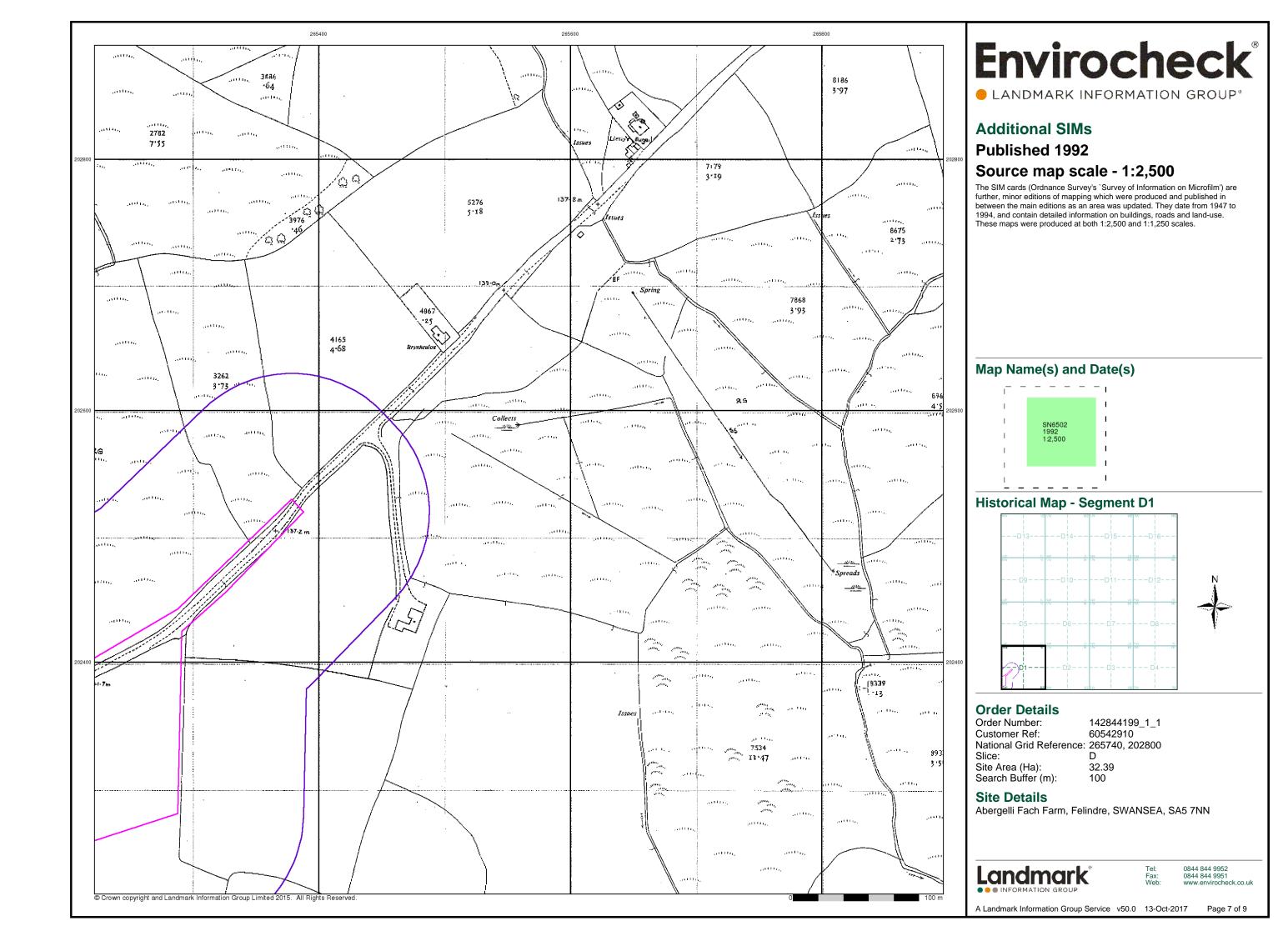


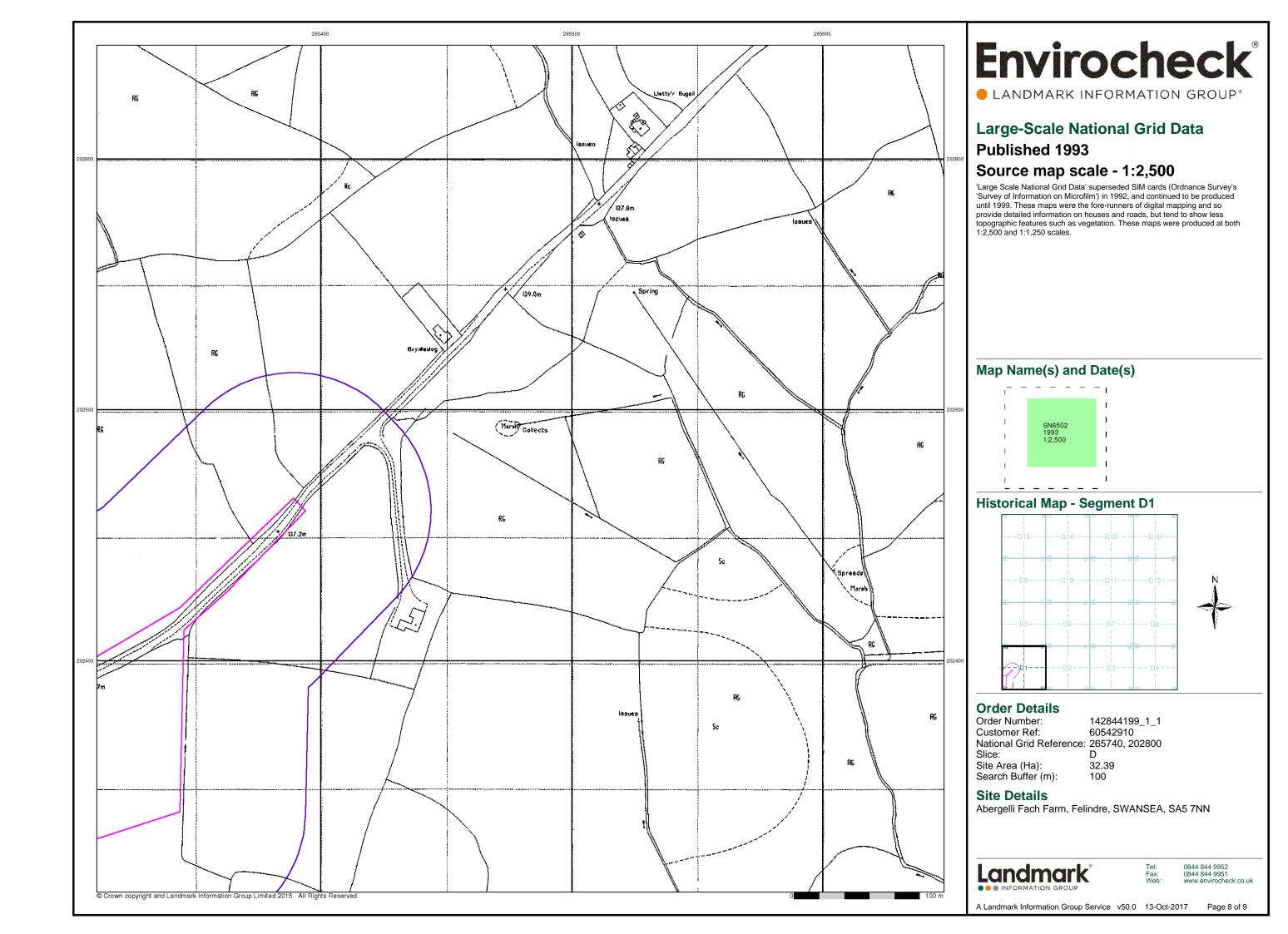














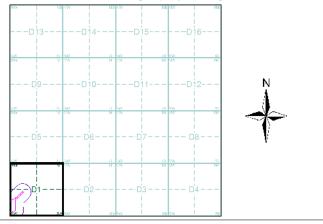
# **Envirocheck®**

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## Historical Aerial Photography Published 2000

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

### **Historical Aerial Photography - Segment D1**



### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800

e:

Site Area (Ha): 32.39 Search Buffer (m): 100

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark\*

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

A Landmark Information Group Service v50.0 13-Oct-2017

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

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 1877 1:2,500

 14284419£Ordnance !
 1961 1:2,500

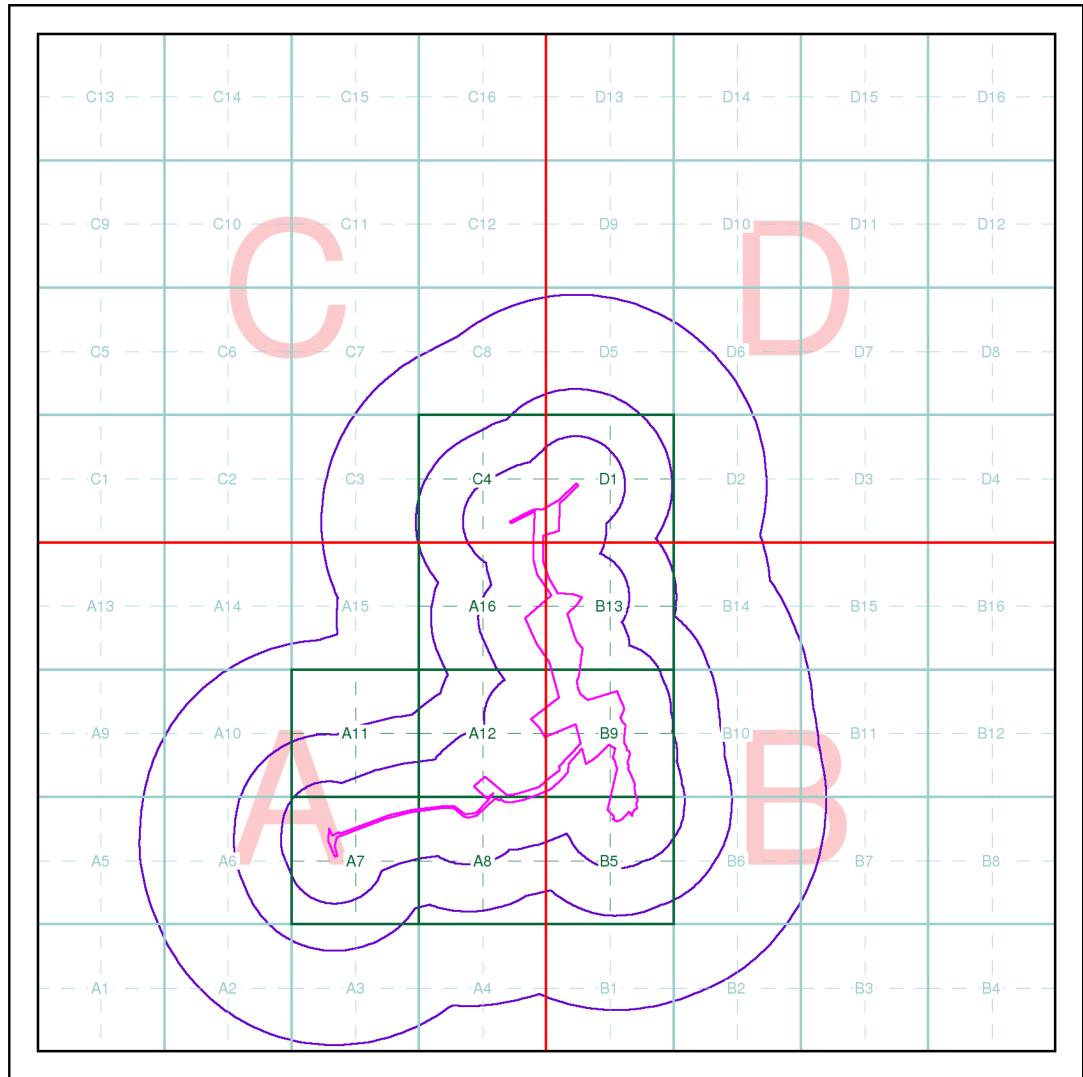
 14284419£Glamorgar
 1898 1:2,500

 14284419£Glamorgar
 1918 1:2,500

 14284419£Additional
 1992 1:2,500

 14284419£Supply of L
 1975 1:2,500

 14284419£Large-Scale
 1993 1:2,500



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### **Index Map**

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

#### Slic

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

#### Seamen

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

### Quadrant

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

A selection of organisations who provide data within this report:







Envirocheck reports are compiled from 136 different sources of data.

### **Prepared For**

Abergelli Power Station Project

### **Client Details**

MS J Foy, Aecom Infrastructure & Environment UK Ltd, Longcross Court, 47 Newport Road, Cardiff, CF24 0AD

### **Order Details**

Order Number: 142844199\_1\_1
Customer Ref: 60542910
National Grid Reference: 265310, 201420

Site Area (Ha): 32.39 Search Buffer (m): 1000

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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



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

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Appendix 8.2

Preliminary Geo-Environmental Risk
Assessment

## PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT

ABERGELLI POWER PROJECT

for Abergelli Power Ltd

Applicant Reference: 287521A

### Preliminary Geo-Environmental Risk Assessment for Abergelli Power Project

**Applicant Reference: 287521A** 

**Prepared for** Abergelli Power Ltd

## Prepared by Parsons Brinckerhoff

29 Cathedral Road Cardiff CF11 9HA

Tel: 02920 827000 www.pbworld.com



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Figure 1.1 – Site Location Plan

Figure 10.1 – Potential Sources of Contamination and Locations of Interest

### **APPENDICES**

Appendix A – GroundSure Reports

Appendix B - BGS Borehole Logs

Appendix C - Coal Authority Mining Report

Appendix D - Landfill Working Plan Records from NRW



### **EXECUTIVE SUMMARY**

| Introduction   | Watt Power commissioned Parsons Brinckerhoff Ltd to undertake a Preliminary Risk  |
|----------------|---|
|                | Assessment of Abergelli Power Project, South Wales to form a baseline geo-  |
|                | environmental assessment to enable the completion of Chapter 10, Geology, Ground  |
|                | Conditions and Hydrogeology of the Environmental Statement.   |
| Site History   | The Project Site and surrounding area has remained predominantly grass fields and   |
|                | with areas of woodland and marshland stretching back from the earliest historical data  |
|                | from 1876 to the present day.   |
|                | A gravel pit was present from 1896, and identified as 'old' in 1913. Other significant  |
|                | historical land uses surrounding the Project Site, include Abergelli Colliery, and  |
|                | associated buildings identified from 1935, and disused from 1964, a spoil heap adjacent   |
|                | the colliery was identified from 1964. The location of this spoil heap was identified as  |
|                | an embankment in 2002. This is likely to be associated with the landfilling works and   |
|                | associated landfill extension which took place in the 1990's. The National Grid   |
|                | 'Swansea North' substation in the western of the Project Site is evident on the historical  |
|                | maps from 1991 to current day.  |
| Geology        | 'Made Ground' is only likely to be present in areas where there are structures and  |
|                | hardstanding associated with previous development, i.e. the landfill and surrounding the  |
|                | colliery farm buildings.  |
|                | The British Geological Survey on-line viewer and GroundSure Geolnsight Report   |
|                | indicates that the area within the Project Site boundary is underlain by superficial  |
|                | deposits of glacial till (predominantly clay), and glaciofluvial deposits of sand and   |
|                | gravel. There are also pockets of alluvium and peat present locally across the Project  |
|                | Site. The bedrock geology consists of the Grovesend Formation comprising  |
|                | mudstones, siltstones, with well-developed coals, and minor lithic sandstones overlying   |
|                | the Swansea Member. There are two coal seams that were were worked from Abergelli Colliery, these are known as the Swanse Four Feet and Craigola. |
|                | Across the Project Site there are a number of historical ground working features,   |
|                | including spoil / refuse heaps, a colliery and old gravel pits. The workings have included  |
|                | the production of sand and gravel, and the working of coal seams underground.   |
| Hydrogeology & | The superficial deposits that cover the Project Site are classified as unproductive strata  |
| Hydrology      | associated with the glacial till, and a Secondary A Aquifer associated with the   |
| Trydrology     | glaciofluvial deposits. The bedrock is classified as a Secondary A Aquifer. The   |
|                | Environment Agency website and GroundSure Report indicate that the Project Site is  |
|                | not situated within a groundwater Source Protection Zone (SPZ), with no SPZs are  |
|                | located within 1km of the Project Site. The groundwater vulnerability has a varying   |
|                | classification, from low to high leaching potential, dependent on the geology across the  |
|                | Project Site.   |
|                | There is one licenced groundwater abstraction on the Project Site, associated with  |
|                | Abergelli Farm, used for general farming and domestic purposes. This is not currently   |
|                | used. There are an additional 16No. groundwater abstraction licences within 2km of  |
|                | the Project Site.   |
|                | The closest potable water supply is from the Lower Lliw Reservoir approximately 1km   |
|                | north of the Project Site.  |
|                | There are numerous drainage ditches, springs and small ponds present across the   |
|                | Project Site that drain into the Afon Llan. The Afon Llan flows in a south westerly   |
|                | direction to the west and south of the Project Site, discharging into the Loughor Estuary.  |
|                | Another watercourse, the Afon Lliw located 1.3km north of the Project Site also   |
|                | discharges into the Loughor Estuary.  |
|                | A pollution incident dated May 2007 relating to inert materials and wastes close to the   |
|                | northern entrance to the Project Site caused significant impact to the water  |
|                | environment.  |
|                |   |





| Conceptual Site          | The identified potential sources include the waste in the landfill and landfill extension,  |
|--------------------------|---|
| Model                    | Abergelli Colliery, and water treatment processes that took place where the landfill is now located, and landfill and ground gases associated with these historic land uses. Other possible on Project Site sources include possible fertilisers from agricultural practises, and leaks and spills from associated machinery. Human receptors have been identified based on the proposed current and end land use including residents of dwellings within the vicinity of the Project Site, site workers and construction workers during the Project construction works. Controlled water receptors have been identified as both the bedrock and superficial deposits that underlie the Project Site that are classified as Secondary A aquifers. The abstraction well on the Project Site for Abergelli Farm, and the various surface water bodies across the Project Site are also considered controlled water receptors. Potential pathways have been identified from these sources to residents, workers and controlled waters. |
| Conclusions and          | In order to provide further information to assess the potential 'pollutant linkages', a   |
| Recommendations          | ground investigation will be carried out at detailed design stage to assess soil, ground gas and groundwater conditions at the Project Site.  |
|                          | Analytical data will then be used to undertake risk assessments to assess potential risks to human health and controlled waters. The ground investigation will obtain information on ground instability hazards, including the depth and extent of any peat horizons. It will also focus on potential underground mine workings using mine abandonment plans. This information will then be used to complete a mining risk  |
|                          | assessment and interpretative geotechnical report.  |
| This sheet is intended a | s a summary only  |



**SECTION 1** 

**INTRODUCTION** 



### 1 INTRODUCTION

### 1.1 Context and Objectives

- 1.1.1 Abergelli Power Ltd (APL) (the 'Client') has commissioned Parsons Brinckerhoff Ltd to undertake a Preliminary Geo-Environmental Risk Assessment (desk study) of the Abergelli Power Project (the Project Site). The Project Site location is shown on Figure 1.1.
- 1.1.2 The principal objectives of the study were:
  - To provide baseline information for the Geology, Ground Conditions and Hydrogeology Chapter 10 of the Environmental Statement (ES) for the Project Site;
  - To detail the geo-environmental setting of the Project Site to include the surrounding land use, historical land use, geology, hydrology and hydrogeology;
  - To assess the potential for pollutant linkages based on current and future land uses: and
  - To provide recommendations for further investigations or assessments if considered necessary.
- 1.1.3 The report has been completed to reflect the requirements of Preliminary Risk Assessments as outlined in Environment Agency document CLR11 'Model Procedures for the Management of Land Contamination'; which emphasises the use of conceptual site models and the identification of "source-pathway-receptor" pollutant linkages.
- 1.1.4 In addition the key geo-environmental characteristics of the Project Site and the surrounding area will be described to identify any key constraints, resources and assets that could affect or be affected by the Project.
- 1.1.5 The Project comprises:
  - A new Power Generation Plant in the form of a Simple Cycle Gas Turbine (SCGT) peaking power generating station fuelled by natural gas and capable of providing a rated electrical output of up to 299 Megawatts (MW) comprising:
    - The Generating Equipment including between one and five Gas Turbine Generators and Balance of Plant which are located on the "Generating Equipment Site";
    - A new Access Road to the Generating Equipment Site from the B4489, formed by upgrading an existing Access Road between the B4489 junction and the Swansea North Substation and



- constructing a new section of Access Road from the Swansea North Substation to the Generating Equipment site; and
- During construction and decommissioning, a temporary construction compound (the Laydown Area).
- A new Gas Connection to bring natural gas to the Generating Equipment from the National Transmission System; and
- A new Electrical Connection to export power from the Generating Equipment to the National Grid Electricity Transmission System (NGETS).
- 1.1.6 The Generating Equipment, Access Road, and Laydown Area are together known as the Power Generation Plant, and are located within the Power Generation Plant Site.
- 1.1.7 The current proposed layout of the scheme is presented on Figure 1.2.

### 1.2 Scope of Work

- 1.2.1 The preliminary geo-environmental risk assessment collates and presents factual information available for the Project Site from the following sources:
  - GroundSure Geolnsight Report (geological conditions, hazards and mining hazards) (GS-1587648 29th July 2014) (Appendix A);
  - GroundSure EnviroInsight Report (groundwater vulnerability, landfills and pollution incident records, and sensitive land uses within the vicinity of the Project) (GS-158647, 29th July 2014) (Appendix A),
  - The GroundSure MapInsight Report (historical maps) (GS-1587646 30th July 2014) (Appendix A),
  - Soilscape Website (Cranfield University) via http://www.landis.org.uk//soilscapes (viewed 30th July 2014);
  - Review of available BGS information via http://mapapps2.bgs.ac.uk/geoindex/home.html (viewed 30th July 2014) (Selected information reproduced in Appendix B);
  - Review of Geological Survey Maps, scale 1:10,560 Glamorgan Sheet SN60SE, 1964, 1971, and Provisional Edition Sheet SN60SW 1961;
  - Review of EA Groundwater Vulnerability 1:10,000 Map Series, West Glamorgan, Sheet 35, 1996.



- Review of EA, 'What's in your backyard?' Website: http://maps.environment-agency.gov.uk/wiyby/ (viewed 30th July 2014);
- Consultation information from National Resources Wales (NRW);
- Consultation information from the City and County of Swansea Council (CCS);
- Coal Authority Mining Report, 1st August 2014 (Appendix C); and
- Google Earth Pro imagery (viewed 28<sup>th</sup> November 2014).
- 1.2.2 Parsons Brinckerhoff has reviewed planning applications submitted within the vicinity of the Project Site, but they did not include any information not already publicly available.
- 1.2.3 This report includes a review of the geological, hydrological and hydrogeological information, recorded mining/mineral extraction activities, pollution incidents, landfills, pollution controls, hazardous substance registrations and the historical development of the Project Site and up to a 1 km radius surrounding the Project Site.
- 1.2.4 Based on this information, a preliminary conceptual site model has been produced through a tabular description of identified potential sources of contamination, pathways for contaminant migration and potential receptors for current and proposed future end uses.
- 1.2.5 The conceptual site model identifies complete source pathway receptor pollutant linkages that could affect human health and controlled waters, and highlights gaps and uncertainties in the available information.

### 1.3 Limitations

- 1.3.1 Parsons Brinckerhoff has prepared this report for the sole use of the Client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of Parsons Brinckerhoff. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.
- 1.3.2 The records search was limited to information available in a confidential manner from the Client, GroundSure Ltd and public sources including regulatory authorities.



1.3.3 Unless Parsons Brinckerhoff has actual knowledge to the contrary, information obtained from interviews or provided to Parsons Brinckerhoff by site personnel and other information sources has been assumed to be correct. Parsons Brinckerhoff does not assume any liability for misrepresentation of information or for items not visible, accessible, or present on the subject Project Site at the time of the site reconnaissance.

### 1.4 Business Management System Control

1.4.1 Parsons Brinckerhoff operates under a Business Management System. The Management System comprises the processes necessary for effective operation of the business and is designed to meet the requirements of BS OHSAS 18001:2007, ISO 9001:2008 and ISO 14001:2004.

### Safety Management

1.4.2 Site activities, as well as office based work, has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System – Safety Management Series which operates within the standard outlined in BS OHSAS 18001:2007 (Certificate of Registration: 81259-2010-AHSO-GBR-UKAS).

### **Quality Control**

1.4.3 Work on this project and the preparation of this report has been undertaken in accordance with PB's Integrated Management System – Quality Control Series which operates within the standard outlined in ISO 9001:2008 (Certificate registration No 81255-2010-AQ-GBR-UKAS).

### **Environmental Management**

1.4.4 The design and implementation of this project has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System - Environmental Management System Series that has been developed in line with ISO 14001:2004 (Certificate registration No. 81257-2010-AE-GBR-UKAS).



SECTION 2

PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT



### 2 PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT

### 2.1 Site Referencing Information

2.1.1 Site referencing information is provided within Table 2.1 Error! Reference source not found. and the Project Site location is illustrated on Figure 1.1.

**Table 2.1: Site Description** 

| Name of Site                 | Abergelli Power Project   |
|------------------------------|---|
| Site Location                | Abergelli Farm.   |
|                              | The Project Site is 2 km north of junction 46 of the M4, approximately 1.4 km south east of Felindre, 1.2 km west of Llwyncelyn and 1.6 km north of Llangyfelach. |
| Size and Shape of Site       | The site is an irregular shape in plan with an approximate total area of 30 ha.   |
| NGR / Latitude and Longitude | Approximate centre of the site at: NGR 265284, 201431;  |
|                              | Latitude: 51°41'52.92 Longitude: 3°57'12.95   |
| Current Site Use             | The land use is predominantly agricultural, used for sheep and horse grazing.   |
|                              | Within the Project Site there is a small historic landfill and the remains of Abergelli Colliery, both of which are located north of Abergelli Farmhouse.         |

### 2.1 Site Setting and Surrounding Environment

2.1.1 The site setting and surrounding environment is described in Table 2.2.

**Table 2.2 Site Setting and Surrounding Environment** 

| Site Access                       | Site access will commence from the west via the B4489 utilising the existing National Grid road and then extends (via current agricultural land) to the west of the Generating Equipment Site and along the southern boundary of the Gas Compressor Station.  |
|-----------------------------------|---|
| Ground Cover                      | Ground cover at the Power Generation Plant Site primarily comprises fields used for grazing, bounded by drainage ditches, fencing and hedgerows. The Generating Equipment Site and Laydown Area are divided into two areas by a soft surface horse training track known as 'the gallops' with a block of broadleaved woodland to the east classified as Ancient Woodland and a Site of Importance for Nature Conservation (SINC). |
| Site<br>Topography &<br>Elevation | The land within the proposed Generating Equipment Site is at approximately 90 m above Ordnance Datum (AOD) and gently slopes down towards the south.  |



| Surrounding<br>Area                | The area surrounding the Project Site is, at present, predominantly rural in character, although there is a park and ride facility to the south and a substantial amount of utilities infrastructure in the area, some of which cross the Project Sit   |  |  |
|------------------------------------|---|--|--|
|                                    | A Gas National Transmission System Pipeline (Feeder 28), and a Welsh Water Main pipeline cross the Project Site and there is also a network of electricity pylons and overhead lines which lead to and from National Grid's Swansea North substation. Furthermore a Water Treatment Works is located to the north west while the Cefn Betingau Solar Park is located to the east of Project Site. |  |  |
|                                    | The closest residential dwellings are detailed in Chapter 3, the closest 440m south of the Generating Equipment Site, and Abergelli Farmhouse approximately 620m north of the Generating Equipment Site.  |  |  |
| Environmentally<br>Sensitive Areas | A block of broadleaved woodland to the east of the existing Generating Equipment Site is classified as Ancient Woodland and a Site of Importance for Nature Conservation (SINC). Further Ancient Woodland is also present to the south of the National Grid Access Road.  |  |  |

### 2.2 Geological Information

- 2.2.1 The geology of the Project Site has been reviewed with reference to the following sources:
  - BGS Digital Geological map of Great Britain at 1:50,000 scale www.bgs.ac.uk/geoindex; viewed on 30<sup>th</sup> July 2014;
  - The GroundSure GeoInsight Report (geological conditions, hazards and mining hazards) (GS-1587648 29<sup>th</sup> July 2014), Appendix A;
  - BGS archive borehole log: SN60SE24, Appendix B;
  - Review of Geological Survey Maps, scale 1:10,560 Glamorgan Sheet SN60SE, 1964, 1971, and Provisional Edition Sheet SN60SW 1961; and
  - Coal Authority Mining Report, Appendix C.
- 2.2.2 On the basis of the above, the ground conditions beneath the Project Site are likely to comprise the following:

### Made Ground

2.2.3 Made Ground is not indicated on BGS records. It is only likely to be present in areas where there are structures and hardstanding associated with previous development, i.e. the landfill and surrounding the colliery farm buildings within the vicinity of the Project Site.



2.2.4 If present, the stratum would be of unknown provenance and could include a range of materials such as colliery spoil.

### Superficial Deposits

- 2.2.5 The superficial deposits located across the Project Site comprise predominantly of glacial till (a diamicton; predominantly clay) and glaciofluvial deposits of sand and gravel. There are also pockets of alluvium and peat present locally within the Project Site boundary. The mapped peat is located north west of Abergelli Farm, and within the north eastern corner of the Generating Equipment Site and Laydown Area, see the excerpt of a superficial geology map in Appendix A. The likely permeability of the superficial deposits range from very low (within the clays) to very high (within the sand and gravel) across the Project Site.
- 2.2.6 There are records of three boreholes formed within the Project Site boundary held by the British Geological Survey (BGS); only one of these is currently available for viewing online<sup>1</sup> and presented in Appendix B. The record has a reference of SN60SE24 and is located east of Abergelli Farm (NGR 265200, 201600), in an area mapped as being underlain by Devensian glaciofluvial deposits of sand and gravel.
- 2.2.7 The superficial deposits recorded on the log comprise yellow brown gravelly clay down to 6 metres below ground level (m bgl), overlying a grey brown clayey gravelly sand, clayey sand and sandy clay down to 15.8 m bgl of likely glaciofluvial deposits that is underlain by firm yellow clay becoming stiff grey gravelly clay that is likely to be glacial till; proven to a maximum depth of 16.8 m bgl. Traces of coal were identified at 10.7 m bgl within the clayey sand.

### Bedrock Geology

- 2.2.8 The bedrock geology underlying the Project Site consists of the Grovesend Formation from the Westphalian stage of the Carboniferous period, comprising "argillaceous mudstones and siltstones, with well-developed coals, and minor lithic sandstones". This is the youngest unit in the South Wales coalfields. The lower boundary "is placed at the base of the Swansea Four Fee Coal of the Swansea district" "where it overlies mudstone seatearth" at the top of the Swansea Member.
- 2.2.9 The north eastern corner of the Project Site consists of the Swansea Member, also from the Westphalian stage, comprising "green-grey pennant sandstone, with thin mudstone / siltstone and seat earth interbeds and mainly thin coals". The lower boundary of the Swansea

<sup>&</sup>lt;sup>1</sup>http://scans.bgs.ac.uk/sobi\_scans/boreholes/256144/images/10509869.html

http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=GDB



Member "is placed at the base of the Golden Seam (Swansea Three Feet or Graigola) (Woodland et al., 1957), where the coal rests on mudstone seatearth within the Pennant Sandstone Formation". This geological formation is overlain conformably by the Grovesend Formation.

- 2.2.10 There are many faults identified within the region of the Project Site. The faults predominantly run from north west to south east, with the downthrow (displacement) noted to the west-south west. There is no information of the dip angle on the geological maps.
- 2.2.11 There was a 'Slant' identified at Abergelli Colliery, which provided access to both the Graigola and Swansea Four feet coal seams. At a slightly higher latitude than Abergelli Colliery the Swansea Four Feet and Brynwhilach Two Feet seams are identified with fault offsetting both seams.
- 2.2.12 The permeability of the bedrock geology ranges from low to high, depending on the degree of fracturing. There are nine faults across the Project Site, two of which have been observed, according to BGS records, and the others inferred either as a normal fault or along a coal seam. An excerpt from the geology map is provided in Appendix A.

### Soils and Agriculture

- 2.2.13 There are two different soil classification areas across the Project Site. The predominant soil classification is described as "slowly permeable." wet, very acidic upland soils with a peaty surface". The soils are described as "low fertility" and land cover is described as "moorland rough grazing and forestry". The precipitation "drains to the stream network". It is noted in the source information that overgrazing of this unit could lead to accelerated run-off and soil erosion<sup>3</sup>.
- 2.2.14 Through the centre and north eastern section of the Project Site, the soils are described as "freely draining, slightly acid loamy soils". The soils are of "low fertility", with "arable and grassland" land cover and precipitation "drains to local groundwater and rivers". There is potential for groundwater contamination with these soils, comprising nitrate, siltation and nutrient enrichment of streams from soil erosion.
- 2.2.15 The agricultural land classification for the land within and surrounding the Project Site is grade 4 ("poor quality agricultural land")<sup>4</sup> "with severe limitations which significantly restricts the range of crops and / or level

<sup>&</sup>lt;sup>3</sup> http://www.landis.org.uk/soilscapes/index.cfm

<sup>&</sup>lt;sup>4</sup> Ministry of Agriculture, Fisheries and Food Welsh Office Agricultural Department (1975) Agricultural Land Classification of England and Wales Map, Scale 1:2,000,000.



of yields, mainly suited to grass with occasional arable crops"<sup>5</sup>. The Project Site is known to be utilised as improved grazing for sheep and horses, with small areas of marshy grassland and woodland copses interspersing the improved grassland to the north and east. The importance of this resource is considered low.

#### **Ground Workings and Mineral Resources**

- 2.2.16 According to the GroundSure GeoInsight Report (Appendix A), based on historical mapping there have been a number of historical surface ground working features on the Project Site. These comprise refuse heaps, a colliery, old gravel pits, unspecified pits and a pond.
- 2.2.17 The GroundSure Geolnsight Report has identified a gravel pit at Abergelli Fach that produced sand and gravel. There are also a number of surface mineral workings, including sand and gravel, sand, sandstone and one underground deep coal working within 1km of the Project Site. All operations have a "ceased" status (i.e. they are no longer active workings).
- 2.2.18 The Project Site is not within an area of tin or clay mining, or brine or gypsum extraction.

#### **Underground Coal Mining**

- 2.2.19 A review of the GroundSure GeoInsight Report identified Abergelli Colliery which is located adjacent to the Project Site approximately 500 m north of Abergelli Farm. A coal pit, shaft, colliery, and mine spoil heap have all been identified on historical mapping at locations extending to between 480 m and 1 km from the Project Site boundary (i.e. off-Project Site).
- 2.2.20 Further details on Abergelli Colliery are presented in the Coal Authority Mining Report (Appendix C) and are summarised below.
- 2.2.21 The Project Site is in the likely zone of influence from workings in three seams of coal, from shallow to a depth of 380 m. The Coal Mining Report indicates the coal seams were last worked in 1986<sup>6</sup>.
- 2.2.22 There are two mine entries close to the Project Site, one of which is located in the vicinity of Abergelli Colliery (north of Abergelli Fach Farm). The other is located south of the National Grid's 'Swansea North' electrical substation at NGR 264970, 200800. There is no record of any treatment to the mine entries.

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<sup>&</sup>lt;sup>5</sup> Ministry of Agriculture, Fisheries and Food Welsh Office Agricultural Department (October 1988) Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land.
<sup>6</sup> Non-Residential Coal Authority Report, 01/08/14



2.2.23 The Project Site is currently not in an area for which the Coal Authority is determining to grant a licence to remove coal using underground methods, where a licence has been granted or in an area that is likely to be affected at the surface from any planned future workings. However, reserves of coal exist and could be worked in the future.

#### **Opencast Coal Mining**

2.2.24 The Coal Authority report states that the Project Site is not within the boundary of an opencast site from which coal has been removed by opencast methods, and does not lie within 200 m of a boundary of an opencast site. It also states that the Project Site is not within 800 m of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods, or for which a licence to remove coal has been granted.

#### Ground Stability / Subsidence

- 2.2.25 The Coal Authority Mining Report (Appendix C) indicates that no notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.
- 2.2.26 Abergelli Farm has been subject to remedial works, by or on behalf of the Coal Authority under its emergency surface hazard call out procedures. No further information was provided, however two damage notices or claims for alleged subsidence damage were made in June 1995 and November 1996.
- 2.2.27 Geological hazards at the site identified in the GroundSure Geolnsight Report are detailed within Table 2.3.

Table 2.3 Geological Hazards

| Stability     | Collapsible ground Negligible to very low |  |  |  |
|---------------|---|--|--|--|
|               | Compressible ground                       | Negligible to <u>high</u>  |  |  |
|               | Ground dissolution                        | Null to negligible   |  |  |
|               | Landslide                                 | Very low to low  |  |  |
|               | Running sand                              | Negligible to low  |  |  |
|               | Shrinking or Swelling Clay                | Negligible to very low   |  |  |
| Radon hazards |   | The Project Site is in a Radon Affected Area, as between 3-5% of properties are above the Action Level. Radon protective measures may be necessary in the Project. |  |  |



- 2.2.28 The high hazard associated with compressible ground is mapped and presented within the GroundSure GeoInsight Report and is presumably associated with the peat. One of the high hazard areas is situated in the location of the Generating Equipment Site, along the eastern boundary, and the other to the west and north west of Abergelli Farm.
- 2.2.29 Consideration of this hazard will be made in the design of any ground works (including site investigation, earthworks, de-watering) and foundation design.
- 2.3 Hydrogeological Information
- 2.3.1 The hydrogeology of the site has been reviewed with reference to the following sources:
  - GroundSure EnviroInsight report dated 29<sup>th</sup> July 2014 (Appendix A); and
  - Environment Agency Website 'What's in your backyard' (<a href="http://www.environment-agency.gov.uk/">http://www.environment-agency.gov.uk/</a>) 30<sup>th</sup> July 2014.
- 2.3.2 The aquifer classifications associated with the superficial geology comprise "unproductive strata" for the glacial till and "secondary A aquifer" for the glaciofluvial deposits.
- 2.3.3 The bedrock geology has been classified as a Secondary A aquifer.
- 2.3.4 Unproductive strata are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
- 2.3.5 Secondary A aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
- 2.3.6 The BGS archived borehole log identified a water strike at 10.7m bgl (ground level was 113m AOD). However, there was no information regarding the resting water level in this borehole.
- 2.3.7 The GroundSure Envirolnsight Report has identified areas susceptible to groundwater flooding within 50 m of the Project Site. This is associated with superficial deposits, where shallow unconsolidated sedimentary aquifers overlie unproductive strata. The susceptibility to groundwater flooding is potentially at the surface, which means that given the geological conditions in the area, groundwater flooding hazard should be considered in all land-use planning decisions. The



BGS confidence rating of this groundwater flooding is classified as 'high'.

2.3.8 Groundwater quality in the study area has been assessed against the objectives of the Water Framework Directive (WFD). According to the EA website the current quantitative quality is good and is predicted to remain so in 2015. The current chemical quality is poor and expected to remain so in 2015.

#### **Licenced Groundwater Abstractions**

- 2.3.9 The GroundSure Envirolnsight Report has identified one groundwater abstraction licence on the Project Site, associated with Abergelli Farm. The licence number is 22/59/4/0027 with groundwater used for general farming and domestic purposes. The version start date was 01/02/1993, as there is no end date, it has been assumed to be still active.
- 2.3.10 There are an additional 16 No. groundwater abstraction licences within 2 km of the Project Site all used for general farming and domestic purposes. The location of licensed groundwater abstractions within the vicinity of the site are presented in Figure 10.1 of the Environmental Statement.

#### **Groundwater Vulnerability**

- 2.3.11 The Project Site does not lie within a groundwater Source Protection Zone (SPZ).
- 2.3.12 Groundwater vulnerability has been identified from the GroundSure Envirolnsight Report with a varying classification across the Project Site; i.e. from low to high leaching potential.
- 2.3.13 Low soil vulnerability is described as soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants. High soil vulnerability is described as coarse or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

#### Discharge Consents to Groundwater

- 2.3.14 There have been three discharge consents on the Project Site, all now expired or revoked:
  - Discharging to land associated with Abergelli Farm in 1987;



- The National Grid Gas Compressor Station, discharging sewage to an unnamed land drain, effective between 2007 and 2010; and
- Trade discharges (site drainage) to the Afon Llan, revoked in 2011.
- 2.3.15 Further details of other discharge consents within 500 m of the Project Site boundary is presented in the GroundSure Envirolnsight Report.
- 2.4 Hydrological and Drainage Information
- 2.4.1 There are a number of small watercourses within the vicinity of the Project Site that drain to the Afon Llan, along with a number of springs and small ponds.
- 2.4.2 The Afon Llan flows in a south westerly direction to the west and south of the Project Site, discharging into the Loughor Estuary. In addition, another watercourse, the Afon Lliw is located approximately 1.3 km north of the Project Site and also discharges into the Loughor Estuary.
- 2.4.3 Artificial water features include the Felindre water treatment works with covered reservoir situated immediately north of the Project Site, and the Lower Lliw reservoir situated approximately 1.1 km north of the Project Site.
- 2.4.4 The closest potable water supply is from the Lower Lliw Reservoir approximately 1 km north west of the Project Site. The original start date of abstraction was 09/08/1989.

#### Flood Risk

- 2.4.5 The GroundSure EnviroInsight Report indicates that the southern tip of the scoping boundary is located in an area at risk from flooding with an estimated annual probability of between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers (i.e. Flood Zone 2 and 3). However, the Project Site is not located within an area at risk from flooding.
- 2.4.6 According to the British Geological Survey (BGS) there are areas within 50 m of the Project Site that are susceptible to groundwater flooding. This is associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits flooding).

#### Licensed Surface Water Abstractions

2.4.7 According to the GroundSure EnviroInsight Report there are no surface water abstractions within the Project Site boundary. However, there is one licensed surface water abstraction within 825 m east of the Project Site used for "lake and pond throughflow", sourced from the Afon Llan.



Discharge Consents to Surface Water

2.5 There are no active discharge consents to surface water; however there are seven consents which have either expired or have been surrendered.

#### Recorded Pollution Incidents

2.5.2 According to the GroundSure Envirolnsight Report there have been three pollution incidents within the Project Site. Two were related to atmospheric pollutants and effects, causing a minor impact to air in 2002 situated in the National Grid Gas Plc. The third was related to inert materials and wastes described as soils and clay causing a significant impact to the water environment. The incident was dated May 2007 and located on the northern boundary of the Project Site.

#### 2.6 Recorded Landfill Sites

- 2.6.1 The GroundSure EnviroInsight Report and Environmental Agency data indicate one authorised landfill and an adjacent historic "Landfill Extension" located within the Project Site boundary, presented in Figure 10.1. This is named the Abergelli Fach Farm landfill and its current status is 'closed'. The total void space was calculated at 75,000m³, with a total tonnage of 142,500t. The landfill was only able to accept non-biodegradable wastes.
- 2.6.2 The Landfill Extension is reported to have accepted inert waste. The planning application for this extension was granted in 1997. National Resources Wales (NRW) have provided the Working Plan and associated drawings for the landfill which were dated March 1994 (Appendix D). The total void space was calculated at 99,898m³, with a total tonnage of 179,816t.
- 2.6.3 The Working Plan described the land as low lying, and poorly drained. Approximately three quarters of the landfill area was covered by a mine soil dump from Abergelli Colliery. This mine waste was removed leaving a layer of well compacted mine waste over the majority of the landfill area. The area of ground that was covered by the mine spoil was used for drying out of water treatment sludge (aluminium sulphate) though ceased when the landfill became operational. No further information on this operation is known.

#### 2.7 Recorded Animal Burial Grounds

2.7.1 Information obtained from CCS indicates there was no local cull of animals in Swansea, Neath Port Talbot or Carmarthenshire during the



Foot and Mouth outbreak in 2001. No mass burial of animals have been recorded at the Project Site.

#### 2.8 Pollution Controls

2.8.1 There is one Integrated Pollution Prevention and Control (IPPC) permit located within the Project Site boundary. This is for the Gas Compressor Station for the combustion of any fuel held by National Grid Gas Plc.

#### 2.9 Sensitive Land Uses

2.9.1 There are two areas of ancient woodland within the Project Site. One area of ancient woodland is located north east of the Generating Equipment Site and another to the south of the Access Road. Further detail is provided within the Ecology Chapter of the Environmental Statement (Chapter 8).

#### 2.10 Historical Development & Potentially Contaminative Land Uses

2.10.1 Historical maps are provided in the GroundSure MapInsight Report in Appendix A, Google Earth was also used to view satellite imagery of more recent land uses. The historic development of the Project Site is summarised within Table 2.4.

**Table 2.4 Historical Map Summary** 

| Dates/Sources                                     | On Project Site   | Off Project Site   |
|---|---|--|
| 1876-1878<br>1:10,560<br>1:2,500                  | The Project Site is predominantly agricultural fields and tracks, with areas of woodland and marshland.  There are a number of buildings associated with Abergelli Fach and Abergelli Fawr in the central region of the Project Site, and Bryn Mawr along the north western corner of the Project Site. | The land is predominantly agricultural.  A lime kiln is identified to the south east of the Project Site; west of the Maes-eglwys development.   |
| 1896 – 1897<br>1:10,560<br>1898 – 1899<br>1:2,500 | A gravel pit is identified to the west of Abergelli Fach. The woodland in the south of the Project Site has now been identified as Abergelli Fach Plantation and Lletty Morfil Plantation.  | An old gravel pit is identified to the south of the Project Site that was not previously identified.  An old tramway is identified to the north of the Project Site, which was not previously identified on the older map. |



| Dates/Sources                                    | On Project Site   | Off Project Site   |
|--|---|--|
| 1913-1914<br>1:10,560<br>1913-1918<br>1:2,500    | The gravel pit is now identified as old. Rises and streams are now indicated on the map.  | Two old quarries have been identified. One approximately 500 m west and one approximately 750 m north west of the Project Site.  A tank is identified next to a spring just off Project Site, north of Abergelli Fach Plantation.  The limekiln previously identified is now labelled as old limekiln. |
| 1921<br>1:10,560                                 | No significant changes.   | No significant changes.  |
| 1935-1938<br>1:10,560<br>1935 1:2,500            | Abergelli Colliery, associated buildings, engine houses, railway sidings, slant (loading bay) and tank are identified on the map, north of Abergelli Fach.  | No significant changes.  |
| 1948<br>1:10,560                                 | The buildings associated with Abergelli Colliery have changed slightly but still appear to be operational.  | No significant changes.  |
| 1964<br>1:10,560<br>1960 1:2,500<br>1958 1:2,500 | The colliery is now identified as disused.  A spoil heap/tip adjacent to the colliery is identified to the north west of the mine with a routeway into the centre of the tip. Railway sidings tracks run through the colliery and ends at the edge of the spoil heap/tip. | The tank next to Abergelli Plantation and the previously identified spring are no longer identified.  The old tramway is now labelled as dismantled.   |
| 1975<br>1:10,000<br>1974 1:2,500                 | The railway sidings and one building associated with the Abergelli Colliery are no longer identified.  Electricity pylons are identified across the site, towards the central section of the Project Site, running in a north east to south west direction.               | A tip is labelled approximately 300 m to the south of the Project Site.  |



| Dates/Sources   | On Project Site   | Off Project Site   |
|---|---|--|
| 1991<br>1:10,000<br>1989-1:2,500                            | An electrical substation is present in the south western corner of the Project Site, adjacent to Lletty-morfil Plantation.  | A gas valve compound is shown adjacent to the north western Project Site boundary. Beyond the gas valve compound are covered |
| 1989-1992   | A large warehouse building is now present in this area.   | reservoirs and associated water treatment works.   |
| 1992-1993<br>1:2,500<br>1999 Google<br>Earth Pro<br>imagery | Abergelli Fach is now labelled as Abergelli Farm and looks to have been redeveloped.  Abergelli Fawr is now labelled as ruins.  From the earliest imagery available on Google Earth Pro the old gravel pit does not look to be backfilled. The landfill looks to be backfilled and the slope graded. The majority of the landfill extension is vegetated. | The tip to the south of the Project Site is no longer identified.  |
| 2002<br>1:10,000<br>2002 Google<br>Earth Pro<br>imagery     | An embankment previously identified as a spoil heap or similar is present to the north west of the former mine. Two buildings associated with the colliery remain.  The landfill is becoming vegetated. The northern part of the landfill extension looks to be currently worked  | No significant changes.  |
| 2006 and 2008<br>Google Earth<br>Pro imagery                | The eastern part of the landfill is under hardstanding for units and vehicles associated with current landfilling operations. There is a large trench through the landfill extension running south east to north west.  | No significant changes.  |
| 2010<br>1:10,000<br>2010 Google<br>Earth Pro<br>imagery     | The previous track across the site to Abergelli Farm is now developed into a roadway.  Vegetation is developing on the eastern part of the old gravel pit. The landfills no longer look operational. There are no vehicles or units remaining, although the trench is still present. Vegetation is maturing.  | No significant changes.  |



| Dates/Sources                       | On Project Site   | Off Project Site        |
|-------------------------------------|---|-------------------------|
| 2013<br>Google Earth<br>Pro imagery | Vegetation is becoming well developed on the eastern part of the old gravel pit and over the landfill and landfill extension areas. | No significant changes. |

#### 2.11 Potentially Contaminative Land Uses

2.11.1 Table 2.5 and Figure 10.1 of the Environmental Statement presents potentially contaminative land uses identified on-Project Site and within 500m of the Project Site boundaries. It also details contaminant groups potentially present as a result of these land uses.

**Table 2.5 Potentially Contaminative Land Uses** 

| Process/ Land use   | Location   | Contaminant Groups Potentially Present on-site  |  |
|---|--|---|--|
| Abergelli Colliery,<br>engine houses,<br>tanks, railway<br>sidings/conveyor<br>belt and spoil<br>heap             | North of Abergelli Fach<br>(Farm) on the Project<br>Site.  | Metals and metalloids, polycyclic aromatic hydrocarbons (PAHs), hydrocarbons, lubricating oils, sulphates, asbestos, ground gas including coal bed methane. |  |
| Drying out of water treatment sludges (aluminium sulphate)  Abergelli Colliery and location of historic landfill. |  | Aluminium sulphate and heavy metals   |  |
| Historic Landfill<br>and Landfill<br>Extension  | North west of Abergelli<br>Colliery (north of<br>Abergelli Fach) on the<br>Project Site.   | Hydrocarbons, asbestos and unknown contaminants associated with the waste, landfill gas.  |  |
| Gas Compressor<br>Station and<br>electricity pylons   | Western part of the<br>Project Site – Operated<br>by National Grid Gas<br>Plc. Electricity pylons<br>traverse across the<br>Project Site | Polychlorinated biphenyls (PCB's), other transformer oils and solvents  |  |
| Agricultural land and plantations   | Across the majority of site including plantations to the south of the Project Site.  | Fertilisers, hydrocarbons and lubricating oils associated with machinery.   |  |

#### 2.12 Sources of Contamination

2.12.1 The most likely sources of contamination for the Project Site are:



- Contamination associated with the historic landfill and landfill extension;
- Contamination associated with the historic colliery, including aluminium sulphate sludge; and
- Contamination from agricultural land use including leaks/spills from machinery.

#### 2.13 Preliminary Conceptual Site Model

- 2.13.1 On the basis of the information summarised above, a preliminary conceptual site model (CSM) has been developed for the Project Site. The CSM identifies potential contaminants, receptors (both on and offsite) and exposure pathways that may be present. The identification of such potential "pollutant linkages" is a key aspect of the evaluation of potentially contaminated land.
- 2.13.2 An approach based on CIRIA report C552 has been adopted within this report. For each of the pollutant linkages, an estimate is made of;
  - The potential severity of the risk; and
  - The likelihood of the risk occurring.
- 2.13.3 Table 2.6 presents the classification of the severity of the risk.

Table 2.6: Severity of Risk

| Severe | Acute risks to human health;   |
|--------|--|
| J      | Major pollution of controlled waters(watercourses or groundwater)  |
| Medium | Chronic (long-term) risk to human health; Pollution of sensitive controlled waters (surface waters or aquifers)                  |
| Minor  | Requirement for protective equipment during site works to migrate health effects;  Damage to non-sensitive ecosystems or species |

2.13.4 The probability of the risk occurring is classified according to criteria given in Table 2.7.

Table 2.7: Probability of Risk Occurring

| High Likelihood | Pollutant linkage may be present, and risk is almost certain to occur in the long term, or there is evidence of harm to the receptor. |
|-----------------|---|
| Likely          | Pollutant linkage may be present, and it is probable that the   |



|                | risk will occur over the long term.   |  |  |  |
|----------------|---|--|--|--|
| Low Likelihood | Pollutant linkage may be present and there is a possibility of the risk occurring, although there is no certainty that it will do so. |  |  |  |
| Unlikely       | Pollutant linkage may be present but the circumstances under which harm would occur are improbable.                                   |  |  |  |

2.13.5 An overall evaluation of the level of risk is gained from a comparison of the severity and probability as presented in Table 2.8.

**Table 2.8: Comparison of Severity and Probability** 

|          |                    | Severity            |                       |                     |  |  |
|----------|--------------------|---------------------|-----------------------|---------------------|--|--|
|          |                    | Severe              | Medium                | Minor               |  |  |
| lity     | High<br>Likelihood | Very high risk      | High Risk             | Moderate / low risk |  |  |
| <u>ত</u> | Likely             | High risk           | Moderate risk         | Low risk            |  |  |
| Proba    | Low<br>Likelihood  | Moderate risk       | Moderate/ low<br>risk | Very low risk       |  |  |
|          | Unlikely           | Moderate / low risk | Low risk              | Very low risk       |  |  |

- 2.13.6 Potential "pollutant linkages" associated with the Project are detailed within Table 2.9.
- 2.13.7 It should be noted that the identification of potential "pollutant linkages" does not indicate that they are significant in any way or that the Project Site is unsuitable for its current/proposed use. It does however act as a way of focusing future data collection at the Project Site and identifying any key potential risks associated with the Project Site.
- 2.13.8 The risks to construction workers associated with the Project Site are considered negligible with embedded mitigation taken into consideration, such as PPE and following best practice procedures.
- 2.13.9 The current conservative assessment is based on a desk study and will be confirmed through intrusive investigation prior to detailed design.
- 2.13.10 It should also be noted that potential risks associated with ground instability are not incorporated into the assessment.



Table 2.9 Potential Pollutant Linkages Associated with the Future Development and their Preliminary Risk Rating

| Source  | Pathway   | Receptor   | Scale                                     | Risk | Comment  |
|---|---|--|---|------|--|
| Waste within the historic landfill and landfill extension  (Including the process of drying out water treatment sludge) | Direct contact with shallow groundwater impacted with landfill leachates.  Construction Workers |  | Very<br>localised<br>small scale<br>areas | Low  | The majority of the development area will comprise hardstanding; therefore the risk of exposure is negligible. Regular contact with this potential contaminative source is unlikely. The presence of vegetation across the majority of the Project Site limits exposure via the direct contact pathway. Also, the potential sources of contamination cover a small area of the land within the Project Site. The risk associated with this S-P-R is irrespective of the Project going ahead. |
|   |   | Human Health:<br>Future workers on<br>the Generating<br>Equipment                                      |   | Low  | As above. In addition, the exposure durations are limited and the receptor class is less sensitive. Regular contact with site soils is unlikely.   |
|   | Cross contamination via piling during the development works.                                    | Controlled Waters:<br>Secondary A<br>superficial and<br>bedrock aquifers<br>and an abstraction<br>well |   | Low  | Whilst a pathway could be created via such a means, the area which will require piling is on greenfield land and therefore the probability of the risk occurring is unlikely; therefore the risk is considered low.  Groundwater flow direction is currently unconfirmed.  |
|   | Landfill gas generation   | Construction<br>Workers  |   | Low  | There is potential for landfill gases to be present within the landfill and landfill extension. The gas generation   |
|   |   | Human Health:<br>Future workers on<br>the Generating<br>Equipment                                      |   |      | is anticipated to be low as the landfill was licenced to only receive inert and nonbiodegradeable waste. This needs to be considered as buried structures will be constructed to the east of the landfills. The exposure durations are limited and the receptor class is less sensitive; the generating equipment site is relatively distant from the landfill hence the "Low" classification.   |



| Source  | Pathway                       | Receptor  | Scale   | Risk              | Comment   |
|---|-------------------------------|---|---|-------------------|---|
|   | Mine gas<br>generation        | Human Health:<br>Residents of<br>dwellings within the<br>study area           | Extent of mine workings is unknown                                    | High              | During the construction works there is a likelihood that ground gas from coal bed methane or mine workings may be disturbed.  |
|   |                               | Human Health:<br>Future workers on<br>the Generating<br>Equipment             |   | High              |   |
| Agricultural land use                         | Surface run-off               | Controlled waters,<br>drainage ditches<br>within the Project<br>Site boundary | Wide<br>spread<br>across<br>land, but<br>very low<br>frequency<br>use | Low               | Sprayed fertilisers could be washed into receiving surface waters. Drainage ditches run across the Project Site and may transport contaminants. The farming practices and potential use of chemicals is unknown but as the land is predominantly used for grazing the risk is considered low. The risk associated with this S-P-R is irrespective of the Project going ahead. |
| Natural gas<br>from potential<br>peat stratum | Natural ground gas generation | Human Health:<br>Future workers on<br>the Generating<br>Equipment             | One area<br>of mapped<br>peat<br>identified                           | Moderate /<br>Low | There is potential for natural ground gases to be present within the peat stratum mapped in localised areas within the Project Site. The gas generation is anticipated to be moderate to low in these areas and this currently vents naturally.   |
|   |                               | Construction workers  |   | Moderate /<br>Low | Construction workers may potentially disturb the peat habitat during the construction works; this is particularly relevant with sub-surface construction activities where ground gas may accumulate.  |



**SECTION 3** 

**CONCLUSIONS AND RECOMMENDATIONS** 



#### 3 CONCLUSIONS AND RECOMMENDATIONS

#### 3.1 Conclusions

- 3.1.1 APL commissioned Parsons Brinckerhoff to undertake a preliminary risk assessment (desk study) as part of the geology, ground conditions and hydrogeology chapter for the Environmental Statement of Abergelli Power Project.
- 3.1.2 The geological and hydrogeological conditions have been investigated and described on the basis of the available published information.
- 3.1.3 Following a review of information relating to the site and surrounding area, a number of discrete potential 'pollutant linkages' have been identified at the Project Site.
- 3.1.4 Potential sources from the previous use of the site are localised and include an historic landfill and landfill extension, a colliery and historic water treatment processes associated with the mine, a potentially backfilled gravel pit, and agricultural use including potential animal burials.

#### 3.2 Recommendations

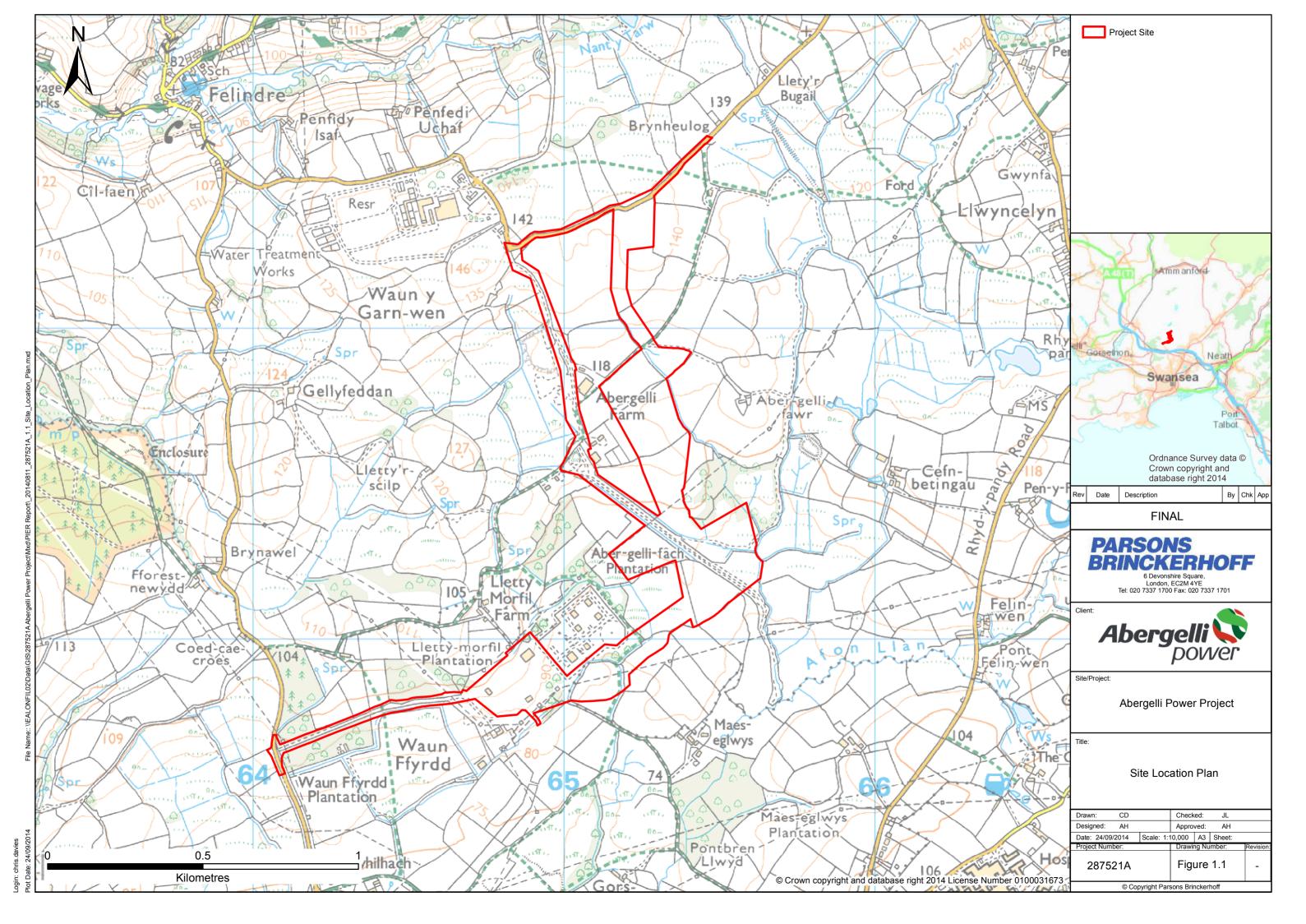
- 3.2.1 In order to provide further information for this assessment to assess the potential 'pollutant linkages', a focused intrusive ground investigation is recommended.
- 3.2.2 This would likely be incorporated into the site-wide ground investigation and include exploratory holes (boreholes and trial pits) to investigate soil and groundwater conditions at the Project Site, and to characterise the deposits in each of the areas identified as a potential source of contamination.
- 3.2.3 The ground investigation would also obtain information on ground instability hazards, including the depth and extent of any peat horizons. It will also focus on potential underground mine workings using mine abandonment plans. This information will then be used to complete a mining risk assessment and interpretative geotechnical report.
- 3.2.4 Sampling of soils, groundwater and surface water will be carried out for chemical analysis to establish the presence/absence of any contamination and allow the assessment of the significance through the completion of a risk assessment.
- 3.2.5 Ground gas monitoring will also be required in the area due the increased potential for gas generation from coal workings, the landfill or peat areas.

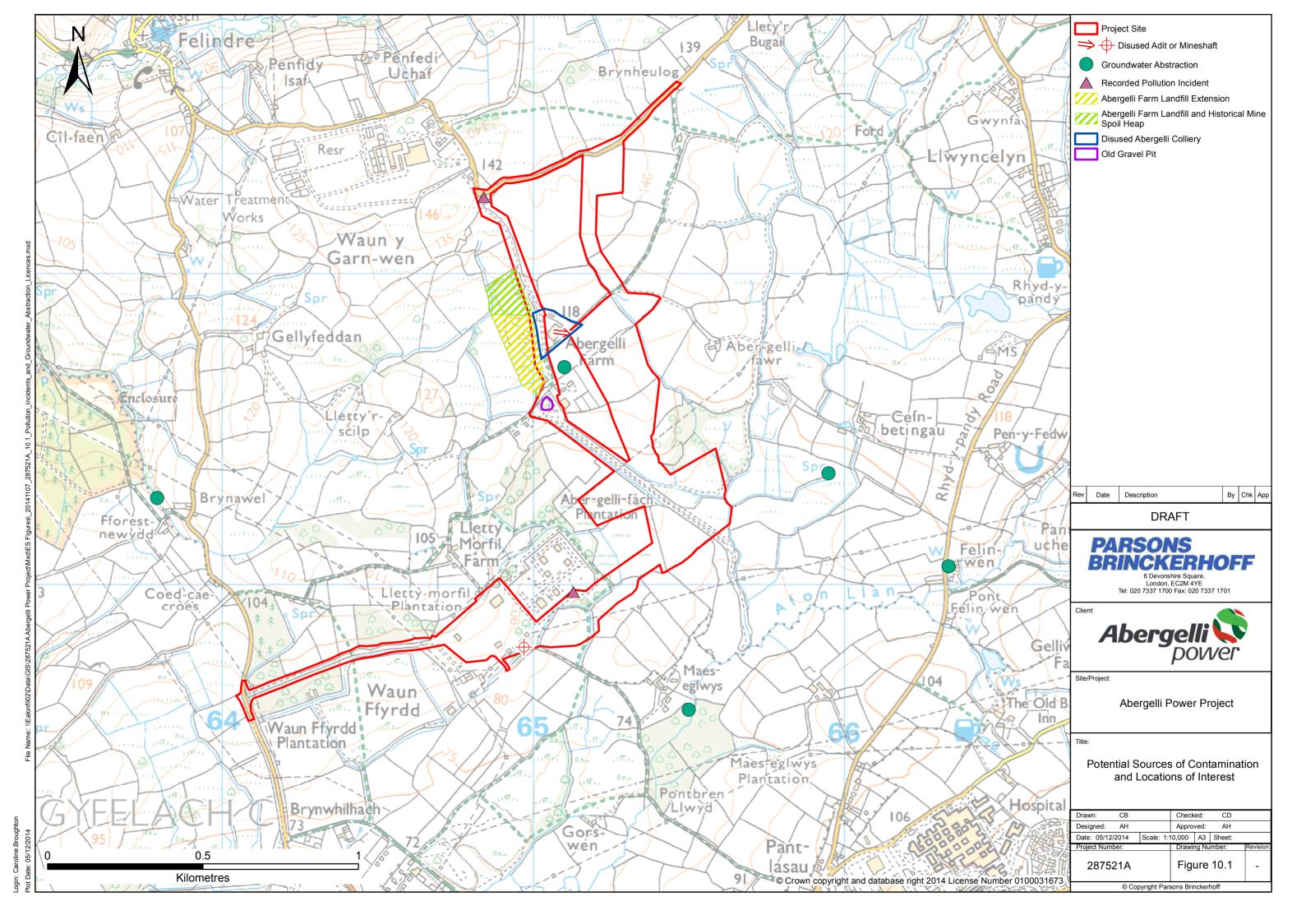






**FIGURES** 







APPENDIX A

**GROUNDSURE REPORTS** 



APPENDIX B

**BGS BOREHOLE LOG** 

British Ge

#### **BOREHOLE RECORD**

BOREHOLE NUMBER P4

S Wales Sand and Gravel Assessment Contract:

Aber-gelli-fach Farm Locality: SN 65200160 Grid Ref:

Client: **Drilling Contractor:** 

Welsh Office and Dept of Environment **Exploration Associates** 

Ground Level:

Drilling Method: Shell and Auger 200 mm

113 m SNOOSE 21 Date Commenced 07:10:91

|               | GL                    | WATER         | DEPTH<br>(M) | THICKNESS<br>(M) | SAM        | PLES       | REF NO         | DESCRIPTION  | LEGEND            |
|---------------|-----------------------|---------------|--------------|------------------|------------|------------|----------------|--|-------------------|
|               |                       | British Ge    | _0.3cal      | urve <b>0.3</b>  |            |            |                | Brown sandy clayey TOPSOIL   | 222222            |
|               | 1                     |               |              |                  |            |            |                | Firm yellow brown sandy very gravelly CLAY with occasional cobbles |                   |
| British Geold | <b>2</b><br>Jital Sun | rey           |              |                  |            |            | British Ge     | ological Survey British Geological Survey                          |                   |
|               | 3                     |               |              |                  |            |            |                |  |                   |
|               | _4                    | British Ge    | ological :   | 6.1<br>Survey    |            |            |                | British Geological Survey Brit                                     | S O H W H H A A A |
|               | 5                     |               |              |                  |            |            |                |  |                   |
| iritish Geolo | ical Sur              | ey            | 6.4          |                  |            |            | British Ge     | eological Survey British Geological Survey                         |                   |
|               | 7                     |               | 5.5          | 1.5              | 6.4<br>6.5 | 6.5<br>7.4 | P4/01<br>P4/02 | Grey brown very clayey pebbly fine SAND                            |                   |
|               | 8                     | ritish Ge     | 8.0          | Strvey           | 7.4        | 8.4        | P4/03          | Grey brown very clayey fine SAND                                   | i≘ ( 6=0  oric () |
|               | 9                     |               |              | 1.7              | 8.4        | 9.7        | P4/04          | Grey brown clayey gravelly SAND                                    |                   |
| British Geolo | og cal Surv           | 7( <b>1</b> ) | 9.7          |                  |            |            | British Ge     | Grey brown clayey SAND   |                   |
|               |                       |               | V w/         | TER STR          | RIKE       |            | ▼ WA           | ATER LEVEL ENGINEER NCH  |                   |

British Geo

#### **BOREHOLE RECORD**

BOREHOLE NUMBER P4

Contract: S Wales Sand and Gravel Assessment Client:

Welsh Office and Dept of Environment

Drilling Contractor : Exploration Associates
Drilling Method : Shell and Auger 200 mm

Aber-gelli-fach Farm Locality:

Grid Ref: SN 65200160

**Ground Level** 113 m Date Commenced 07:10:91

SN60SE 2

|                | GL              | WATER<br>LEVEL                            | DEPTH<br>(M)      | THICKNESS<br>(M) | SAM  | IPLES<br>TO | REF NO      | DESCRIPTION  | LEGEND                                |
|----------------|-----------------|---|-------------------|------------------|------|-------------|-------------|--|---------------------------------------|
| ¥              |                 | iritish Geo                               | logical S<br>10.7 | urvey <b>1.0</b> |      |             |             | British Geological Survey Britis   | Geological Surve                      |
|                | _11             |   |                   |                  | 10.7 | 11.7        | P4/05       | Grey brown very clayey fine SAND. Trace of coal                            |                                       |
| British Geolog | 12<br>Ical Surv | у   |                   |                  | 12.0 | 13.0        | P4/06。      | Iogray brown very clayey fine SAND  British Geological Survey              |                                       |
| •              | <u>1</u> 3      |   |                   | 3.3              | 13.0 | 14.0        | P4/07       | grading into  Grey brown sandy CLAY  |                                       |
|                | _14             | tritish Ged                               | 14.0              | inev .           | 14.0 | 15.0        | P4/08       | British Gaplagical Survey  Grey brown clayey fine SAND                     | 22 ( 24 ( P) ( P) ( P) ( P) ( P) ( P) |
|                | <u>1</u> 5      | ,   | 15.1              | 1.1              |      |             |             |  |                                       |
| British Geolog | ical Surv<br>16 |   | 15.8              | 0.7              |      |             | British Geo |  | *****                                 |
|                |                 |   | 16.8              | 1.0              |      |             |             | Firm yellow CLAY becoming stiff grey gravelly CLAY (possible BOULDER CLAY) |                                       |
|                | <u>1</u> 7      |   |                   |                  |      |             |             | End of hole  |                                       |
|                | _18             | British Geo                               | ogical S          | uvey             |      |             |             | British Geological Survey British  | Geological Survey                     |
|                | 19              |   |                   |                  |      |             |             |  |                                       |
| British Geolog | ika) Surv<br>20 | е   |                   |                  |      |             | ritish Geo  | ogical Survey British Geological Survey                                    |                                       |
|                | _20             | ▼ WATER STRIKE ▼ WATER LEVEL ENGINEER NCH |                   |                  |      |             |             |  |                                       |



APPENDIX C

COAL AUTHORITY MINING REPORT - see ES Appendix 10.4



APPENDIX D

LANDFILL WORKING PLAN RECORDS FROM NRW







# Proposed Inert Landfill, Abergelli Farm, Felindre



**WORKING PLAN** 

Mr. W.B. Llewellyn, Aberfelli Fach Farm, Felindre, Swansea West Glam 17 March, 1994

099

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#### INTRODUCTION

This statement forms part of the outline working/operational plan, relating to proposed landfilling operations at Abergelli Farm, Felindre, Swansea. The various other details referenced within this operational statement are contained in the appendices to this Statement.

The licence application relates to approximately 1.9 ha of land located adjacent to Abergelli Farm, near the village of Felindre, Swansea. The location of the site is indicated in the Ordnance Survey extract at Figure 1. The land is generally low-lying and in its lowermost parts is poorly drained, with gentle cross-falls. Approximately three quarters of the site was at one time covered by a mine spoil dump from the nearby Abergelli Colliery. The mine waste has now been removed leaving a layer of well compacted mine waste over the majority of the site. The area of ground currently covered by mine spoil has been used for the drying out of water treatment (aluminium sulphate) sludges though with the development of the landfill this operation will cease.

It is proposed to import inert, "Category A" waste material, and deposit it on the site, in the manner indicated in the accompanying plans and sections. The proposed after use is agricultural with phased restoration returning the landfill area to grazing land.

Planning permission for the proposed tipping operations is currently being determined. Planning Permission documents will be forwarded to the Disposal Authority when permission has been granted.

The site approaches overhead electricity services but sufficient stand-off has been allowed to comply with SWALEC's conditions. No other services cross the site.

## **1** INFRASTRUCTURE

#### 2.1 Site Access

Access to the site will be via an unclassified road leading northwards from Llangafelach to the village of Felindre. Approximately 2km north of the junction of the unclassified road with the A48 the site road bears off to the east. The site road which measures 1.4km will be an upgrade of the existing access track to Abergelli Fach Farm. The site road is to be surfaced with tarmacadam for its entire length and single track incorporates passing places at 100m intervals. Further details on the nature and design of the access road can be found at Appendix I.

#### 2.2 Fencing

The landfill site does not have a boundary that is common with any public access area, the site lying entirely within the land holding of Abergelli Fach Farm. However, in recognising that vehicles can gain relatively easy access to the landfill, it is proposed to construct a 1.2m agricultural 'pigwire' type fence along the landfill's boundary with the access road. The fence will be topped with a double strand of plain wire, and will extend over the length shown on the attached plan (Figure 5).

#### 2.3 Gates

The existing access road passes through landfilling area and continues to meet the Felindre to Tyronnen Road. At the junction of the site access road with the public highway, the entrance gate will be permanently locked. In order that security can be maintained if this gate were to be secondvented by travelling through Welsh Water Authority Plant, a new security gate will be installed at the Felindre side of the site to form a secure boundary when the gate is closed against the existing hedgeline and fenceline (Figure 5). With alternative access to the landfill closed, all vehicles will have to pass Abergelli Fach Farm and from there travel to the site control office. Beside the site control office, a lockable gate will be installed to provide out of hours security. The gates will be traditional five bar agricultural gates, fabricated from galvanised steel. When the site is not manned, all gates will be padlocked.

#### 2.4 Car Parking

An area immediately adjacent to the gatehouse will be surfaced with hardcore and reserved for visitor and operator parking. Two spaces will be provided and these will be indicated to by appropriate signs.

#### 2.5 Gatehouse

A gatehouse comprising a portacabin type building will be situated adjacent to the access track close to the site entrance, so that incoming and outgoing vehicles can be controlled. There will be no facilities at the gatehouse other than portable (gas) lighting and heating, as comfort facilities are available at Abergelli Fach Farm. A first aid box will be clearly identified in the cabin.

#### 2.6 Site Notice

The site notice board will be situated immediately adjacent to the site gate. It will display the following information:-

Name of Facility
Categories of Acceptable Wastes
Name, Address and Telephone number of site operator

Emergency Telephone number of site operator

Hours of Operation

Name, Address and Telephone number of Waste

Regulatory Authority

#### 2.7 Hardstanding

An area of hardstanding will be provided for lorries to turn and queue at the position shown on the Operational Plans (Figure 5).

#### 2.8 Lorry Parking

An area of hardstanding will be provided for lorry parking, immediately adjacent to the gatehouse.

#### 2.9 Haul Roads

Haul roads will be constructed during tipping operations by selectively using free draining materials delivered to the site. The site roads will be maintained to a standard to prevent vehicle bogging and to ensure access to the tipping face under all weather conditions. The site roads will be inspected during each working day, to ensure their operational standard. The Phase I haul road will be ripped up and incorporated into the Phase II wastes immediately prior to Phase I restoration. With progressive restoration envisaged, Phase I restoration will be completed prior to Phase II tipping completion.

#### 2.10 Wheelwashing Facilities

The use of properly designed site haul roads should minimise the requirement for wheelwashing. However, a portable jet wash system will be kept on site so that any vehicles that require cleaning prior to using the 1.4km site access road can be washed down. Waste water arising from the wheel cleaning operation will be picked up in the perimeter drain and taken along this for settlement prior to discharge.

#### 2.11 Compactor/Grader Parking

When not in use the dozer will be parked in the designated lorry parking area.

## 2 LANDFILLING OPERATIONS

#### 3.1 <u>Preparation Works</u>

Prior to landfilling the site access and waste reception facilities will be provided, as shown on the Operational Plans (Figure 5) and the site will be enclosed within a security fence. In accordance with the good surface water management practice, settling lagoons will be constructed at the locations shown on the Phase I diagram.

#### 3.2 Phasing

The site will operate as a phased landfill, with each phase running concurrently with the restoration of the previous phase. The site has been divided into three phases which each phase being bounded by permanent or temporary drainage ditches.

#### 3.3 Void Space

The void space of the site has been calculated by integrating the existing ground surface (Figure 2) and the restoration surface (Figure 3). The void space of the site is summarised below:-

| Total Void   | 75,000m³             | Total Tonnage   | 142,500t |
|--------------|----------------------|-----------------|----------|
| Phase 1 Void | 16,600m³             | Phase 1 Tonnage | 31,540t  |
| Phase 2 Void | 33,300m <sup>3</sup> | Phase 2 Tonnage | 63,270t  |
| Phase 3 Void | 25,100m <sup>3</sup> | Phase 3 Tonnage | 47,690t  |

#### 3.4 Acceptable Wastes

The site will accept only Category A wastes, as designated by the South West Wales Waste Management Group Classification.

#### 3.5 Phase 1

Phase 1 operations will commence with the excavation of a perimeter drain and temporary drain which will contain all waters arising from operations within Phase 1. Both drains will discharge into a settling lagoon before final discharge into the existing drainage ditch. Preparation works will comprise the removal of any sludge wastes that are currently drying out to expose a formation of either compact colliery shale or peat.

Tipping operations will commence with the construction of the access road, formed of selected hardcore. The tipping face, which will achieve a maximum height of approximately 4m will be bladed out with a small dozer to maintain a gradient of 1 in 3 or less. During the tipping operations imported topsoil will be selectively deposited against the access road to await final spreading over the completed phase. The tipping face will advance downslope.

#### 3.6 Phase 2

Phase 2 operations will commence with the excavation of a temporary drain which will trap surface water runoff from the operational phase. The phase will be bounded by two temporary drains with the one bounding Phase 1 progressively overtipped as the tipping face advances. Both drains will continue to discharge to settling tagoons. The site haul road will be moved to provide easy access for Phase 2 and like Phase 1 the tipping face will advance downslope. During the operational phase, topsoil will be selectively stored

adjacent to the main site road used during the progressive restoration of Phase 2. Whilst Phase 2 is being actively tipped, Phase 1 will be regraded to final profile and restored.

#### 3.7 Phase 3

The infilling of Phase 3 completes the site operations. Access to the area will be made by a diverted haul road as shown on Figure 5. Operations will commence with the excavation of a perimeter surface water drain so that the phase is completely encircled by drainage ditches discharging to settling lagoons. The tipping face will advance downhill as it does for Phase 1 and 2. During the tipping operations existing ditches will be overtipped but dirty water arising from these operations will be settled out in the lagoon.

#### 3.8 Restoration Phase

When the importation of Category A materials is complete, the phase will be restored and the site will be decommissioned, having changed virtually unuseable marshy area into suitable agricultural land.

#### 3.9 <u>Tipping Operations</u>

Vehicles depositing wastes at the site will pass through the reception area and travel along the site roads to the tipping face. They will back up toward the tipping face under the direction of a member of site staff. When the vehicle has discharged its load and left the face area the wastes will be pushed over with a small dozer. The tipping face will have an angle no steeper than 1:3, which is the maximum practical gradient for dozer operations.

## WASTE RECEPTION PROCEDURES

#### 4.1 Entry to Site

The site entrance will be securely locked outside normal opening hours. During opening hours vehicles will enter the site by the only entrance and immediately report to the site office, which is located adjacent to the entrance and site identification board (Figure 5).

#### 4.2 Hours of Operation

The landfill will be operational between 08.30 and 16.30 during weekdays, and between 08.30 and 13.30 during Saturday. There will be no Sunday working.

#### 4.3 Daily Input

A daily maximum of 35 vehicle movements is anticipated depositing a daily maximum of 490 tonnes (272m<sup>3</sup> per day). This amounts to 1 tipping cycle per 14 minutes. A normal

days operation is likely to involve 10 vehicle movements depositing 140 tonnes (78m³) of wastes, with a turnaround time of 45 minutes.

#### 4.4 Inspection

All site users will be aware of the acceptable wastes having read the site identification board. Despite this the site supervisor will make a visual inspection of loads entering the site to see that the wastes fall within the licensed waste category.

#### 4.5 Deposition of Wastes

When the wastes are confirmed to be acceptable by the visual inspection the details of the waste consignment will be recorded in the site diary. This will log the following details:-

- i) Transferring Company/Organisation
- ii) Vehicle Registration
- iii) General Origin of Wastes
- iv) Date and Time of Delivery
- v) Volume/Tonnage of Waste
- vi) Drivers Signature

Copies of transfer notes raised by the depositing organisation will also be kept.

#### 4.6 3 Monthly Returns

At 3 monthly intervals the licensing authority will be supplied with void use returns. An equivalent tonnage will also be supplied. The returns can be 'audited' annually by land survey if required.

#### 4.7 Unacceptable Wastes

In the event that a consignment of waste arrives which contains or is composed of wastes outside the licensed category the load will be refused entry to the site. The location of nearby sites which can accept other categories of waste will be kept on record at the site office to assist the driver of the rejected load.

## 4.8 <u>Identification of Unacceptable Wastes at the Tipping</u> <u>Face</u>

Should unacceptable wastes pass through the checking-in system their composition will be clearly identifiable at the tipping face. The site supervisor will collect the wastes and load them into an appropriate receptacle for transport to a suitably licensed facility. The WRA will be informed of all such events and they will be recorded in the site diary.

# THE CONTROL OF MUD, DUST AND WATER

#### 5.1 Mud

A daily inspection will be made to evaluate the need for wheel washing. If mud is picked up from the tipping face and has not been shaken off within the site (early stages of Phase I and 2) wheelwashing facilities will be used. The decision on wheelwashing will be made daily by the site operator.

If mud has been deposited on the public highway the site operator will ensure a road sweeper is used to remove all traces.

#### 5.2 <u>Dust</u>

In very dry weather certain inert wastes generate significant amounts of dust when being tipped and bladed. Under these circumstances water suppression will be used to keep dust levels down. The water will be provided by bowser brought to the tipping face for damping down. Site roads will be sprayed at regular intervals to suppress dust.

#### 5.3 Surface Water Control

Surface water will be controlled by the provision of perimeter drains and temporary internal drains. The perimeter will be retained to take direct surface runoff from the restored landfill.

# <u>MANNING</u>

The site will be manned by three employees of the licence holder during is opening hours. The three members of staff will have the following responsibilities:-

#### 6.1 Site Supervisor

Daily inspection of infrastructure Routine maintenance of plant and equipment Load Inspections Liaison with WRA Inspection of Mud and Dust suppression Water Quality Monitoring

#### 6.2 Machine Driver/Banksman

Directing lorries at the tipping face Maintaining face and site road in usable condition General maintenance

#### 6.3 Records Clerk

Recording of waste input and transfer note filing Liasion with Waste Regulation Authority

#### 6.4 <u>Licence Holder</u>

Overall co-ordination of disposal activities

# 6.5 Out of Hours Manning

The licence applicant lives at Abergelli Fach Farm which lies immediately adjacent to the site. The supervisor will be at hand to deal with any out of hours emergency. The telephone number displayed on the Site Identification Board will be the telephone number of Abergelli Fach Farm.

# **MONITORING**

The only routine monitoring envisaged at the site will be surface water quality monitoring.

#### 7.1 Surface Water Monitoring

The surface water settling lagoon outfall to be constructed will be formed so as to allow surface water sampling. The sampling routine will comprise suspended solids monitoring only, initially at 2 monthly intervals. Analytical results will be forwarded to the WRA when available.

# **RESTORATION**

Progressive restoration will ensure that only a single phase is operational at any one time. Selected topsoil, stockpiled at the edge of each phase will be pulled over the profiled wastes to a depth of 150mm as the tipping face progresses. Before topsoiling the wastes will be compacted to give an even surface profile.

When placed to the appropriate level the topsoil will be fertilised and seeded, following guidelines published by the Countryside Commission.

#### Typical Restoration Seeding Plan

| Meadow Grass | 30% |
|--------------|-----|
| Fesce        | 40% |
| White Clover | 15% |
| Ryegrass     | 15% |

Sown at a density of 80 kg/ha

The restored landfill is slightly domed to allow surface water runoff into the perimeter drains and drainage ditches (Figure 3). The landfill will be used for general agricultural purposes.

| • |                                       |
|---|---------------------------------------|
|   |                                       |
|   |                                       |
|   | APPENDIX 1 - SITE ACCESS ROAD DETAILS |
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# TOWN AND COUNTRY PLANNING ACT 1990 APPLICATION FOR PLANNING PERMISSION

APPLICATION BY:

Hr W B Llewellyn for land-fill tipping at Abergelli Fach Farm, Felindre, Swansea

# ACCESS ROUTE PROPOSALS

Our Ref: CN/ELN/92/108 CARLISLE, DAVIES & NORTH Local Planning Authority Ref: 2/2/93/0231/03 DECEMBER 1993

- 1. Access to the application site is to be derived via the existing private access road, from the public highway near "Coed-cae-croes", as indicated on the 1:10000 scale O.S extract which accompanied the original planning application. The route is shown in greater detail, in the 1:2500 scale plan attached to this statement at Appendix 1.
- 2. The existing road currently serves as the principal means of access to Penywaun Fach Cottage and to Lletty'r Morfil Farm, and is a secondary access to Abergelli Fach Farm.

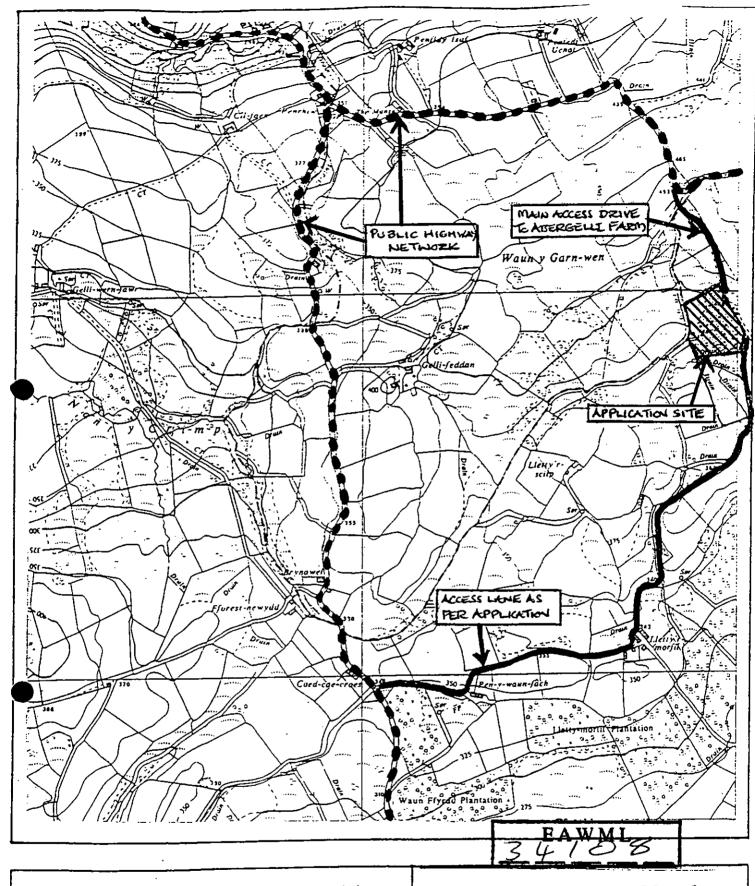
  The road was, in fact, the main access to the former Abergelli Colliery, the surface area of which was located on and adjacent to the present application site. In its heyday, the colliery access road daily carried coallorries and buses transporting miners to and from work.

  In recognition of its usage, the road was constructed with a substantial sub-base of well-compacted, graded stone and hardcore.
- 3. From its junction with the public highway to the Lletty'r Morfil farm-yard, the general condition of the existing road remains excellent. For part of its length beyond Lletty'r Morfil, its condition has deteriorated in more recent times, due mainly to the fact that it has been little used and, thus, only infrequently maintained. The vast bulk of the sub-base, however, remains, and it is proposed to utilise this along the complete length of the access, in conjunction with works of repair and improvement, to provide the access route for the application site.

- It is proposed, in the first instance, to clean the surface of the existing road for the whole of its length, and this will include, where necessary, the blading of extraneous material, to create a clean surface and expose the top layer of the existing sub-base. All irregularities in the existing road, in terms of its surface condition, carriageway width, etc., will be made good by filling and levelling with imported stone and hardcore. Existing road-side ditches and culverts passing alongside or under the roadway will be cleaned, checked and repaired as necessary, to maintain the existing storm-water regime.
- 5. The developer's original intention had been to then surface the complete route in concrete or hard bituminous material, laid to suitable falls, to direct surface-water run-off to the existing drainage channels. He is still prepared to do this if the local planning authority requires it. In any event, it is still proposed that the first 240 metres of the route (between points A and B on the plan), should be constructed in this way, and that the proposed diverted length of roadway in the vicinity of Lletty'r Morfil (between points C and D) should be similarly constructed. A typical cross-section is illustrated in Appendix 2 herewith.

- 6. However, as an alternative option, it is suggested that for the remaining lengths of the route (B to C, and D to E), a suitable road-surface can be provided by topping with a 100 mm blinding layer of graded stone/dust, as shown in the typical sections at Appendix 3. This method of construction may well be considered to be more acceptable and also, of course, would be self-draining.
- 7. It is also proposed to provide purpose-built passing bays at various locations along the route, as illustrated in the plan at Appendix 1. The positions indicated have been selected so as to avoid any necessity for tree-removal and are, for the most part, in situations where they can be accommodated within verge areas, so that excessive intrusion into adjacent land is avoided. There are other locations along the route where additional bays can be constructed, if it should be considered necessary. The bays will, of course, be constructed to the same specification as the carriageway.
- 8. Where any drainage channels pass under the route, or the bays, they will be piped in accordance with the details shown at Appendix 4 to this statement. As indicated above, existing open channels will be initially cleaned out and thereafter maintained in functionable condition.

9. It is not considered that any trees need to be lost, in using the route shown. The length of new road that will provide the diversion by-passing the Lletty'r Morfil farmyard (C to D), has been positioned so as to, firstly, facilitate a route between existing trees flanking the road to the north of the farm buildings and, secondly, to avoid the existing telegraph poles in field parcel number 6612 and give the necessary clearance under the overhead phone-wires.



Reproduced from the Ordnance Survey's !: locoon scale map of .... with the permission of Her Majesty's Stationery Office, (c) Crown Copyright.

Dated: - 21 /4/93

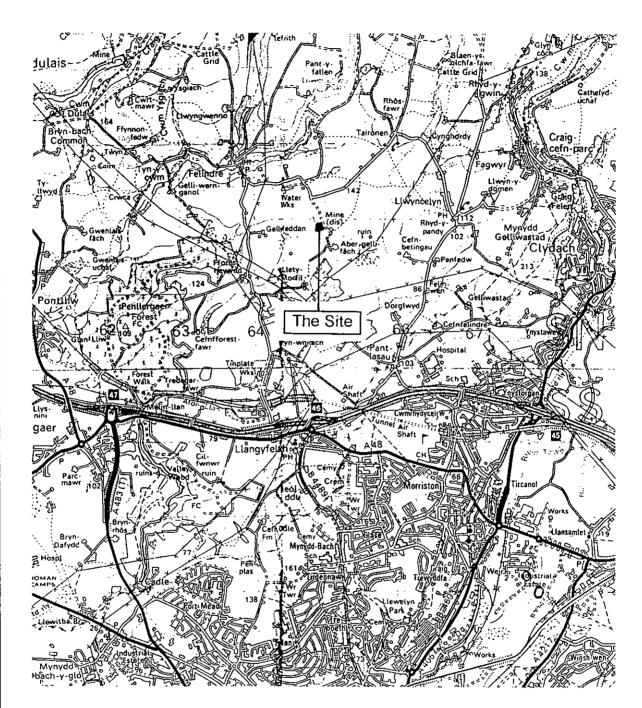
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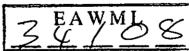
CHARTERED TOWN PLANNERS AND DEVELOPMENT CONSULTAINS YMGYNGHORWA'R CYNLLCNIO A DATBLYGU

77 Stryd Herbert Pontardawe Abertawe Corflewin Morgannwg SA8 4ED Flon: 0792 830235 (2 lin) Flore: 0792 863895 77 Herbert Street Pontardaw: Swansea West Glamorgan SAS 4ED Te: 0192 930238 (2 lines) Fax: 0792 863895

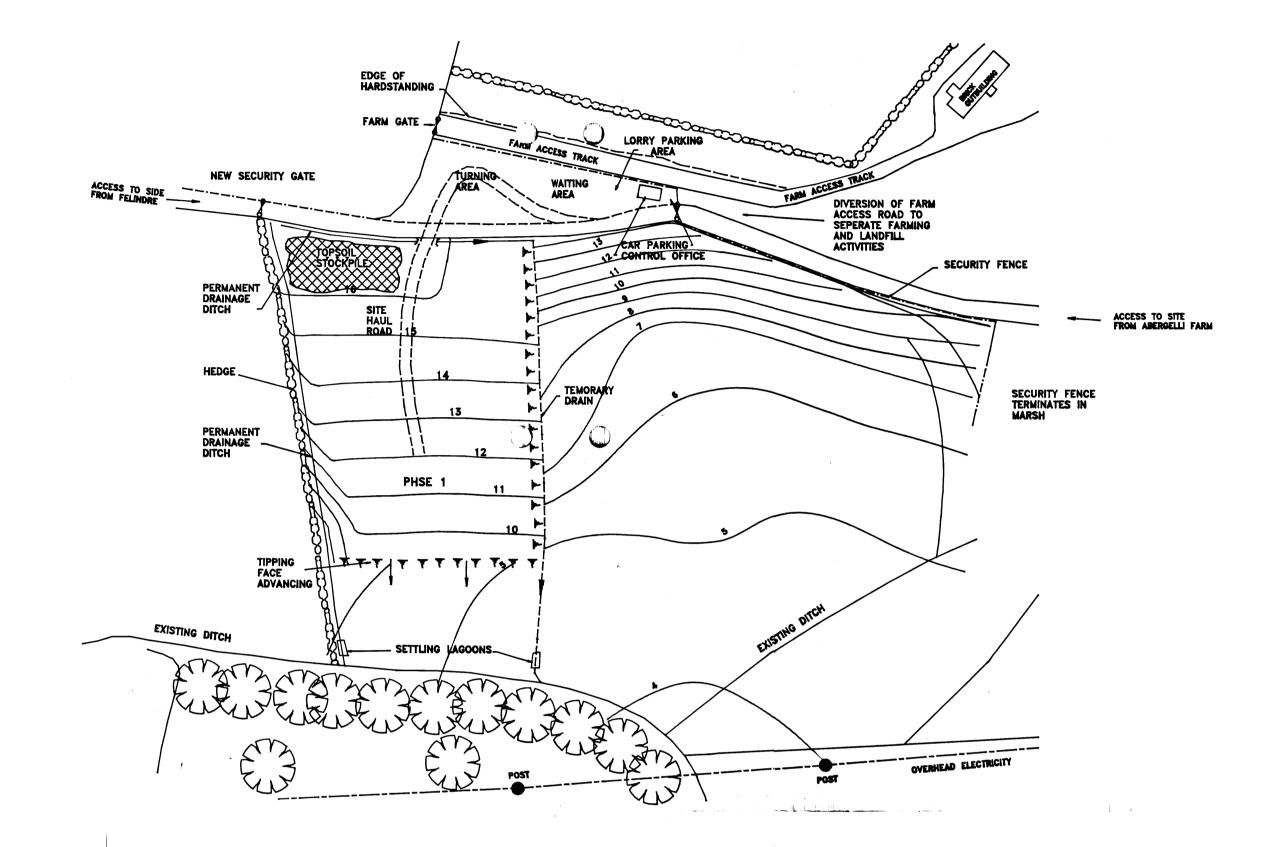
Access plan

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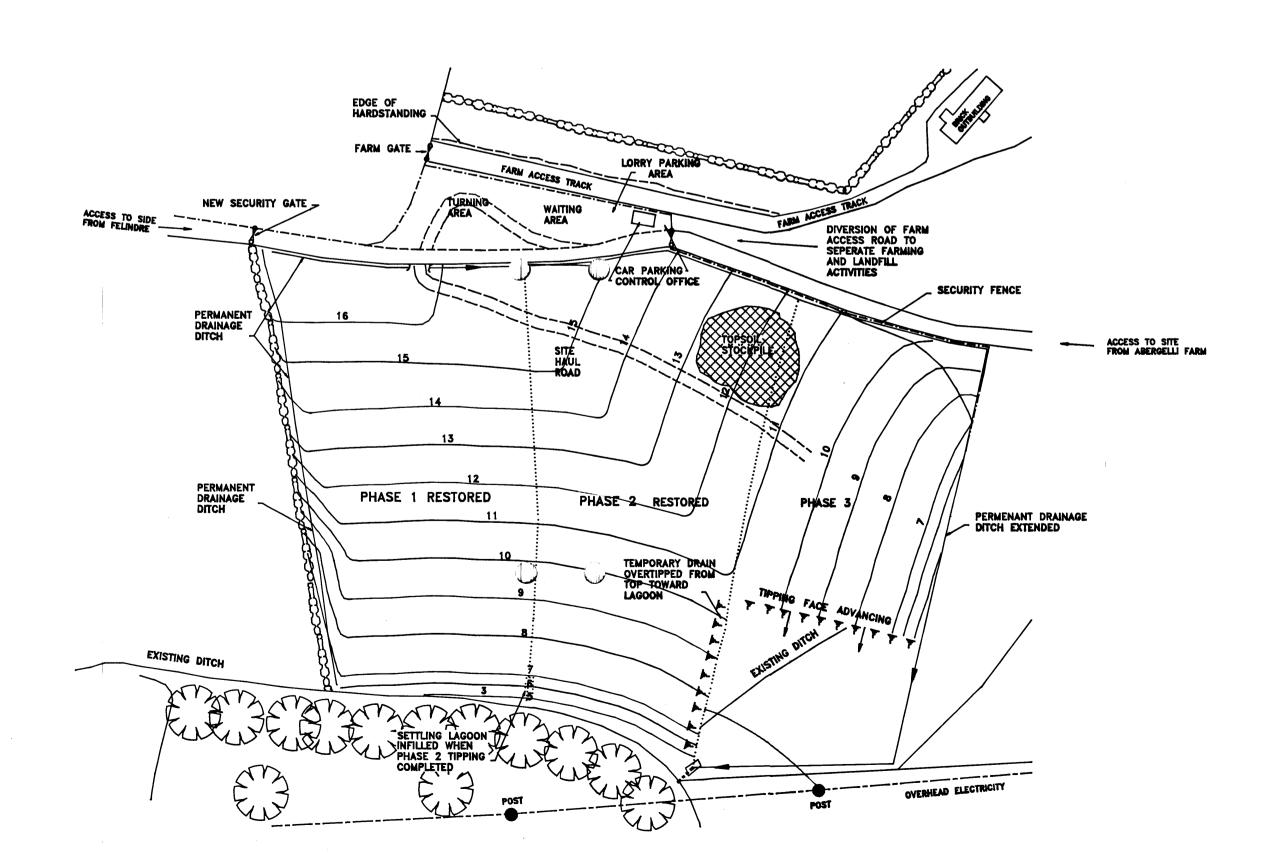




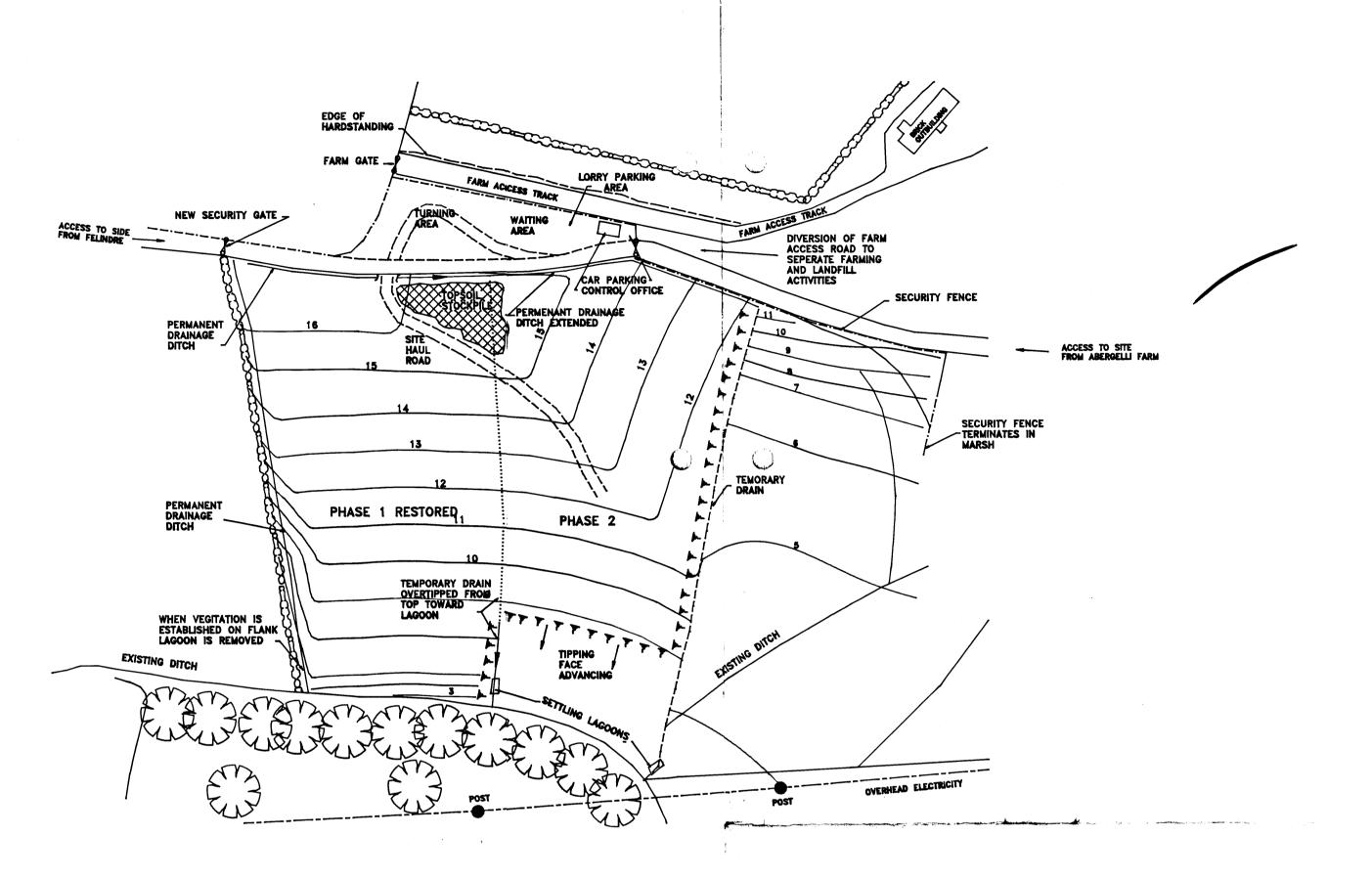
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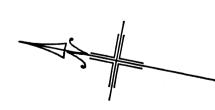


PHASE 3



PHASE 2

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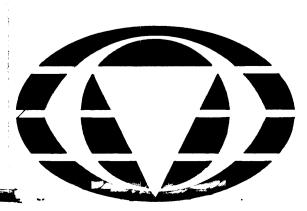
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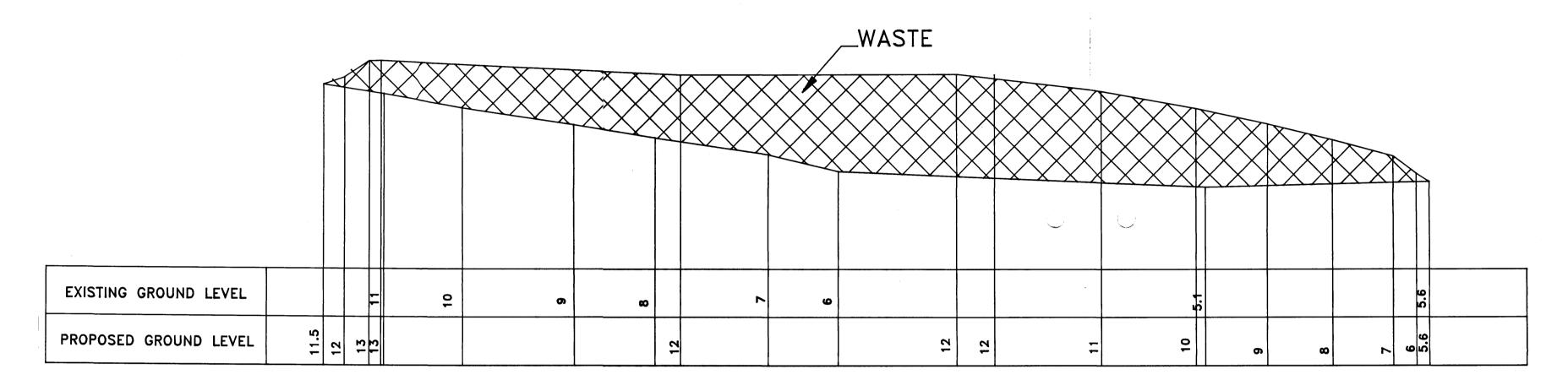
WORKING PLAN

PROPOSED LANDFILL, FELINDRE

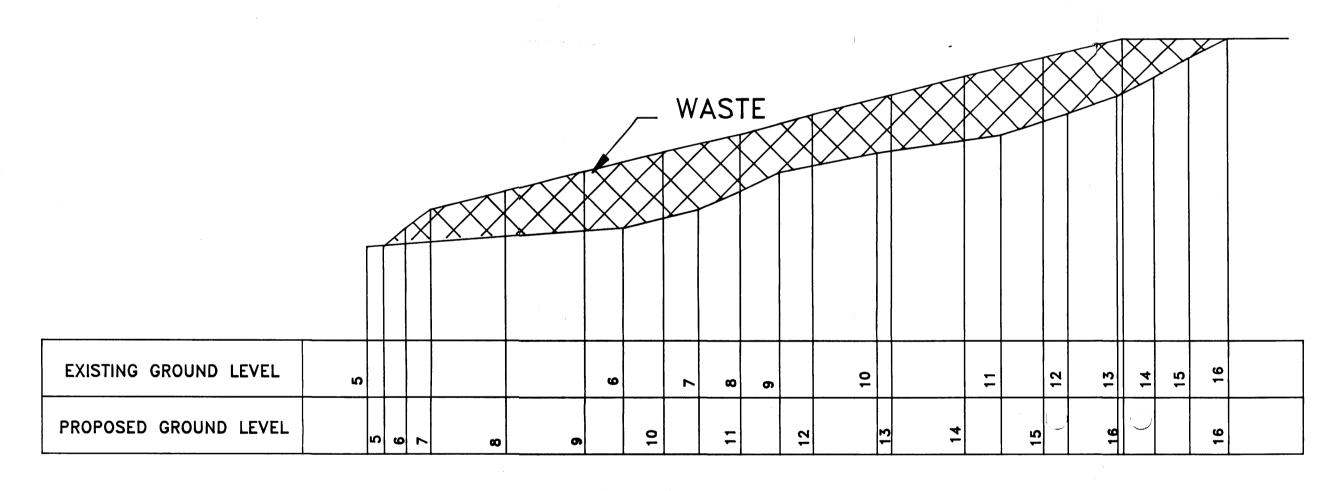
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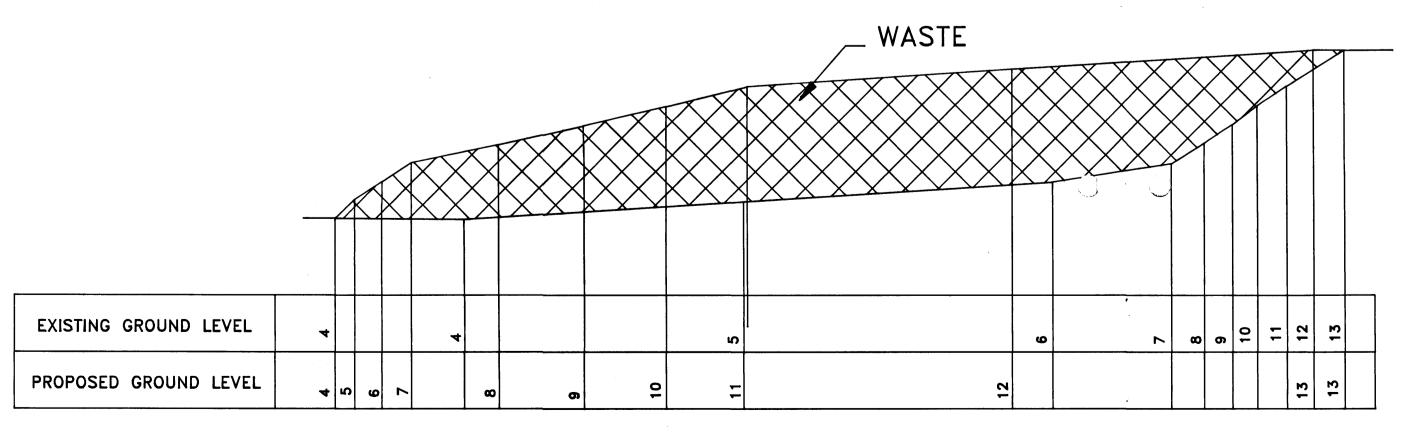




SECTION A:A



SECTION B:B



SECTION C:C

VERTICAL SCALE 1:200 HORIZONTAL SCALE 1:500



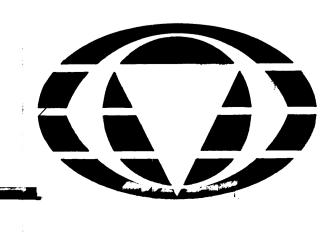
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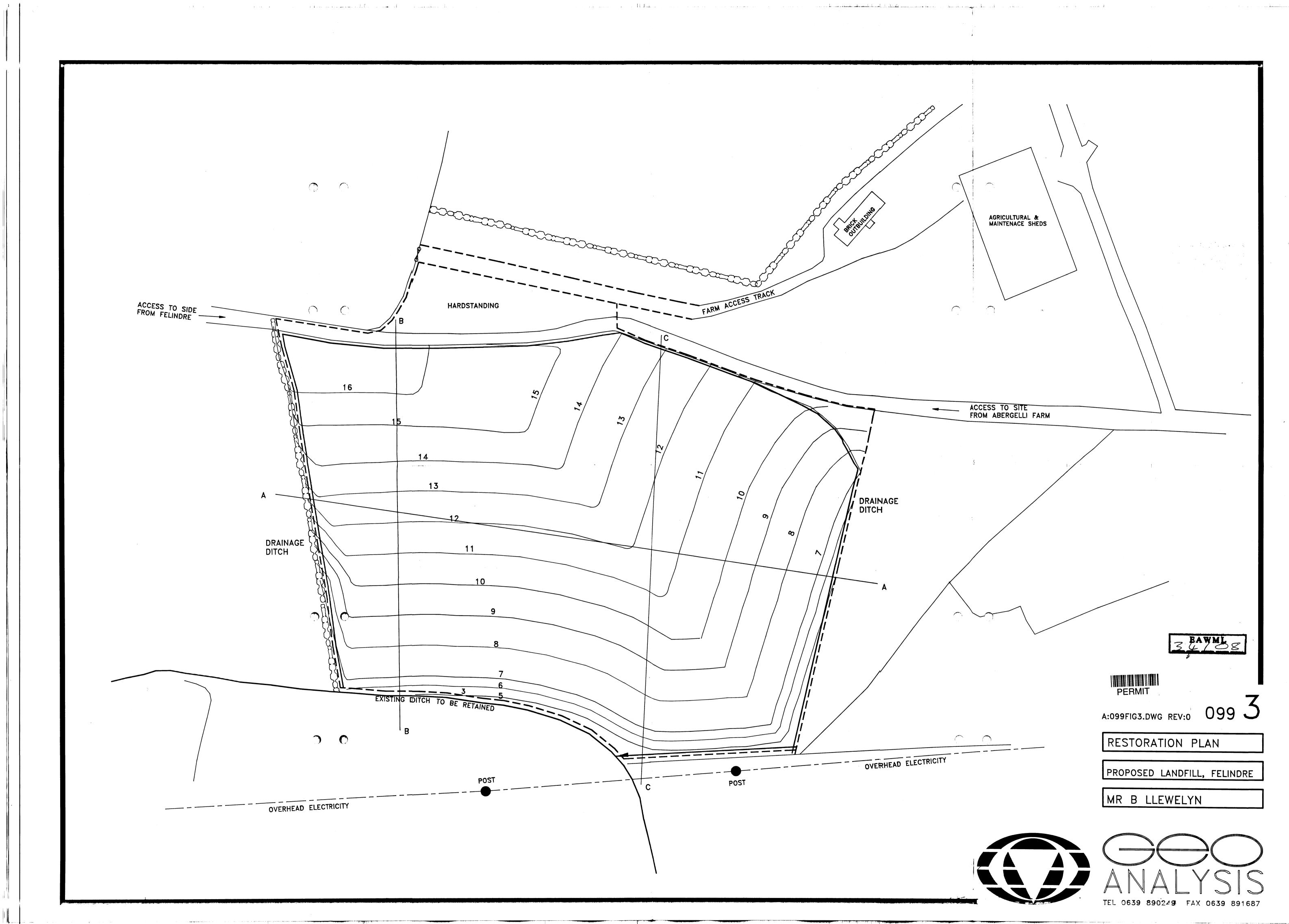
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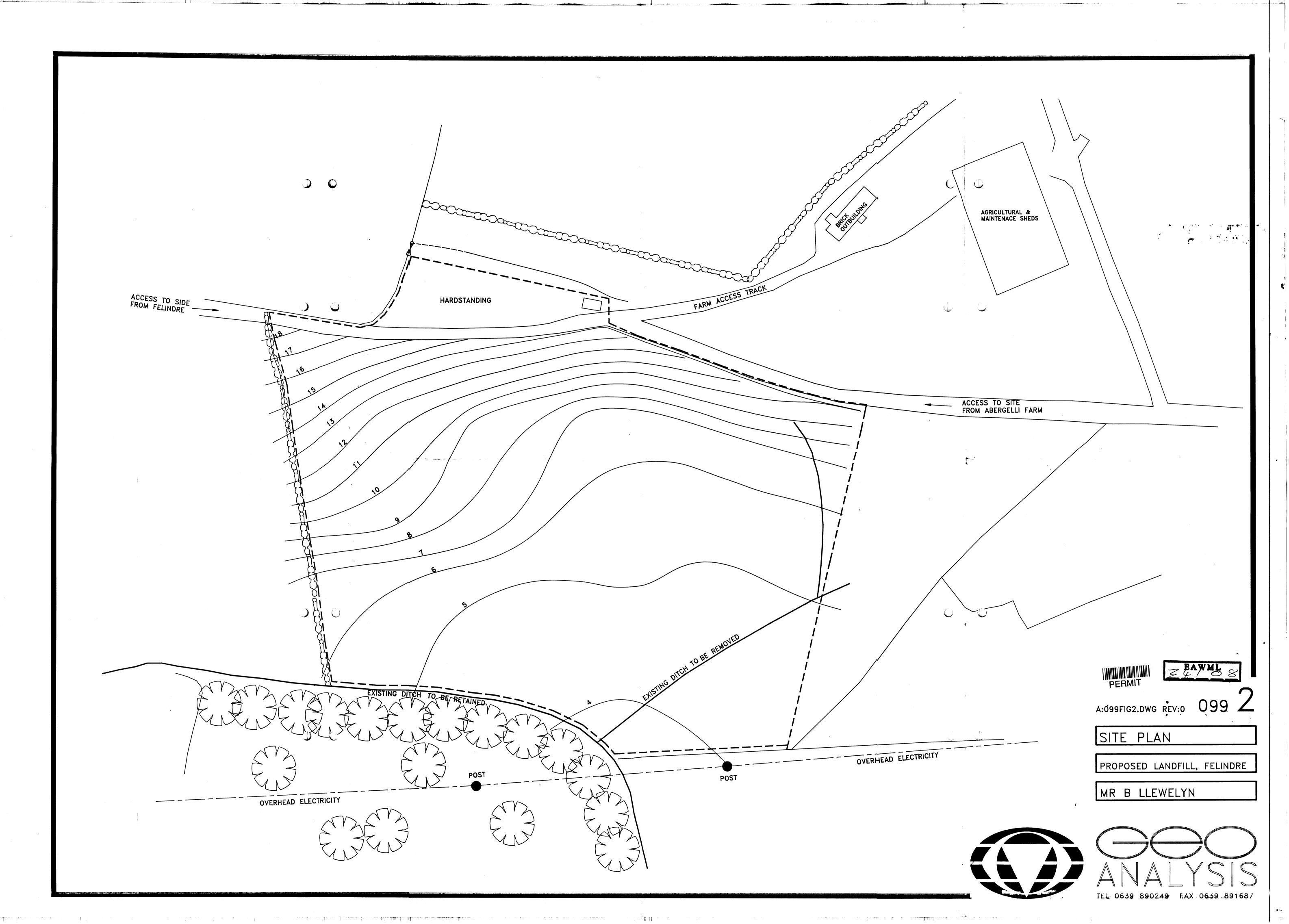
PROPOSED LANDFILL, FELINDRE

MR B LLEWELYN









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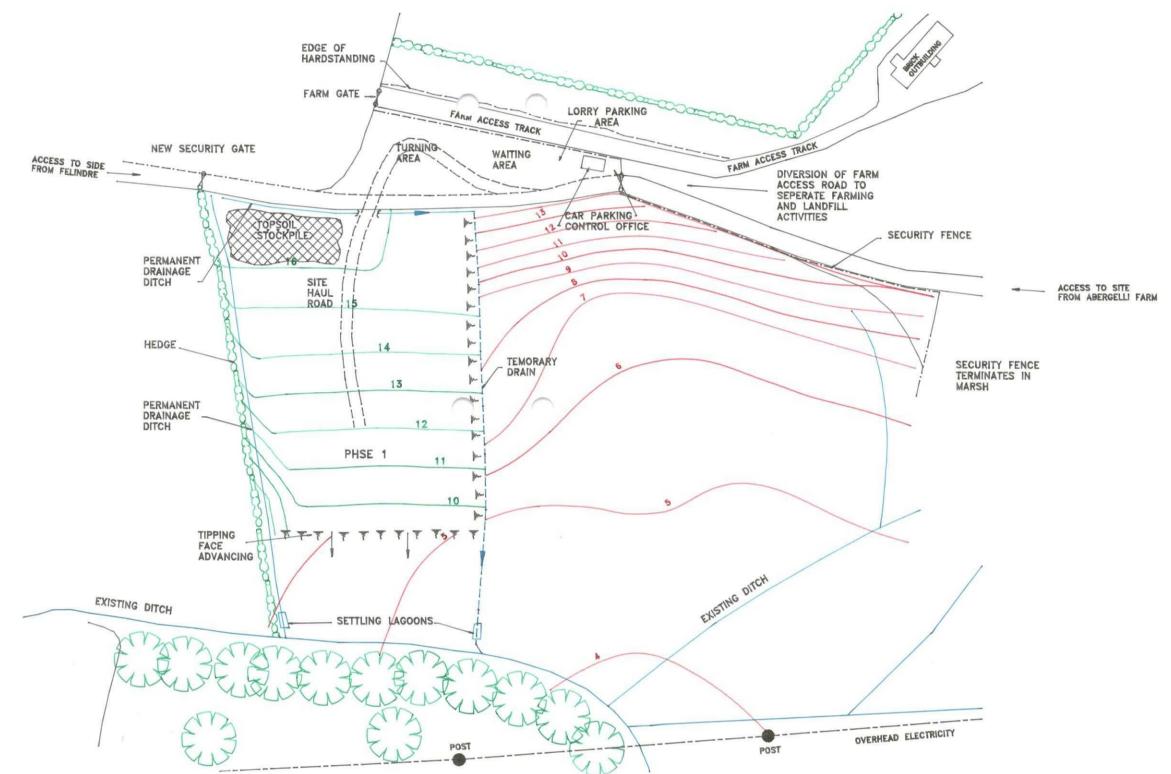
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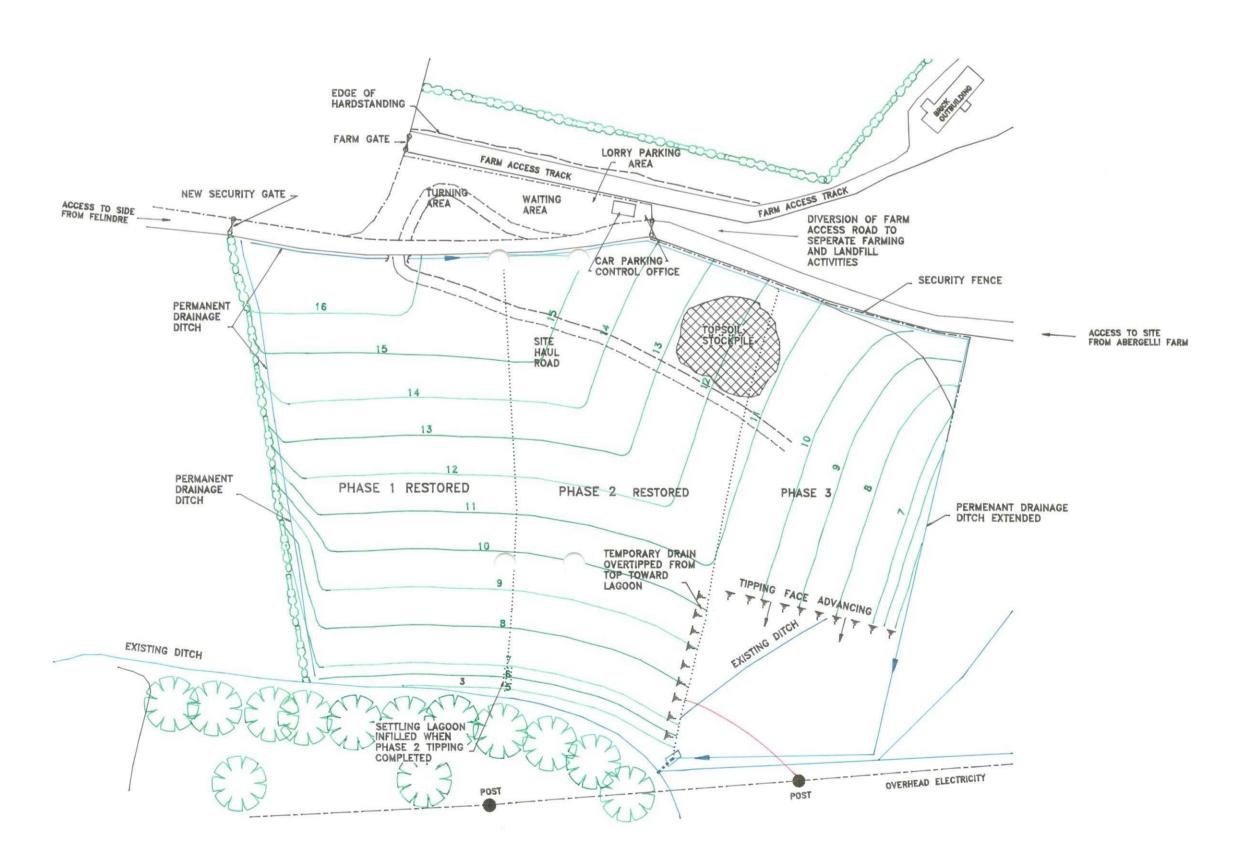
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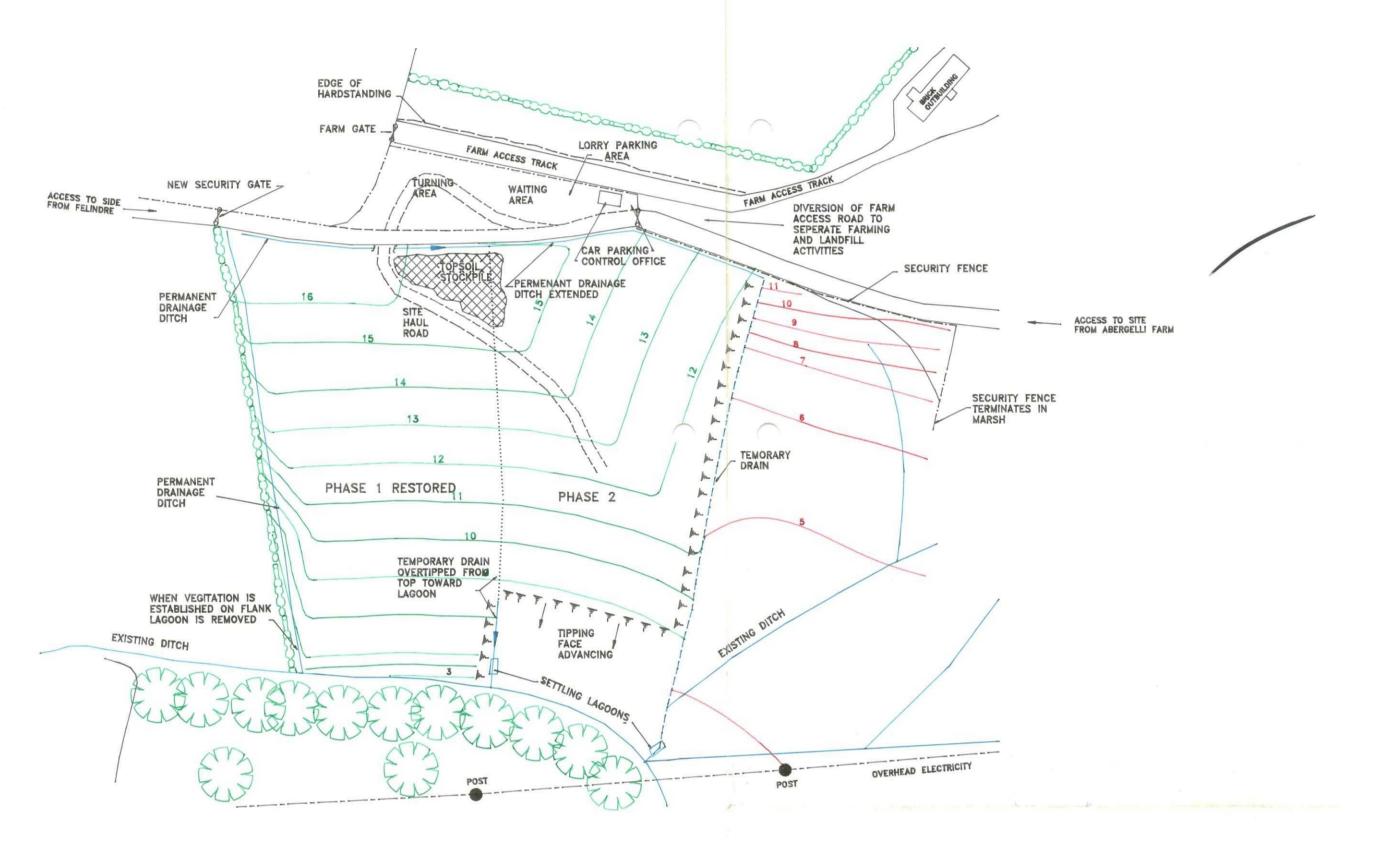
# Environment Agency Large Format & Plans

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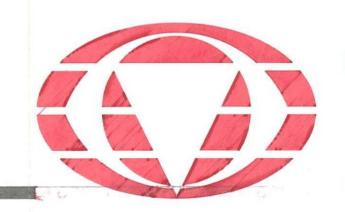
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WORKING PLAN

PROPOSED LANDFILL, FELINDRE

MR B LLEWELYN









# Abergelli Farm Landfill

WORKING PLAN Report Number 058.1/0/0298

Commissioned by
Mr. W.B. Llewellyn
Abergelli Fach Farm
Felindre
Swansea

Geotechnology
Ty Coed
Cefn-yr-Allt
Aberdulais
Neath
SA10 8HE

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# 1. INTRODUCTION

This statement forms part of the outline working/operational plan, relating to a proposed extension to current landfilling operations at Abergelli Farm, Felindre, Swansea. Various other details referenced to within this operational statement are contained in the appendices.

The licence application relates to approximately 1.4 ha of land located adjacent to Abergelli Farm, near the village of Felindre, Swansea. This is in addition to the current licensed landfill which covers an area of approximately 1.9 ha. The location of the site is indicated in the Ordnance Survey extract at Figure 1. The land is generally low-lying and in its lowermost parts is poorly drained, with gentle cross-falls. The extension area as with the current landfill is owned by Mr. W.B. Llewellyn.

It is proposed to import inert waste material, and deposit it on the proposed site extension indicated in the accompanying plans and sections. The proposed after use for the extension area is agricultural with phased restoration returning the landfill area to grazing land.

Planning permission for the proposed extension area was determined on 8<sup>th</sup> December, 1997 and a copy of the Planning Consent No. 97/1065 is included as Appendix 1.

The site approaches overhead electricity services but sufficient stand-off has been allowed to comply with SWALEC's conditions. No other services cross the site.

The proposed licenced area boundary is indicated as a red line on the site plan in Appendix 2.

# 2. INFRASTRUCTURE

### 2.1 Site Access

Access to the site will be via an unclassified road leading northwards from Llangafelach to the village of Felindre. Approximately 2km north of the junction of the unclassified road with the A48 the site road bears off to the east. The site road which measures 1.4km is an upgrade of the existing access track to Abergelli Fach Farm. The site road is surfaced with asphalt along its entire length and incorporates passing places at 100m intervals.

# 2.2 Fencing

The extension area landfill site does not have a boundary that is common with any public access area, the site lying entirely within the land holding of Abergelli Fach Farm. However, as with the existing landfill, it is proposed to construct a 1.2m agricultural 'pigwire' type fence along the landfill's boundary with the access road. The fence will be topped with a double strand of plain wire, and will extend over the length shown on the attached plan (Figure 5).

# 2.3 Gates

The existing access road passes through landfilling area and continues to meet the Felindre to Tyronnen Road. At the junction of the site access road with the public highway, the entrance gate as is now will be permanently locked. In order that security can be maintained if this gate were to be circumvented by travelling through the Welsh Water Authority Plant, the new security gate installed at the Felindre side of the site forms a secure boundary when the gate is closed against the existing hedgeline and fenceline (Figure 5). With alternative access to the landfill closed, all vehicles as now will have to pass Abergelli Fach Farm and from there travel to the site control office. Beside the site control office, the lockable gate will provide out of hours security. The gates are traditional five bar agricultural gates, fabricated from galvanised steel. When the site is not manned, all gates will be padlocked.

### 2.4 Car Parking

An area immediately adjacent to the gatehouse is surfaced with hardcore and reserved for visitor and operator parking. Two spaces are provided and these will be indicated by appropriate signs. The existing car parking spaces will also be used by the extension area landfilling operation.

#### 2.5 Gatehouse

The current gatehouse comprising a portacabin type building which is situated adjacent to the access track close to the site entrance, will as with the existing landfill control vehicle movements. There are no facilities at the gatehouse other than portable (gas) lighting and heating, as comfort facilities are available at Abergelli Fach Farm. A first aid box is clearly identified in the cabin. These facilities will be used for the extension area.

# 2.6 Site Notice

The site notice board is be situated immediately adjacent to the site gate and displays the following information:-

- . Name of Facility
- Categories of Acceptable Wastes
- Name, Address and Telephone number of site operator
- Emergency Telephone number of site operator
- . Hours of Operation
- Name, Address and Telephone number of Waste
  - Regulatory Authority

# 2.7 Hardstanding

An area of hardstanding will be provided for lorries to turn and queue at the position shown on the Phasing Plans (Figure 5).

# 2.8 Lorry Parking

An area of hardstanding is already provided for long parking, immediately adjacent to the gatehouse.

# 2.9 Haui Roads

Haul roads will be constructed during tipping operations by selectively using free draining materials delivered to the site. The site roads will be maintained to a standard to prevent vehicle bogging and to ensure access to the tipping face under all weather conditions. The site roads will be inspected during each working day, to ensure their operational standard. The Phase I haul road will be ripped up and incorporated into the Phase II wastes immediately prior to Phase I restoration. With progressive restoration envisaged, Phase I restoration will be completed prior to Phase II tipping completion.

# 2.10 Wheelwashing Facilities

The use of properly designed site haul roads should minimise the requirement for wheelwashing. However, as per the existing landfill site practice a portable jet wash system will be kept on site so that any vehicles that require cleaning prior to using the 1.4km site access road can be washed down. Waste water arising from the wheel cleaning operation will be picked up in the perimeter drain and taken along this for settlement prior to discharge.

# 2.11 Compactor/Grader Parking

When not in use the dozer will be parked in the designated forry parking area.

# 2.12 Maintenance and Refuelling Facilities

All plant and machinery will be maintained and refuelled off site in the agricultural maintenance sheds nearby.

# 3. LANDFILLING OPERATIONS

### 3.1 Preparation Works

Prior to landfilling the site access and waste reception facilities will be provided, as shown on the Operational Plans (Figure 5) and the site will be enclosed within a security fence. In accordance with the good surface water management practice, settling lagoons will be constructed at the locations shown on the Phase I diagram.

# 3.2 Phasing

The site will operate as a phased landfill, with each phase running concurrently with the restoration of the previous phase. The site has been divided into two phases which each phase being bounded by permanent or temporary drainage ditches.

# 3.3 Void Space

The void space of the site has been calculated by integrating the existing ground surface (Figure 2) and the restoration surface (Figure 3). The void space of the site is summarised below:-

| Total Void   | 99,898m <sup>°</sup> | Total Tonnage   | 179,816t |
|--------------|----------------------|-----------------|----------|
| Phase 1 Void | 49,909m <sup>3</sup> | Phase 1 Tonnage | 89,836t  |
| Phase 2 Void | 49,989m <sup>3</sup> | Phase 2 Tonnage | 89,980t  |

### 3.4 <u>Acceptable Wastes</u>

The site will accept only inert wastes, as designated by the South West Wales Waste Management Group Classification. The site will not accept liquid wastes or wastes containing liquids.

#### 3.5 Waste Placement

Wastes will be deposited on the working layer close to the top edge of the working face, but no closer than 5m. The tip will have two layers, with each of these achieving a maximum height of 3m. Wastes deposited on the working layer will be bladed over the working face by site plant. Generally, the face will achieve a slope of no greater than 1:3.

# 3.6 Phase 1

Once all operatives associated with the existing landfill are completed Phase 1 operations will commence with the excavation of a perimeter drain and temporary drain which will contain all waters arising from operations within Phase 1. Both drains will discharge into a temporary settling lagoon before final discharge into the existing drainage ditch. Preparation works will also involve the removal of in-

situ peat which will also be included into Phase 1. A total tonnage of 15,412t of peat will be incorporated.

Tipping operations will commence with the continuation of the haul road, formed of selected hardcore. The tipping face, which will achieve a maximum height of approximately 4m will be bladed out with a small dozer to maintain a gradient of 1 in 3 or less. During the tipping operations imported topsoil will be selectively deposited against the access road to await final spreading over the completed phase. The tipping face will advance downslope.

# 3.7 Phase 2

Phase 2 operations will commence with the excavation of a temporary drain which will trap surface water runoff from the Phase 2 operation. The phase will be bounded by two temporary drains with the one bounding Phase 1 progressively overtipped as the tipping face advances. Both drains will continue to discharge to settling lagoons until the first phase lagoon is infilled. All discharges will then be diverted into the Phase 2 settling lagoon. The site haul road will be moved to provide easy access for Phase 2 and like Phase 1 the tipping face will advance downslope. During the operational phase, topsoil will be selectively stored adjacent to the main site road used during the progressive restoration of Phase 2. Whilst Phase 2 is being actively tipped, Phase 1 will be re-graded to final profile and restored. The infilling of Phase 2 completes the site operations.

# 3.8 Restoration Phase

When the importation of inert materials is complete, the phase will be restored and the site will be decommissioned, having changed virtually unusable marshy area into suitable agricultural land. Provision will be made to ensure that as previously all run off from the restored landfill is diverted into the existing drainage ditches.

# 3.9 Restoration Soils

Soils which are brought to the site for disposal but are deemed to be suitable to form a restoration topsoil will be spread directly onto the completed parts of the landfill. Should any surplus soils be delivered these will be stored on the most recently restored parts of the landfill to depths of no greater than 1m to avoid overcompaction. If it is anticipated that the soil stockpile will be in being for longer than 1 month it will be lightly compacted by tracking to reduce rainwater infiltration and saturation. It is not anticipated that peat would be stripped in advance of the landfilling to provide a topsoil.

### 3.10 Tipping Operations

Vehicles depositing wastes at the site will pass through the current reception area and travel along the site roads to the tipping face. They will back up toward the tipping face under the direction of a member of site staff. When the vehicle has discharged its load and left the face area the wastes will be pushed over with a small dozer. The tipping face will have an angle no steeper than 1:3, which is the maximum practical gradient for dozer operations.

# 4. WASTE RECEPTION PROCEDURES

# 4.1 Entry to Site

The site entrance will be securely locked outside normal opening hours. During opening hours vehicles will enter the site by the only entrance and immediately report to the site office, which is located adjacent to the entrance and site identification board (Figure 5).

# 4.2 Hours of Operation

The landfill will be operational between 08.30 and 16.30 during weekdays, and between 08.30 and 13.30 during Saturday. There will be no Sunday working.

# 4.3 Daily Input

As with the existing licensed landfill a daily maximum of 35 vehicle movements is anticipated depositing a daily maximum of 490 tonnes (257m<sup>3</sup> per day). This amounts to 1 tipping cycle per 14 minutes. A normal days operation is likely to involve 10 vehicle movements depositing 140 tonnes (74m<sup>3</sup>) of wastes, with a turnaround time of 45 minutes.

# 4.4 Inspection

All site users will be aware of the acceptable wastes having read the site identification board. Despite this the site supervisor will make a visual inspection of loads entering the site to see that the wastes fall within the licensed waste category.

# 4.5 Unauthorised Wastes

It is possible that even with the most rigorous inspection system small amounts of waste materials falling outside the permissible categories will be deposited and subsequently identified at the working face. If these wastes are easily picked from the waste mass they will be removed by hand and loaded into a skip kept at the working face. The unauthorised waste skip will be removed to a suitably licenced landfill when full or at fortnightly intervals, whichever is the soonest.

Where the unauthorised wastes are disseminated throughout an incoming load, making hand picking too time consuming the entire load will be re-loaded onto the delivery wagon and sent to a suitably licenced landfill. The site record book will record these facts.

Where the unauthorised wastes has a particular potential for environmental harm, the following procedures will be followed:

- 1. Visually examine objects or materials.
- 2. Contact Waste Regulator for handling and disposal advice.

- 3. If the materials can be moved safely to secure storage don appropriate PPE for the substance or materials and transfer these from the waste mass into a secure container.
- 4. If the materials cannot be moved safely, isolate the area and act upon external agency (EA, Fire Service, HSE) advice.
- 5. Materials placed into secure storage should be removed to a disposal site with the consent of the Waste Regulators.

# 4.6 Deposition of Wastes

When the wastes are confirmed to be acceptable by the visual inspection the details of the waste consignment will be recorded in the site diary. This will log the following details:-

- i) Transferring Company/Organisation
- ii) Vehicle Registration
- iii) General Origin of Wastes
- iv) Date and Time of Delivery
- v) Volume/Tonnage of Waste
- vi) Drivers Signature

Copies of transfer notes raised by the depositing organisation will also be kept.

# 4.7 Waste Input Recording

As the site is without a weighbridge, waste input will be recorded either by multiplying vehicle volumes by 1.5 tonnes/m<sup>3</sup> or by taking maximum net load of the vehicle. These methods comply with Appendix B of "A General Guide to Landfill Tax" published by HM Customs & Excise, 1997.

# 4.8 3 Monthly Returns

At 3 monthly intervals the licensing authority will be supplied with void use returns. An equivalent tonnage will also be supplied. The returns can be 'audited' annually by land survey if required.

# 4.9 <u>Unacceptable Wastes</u>

In the event that a consignment of waste arrives which contains or is composed of wastes outside the licensed category the load will be refused entry to the site. The location of nearby sites which can accept other categories of waste will be kept on record at the site office to assist the driver of the rejected load.

# 4.10 Identification of Unacceptable Wastes at the Tipping Face

Should unacceptable wastes pass through the checking-in system their composition will be clearly identifiable at the tipping face. The site supervisor will collect the wastes and load them into an appropriate receptacle for transport to a suitably licensed facility. The WRA will be informed of all such events and they will be recorded in the site diary.

# 4.11 Record Keeping

All of the records kept at the site, including transfer notes, tipping records, visitor and accident books together with environmental monitoring and site inspection notices will be kept at the site office and will be available for inspection by the Agency during normal working hours.

# 5. THE CONTROL OF MUD, DUST AND WATER

### 5.1 Mud

A daily inspection will be made to evaluate the need for wheel washing. If mud is picked up from the tipping face and has not been shaken off within the site (early stages of Phase I and 2) wheelwashing facilities will be used. The decision on wheelwashing will be made daily by the site operator.

If mud has been deposited on the public highway the site operator will ensure a road sweeper is used to remove all traces.

# 5.2 <u>Dust</u>

In very dry weather certain inert wastes generate significant amounts of dust when being tipped and bladed. Under these circumstances water suppression will be used to keep dust levels down. The water will be provided by bowser brought to the tipping face for damping down. Site roads will be sprayed at regular intervals to suppress dust.

# 5.3 Surface Water Control

Surface water will be controlled by the provision of perimeter drains and temporary internal drains. The perimeter will be retained to take direct surface runoff from the restored landfill. Contaminated water running directly off the landfill will be diverted to temporary settlement lagoons. The calculation of settling lagoon dimensions and attenuation pond dimensions has been undertaken in accordance with "Technical Management of Water in the Coal Mining Industry" published by NCB, 1982. Calculations can be found at Appendix 3.

The effectiveness of the attenuation and settling pond system will be monitored by visual observation on a daily basis. Each of the perimeter drains will be inspected daily to ensure they remain free flowing.

# 6. MANNING

The site will be manned by three employees of the licence holder during is opening hours. The three members of staff will have the following responsibilities:-

#### 6.1 Site Supervisor

Daily inspection of infrastructure
Routine maintenance of plant and equipment
Load Inspections
Liaison with WRA
Inspection of Mud and Dust suppression
Water Quality Monitoring

# 6.2 <u>Machine Driver/Banksman</u>

Directing lorries at the tipping face Maintaining face and site road in usable condition General maintenance

# 6.3 Records Clerk

Recording of waste input and transfer note filing Liaison with Waste Regulation Authority

# 6.4 Licence Holder

Overall co-ordination of disposal activities

# 6.5 Out of Hours Manning

The licence applicant lives at Abergelli Fach Farm which lies immediately adjacent to the site. The supervisor will be at hand to deal with any out of hours emergency. The telephone number displayed on the Site Identification Board will be the telephone number of Abergelli Fach Farm.

# 6.6 Technically Competent Site Management

The site falls outside the scope of the WAMITAB scheme as it is an inert site with a capacity of below 50,000m<sup>3</sup>. The management, comprising the licence holder and an employee will be assessed for technical competence by the Environment Agency. One of these two site managers will be available at all times, and holiday cover will be scheduled between them.

# 7. MONITORING

A programme of environmental monitoring will take place at the site commencing before the site accepts wastes and terminating when agreement has been reached with the Agency that completion criteria have been met. The monitoring programme can be broken into three elements, as detailed below:

# 7.1 Pre-Construction Monitoring

Landfill gas will be sampled at the locations shown on Figure 6. The natural background levels of methane, carbon dioxide, oxygen and hydrogen sulphide will be measured at ten locations across the site of the proposed landfill. Gas concentrations will be measured using an Analox 1200 portable infra-red gas analyser connected to a 1m perforated steel gas spike. As the site is underlain by peat deposits it is possible that methane gas will be detectable before filling commences.

Surface water will be sampled at the location shown on Figure 6. The sample will be submitted to a NAMAS accredited laboratory for the determination of:

pH, Conductivity, Suspended Solids, Ammonical Nitrogen, COD, Cu, Cr, Cd, Ni, Pb, Zn, Fe and As

Pre-construction monitoring will be undertaken twice before the commencement of filling, but in the event of a significant difference between concentrations a third series of tests will be undertaken.

# 7.2 Operational Monitoring

Monitoring during the operational phase of the landfill will comprise of the same determinands as described in section 7.1 for pre-construction monitoring and at the same locations for both gas and surface water. The frequency during the operational phase will however be on a quarterly basis. The operational monitoring will continue during the landfilling period.

# 7.3 Post Closure Monitoring

Post closure monitoring will comprise of the same determinands as for both the pre-construction and operational phases, again at the same locations. The frequency of the monitoring will be 6 monthly for a period of two years. Once this is completed the data will be scrutinised to see whether completion criterion will be met for the landfill.

# 8. **RESTORATION**

Progressive restoration will ensure that only a single phase is operational at any one time. Selected topsoil, stockpiled at the edge of each phase will be pulled over the profiled wastes to a depth of 150mm as the tipping face progresses. Before topsoiling the wastes will be compacted to give an even surface profile.

When placed to the appropriate level the topsoil will be fertilised and seeded, following guidelines published by the Countryside Commission.

# Typical Restoration Seeding Plan

| Meadow Grass | 30% |
|--------------|-----|
| Fescue       | 40% |
| White Clover | 15% |
| Ryegrass     | 15% |

Sown at a density of 80 kg/ha

The restored landfill is slightly domed to allow surface water runoff into the perimeter drains and drainage ditches (Figure 3). The landfill will be used for general agricultural purposes.

# 9. COMPLETION AND LICENCE SURRENDER

When tipping operations have ceased and the restoration has become established the licence holder will wish to surrender his Waste Management Licence. The Environment Agency will require substantiated evidence that the site is not and will not pose a risk to the environment or to human health. The general strategy in demonstrating that completion criteria have been met is to provide a sequence of monitoring data over an appropriately long timescale. Monitoring will generally commence before landfilling operations begin (background monitoring), will continue through the operational period of the landfill and will conclude sometime after restoration is complete when the data shows that the site poses no further risk.

This landfill is sited in a low lying area which is known to be underlain by several metres of peat. The near surface deposits have been partly obscured by overtipping which was undertaken when the site was used as a coal mining waste dump. Beneath the peat the ground is believed to comprise colluvial clays which give way at depth to boulder clay.

The solid geology beneath the site comprises fine grained sedimentary strata belonging to the Grovesend Beds of the Upper Coal Measures. The strata contain undifferentiated siltstones and mudstones and a number of workable coal seams which dip gently towards the south. Several north-south trending faults are indicated on the published geological plans with one projected to run directly beneath the site.

Surface water from the vicinity of the site drains westwards to eventually join Nant y Crimp which drains into Afon Lliw. The landfill will encroach into the eastern edge of a peat bog which has a standing water level approximately 700mm below ground level. The peat bog drains into a stream which runs approximately 400m to the west of the site.

Currently, there are two potential sources of methane gas at the site, these being biodegradation in the peat bog and coal bed methane from the underlying strata. If completion criteria are to be met the applicant will have to demonstrate that the waste materials are not contributing methane due to the degradation of organic materials. This will be achieved by undertaking a series of gas tests at monthly intervals. The tests will comprise measuring the concentration of methane, oxygen carbon dioxide and atmospheric pressure in accordance with Waste Management Paper No. 27 at four locations as shown on Figure 6. The gas monitoring installations will be simple gas spikes. Gas monitoring will commence prior to landfilling and will continue until the Agency is satisfied that completion criteria have been met.

Background water quality monitoring will commence prior to landfilling and will continue until the Agency is satisfied that completion criteria have been met.

It is anticipated that two years of post-closure monitoring will be required to demonstrate completion.

# 10. EMERGENCY PLAN

This emergency plan is generic and covers emergencies which could occur at Abergelli Landfill falling within three broad categories, medical, fire and environmental emergencies.

#### 10.1 Medical

In the event of medical emergency -

- 1. Check and maintain airway.
- 2. Establish breathing.
- 3. Control bleeding.
- 4. If possible send for help and remain with casualty. If not go to site cabin, call 999 ask for ambulance. State the following:

Emergency at Abergelli Farm Landfill Site.

Describe the nature of the emergency.

Describe the cause of the emergency.

Give the site telephone number and directions to the site off the A48.

Inform whether the telephone will be manned.

In the event of requiring medical treatment when the casualty is capable of being moved safely and comfortably the nearest accident and emergency hospital is Morriston Hospital. In the event that the site supervisor leaves the site the landfill must be secured to prevent disposal of loads which have not been inspected.

#### 10.2 Fire

In the event of fire within the site cabin it should be immediately evacuated if an initial attempt at fire fighting within an extinguisher is unsuccessful. The fire service should be called and the following information should be stated:

Fire at Abergelli Farm Landfill Site.

Describe the nature of the fire.

Inform the service that bottled gas is used within the site cabin.

Give the site telephone number and directions to the site off the A48.

Inform whether the telephone will be manned.

In the event of a fire on the landfill site all personnel should be moved to a mustering point close to the site cabins. If the fire is small the site dozer should cover it over by pushing soils to smother it. If the fire is too large to safely extinguish the fire service should be called and the information above should be stated, with the exception of the bottled gas details.

In the event of a fire within the unauthorised waste skip an attempt should be made to extinguish it by either soil covering or using the site extinguisher. As the skip is water-tight residue from the burning will remain contained, and will be disposed in the normal way. The Environment Agency shall be informed as soon as is practical and in any event within 1 hour of the fire.

In the event of a fire at the base of the tip which could potentially ignite peat deposits the fire service shall be called immediately, as shall the Environment Agency.

There are two fire extinguishers kept at the site, these being behind the door and on the far wall of the site office. These extinguishers will be inspected at the frequency recommended by the manufacturer/supplier and will be certified as such on the extinguisher.

# 10.3 Environmental

An environmental emergency at this inert landfill site is extremely unlikely due to the benign nature of the waste materials. Excess suspended solids if discharged would not immediately impact upon surface water courses but would be retained in the peat bog for some considerable time.

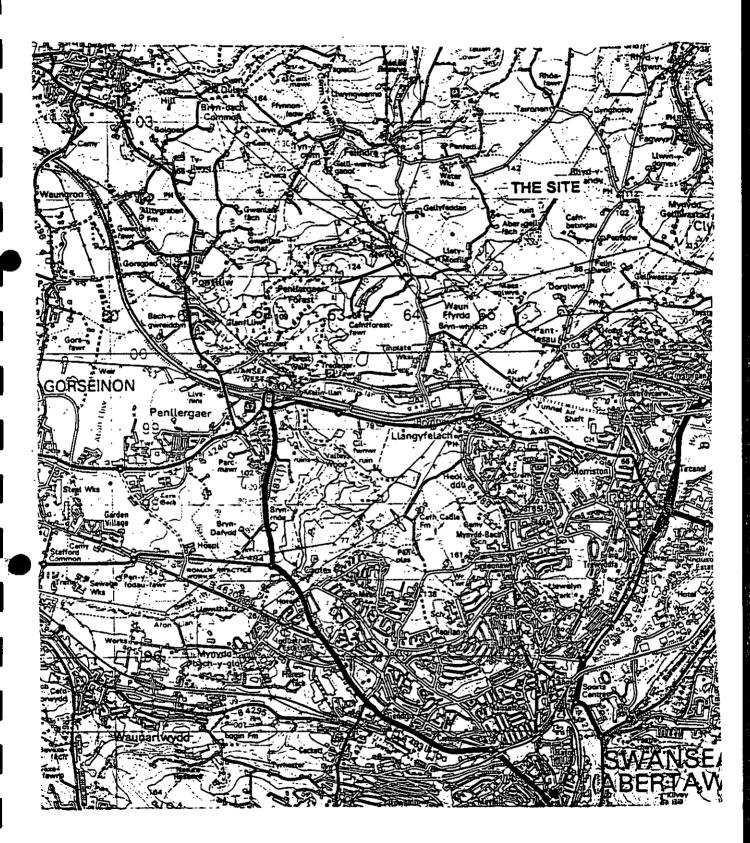
Refuelling and maintenance will occur off site and liquids are specifically prohibited by the terms of the licence. Any conceivable liquid spillage at the site therefore would be from a vehicle breakdown and would comprise lubricant oils leaking from the vehicles. In the event of such a breakdown the site plant will recover the vehicle to a safe position and will immediately scrape up the contaminated soil and load this into the unauthorised waste skip. A record of this operation will be made in the site diary.

In the event that an unidentifiable substance is present within an incoming load, the load shall be treated as being out of compliance with the licence. The Environment Agency shall be consulted so that the substance can be identified and can be re-routed to an appropriately licenced landfill site. The vehicle carrying the load shall be held on the yard in front of the site office and will not be permitted to move onto the landfill site.



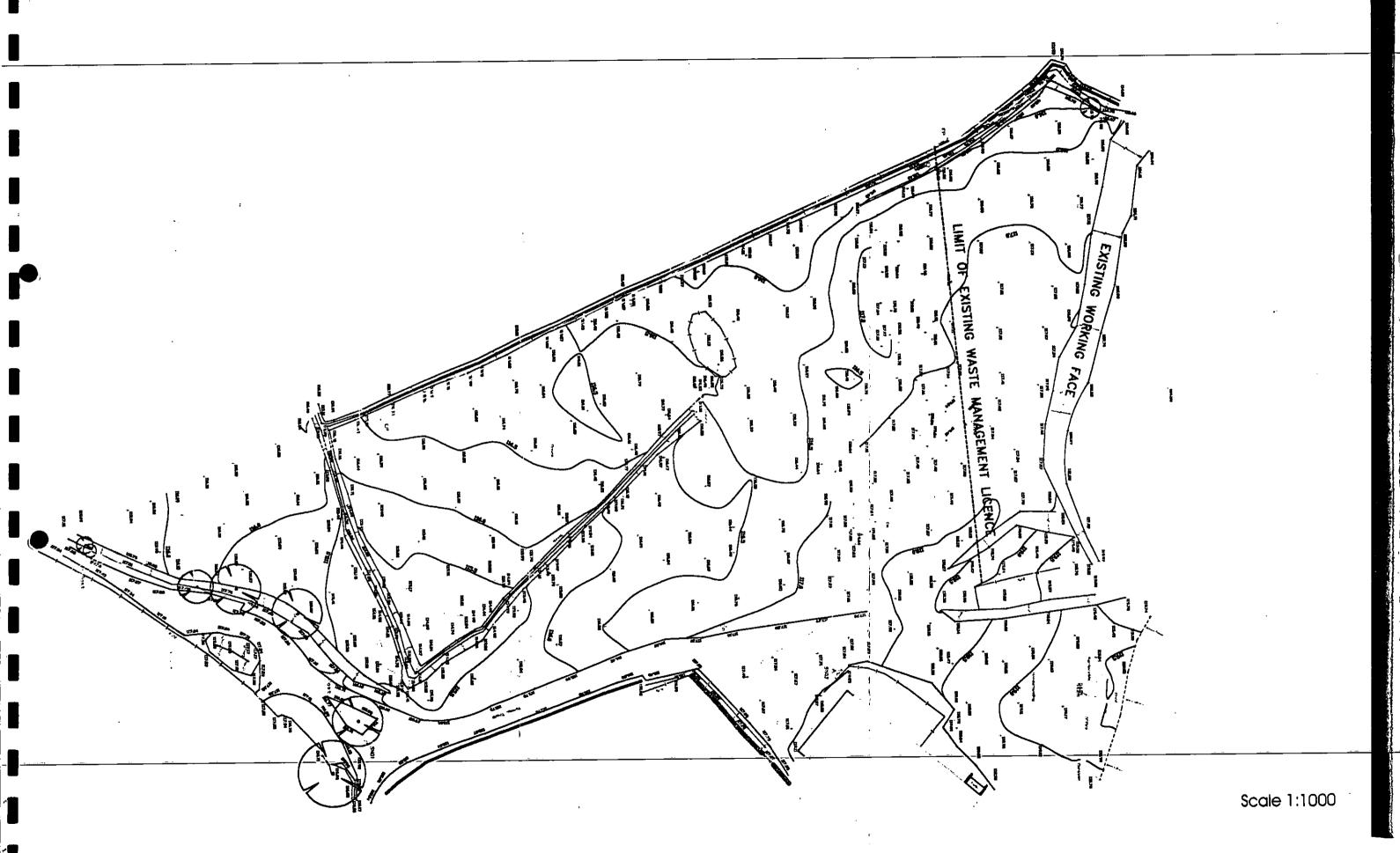
### Figure 1 Site Location Plan

SCALE 1:50,000 at A4

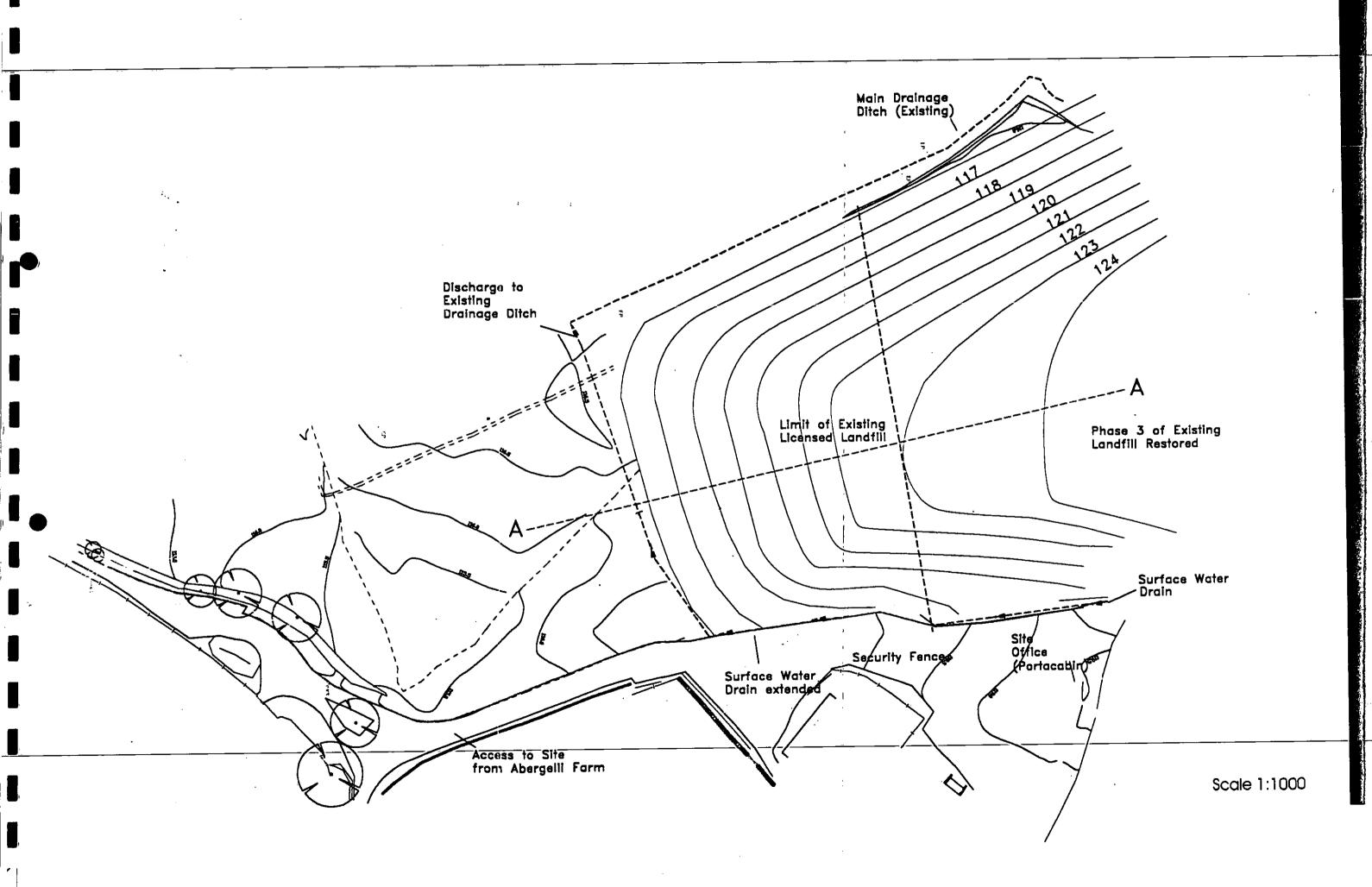


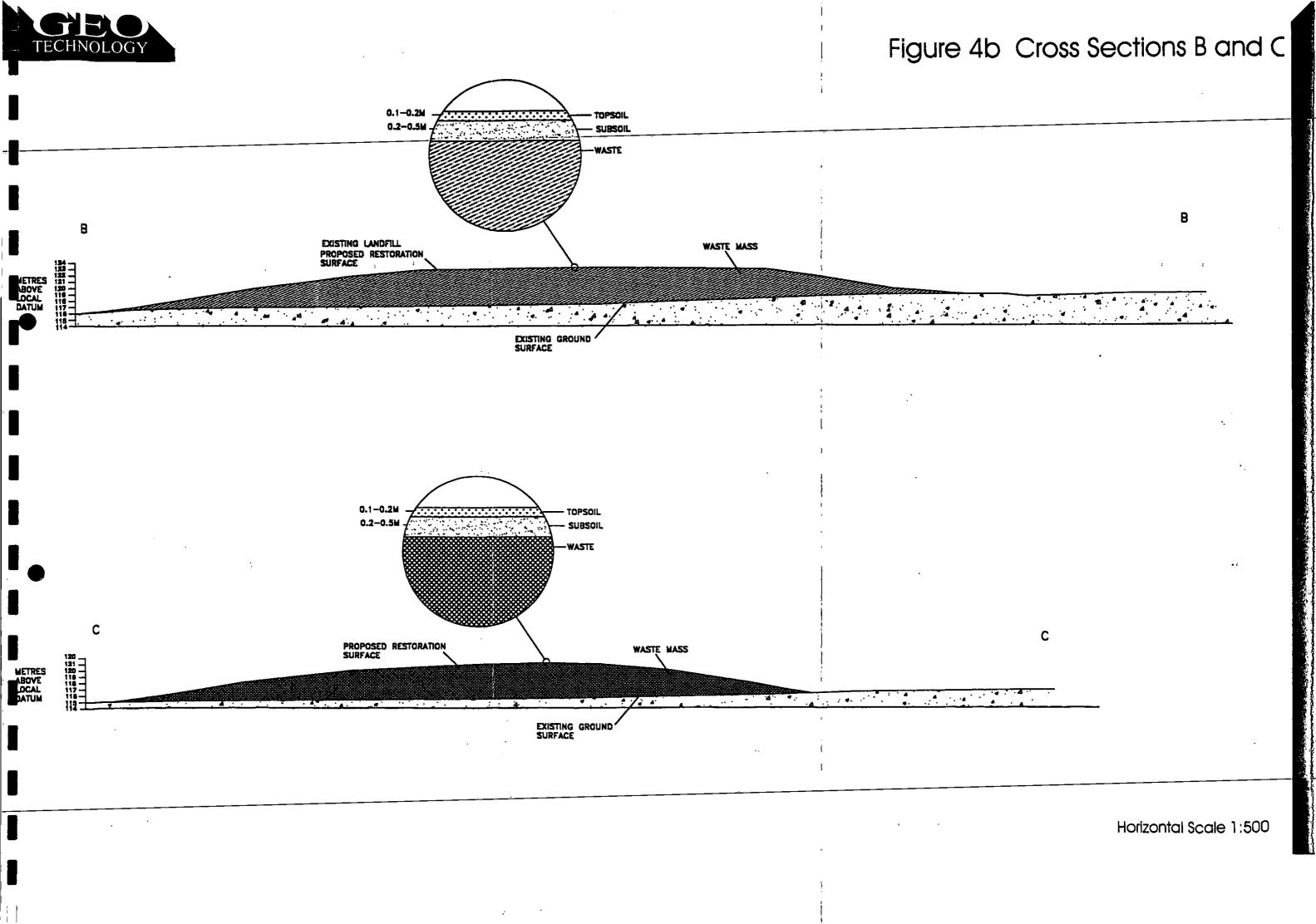
Based upon the 1995 Ordnance Survey 1:50,000 scale Landranger Map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, Geotechnology SA10 8HE No. AL 50598A

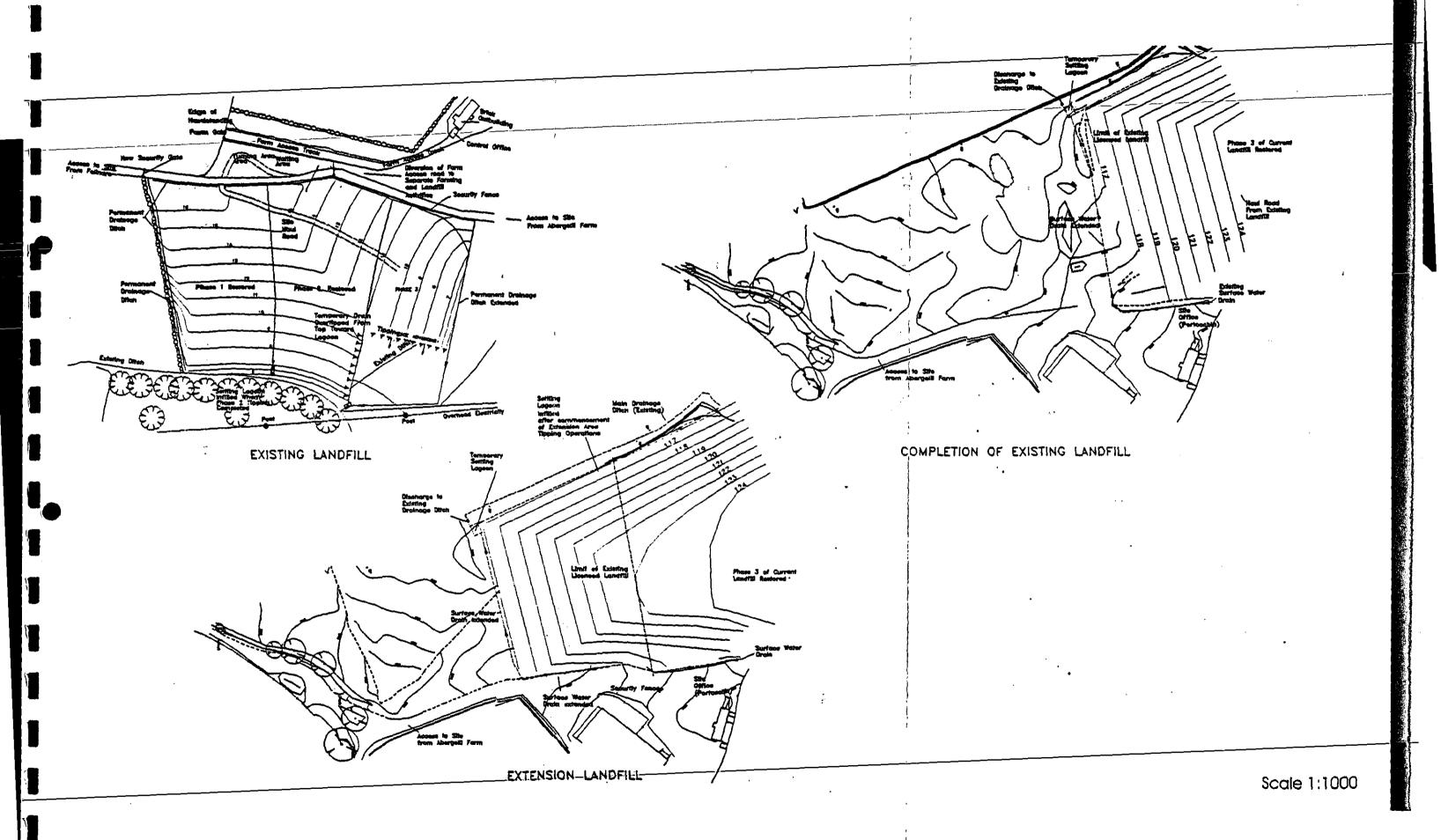




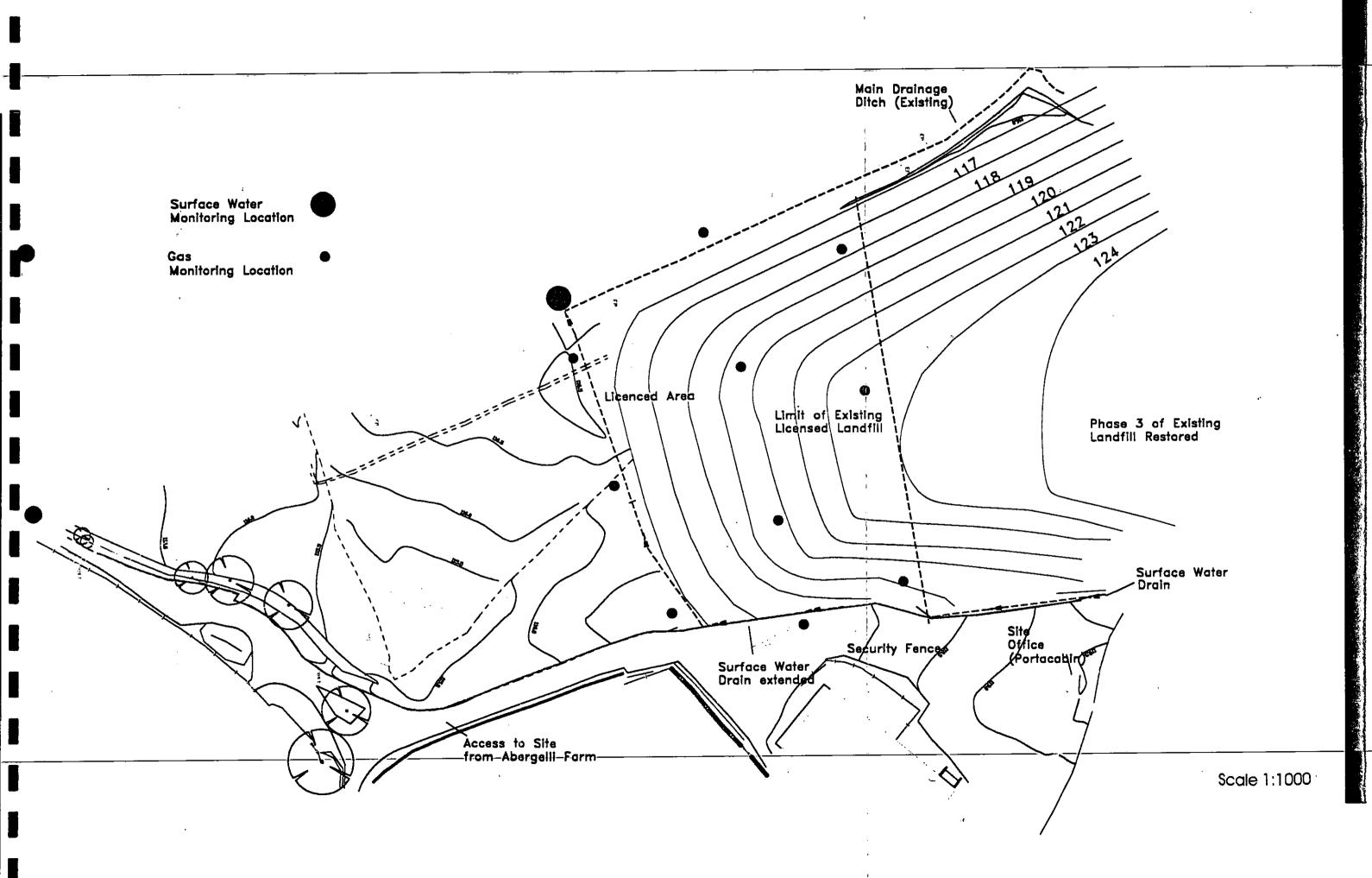












## Appendix 1

**PLANNING CONSENT** 

### CITY AND COUNTY OF SWANSEA

### **TOWN AND COUNTRY PLANNING ACT 1990**

#### **GRANT OF PLANNING PERMISSION**

To:

CARL'ISLE DAVIES & NORTH 77, HERBERT STREET PONTARDAWE SWANSEA SA8 4ED

PLANNING APPLICATION NO. 97/1065

DATE REGISTERED: 30th July 1997

APPLICANT: R W B LLEWELLYN

The City and County of Swansea, in exercise of its powers under the above ACT, hereby GRANTS planning permission for:-

EXTENSION TO INERT LANDFILL TIPPING SITE FOR AGRICULTURAL LAND RECLAMATION

at:-

ABERGELLI FARM - FELINDRE SWANSEA SA5 7NN

as referred to in your application and shown on the accompanying plan(s), subject to the following condition(s):-

01

This consent shall enure for a period of 5 years only from the date of this consent. At the expiration of 5 years, the tipping operations shall have ceased and the landscaping of the site completed.

02

No development shall take place without the prior written approval of the Local Planning Authority of a scheme for the phased landscaping of the site. The landscaping scheme shall be carried out within 12 months from the cessation of tipping. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted.

03

Access and egress to the application site, for vehicles tipping at the site, shall be via the existing access road approved under previous planning permission 2/2/93/0231/03 only. No access for vehicles using the tip shall be obtained via the existing northern access to Abergelli Farm.

04

Inert waste only must be used as fill material (see definition at Informative No. 02).

05

Prior to any development being commenced in respect of this proposal, details of a lagoon system must be submitted to the Local Planning Authority for consideration. The approved system must be installed prior to any tipping being commenced in respect of this proposal.

06

Within one month of the completion of the landscaping operations, the site control office shall be removed from the site and the area reinstated in accordance with a scheme to be submitted to and approved in writing by the Local Planning Authority.

07

There shall be no crushing or screening of any materials on the site whatsoever.

80

No processing, sorting or re-excavation of any waste shall take place within the application site without the prior written consent of the Local Planning Authority.

09

No materials shall be burnt within the boundaries of application site whatsoever.

10

Details of wheel washing equipment shall be submitted to the Local Planning Authority prior to any tipping operations on this site being commenced. The approval details shall be installed prior to the tipping operations commencing.

1 1

All vehicles leaving the waste facility shall use the wheel cleaning apparatus required by condition 10 above.

The reasons for the Council's decision to GRANT permission for the development, subject to compliance with the conditions specified are:-

01

The Local Planning Authority considers that a 5 year period is appropriate in this instance in order to complete the works referred to in the application.

02

To ensure that the site is satisfactorily landscaped having regard to its location and the nature of the proposed development and to accord with Section 197 of the Town and Country Planning act 1990.

03

To prevent heavy lorries using the narrow roads in the Felindre area.

04

To prevent pollution.

05

To prevent pollution.

06

In the interests of visual amenity.

07

Permission is granted for landfill operations only.

08

To ensure that the minimum amount of processing, sorting or re-excabation is undertaken and to prevent the creation of a waste transfer station being established at the facility.

09

In the interest of environmental amenity.

10

To ensure no mud or other debris is carried onto public highways.

1 1

To ensure no mud or other debris is carried onto public highways.

#### INFORMATIVES:

01

The drawing numbers/description to which this decision refers are as follows:

Drawing(s) No(s): Figs. 2, 3.1, 3.2, 4a.1, 4a.2, 4b1, 4b2, 5.1, 5.2 dated/received 25th July 1997.

02

INERT WASTE shall mean solid or granular dry materials, free from any naxious, poisonous or polluting substances, which does not decompose or for which the environmental impact of decomposition is less than, or comparable with, that of topsoil and is virtually insoluable in water. It includes such inert wastes as topsoil, subsoil, brickwork, stone, concrete, clay, sand, silica (excluding finely powdered waste) glass.

03

The site operator should ensure that there is no possibility of contaminated water entering and polluting surface or underground waters.

04

Any culverting of a watercourse requires the prior written approval of the Local Authority under the terms of the Public Health Act 1936, and the prior written consent of the Agency under the terms of the Land Drainage Act 1991/Water Resources Act 1991. The Agency seeks to avoid culverting, and its consent for such works will not normally be granted except for access crossings.

05

The developer must not, in any way, create an obstruction or a restriction to the flow of a watercourse under normal or flood flow conditions.

06

The Agency and the Local Authority have permissive powers to maintain watercourses depending on the watercourse's definition as 'Main River' or 'Ordinary Watercourse'. The responsibility for general maintenance of the river and its banks rests with the riparian owners.

07

Any modification to the working plan agreed with the Waste Regulation Authority which constitutes development shall be subject to a further planning application to the Local Planning Authority, which will be considered on its individual merits at that time.

08

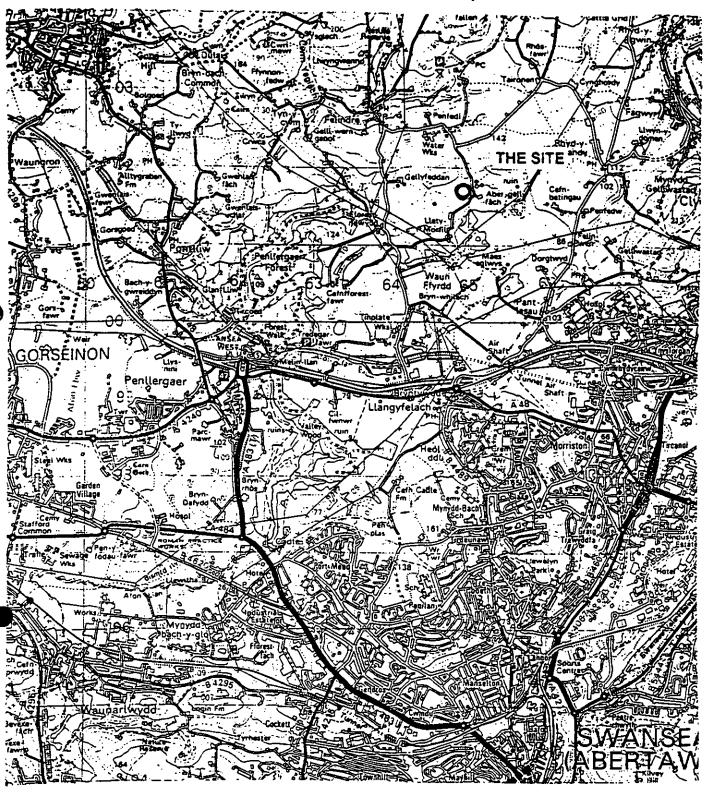
The applicant is requested to investigate the possibility of installing a direction sign to the site from the public highway.

Dated: 8th December 1997

DIRECTOR OF PLANNING The Guildhall, Swansea

PLEASE NOTE - Your attention is drawn to the attached notes which explain, amongst other things, your right of appeal against this decision.

97/103.



Based upon the Ordnance Survey's 1:50,000 map of 1995 with the permission of the Controller of Her Majesty's Stationary Office, (c) Crown copyright.

GEOANALYSIS LTD GROVE HOUSE GROVE PLACE POR! [JABO] SA:3 IXA



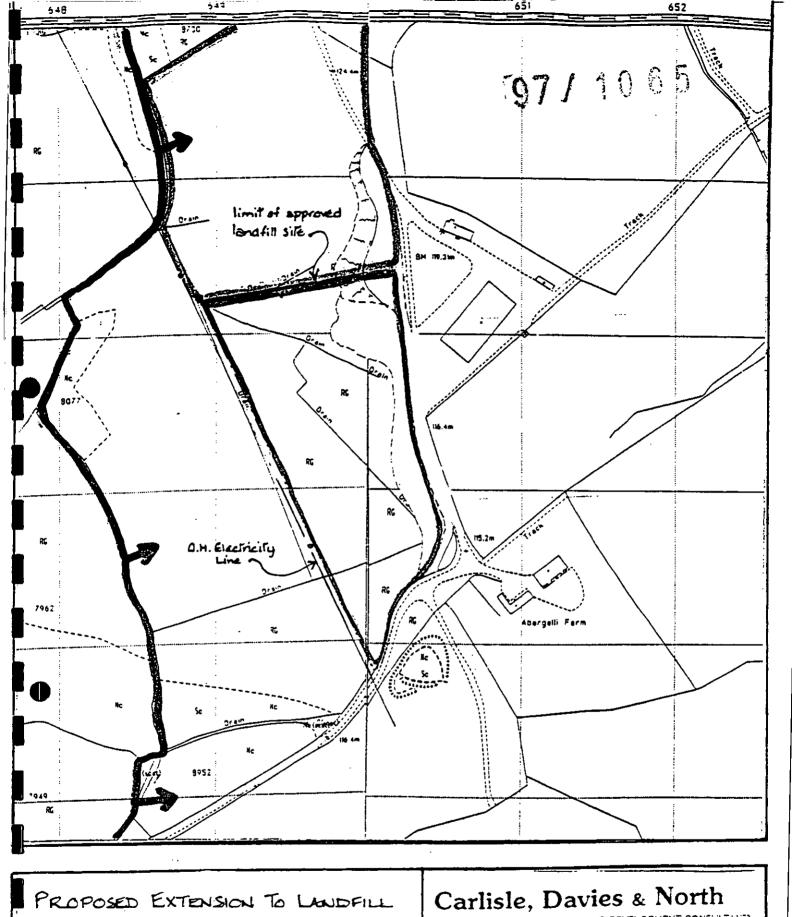
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SITE LOCATION PLAN

PROJECT: ABERGELLI FARM, PHASE II

ag

1



PROPOSED EXTENSION TO LANDFILL TIPPING OPERATIONS AT ABERGELLI FARM, FELINDRE, SHANSEA, FOR MR. W.B. LLEWELLYN.

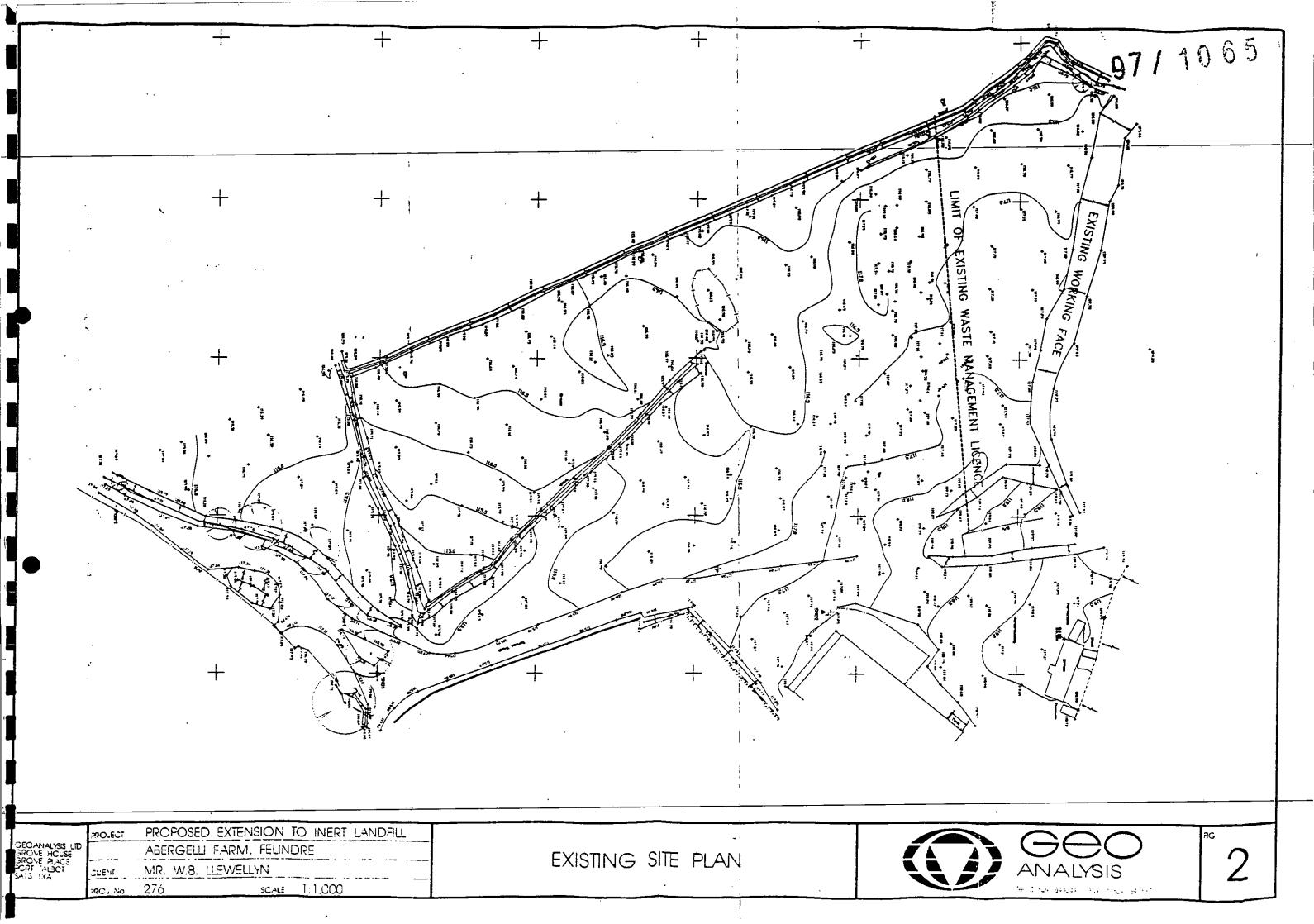
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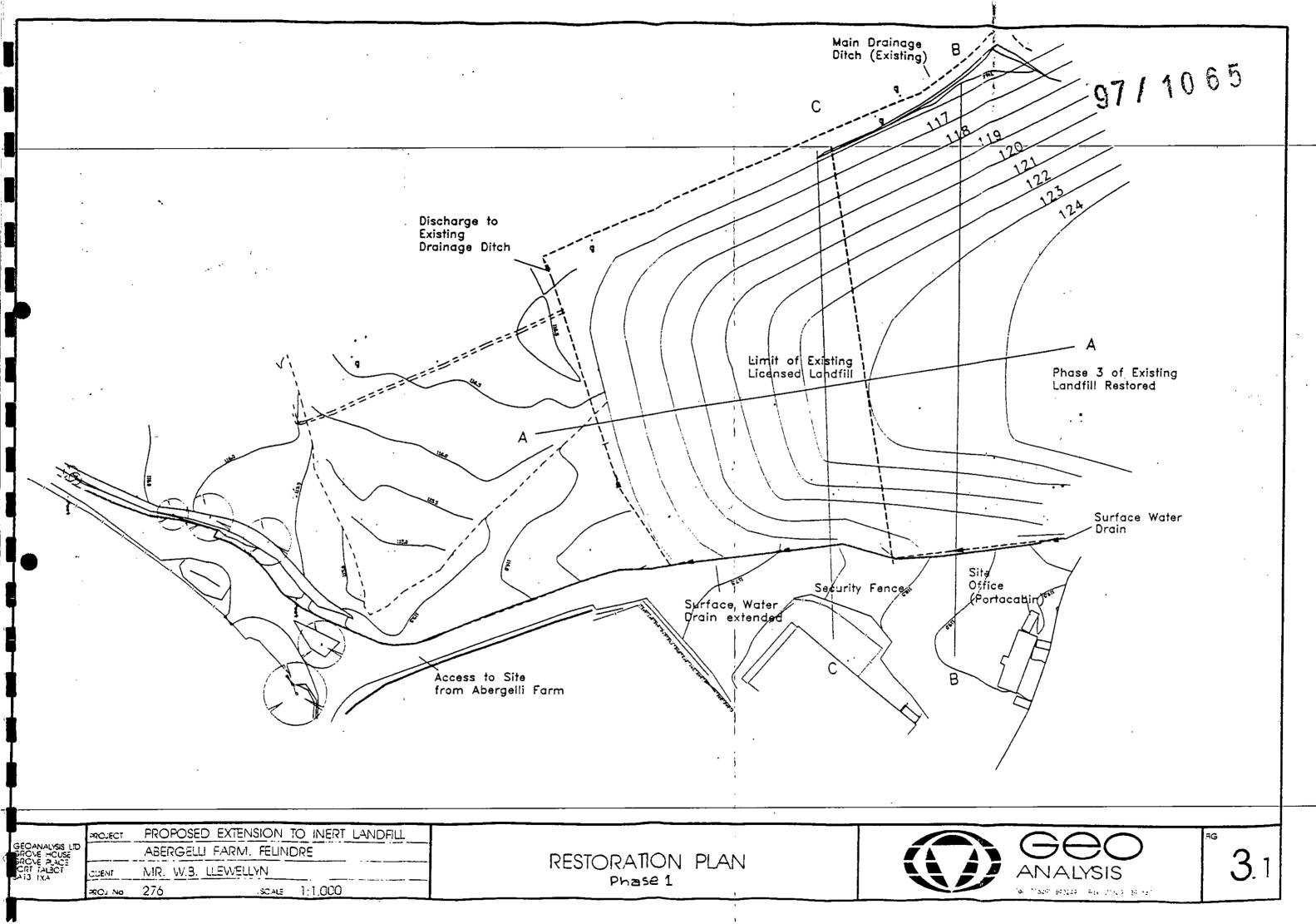
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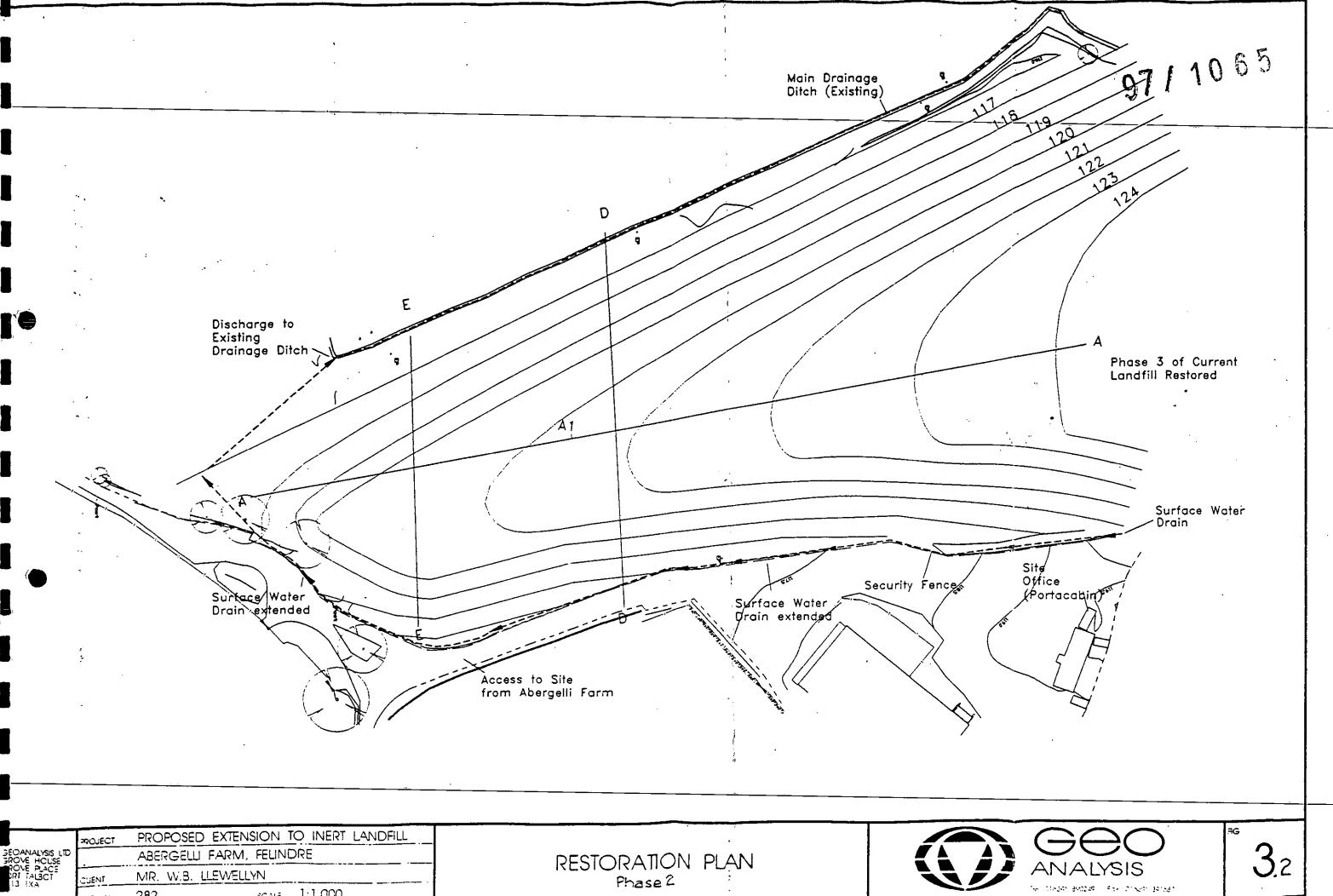
CHARTERSO TOWN RUANNERS AND DEVELOPMENT CONSULTANTS YMCHNGHORWYR CHNULUNG A ĐATSUNGU

77 Herbert Smeet Pontardawi Fortiardawic Swenses West Gamorgan SAS 4ET Tel: 0792 930238 (2 tines) Fax: 0792 363890

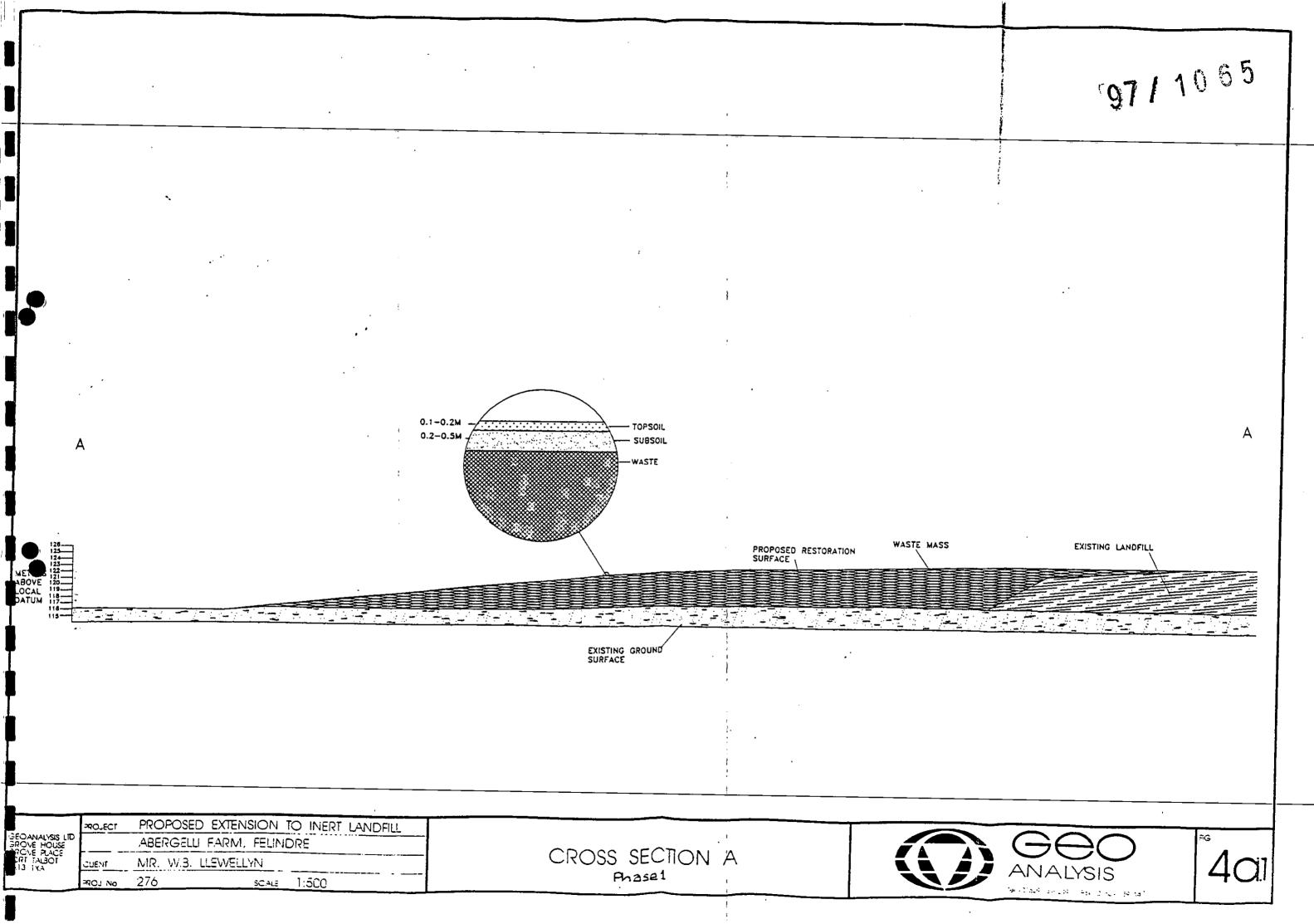
SITE IDENTIFICATION PLAN - Scale 1: 2500

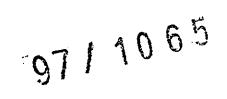


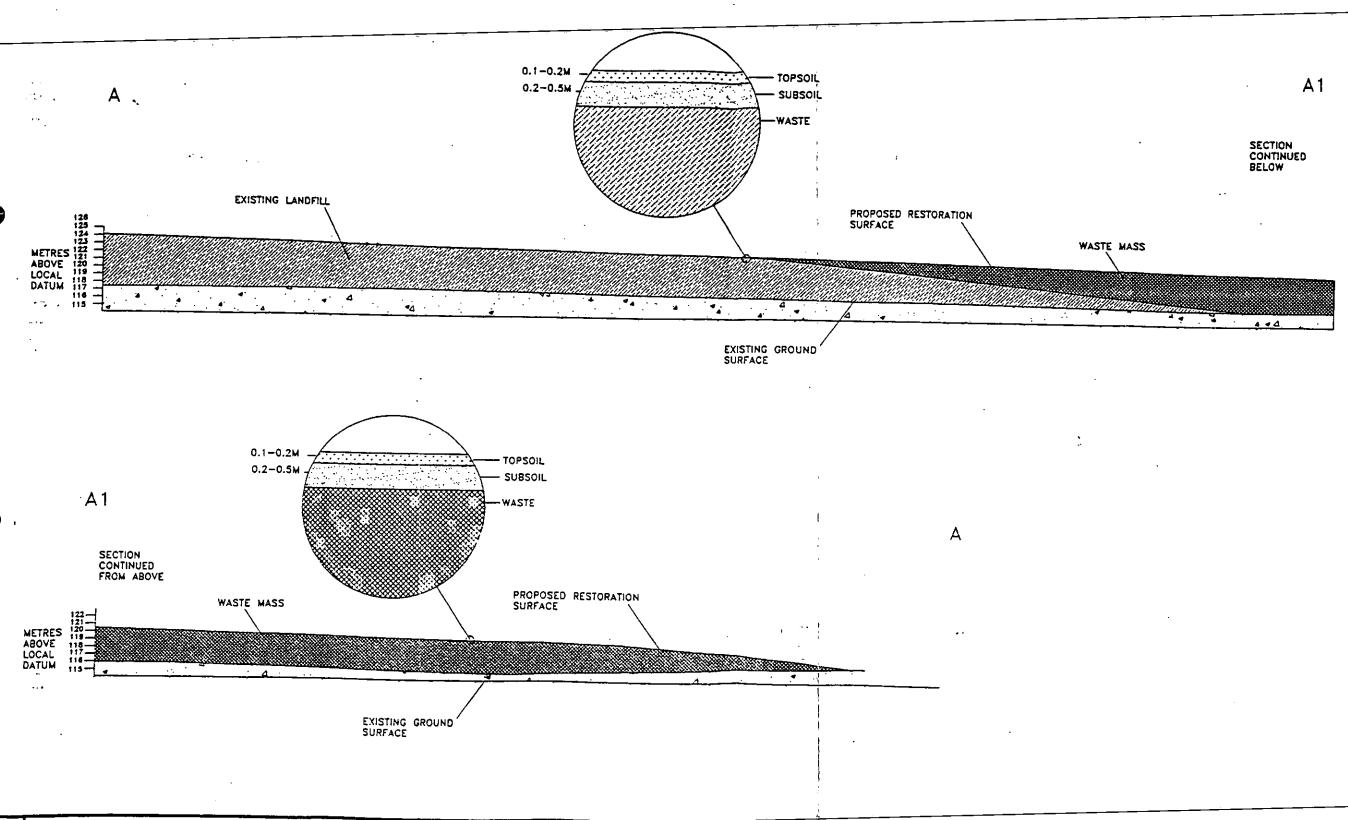




SCALE 1:1.000 282







PROPOSED\_EXTENSION\_TO\_INERT\_LANDFILL

ABERGELLI FARM, FELINDRE

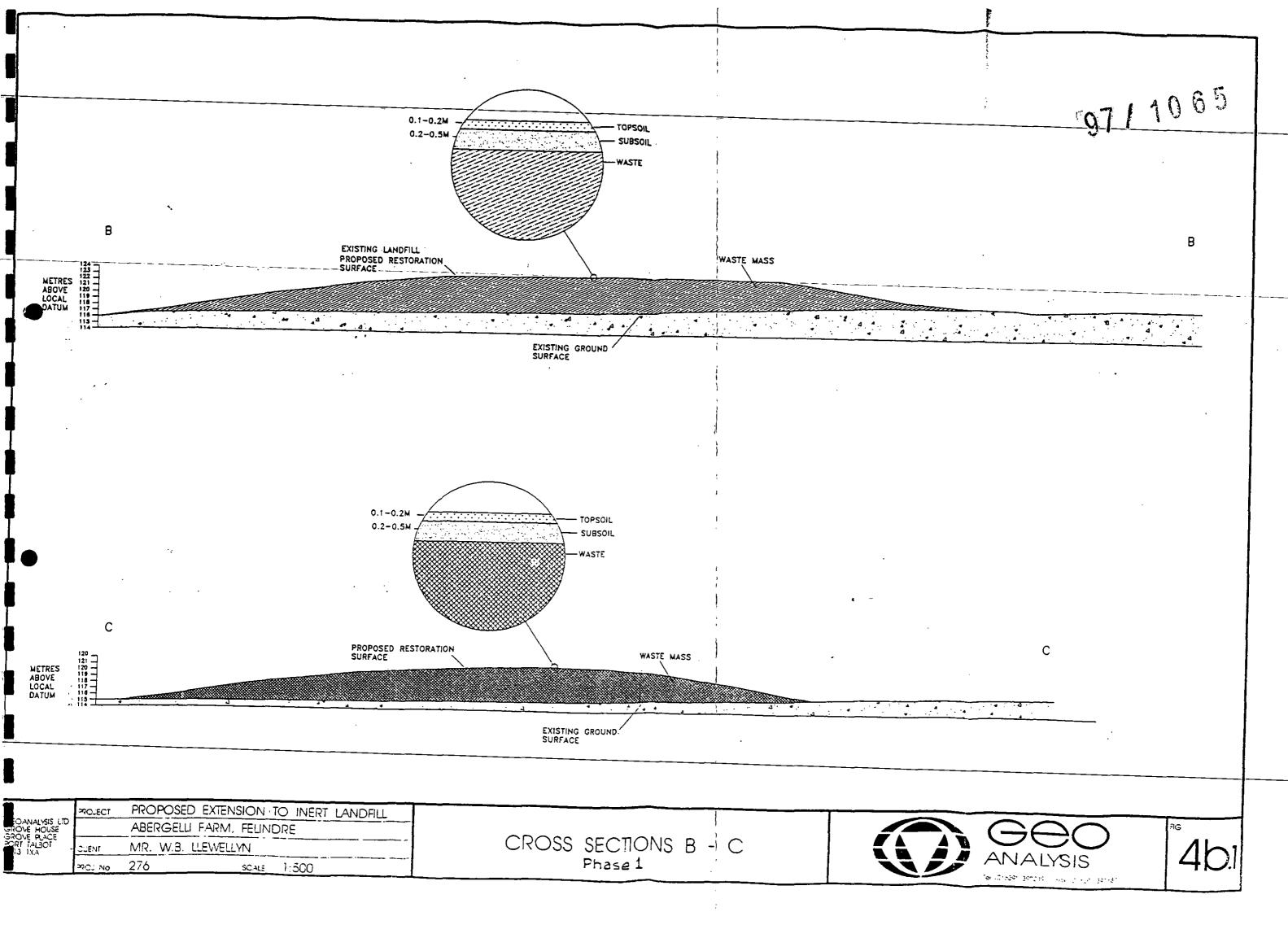
CUENT MR. W.B. LLEWELLYN

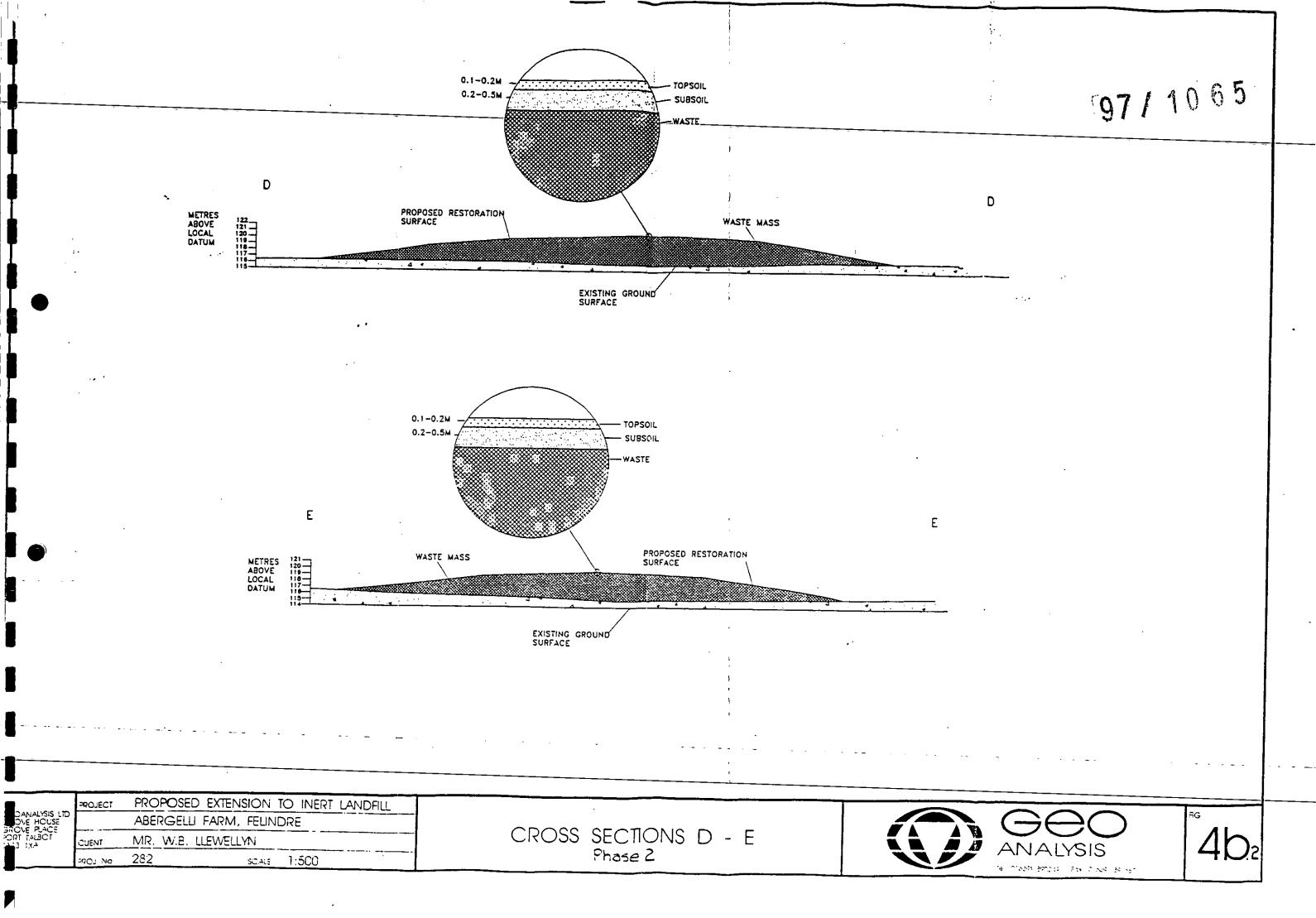
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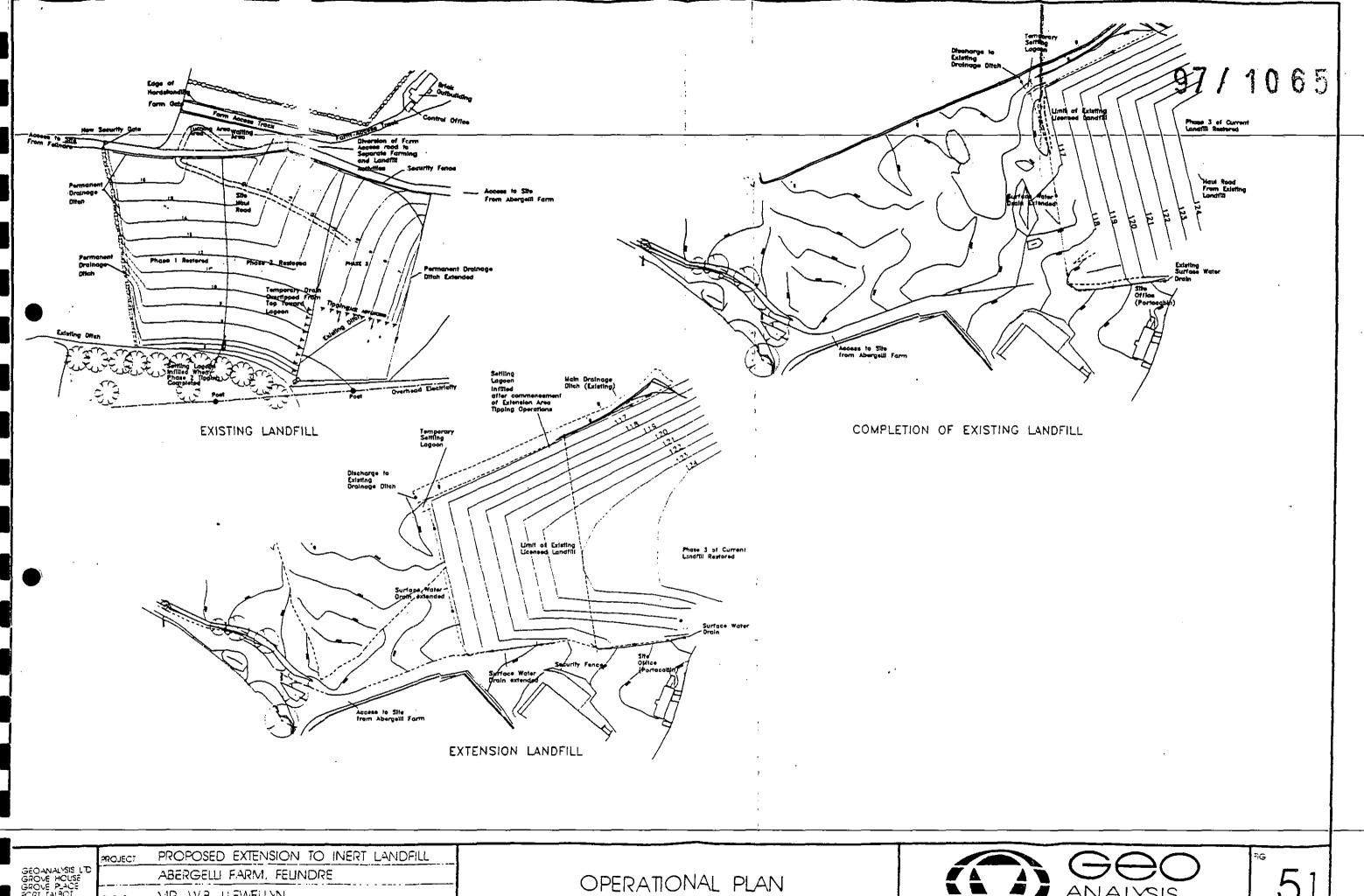
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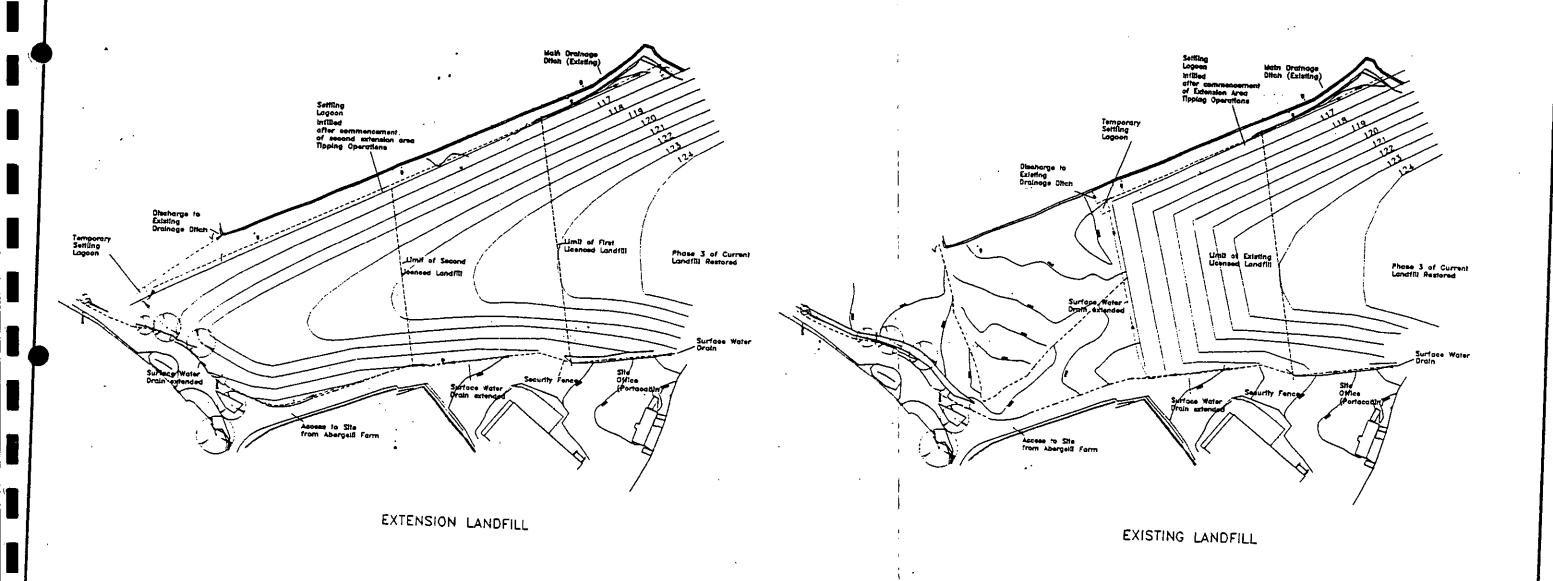




MR. W.B. LLEWELLYN 276 SCALE 1:2000

OPERATIONAL PLAN Phase 1





ANTARE FL

PROPOSED EXTENSION TO INERT LANDFILL ABERGELLI FARM, FEUNDRE

CUENT MR. W.B. LLEWELLYN
ROJ No. 282 SCALE 1:2.000

OPERATIONAL PLAN Phase 2



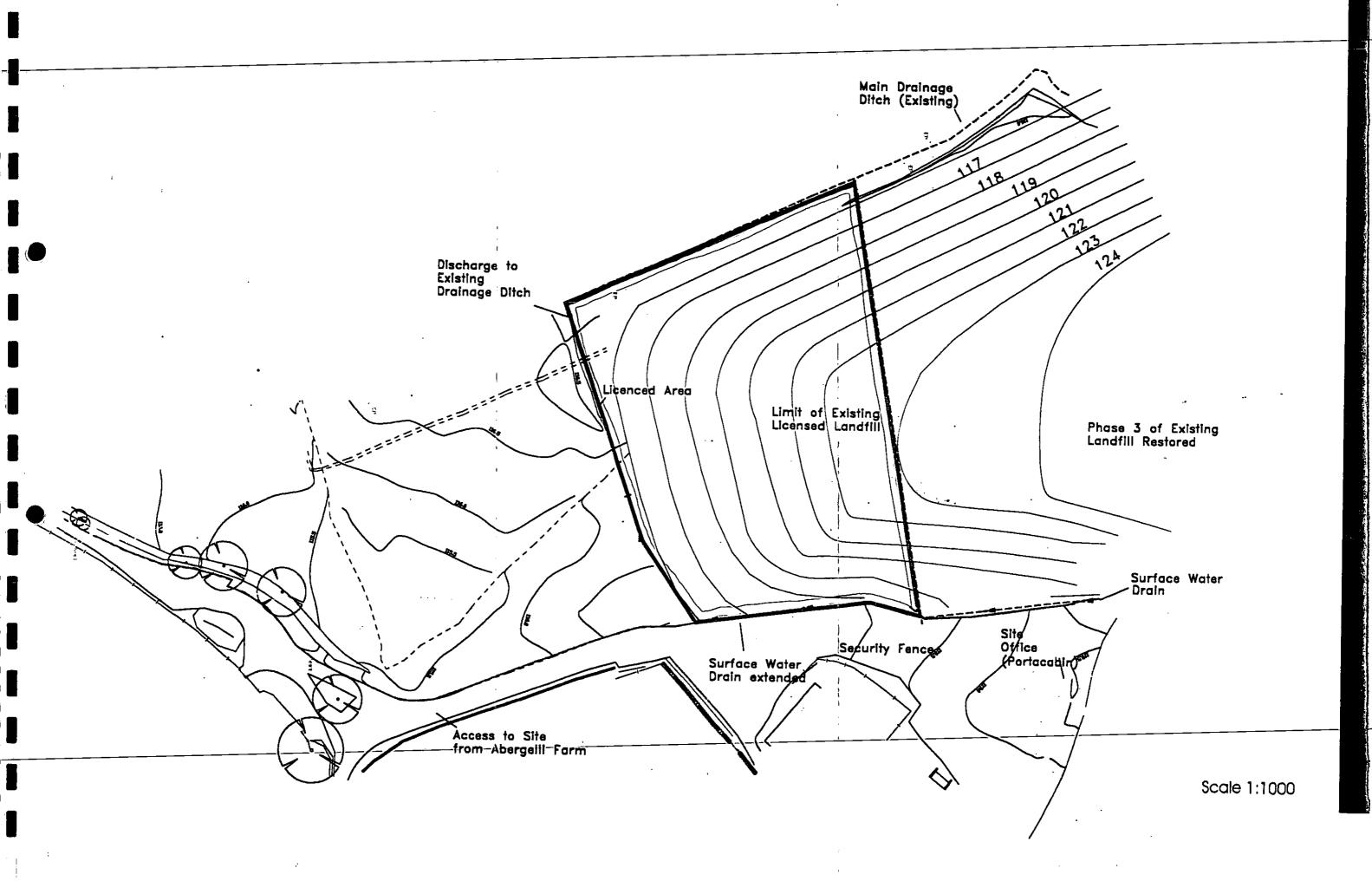
5

Lysis 0.2

## Appendix 2

LICENCED AREA LIMITS





Appendix 3

SURFACE WATER MANAGEMENT CALCULATIONS

|             | ABERGELLI FARM 1/4.  |
|-------------|--|
| <del></del> | ARCHOSED EXTENSION TO INSERT LANDFILLING.  |
|             | DRAWAGE/SETTLEMENT LAGOON CALLULATIONS.  |
|             | Reference: Technical Management of water in the Coal  Mining Industry.   |
|             | A. First phase of extension (See autoched Figure)  |
|             | Area of extension 8,800 m² Restoration signes 1 in 10 (01)   |
|             | Vanage Channel Signer 0.05.  |
|             | Maximum Dianage care ~ 80M overland flaw axl 60M channel flaw to reach pettierent lagours.                         |
|             | Runoff Coefficient Sandy Icam soils representative g<br>mert landfilled materials;<br>K = 0.55                     |
|             | Peak rate of discharge taken place when the whole area contributes to the flaw is dwarten of Horry is sufficiently |
|             | contribute to the flaw is divation of horn is sufficiently   |
|             | catcherent to reach The discharge pant is Time of  |
|             | Concentration (te)   |
|             | te = 7 (Ln)06 5-03 I-04  |
|             | te time g arotan 1 than  |
|             | L: Length of artland Haw   |
|             | n: Manning Raighnen Coottident   |
|             | S: Overland Flaw Skpe  |
|             | I : Kainfall Intersity   |
|             |  |

.

4

| te ter aroland flan a solved iteratively using the rantall intersity/duvation/shaguency relationship.  |
|--|
| Phone 1 extension around flow te = 4 runintes.   |
| Manny equation is subrequestry used to calculate the additional tore of fow in the drainings ditch:  |
| V = R0.67 50.5 V: Vel. of Mas  |
| N = ROST SOS V: Vel. of Mass  R: Hydraulic Mean Doptu  |
| S: Skpe of arenard from  |
| n: Manning Rayhnen Coet.   |
| V = 4:39 m/sec   |
| und are a 60m leigth ~ 1 rinute.   |
|  |
| Total time of concentration: ~ 5 runites<br>for design rantall intensity of 38 mm/how.   |
| Peak flaw Rate $Q = 2.78$ A K I (Rational Formula)<br>= $51$ e/second.   |
| Outhous duchage from lagoon = 2 l/rec. Therefore Regioned Storage Volume:-   |
|  |
|  |
| in the second se |
|  |
|  |
|  |

| tom<br>Tvatien_ | _          | Ravitall<br>Infosity |       |        |          | at at             | Storoge<br>Roquired |
|-----------------|------------|----------------------|-------|--------|----------|-------------------|---------------------|
| (h)             | (m)        | (mm/h)               |       |        |          | 2 e/sec_          | (M3)                |
| 0.5             | 12         | 20                   | 055   | 0-88   | <u>'</u> | (M <sup>2</sup> ) | 44.4                |
| 1               | 12         |                      | 055_  | 0.88   |          | <del>7</del> .2   | 50.8                |
| 2               | 12         | 7.5                  | 055   | _0.88_ | 73       | 144               | (586)               |
| 4               | 12         | 3.5                  | 0.55  | B.88   | 68       | 28.8              | 39.2                |
|                 | May<br>2 h | stroge<br>dwat       | Rogui | red s  | 58M-     | 3 for ste         | ing_                |
|                 | Lagoo      |                      | 6 m x | 6m;    | × 1.61   | n deep.           |                     |

# B/ Phane 2 extension.

Area 10,700 m<sup>2</sup>
Maxww aread daing ~ 60m and 110m duained frew.

Baselos sare site parameter as detailed above, the time of concentration is calculated as

4 minutes in total with the same vebuly of trav

of 479 m/sec within the drainage channel.

Design rangell interiorly for it runute duration on a year return period ~ 55 mm/hair.

Peak How Rate ther > Q = 90 l/second.

Maximum storage requirement occurs again with a

| storm divation of 2 hours (I 7.5mm/hr).  |              |
|--|--------------|
| Volume of rawfall runoff = 88 m3   |              |
| outhor topon = 2 l/sec   |              |
| Therefore storage of 74 M3 required.   |              |
|  |              |
| Lagour propared at 7m x 7m x 1.5 m deep.   |              |
|  |              |
|  |              |
|  |              |
|  |              |
|  |              |
| SUMMARY  |              |
| <u> </u>   |              |
|  |              |
| Mae 1 extension.   |              |
| Area 088 ha  |              |
| Stepen 1:10 (oveland drawing), 1:20 (drawings channel)   |              |
| Time of Concentration. 5 runutes   |              |
| Time of Concentration 5 runutes frak Flas 58 l/sec   | <b></b> .    |
| Outhow of lagan restricted to 21/sec. Storage / volume required to lagaon/retherest port 58 Lagoon: - 6m x 6m x 1.6m     |              |
| Storage / volume required to lagcon / retherest port 50  | W            |
| Lagoon: - 6m x bm x 1.6n   |              |
|  |              |
| Phane 2 extension.   |              |
| Area 1.07 ha.  |              |
| Skren: an abare  |              |
| Stepen: an abare  Total time of concentration 4 minutes  Peak Haw 90 l/sec   |              |
| Peak Hav 90 l/sec  |              |
| aut nav 2 l/sec  | •            |
| Volume required for settlement lagour to accordate   | <br><b>7</b> |
| Volume required for settlement lagran to accordate  Peak flow of annual return penad storm 74 m  Lagran For x For x 1.5m | ٠.           |
| 1 Comm For t 1.5M  |              |

### Sedimentation Logions.

Research from the Chited States

(US EPA - 600/2-76-117, 1976)

recommends that providing the creftow rate

does not exceed 1 × 10<sup>-5</sup> m/s, 95% of

intuent solids are reserved.

Orefrow Rate is defined an author three

lagoon (m³/s) divided by the panel surface area (m²).

If is analysis to using a softing rate of 1×10-5 m/s

which from Stoken Law is the rate at which a 4 mm

diarrete particle would rettle.

### Mare 1/Mare 2.

In both phanes the attenuation logicons alkew an authorized of 2 l/sec (0.002 m³/s)

 $\frac{1 \times 10^{-5} \, \text{M/s}}{A REA \, M^2} = \frac{0.002 \, \text{m}^3 / \text{s}}{A REA \, M^2}.$ 

Required area = 200 m² is 20 mx 10 m.

The settlement/redimentation lagorns will be constructed downstream of the attenuation lagorns.



APPENDIX A

**GROUNDSURE REPORTS** 



Parsons Brinckerhoff

27-29 PARSONS BRINCKERHOFF LTD, CATHEDRAL ROAD, CARDIFF, CF11 9HA GroundSure

GS-1587647

Reference:

Your Reference: PB84891

Report Date 2

29 Jul 2014

Report Delivery

Method:

Email - pdf

### **GroundSure Envirolnsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure Enviroinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above GroundSure reference number.

Yours faithfully,

Managing Director Groundsure Limited

Enc.

GroundSure EnviroInsight



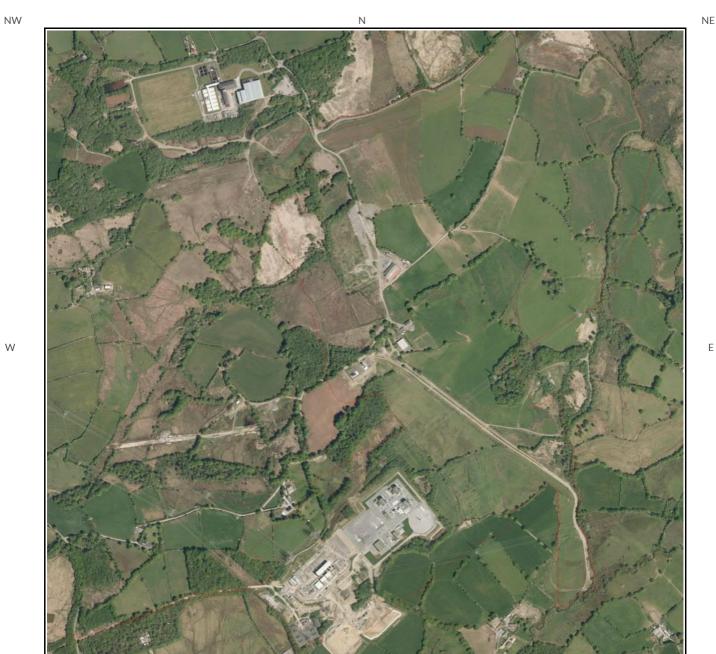
# GroundSure **Envirolnsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Date: 29 Jul 2014

GS-1587647 Reference:

Client: Parsons Brinckerhoff



Aerial Photograph Capture date: 22-May-2010 **Grid Reference:** 265243,201702

Site Size: 146.24ha

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| Overview of Findings  | 5  |
| Using this report   | 8  |
| 1. Environmental Permits, Incidents and Registers Map   | 9  |
| 1. Environmental Permits, Incidents and Registers   | 10 |
| 1.1 Industrial Sites Holding Licences and/or Authorisations   |    |
| 1.1.1 Records of historic IPC Authorisations within 500m of the study site:   | 10 |
| 1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:  |    |
| 1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:     |    |
| 1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site: |    |
| 1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:  |    |
| 1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:                                  |    |
| 1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:   |    |
| 1.1.9 Records of Licensed Discharge Consents within 500m of the study site:   |    |
| 1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:                           |    |
| 1.2 Dangerous or Hazardous Sites  |    |
| 1.3 Environment Agency Recorded Pollution Incidents   |    |
| 1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:                                       |    |
| 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990  |    |
| 2. Landfill and Other Waste Sites Map   |    |
| 2. Landfill and Other Waste Sites   |    |
| 2.1 Landfill Sites  |    |
| 2.1 Lanum Sites   |    |
| 2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:                                       |    |
| 2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:   |    |
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# **Overview of Findings**

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| Section 1: Environmental Permits,<br>Incidents and Registers                                       | On-sit  | e     | 0-50m  | 51-25   | 0 29         | 51-500        |
|--|---------|-------|--------|---------|--------------|---------------|
| 1.1 Industrial Sites Holding Environmental Permits and/or Authorisations                           |         |       |        |         |              |               |
| 1.1.1 Records of historic IPC Authorisations   | 0       |       | 0      | 0       |              | 0             |
| 1.1.2 Records of Part A(1) and IPPC Authorised Activities  | 2       |       | 0      | 0       |              | 0             |
| 1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer)     | 0       |       | 0      | 0       |              | 0             |
| 1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) | 0       |       | 0      | 0       |              | 0             |
| 1.1.5 Records of List 1 Dangerous Substances Inventory sites                                       | 0       |       | 0      | 0       |              | 0             |
| 1.1.6 Records of List 2 Dangerous Substances Inventory sites                                       | 0       |       | 0      | 0       |              | 0             |
| 1.1.7 Records of Part A(2) and Part B Activities and Enforcements                                  | 0       |       | 0      | 0       |              | 0             |
| 1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations                             | 0       |       | 0      | 0       |              | 0             |
| 1.1.9 Records of Licensed Discharge Consents   | 3       |       | 0      | 2       |              | 3             |
| 1.1.10 Records of Planning Hazardous Substance Consents and Enforcements                           | 0       |       | 0      | 0       |              | 1             |
| 1.2 Records of COMAH and NIHHS sites   | 0       |       | 0      | 2       |              | 0             |
| 1.3 Environment Agency Recorded Pollution Incidents  |         |       |        |         |              |               |
| 1.3.1 National Incidents Recording System, List 2  | 3       |       | 0      | 0       |              | 2             |
| 1.3.2 National Incidents Recording System, List 1  | 0       |       | 0      | 0       |              | 0             |
| 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990                                   | 0       |       | 0      | 0       |              | 0             |
| Section 2: Landfill and Other Waste Sites  | On-site | 0-50m | 51-250 | 251-500 | 501-1000     | 1000-<br>5000 |
| 2.1 Landfill Sites   |         |       |        |         |              |               |
| 2.1.1 Environment Agency Registered Landfill Sites   | 1       | 0     | 0      | 0       | 0            | Not searched  |
| 2.1.2 Environment Agency Historic Landfill Sites   | 1       | 0     | 2      | 1       | 0            | 0             |
| 2.1.3 BGS/DoE Landfill Site Survey   | 0       | 0     | 0      | 1       | 0            | 0             |
| 2.1.4 GroundSure Local Authority Landfill Sites Data   | 0       | 0     | 0      | 0       | 0            | 0             |
| 2.2 Landfill and Other Waste Sites Findings  |         |       |        |         |              |               |
| 2.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites                 | 2       | 0     | 0      | 0       | Not searched | Not searched  |
| 2.2.2 Environment Agency Licensed Waste Sites  | 2       | 0     | 0      | 0       | 2            | 4             |

| Section 3: Current Land Use                                    | On-site | 0-50m | 51-250 | 251-500      |
|--|---------|-------|--------|--------------|
| 3.1 Current Industrial Sites Data                              | 14      | 6     | 6      | Not searched |
| 3.2 Records of Petrol and Fuel Sites                           | 0       | 0     | 0      | 0            |
| 3.3 Underground High Pressure Oil and Gas Pipelines            | 0       | 0     | 0      | 0            |
|  |         |       |        |              |
| Section 4: Geology   |         |       |        |              |
| 4.1 Are there any records of Artificial Ground and Made Ground |         | 1     | No     |              |

| Section 4: Geology   |     |
|--|-----|
| 4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?         | No  |
| 4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?      | Yes |
| 4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section. |     |

| Section 5: Hydrogeology and Hydrology  | <b>/</b> 0-500m            |       |        |              |              |               |
|--|----------------------------|-------|--------|--------------|--------------|---------------|
| 5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site? | ion in the Superficial Yes |       |        |              |              |               |
| 5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?     | Yes                        |       |        |              |              |               |
|  | On-site                    | 0-50m | 51-250 | 251-500      | 501-1000     | 1000-<br>2000 |
| 5.3 Groundwater Abstraction Licences (within 2000m of the study site)  | 1                          | 0     | 1      | 1            | 5            | 10            |
| 5.4 Surface Water Abstraction Licences (within 2000m of the study site)                                      | 0                          | 0     | 0      | 0            | 2            | 3             |
| 5.5 Potable Water Abstraction Licences (within 2000m of the study site)                                      | 0                          | 0     | 0      | 0            | 0            | 2             |
| 5.6 Source Protection Zones (within 500m of the study site)  | 0                          | 0     | 0      | 0            | Not searched | Not searched  |
| 5.7 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)                    | 4                          | 0     | 2      | 1            | Not searched | Not searched  |
|  | On-site                    | 0-50m | 51-250 | 251-500      | 501-1000     | 1000-<br>1500 |
| 5.8 Is there any Environment Agency information on river quality within 1500m of the study site?             | No                         | No    | No     | No           | Yes          | Yes           |
| 5.9 Detailed River Network entries within 500m of the site   | 47                         | 19    | 72     | 82           | Not searched | Not searched  |
| 5.10 Surface water features within 250m of the study site  | Yes                        | Yes   | Yes    | Not searched | Not searched | Not searched  |

#### Section 6: Flooding 6.1 Are there any Environment Agency Zone 2 floodplains within Yes 250m of the study site? 6.2 Are there any Environment Agency Zone 3 floodplains within Yes 250m of the study site? 6.3 Are there any Flood Defences within 250m of the study site? No $6.4\,$ Are there any areas benefiting from Flood Defences within 250m No of the study site? $6.5\,$ Are there any areas used for Flood Storage within 250m of the No study site? 6.6 What is the maximum BGS Groundwater Flooding susceptibility Potential at Surface within 50m of the study site? 6.7 What is the BGS confidence rating for the Groundwater Flooding High susceptibility areas?

| <ul><li>7.1 Records of Sites of Special Scientific Interest (SSSI)</li><li>7.2 Records of National Nature Reserves (NNR)</li></ul> | 0 | 0 | 0 |   |   |   |
|--|---|---|---|---|---|---|
| 7.2 Records of National Nature Reserves (NNR)  |   |   | U | 0 | 0 | 2 |
|  | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.3 Records of Special Areas of Conservation (SAC)   | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.4 Records of Special Protection Areas (SPA)  | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.5 Records of Ramsar sites  | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.6 Records of Ancient Woodlands   | 1 | 0 | 0 | 0 | 1 | 6 |
| 7.7 Records of Local Nature Reserves (LNR)   | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.8 Records of World Heritage Sites  | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.9 Records of Environmentally Sensitive Areas   | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.10 Records of Areas of Outstanding Natural Beauty (AONB)   | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.11 Records of National Parks   | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.12 Records of Nitrate Sensitive Areas  | 0 | 0 | 0 | 0 | 0 | 0 |
| 7.13 Records of Nitrate Vulnerable Zones   | 0 | 0 | 0 | 0 | 0 | 0 |

#### Section 8: Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?

High

| Section 9: Mining  |     |
|--|-----|
| 9.1 Are there any coal mining areas within 75m of the study site?                            | Yes |
| 9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site? | Low |
| 9.3 Are there any brine affected areas within 75m of the study site?                         | No  |

### Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

#### 1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

#### 2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

#### 3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

#### 4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

#### 5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

#### 6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

#### 7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

#### 8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

#### 9. Mining

Provides information on areas of coal and shallow mining.

#### 10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

#### **Note: Maps**

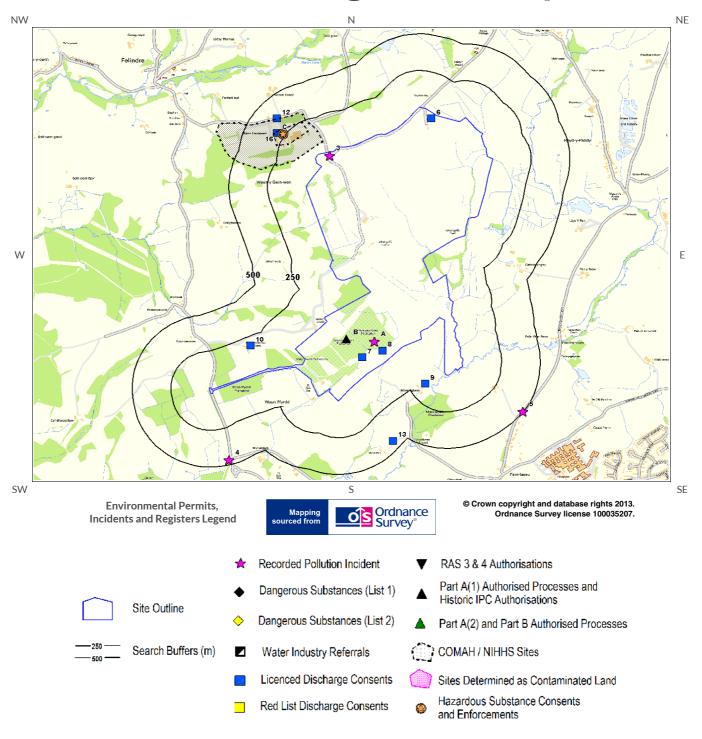
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -ld: 1, ld: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.



# 1. Environmental Permits, Incidents and Registers Map







# 1. Environmental Permits, Incidents and Registers

#### 1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

1.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

2

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID  | Distance | Direction | NGR              | Details  |  |  |  |
|-----|----------|-----------|------------------|--|--|--|--|
| 19B | 19B 0.0  | On Site   | 264950<br>200990 | Operator: National Grid Gas Plc<br>Installation Name: Felindre, Gas<br>Compressor Station<br>Process: COMBUSTION; ANY FUEL<br>=>50MW | Permit Number: RP3232LD Original Permit Number: RP3232LD EPR Reference: - Issue Date: 2/7/2007 Effective Date: 2/7/2007 Last date noted as effective: 2014-04-01 Status: Superceded  |  |  |
| 20B | 0.0      | On Site   | 264950<br>200990 | Operator: National Grid Gas Plc<br>Installation Name: Felindre, Gas<br>Compressor Station<br>Process: COMBUSTION; ANY FUEL<br>=>50MW | Permit Number: WP3230TU Original Permit Number: RP3232LD EPR Reference: - Issue Date: 29/3/2010 Effective Date: 29/3/2010 Last date noted as effective: 2014-04-01 Status: Effective |  |  |

1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.



| 1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site: |   |
|---|---|
|   | 0 |
| Database searched and no data found.  |   |
| 1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:                                       | 0 |
| Database searched and no data found.  |   |
| 1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:  | 0 |
| Database searched and no data found.  |   |
| 1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:                                  | 0 |
| Database searched and no data found.  |   |
| 1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:   | 0 |
| Database searched and no data found.  |   |
| 1.1.9 Records of Licensed Discharge Consents within 500m of the study site:   | 8 |
|   |   |

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID | Distance | Direction  | NGR              | ]   | Details  |
|----|----------|------------|------------------|---|--|
| 6  | 0.0      | On<br>Site | 265500<br>202500 | Address: Abergelli Farm Felindre Swansea,<br>Abergelli Farm Felindre Swansea, Felindre<br>Swansea, Swansea, Swansea, SWANSEA<br>Effluent Type: Unspecified<br>Permit Number: BP0051701<br>Permit Version: 1 | Receiving Water: To Land<br>Status: Consent Expired - Time Limit<br>Issue date: 14/8/1987<br>Effective Date: 14/8/1987<br>Revocation Date: - |



| ID      | Distance | Direction  | NGR              | Det   | tails   |
|---------|----------|------------|------------------|---|---|
| 7       | 0.0      | On<br>Site | 265052<br>200870 | Address: Nat'l Grid Compressor Sta Swansea,<br>Nat'l Grid Newb'd Compressor Sta, Felindre,<br>Swansea, SA5 7LU<br>Effluent Type: Sewage Discharges -<br>Final/treated Effluent - Not Water Company<br>Permit Number: BP0370301<br>Permit Version: 1 | Receiving Water: Unnamed Land Drain<br>Status: Surrendered Under Epr 2010<br>Issue date: 2/11/2007<br>Effective Date: 2/11/2007<br>Revocation Date: 26/8/2010     |
| 8       | 0.0      | On<br>Site | 265183<br>200917 | Address: National Grid Site Llangyfelach,<br>National Grid Site, Llangyfelach, Felindre,<br>Swansea<br>Effluent Type: Trade Discharges - Site Drainage<br>Permit Number: BP0361101<br>Permit Version: 1   | Receiving Water: Afon Llan<br>Status: Surrendered Under Epr 2010<br>Issue date: -<br>Effective Date: -<br>Revocation Date: 16/6/2011                              |
| 9       | 146.0    | SW         | 265460<br>200690 | Address: Maes Eglwys Farm Pantlasau Morristo,<br>Maes Eglwys Farm Pantlasau Morri, Pantlasau<br>Morriston, Morriston<br>Effluent Type: Unspecified<br>Permit Number: BF0214701<br>Permit Version: 1   | Receiving Water: To Land Nr. River Llan<br>Status: Consent Expired - Time Limit<br>Issue date: 1/2/1979<br>Effective Date: 1/2/1979<br>Revocation Date: 22/4/1994 |
| 10      | 188.0    | N          | 264330<br>200950 | Address: Penywaun Fach Cottages Felindre<br>Swa, Penywaun Fach Cottages Felindre,<br>Felindre Swansea., Swansea.<br>Effluent Type: Unspecified<br>Permit Number: BP0108201<br>Permit Version: 1   | Receiving Water: To Land<br>Status: Consent Expired - Time Limit<br>Issue date: -<br>Effective Date: -<br>Revocation Date: -                                      |
| 11<br>C | 302.0    | NW         | 264500<br>202400 | Address: Felindre Chlor.overflow, Felindre<br>Chlor.overflow<br>Effluent Type: Unspecified<br>Permit Number: BP0180001<br>Permit Version: 1   | Receiving Water: To Land<br>Status: Consent Expired - Time Limit<br>Issue date: 2/10/1989<br>Effective Date: 2/10/1989<br>Revocation Date: 14/3/1994              |
| 12      | 365.0    | NW         | 264500<br>202500 | Address: Felindre Wtw (septic Tank Disc,<br>Felindre Wtw (septic Tank Disc<br>Effluent Type: Unspecified<br>Permit Number: BC0011901<br>Permit Version: 1   | Receiving Water: Unnamed Trib. River Lliw<br>Status: Consent Expired - Time Limit<br>Issue date: 22/5/1970<br>Effective Date: 22/5/1970<br>Revocation Date: -     |
| 13      | 442.0    | SE         | 265250<br>200300 | Address: Bungalow At Gorswen Farm Pontlasse,<br>Bungalow At Gorswen Farm Pontlas, Pontlasse<br>Swansea, Swansea, Swansea,<br>Effluent Type: Unspecified<br>Permit Number: BP0011401<br>Permit Version: 1  | Receiving Water: To Land<br>Status: Consent Expired - Time Limit<br>Issue date: 7/2/1986<br>Effective Date: 7/2/1986<br>Revocation Date: -                        |

 ${\bf 1.1.10}\ Records\ of\ Planning\ Hazardous\ Substance\ Consents\ and\ Enforcements\ within\ 500m\ of\ the\ study\ site:$ 

1

The following records are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID  | Distance | Direction | Application<br>Reference<br>Number | NGR              | Application<br>Status | Application<br>Date | Address   | Details              | Details of Enforcement<br>Action   |
|-----|----------|-----------|------------------------------------|------------------|-----------------------|---------------------|---|----------------------|--|
| 21C | 265.0    | NW        | HAZ 5/92                           | 264539<br>202392 | Approved              | No details.         | Felindre<br>Waterworks,<br>Felindre, Welsh<br>Water, Swansea,<br>West Glamorgan,<br>SA5 7NP | Storage of chlorine. | Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified |



#### 1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

2

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

| ID  | Distance | Direction | Company                                 | Address  | Operational Status    | Tier                         |
|-----|----------|-----------|---|--|-----------------------|------------------------------|
| 16  | 58.0     | NW        | Dwr Cymru /<br>Welsh Water              | Dwr Cymru / Welsh Water, Felindre Water<br>Treatment Works, Felindre, Swansea, Sa5 7np                         | Current COMAH Site    | COMAH Lower<br>Tier Operator |
| 17C | 168.0    | NW        | Welsh Water<br>Development<br>Authority | Welsh Water Development<br>Authority(glamorgan Water Division), Felindre<br>Treatment Plant, Felindre, Sa5 7np | Historical NIHHS Site | -                            |

#### 1.3 Environment Agency Recorded Pollution Incidents

1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

5

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID | ID Distance Direct |         | NGR              | De  | etails  |
|----|--------------------|---------|------------------|---|---|
| 1A | 0.0                | On Site | 265129<br>200977 | Incident Date: 25/06/2002<br>Incident Identification: 87384<br>Pollutant: Atmospheric Pollutants and<br>Effects<br>Pollutant Description: Smoke | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 3 (Minor)       |
| 2A | 0.0                | On Site | 265129<br>200977 | Incident Date: 25/06/2002<br>Incident Identification: 87384<br>Pollutant: Atmospheric Pollutants and<br>Effects<br>Pollutant Description: Smoke | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 3 (Minor)       |
| 3  | 0.0                | On Site | 264841<br>202246 | Incident Date: 10/05/2007<br>Incident Identification: 493773<br>Pollutant: Inert Materials and Wastes<br>Pollutant Description: Soils and Clay  | Water Impact: Category 2 (Significant)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 4 (No Impact) |
| 4  | 467.0              | S       | 264189<br>200169 | Incident Date: 16/08/2002<br>Incident Identification: 100861<br>Pollutant: Oils and Fuel<br>Pollutant Description: Mixed/Waste Oils             | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 4 (No Impact)       |
| 5  | 496.0              | SE      | 266090<br>200500 | Incident Date: 10/05/2001<br>Incident Identification: 5132<br>Pollutant: Other Pollutant<br>Pollutant Description: Other                        | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 3 (Minor)       |



1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

#### 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

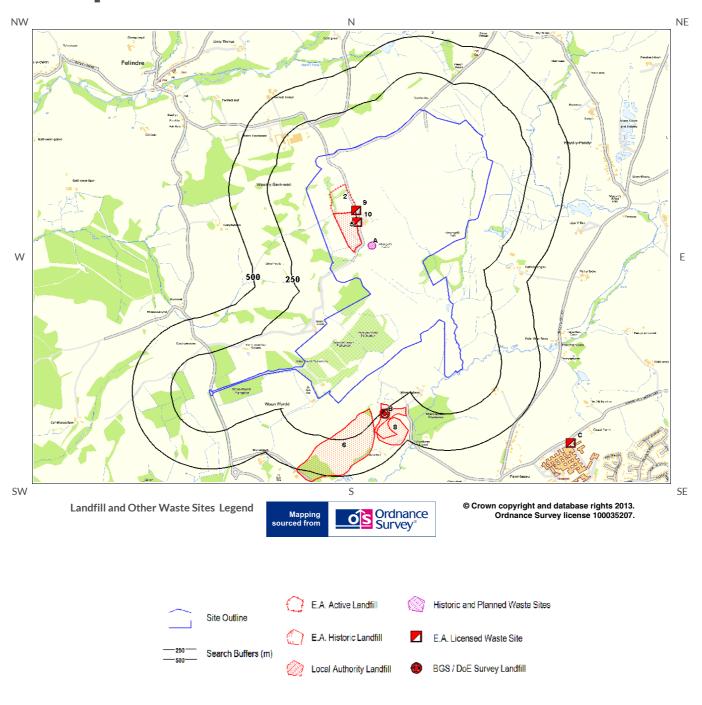
How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.



## 2. Landfill and Other Waste Sites Map







## 2. Landfill and Other Waste Sites

#### 2.1 Landfill Sites

2.1.1 Records from Environment Agency landfill data within 1000m of the study site:

1

The following Environment Agency landfill records are represented as polygons on the Landfill and Other Waste Sites map:

| ID | Distance (m) | Direction | NGR              |   | Details  |
|----|--------------|-----------|------------------|---|--|
| 2  | 0.0          | On Site   | 265014<br>201890 | Address: Abergelli Fach Farm, Felindre,<br>Swansea, SA5 7NN<br>Landfill Reference: 34108.0<br>Environmental Permitting Regulations<br>(Waste) Reference: LLE001<br>Landfill Type: A5: Landfill taking Non-<br>Biodegradeable Wastes | Operator: Llewellyn Bryn<br>Status: Closure<br>IPPC Reference:<br>EPR Reference: |

2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

4

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

| ID | Distance (m) | Direction | NGR              | Details  |   |
|----|--------------|-----------|------------------|--|---|
| 5  | 5 0.0        |           | 265020<br>201808 | Site Address: Abergelli Fach Farm Landfill Extension, Felindre Waste Licence: Yes Site Reference: - Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -  | Licence Issue: 06-Sep-1999<br>Licence Surrendered:<br>Licence Hold Address: Felindre<br>Operator: Abergelli Fach Farm Landfill<br>Extension |
| 6  | 147.0        | SE        | 264900<br>200200 | Site Address: British Steel Corporation,<br>Velindre, Pant-lasau, Swansea<br>Waste Licence: Yes<br>Site Reference: -<br>Waste Type: Industrial, Household,<br>Environmental Permitting Regulations<br>(Waste) Reference: - | Licence Issue: 21-Jun-1991<br>Licence Surrendered: 20-Jun-1994<br>Licence Hold Address: Velindre, Swansea<br>Operator: -                    |
| 7B | 200.0        | SE        | 265200<br>200400 | Site Address: Gorswen Farm, Pontdassau,<br>Llangyfelach, Glamorgan<br>Waste Licence: -<br>Site Reference: -<br>Waste Type: -<br>Environmental Permitting Regulations<br>(Waste) Reference: -                               | Licence Issue:<br>Licence Surrendered:<br>Licence Hold Address: -<br>Operator: -  |



| ID Dis | tance (m) | Direction | NGR              | Details   |  |
|--------|-----------|-----------|------------------|---|--|
| 8 302  | 2.0       | SE        | 265200<br>200300 | Site Address: Gors Wen, Felindre Waste Licence: - Site Reference: - Waste Type: Inert, Industrial, Special, Environmental Permitting Regulations (Waste) Reference: - | Licence Issue:<br>Licence Surrendered:<br>Licence Hold Address: -<br>Operator: - |

2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

| ID | Distance (m) | Direction | NGR                          |  | Details                                     |
|----|--------------|-----------|------------------------------|--|---|
| 1B | 266.0        | SE        | 26520<br>0.0<br>20050<br>0.0 | Address: Gorswen Farm, Pontdassau,<br>Llangyfelach, Glam<br>BGS Number: 1208.0 | Risk: No risk to aquifer<br>Waste Type: N/A |

2.1.4 Records of Local Authority landfill sites within 1500m of the study site:

0

Database searched and no data found.

#### 2.2 Other Waste Sites

2.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

2

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

| ID | Distance<br>(m) | <sup>e</sup> Direction | n NGR            |  |   | Details  |
|----|-----------------|------------------------|------------------|--|---|--|
| 3A | 0.0             | On<br>Site             | 265117<br>201648 | Type of Site:<br>Recycling Facility<br>Site Address:<br>Abergelli Fach Farm,<br>Felindre, SWANSEA,<br>West Glamorgan,<br>SA5 7NN | Planning Application<br>Reference: 2008/0827<br>Date: - | Further Details: Scheme comprises change of use from agricultural land to recycling of green waste and composting treatment. An application (ref: 2008/0827) for detailed planning permission was refused by Swansea C.C. A detailed planning application has been refused.  Data Source: Historic Planning Application Data Type: Point |



| ID | Distance<br>(m) | <sup>e</sup> Direction | NGR              |  |   | Details  |
|----|-----------------|------------------------|------------------|--|---|--|
| 4A | 0.0             | On<br>Site             | 265117<br>201648 | Type of Site: Waste<br>Transfer Station<br>Site Address:<br>Landfill Site,<br>Abergelli Fach Farm,<br>Felindre, SWANSEA,<br>West Glamorgan,<br>SA5 7NN | Planning Application<br>Reference: 2002/0312<br>Date: - | Further Details: Scheme comprises provision of a waste transfer station together with the removal of inert material and engineering works at Abergelli tip. An application (ref: 2002/0312) for Detailed Planning permission was submitted to Swansea C.C. on 22nd February 2002.  Data Source: Historic Planning Application Data Type: Point |

2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

8

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

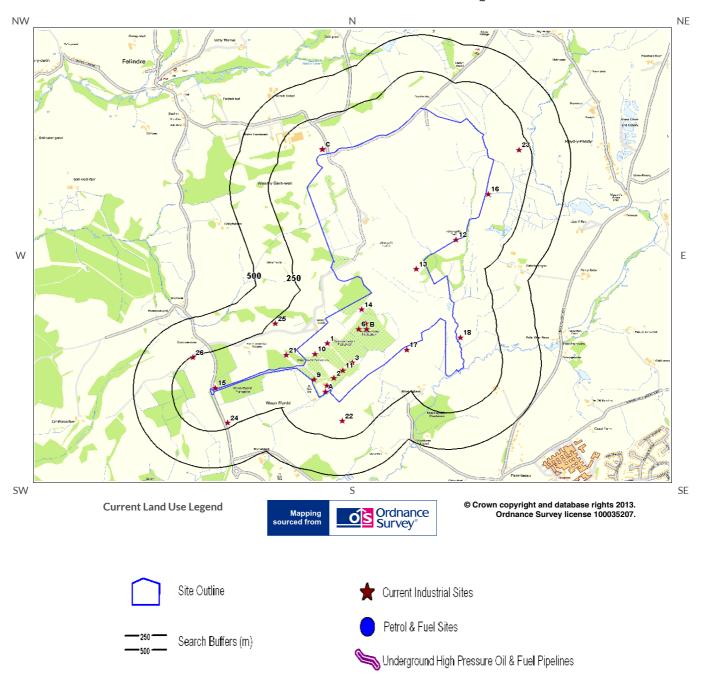
| ID  | Distance<br>(m) | Direction  | NGR              | De   | tails   |
|-----|-----------------|------------|------------------|--|---|
| 9   | 0.0             | On<br>Site | 265014<br>201890 | Site Address: Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LLE001 EPR reference: EA/EPR/XP3198FC/A001 Operator: Llewellyn Bryn Waste Management licence No: 34108 Annual Tonnage: 82628.0  | Issue Date: 29/09/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Abergelli Fach Farm Correspondence Address: -, -   |
| 10  | 0.0             | On<br>Site | 265020<br>201808 | Site Address: - Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LLE002 EPR reference: EA/EPR/CP3098FZ/V002 Operator: Llewellyn William Bryn Waste Management licence No: 34165 Annual Tonnage: 35000.0  | Issue Date: 06/09/1999 Effective Date: - Modified: 10/10/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: Abergelli Fach Farm Landfill Extension Correspondence Address: -, -   |
| 11C | 864.0           | SE         | 266400<br>200300 | Site Address: Morriston Hospital, Heol Maes<br>Eglwys, Morriston, Swansea, SA6 6NL<br>Type: Clinical Waste Transfer Station<br>Size: < 25000 tonnes<br>Environmental Permitting Regulations<br>(Waste) Licence Number: MOR003<br>EPR reference: EA/EPR/TP3598FV/S002<br>Operator: Morriston Hospital NHS Trust<br>Waste Management licence No: 34135<br>Annual Tonnage: 1606.0 | Issue Date: 30/03/1996 Effective Date: - Modified: - Surrendered Date: 11/04/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Morriston Hospital Correspondence Address: -, -   |
| 12C | 864.0           | SE         | 266400<br>200300 | Site Address: Morriston Hospital, Heol Maes<br>Eglwys, Morriston, Swansea, SA6 6NL<br>Type: Clinical Waste Transfer Station<br>Size: < 25000 tonnes<br>Environmental Permitting Regulations<br>(Waste) Licence Number: MOR003<br>EPR reference: -<br>Operator: Morriston Hospital N H S Trust<br>Waste Management licence No: 34135<br>Annual Tonnage: 0.0                     | Issue Date: 30/03/1996 Effective Date: - Modified: - Surrendered Date: 11/04/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Morriston Hospital Correspondence Address: -, Morriston Hospital, Heol Maes Eglwys, Morriston, Swansea, SA6 6NL |



| ID           | Distance<br>(m) | Direction | NGR              | De  | tails   |
|--------------|-----------------|-----------|------------------|---|---|
| Not<br>shown | 1209.0          | S         | 263976<br>199417 | Site Address: Jr Works, Bryntywod,<br>Swansea, SA5 7LE<br>Type: -<br>Size: < 25000 tonnes<br>Environmental Permitting Regulations<br>(Waste) Licence Number: GAV004<br>EPR reference: EA/EPR/EB3397TU/A001<br>Operator: Mr Gavin Griffiths<br>Waste Management licence No: 900031<br>Annual Tonnage: 0.0  | Issue Date: 09/09/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Griffiths Recycling Correspondence Address: -, -                          |
| Not<br>shown | 1209.0          | S         | 263976<br>199417 | Site Address: Jr Works, Bryntywod, Langyfelach, Swansea, SA5 7LE Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GAV004 EPR reference: EA/EPR/EB3397TU/A001 Operator: Mr Gavin Griffiths Waste Management licence No: 900031 Annual Tonnage: 75000.0   | Issue Date: 09/09/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Griffiths Recycling Correspondence Address: -, -                          |
| Not<br>shown | 1222.0          | S         | 263865<br>199418 | Site Address: J R Works, Bryntywod<br>Llangyfellach, Swansea, W Glamorgan, SA5<br>7LE<br>Type: Household, Commercial & Industrial<br>Waste T Stn<br>Size: < 25000 tonnes<br>Environmental Permitting Regulations<br>(Waste) Licence Number: GRI015<br>EPR reference: DP3193SR/V002<br>Operator: Griffiths Pallet Services Ltd<br>Waste Management licence No: 100069<br>Annual Tonnage: 0.0 | Issue Date: 08/04/2008 Effective Date: - Modified: 29/01/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Griffiths Pallet Services Correspondence Address: -, -         |
| Not<br>shown | 1222.0          | S         | 263865<br>199418 | Site Address: Former J R Works, Bryntywod, Llangyfellach, Swansea, West Galmorgan, SA5 7LE Type: Material Recycling Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI039 EPR reference: EA/EPR/NP3699VX/T001 Operator: Griffiths Waste Management Ltd Waste Management licence No: 100069 Annual Tonnage: 24999.0                    | Issue Date: 08/04/2008 Effective Date: 23/12/2010 Modified: 29/01/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Former J R Steelworks Correspondence Address: -, - |



### 3. Current Land Use Map







### 3. Current Land Uses

#### 3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

26

The following records are represented as points on the Current Land Uses map.

| ID  | Distance<br>(m) | Direction | Company                      | NGR              | Address | Activity            | Category                      |
|-----|-----------------|-----------|------------------------------|------------------|---------|---------------------|-------------------------------|
| 1   | 0.0             | On Site   | Pylon                        | 264821<br>200971 | SA5     | Electrical Features | Infrastructure and Facilities |
| 2   | 0.0             | On Site   | Pylon                        | 264863<br>200735 | SA5     | Electrical Features | Infrastructure and Facilities |
| 3   | 0.0             | On Site   | Pylon                        | 264980<br>200840 | SA5     | Electrical Features | Infrastructure and Facilities |
| 4A  | 0.0             | On Site   | Pylon                        | 264807<br>200643 | SA5     | Electrical Features | Infrastructure and Facilities |
| 5A  | 0.0             | On Site   | Electricity<br>Sub Station   | 264817<br>200683 | SA5     | Electrical Features | Infrastructure and Facilities |
| 6   | 0.0             | On Site   | Chimney                      | 265024<br>201070 | SA5     | Chimneys            | Industrial Features           |
| 7B  | 0.0             | On Site   | Gas<br>Compressor<br>Station | 265075<br>201068 | SA5     | Gas Features        | Infrastructure and Facilities |
| 8B  | 0.0             | On Site   | Chimney                      | 265068<br>201107 | SA6     | Chimneys            | Industrial Features           |
| 9   | 0.0             | On Site   | Pylon                        | 264733<br>200726 | SA5     | Electrical Features | Infrastructure and Facilities |
| 10  | 0.0             | On Site   | Pylon                        | 264742<br>200899 | SA5     | Electrical Features | Infrastructure and Facilities |
| 11  | 0.0             | On Site   | Pylon                        | 264922<br>200788 | SA5     | Electrical Features | Infrastructure and Facilities |
| 12  | 0.0             | On Site   | Pylon                        | 265653<br>201680 | SA6     | Electrical Features | Infrastructure and Facilities |
| 13  | 0.0             | On Site   | Pylon                        | 265395<br>201479 | SA6     | Electrical Features | Infrastructure and Facilities |
| 14  | 0.0             | On Site   | Pylon                        | 265041<br>201203 | SA5     | Electrical Features | Infrastructure and Facilities |
| 15  | 12.0            | N         | Pylon                        | 264095<br>200669 | SA5     | Electrical Features | Infrastructure and Facilities |
| 16  | 14.0            | Е         | Pylon                        | 265860<br>201991 | SA6     | Electrical Features | Infrastructure and Facilities |
| 17  | 21.0            | SE        | Pylon                        | 265335<br>200929 | SA6     | Electrical Features | Infrastructure and Facilities |
| 18  | 25.0            | NE        | Pylon                        | 265681<br>201011 | SA6     | Electrical Features | Infrastructure and Facilities |
| 19C | 36.0            | N         | Gas Valve<br>Compound        | 264788<br>202296 | SA5     | Gas Features        | Infrastructure and Facilities |
| 20C | 38.0            | Ν         | Gas Valve<br>Compound        | 264788<br>202298 | SA5     | Gas Features        | Infrastructure and Facilities |
| 21  | 76.0            | SW        | Pylon                        | 264554<br>200892 | SA5     | Electrical Features | Infrastructure and Facilities |



| ID | Distance<br>(m) | Direction | Company | NGR              | Address | Activity            | Category                      |
|----|-----------------|-----------|---------|------------------|---------|---------------------|-------------------------------|
| 22 | 130.0           | S         | Pylon   | 264918<br>200442 | SA6     | Electrical Features | Infrastructure and Facilities |
| 23 | 178.0           | NE        | Pylon   | 266060<br>202293 | SA6     | Electrical Features | Infrastructure and Facilities |
| 24 | 217.0           | SE        | Pylon   | 264177<br>200429 | SA5     | Electrical Features | Infrastructure and Facilities |
| 25 | 224.0           | NW        | Pylon   | 264485<br>201107 | SA5     | Electrical Features | Infrastructure and Facilities |
| 26 | 243.0           | NW        | Pylon   | 263952<br>200875 | SA5     | Electrical Features | Infrastructure and Facilities |

#### 3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

0

Database searched and no data found.

#### 3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site:

0

Database searched and no data found.





### 4. Geology

#### 4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

#### 4.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

| Lex Code   | Description                       | Rock Type                   |
|------------|-----------------------------------|-----------------------------|
| TILLD-DMTN | TILL, DEVENSIAN                   | DIAMICTON                   |
| ALV-CSSG   | ALLUVIUM                          | CLAY, SILT, SAND AND GRAVEL |
| TILLD-DMTN | TILL, DEVENSIAN                   | DIAMICTON                   |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |
| TILLD-DMTN | TILL, DEVENSIAN                   | DIAMICTON                   |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |
| ALV-CSSG   | ALLUVIUM                          | CLAY, SILT, SAND AND GRAVEL |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |
| PEAT-P     | PEAT                              | PEAT                        |
| TILLD-DMTN | TILL, DEVENSIAN                   | DIAMICTON                   |
| PEAT-P     | PEAT                              | PEAT                        |
| GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN | SAND AND GRAVEL             |

#### 4.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

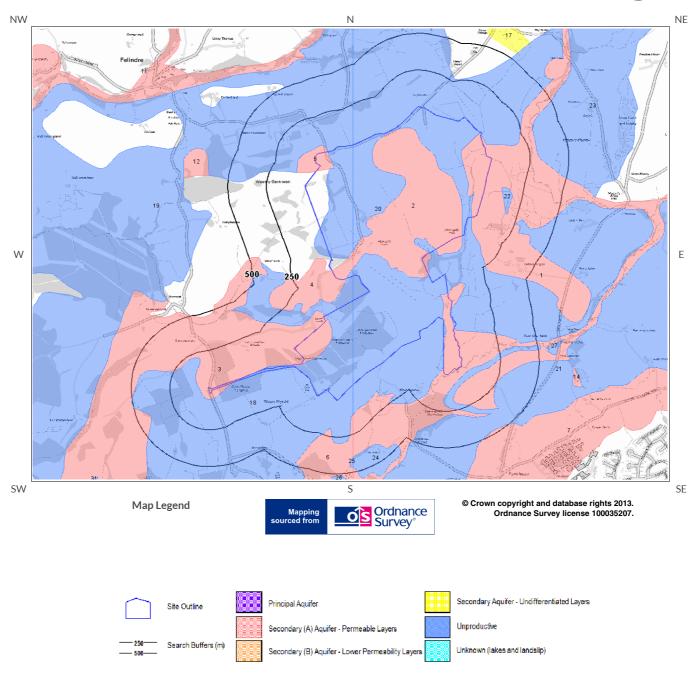
|   | Lex Code | Description         | Rock Type                         |
|---|----------|---------------------|-----------------------------------|
|   | GDB-MDSS | GROVESEND FORMATION | MUDSTONE, SILTSTONE AND SANDSTONE |
|   | GDB-MDSS | GROVESEND FORMATION | MUDSTONE, SILTSTONE AND SANDSTONE |
|   | SW-SDST  | SWANSEA MEMBER      | SANDSTONE                         |
| ( | GDB-MDSS | GROVESEND FORMATION | MUDSTONE, SILTSTONE AND SANDSTONE |
|   | GDB-MDSS | GROVESEND FORMATION | MUDSTONE, SILTSTONE AND SANDSTONE |
|   | SW-MDSS  | SWANSEA MEMBER      | MUDSTONE, SILTSTONE AND SANDSTONE |
|   | SW-SDST  | SWANSEA MEMBER      | SANDSTONE                         |
|   |          |                     |                                   |



(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

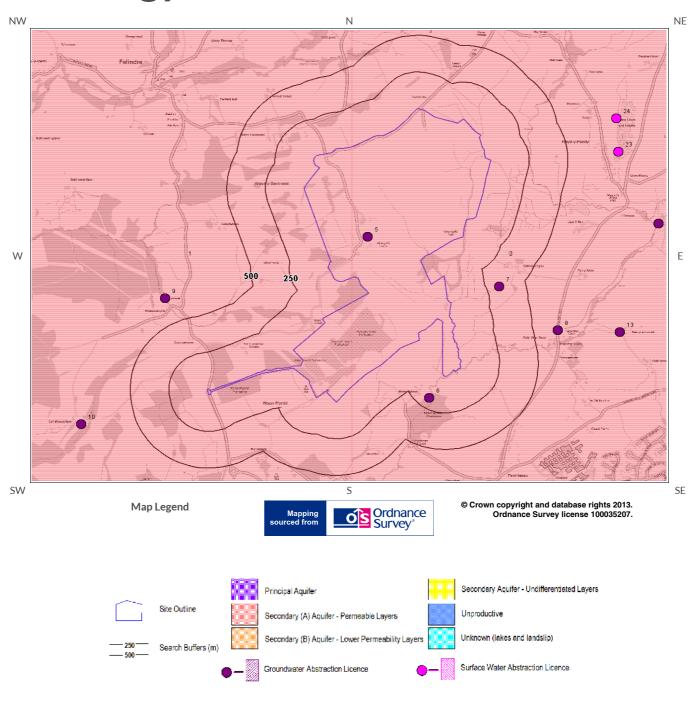


# 5. Hydrogeology and Hydrology5a. Aquifer Within Superficial Geology



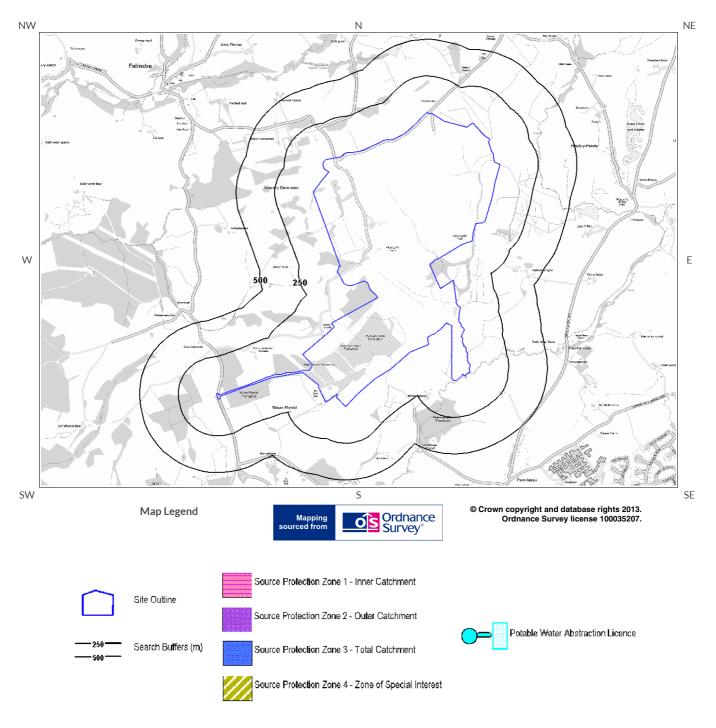


# 5b. Aquifer Within Bedrock Geology and Abstraction Licenses



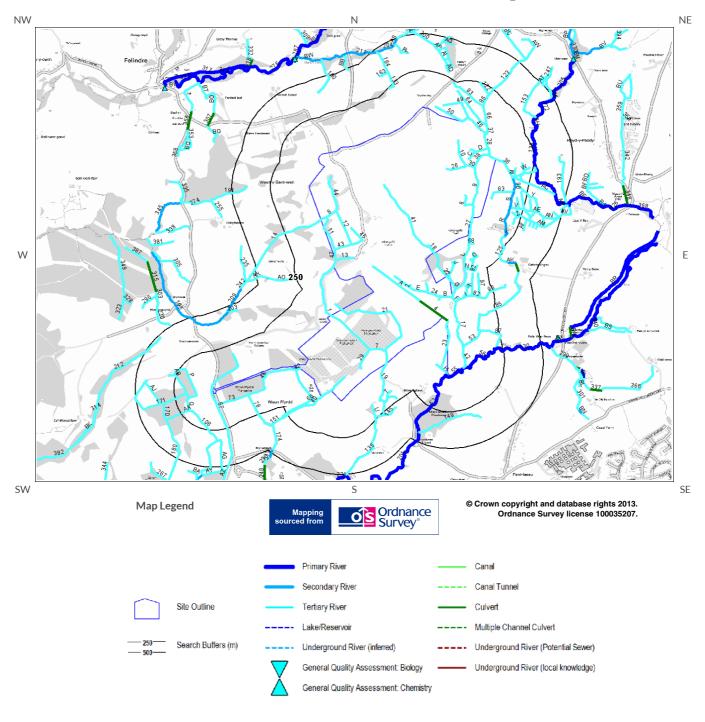


### 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses





### 5d. Hydrology – Detailed River Network and River Quality







#### 5.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

| ID | Distance<br>(m) | Direction | Designation  | Description  |
|----|-----------------|-----------|--------------|--|
| 1  | 0.0             | On Site   | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 2  | 0.0             | On Site   | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 3  | 0.0             | On Site   | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 4  | 0.0             | On Site   | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 5  | 0.0             | On Site   | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 18 | 0.0             | On Site   | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 19 | 0.0             | On Site   | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 20 | 0.0             | On Site   | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 21 | 51.0            | SE        | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 22 | 108.0           | Е         | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 6  | 137.0           | SE        | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 23 | 296.0           | E         | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |



| ID | Distance<br>(m) | Direction | Designation  | Description  |
|----|-----------------|-----------|--------------|--|
| 24 | 376.0           | SE        | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 25 | 401.0           | S         | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow  |
| 7  | 476.0           | SE        | Secondary A  | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

#### 5.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

| ID | Distance<br>(m) | Direction | Designation | Description  |
|----|-----------------|-----------|-------------|--|
| 1  | 0.0             | On Site   | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 2  | 0.0             | On Site   | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

#### 5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

| ID | Distance<br>(m) | Direction | NGR              | Details  |   |
|----|-----------------|-----------|------------------|--|---|
| 5  | 0.0             | On Site   | 265100<br>201700 | Licence No: 22/59/4/0027 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well In Enclosure 481 At Abergelli Farm, Data Type: Point | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 5/3596 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date: |



| ID           | Distance<br>(m) | Direction | NGR              | Details   | Details  |  |  |
|--------------|-----------------|-----------|------------------|---|--|--|--|
| 6            | 179.0           | SW        | 265500<br>200600 | Licence No: 22/59/4/0013 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well On Land Belonging To Maeseglwys Data Type: Point            | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3627 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:                      |  |  |
| 7            | 328.0           | E         | 265950<br>201360 | Licence No: 22/59/4/0022 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring At Cwfn Betinge Farm Data Type: Point                     | Annual Volume (m³): -<br>Max Daily Volume (m³): -<br>Original Application No: WR5/3625<br>Original Start Date: -<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 1/2/1993<br>Version End Date: |  |  |
| 8            | 655.0           | E         | 266330<br>201060 | Licence No: 22/59/4/0008  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Well At Felin Wen Court  Data Type: Point                     | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/809 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:                       |  |  |
| 9            | 678.0           | NW        | 263790<br>201280 | Licence No: 22/59/4/0011 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring At Fforest Newydd Data Type: Point                        | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/267 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 26/3/1999 Version End Date:                      |  |  |
| 10           | 848.0           | W         | 263250<br>200420 | Licence No: 22/59/4/0016 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Field 830,cefn Fforest Fawr Farm Data Type: Point      | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3595 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:                     |  |  |
| Not<br>shown | 870.0           | N         | 265750<br>203390 | Licence No: 22/59/4/0024 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well At Rhosfawr Farm Data Type: Point                           | Annual Volume (m³): -<br>Max Daily Volume (m³): -<br>Original Application No: WR5/3495<br>Original Start Date: -<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 1/2/1993<br>Version End Date: |  |  |
| Not<br>shown | 888.0           | N         | 264580<br>203130 | Licence No: 22/59/4/0003 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Field No. 5700 At Lletty-thomas Farm Data Type: Point  | Annual Volume (m³): -<br>Max Daily Volume (m³): -<br>Original Application No: -<br>Original Start Date: -<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 1/12/1965<br>Version End Date:       |  |  |
| 13           | 1045.0          | E         | 266730<br>201050 | Licence No: 22/59/4/0006  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Spring In Field No. 586 At Gelliwastad Farm  Data Type: Point | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3534 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:                     |  |  |



| ID           | Distance<br>(m) | Direction | NGR              | Details  |  |  |
|--------------|-----------------|-----------|------------------|--|--|--|
| 14           | 1151.0          | E         | 266980<br>201790 | Licence No: 22/59/4/0025 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Enc. South West Of Pontycoedcae Farm Data Type: Point         | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3613 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:  |  |
| Not<br>shown | 1363.0          | E         | 267260<br>202190 | Licence No: 22/59/4/0019 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well In Field No. 437 At Nantymilwr Farm Data Type: Point               | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3473 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:  |  |
| Not<br>shown | 1413.0          | NW        | 264830<br>203860 | Licence No: 22/59/4/0005 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring 1 At Pant Y Fallen Farm Data Type: Point                         | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3471 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date: |  |
| Not<br>shown | 1539.0          | E         | 267200<br>200460 | Licence No: 22/59/1/0057 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage Data Type: Point | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3514 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date: |  |
| Not<br>shown | 1543.0          | N         | 265730<br>204090 | Licence No: 22/59/4/0039 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well At Cwmcile Farm Data Type: Point                                   | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3576 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:   |  |
| Not<br>shown | 1661.0          | N         | 266080<br>204130 | Licence No: 22/59/4/0039 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring Adjacent To Pentre Bedw Cottage Data Type: Point                 | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3576 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:   |  |
| Not<br>shown | 1824.0          | N         | 265500<br>204400 | Licence No: 22/59/4/0040 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Enc. No. 847 At Maestir Mawr Farm Data Type: Point            | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3614 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:   |  |
| Not<br>shown | 1906.0          | E         | 267610<br>200910 | Licence No: 22/59/1/0013  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Well In Field No. 349 At Penrhiwgwysfa  Data Type: Point             | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3580 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date: |  |



| ID           | Distance<br>(m) | Direction | NGR              | Detai  | ls   |
|--------------|-----------------|-----------|------------------|--|--|
| Not<br>shown | 1920.0          | N         | 265250<br>204490 | Licence No: 22/59/4/0005<br>Details: General Farming & Domestic<br>Direct Source: Eaw Groundwater<br>Point: Spring 2 At Pant Y Fallen Farm<br>Data Type: Point | Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3471 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date: |

#### 5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

| ID           | Distance<br>(m) | Direction | NGR              | Details  |  |
|--------------|-----------------|-----------|------------------|--|--|
| 23           | 825.0           | E         | 266720<br>202280 | Licence No: 22/59/4/0066 Details: Lake & Pond Throughflow Direct Source: Eaw Surface Water Point: Un-named Trib Of Afon Llan Data Type: Point              | Annual Volume (m³): 469612<br>Max Daily Volume (m³): 2730<br>Application No: -<br>Original Start Date: 17/4/1990<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 1/4/2005<br>Version End Date:       |
| 24           | 862.0           | E         | 266710<br>202510 | Licence No: 22/59/4/0066 Details: Lake & Pond Throughflow Direct Source: Eaw Surface Water Point: Un-named Trib Of Afon Llan Data Type: Point              | Annual Volume (m³): 469612<br>Max Daily Volume (m³): 2730<br>Application No: -<br>Original Start Date: 17/4/1990<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 1/4/2005<br>Version End Date:       |
| Not<br>shown | 1014.0          | NW        | 264890<br>203440 | Licence No: 22/59/4/0065<br>Details: Potable Water Supply - Storage<br>Direct Source: Eaw Surface Water<br>Point: Lower Lliw Reservoir<br>Data Type: Point | Annual Volume (m³): 82964500<br>Max Daily Volume (m³): 227300<br>Application No: -<br>Original Start Date: 9/8/1989<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 18/9/2003<br>Version End Date: |
| Not<br>shown | 1014.0          | NW        | 264890<br>203440 | Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir - Point B Data Type: Point   | Annual Volume (m³): 82964500<br>Max Daily Volume (m³): 454600<br>Application No: -<br>Original Start Date: 9/8/1989<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 1/4/2011<br>Version End Date:  |



| ID           | Distance<br>(m) | Direction | NGR              | Details   |   |
|--------------|-----------------|-----------|------------------|---|---|
| Not<br>shown | 1951.0          | S         | 266130<br>198870 | Licence No: 22/59/1/0083<br>Details: Spray Irrigation - Direct<br>Direct Source: Eaw Surface Water<br>Point: Unnamed Stream<br>Data Type: Point | Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2001 Version End Date: |

#### 5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (5c):

| ID           | Distance<br>(m) | Direction | NGR              | Details  |  |  |
|--------------|-----------------|-----------|------------------|--|--|--|
| Not<br>shown | 1014.0          | NW        | 264890<br>203440 | Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir Data Type: Point           | Annual Volume (m³): 82964500 Max Daily Volume (m³): 227300 Original Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: Version End Date: |  |
| Not<br>shown | 1014.0          | NW        | 264890<br>203440 | Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir - Point B Data Type: Point | Annual Volume (m³): 82964500 Max Daily Volume (m³): 454600 Original Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: Version End Date: |  |

#### 5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.



#### 5.7 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

| Distance (m) | Direction | Classification                                   | Soil Vulnerability Category | Description  |
|--------------|-----------|--|-----------------------------|--|
| 0            | On Site   | Minor Aquifer/High Leaching<br>Potential         | H2                          | Deep, permeable, coarse textured<br>soils which readily transmit a wide<br>range of pollutants because of<br>their rapid drainage and low<br>attenuation potential.  |
| 0            | On Site   | Minor Aquifer/Low Leaching<br>Potential          | L                           | Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.  |
| 0            | On Site   | Minor Aquifer/Intermediate<br>Leaching Potential | I1                          | Soils which can possibly transmit a wide range of pollutants.  |
| 0            | On Site   | Minor Aquifer/High Leaching<br>Potential         | H1                          | Soils which readily transmit liquid<br>discharges because they are<br>shallow or susceptible to rapid<br>flow directly to rock, gravel or<br>groundwater.  |
| 194          | N         | Minor Aquifer/High Leaching<br>Potential         | НЗ                          | Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content. |
| 243          | NW        | Minor Aquifer/Intermediate<br>Leaching Potential | I1                          | Soils which can possibly transmit a wide range of pollutants.  |
| 440          | S         | Minor Aquifer/Low Leaching<br>Potential          | L                           | Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.  |

#### 5.8 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

Yes



#### 5.8.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (5d):

| ID           | Distance | D:ti      | NCD              | Diver Ovelity Conde   |      | Biolog | gical Quality | Grade |      |
|--------------|----------|-----------|------------------|---|------|--------|---------------|-------|------|
| ID           | (m)      | Direction | NGR              | River Quality Grade -   | 2005 | 2006   | 2007          | 2008  | 2009 |
| 399BW        | 667.0    | N         | 264600<br>202900 | River Name: Loughor Lliw<br>Reach: Conf.nant Y Crimp - Conf Un Named<br>Trib.<br>End/Start of Stretch: Start of Stretch NGR | А    | А      | А             | А     | В    |
| 400BW        | 667.0    | N         | 264600<br>202900 | River Name: Loughor Lliw<br>Reach: Conf Un Named Trib - Lower Lliw Res<br>End/Start of Stretch: End of Stretch NGR          | А    | А      | А             | А     | В    |
| Not<br>shown | 954.0    | NW        | 264800<br>203300 | River Name: Loughor Lliw<br>Reach: Conf Un Named Trib - Lower Lliw Res<br>End/Start of Stretch: Start of Stretch NGR        | А    | А      | А             | А     | В    |
| Not<br>shown | 1333.0   | S         | 263900<br>199300 | River Name: Llan<br>Reach: Melin Llan Br Llangafelach - Cuckoo<br>Mill<br>End/Start of Stretch: Start of Stretch NGR        | В    | В      | В             | В     | В    |
| Not<br>shown | 1333.0   | S         | 263900<br>199300 | River Name: Llan<br>Reach: Cuckoo Mill - Felin-wen<br>End/Start of Stretch: End of Stretch NGR                              | В    | В      | В             | В     | В    |



#### 5.8.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (5d):

|              |                 |           |                  | _  |      | Chem | ical Quality | Grade |      |
|--------------|-----------------|-----------|------------------|--|------|------|--------------|-------|------|
| ID           | Distance<br>(m) | Direction | NGR              | River Quality Grade  | 2005 | 2006 | 2007         | 2008  | 2009 |
| 404BX        | 614.0           | Е         | 266300<br>201000 | River Name: Llan<br>Reach: Cuckoo Mill - Felin-wen<br>End/Start of Stretch: Start of Stretch NGR                     | А    | А    | А            | А     | -    |
| 405BX        | 614.0           | Е         | 266300<br>201000 | River Name: Llan<br>Reach: Felin-wen - Cynghordy<br>End/Start of Stretch: End of Stretch NGR                         | А    | А    | А            | А     | -    |
| 406BW        | 667.0           | N         | 264600<br>202900 | River Name: Lliw<br>Reach: Conf.nant Y Crimp - Conf Un<br>Named Trib.<br>End/Start of Stretch: Start of Stretch NGR  | А    | А    | А            | А     | -    |
| 407BW        | 667.0           | N         | 264600<br>202900 | River Name: Lliw<br>Reach: Conf Un Named Trib - Lower Lliw<br>Res<br>End/Start of Stretch: End of Stretch NGR        | А    | А    | А            | А     | -    |
| 408BM        | 759.0           | NE        | 266400<br>202900 | River Name: Llan<br>Reach: Felin-wen - Cynghordy<br>End/Start of Stretch: Start of Stretch NGR                       | А    | А    | А            | А     | -    |
| Not<br>shown | 954.0           | NW        | 264800<br>203300 | River Name: Lliw<br>Reach: Conf Un Named Trib - Lower Lliw<br>Res<br>End/Start of Stretch: Start of Stretch NGR      | А    | А    | А            | А     | -    |
| 410BY        | 1097.0          | NW        | 263760<br>202700 | River Name: Lliw<br>Reach: Conf.nant Y Crimp - Conf Un<br>Named Trib.<br>End/Start of Stretch: Sample Point NGR      | А    | А    | А            | А     | -    |
| 411BY        | 1097.0          | NW        | 263760<br>202700 | River Name: Lliw<br>Reach: Conf Un Named Trib - Lower Lliw<br>Res<br>End/Start of Stretch: Sample Point NGR          | А    | А    | А            | А     | -    |
| Not<br>shown | 1333.0          | S         | 263900<br>199300 | River Name: Llan<br>Reach: Cuckoo Mill - Felin-wen<br>End/Start of Stretch: End of Stretch NGR                       | А    | А    | А            | А     | -    |
| Not<br>shown | 1333.0          | S         | 263900<br>199300 | River Name: Llan<br>Reach: Melin Llan Br Llangafelach -<br>Cuckoo Mill<br>End/Start of Stretch: Start of Stretch NGR | А    | А    | А            | А     | -    |



#### 5.9 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (5d):



| ID      | Distance (m) | Direction | ]   | Details  |
|---------|--------------|-----------|---|--|
| 1       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 2       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 3       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 4       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Culvert<br>Main River Status: Currently Undefined        |
| 5B      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 6       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 7       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 8       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 9       | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 10      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 11      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 12      | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 13      | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 14      | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 15<br>A | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 16<br>A | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 19      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 20<br>E | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 21      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |



| ID      | Distance (m) | Direction | Direction Details   |  |  |  |  |
|---------|--------------|-----------|---|--|--|--|--|
| 22      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 23      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 24      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 25<br>B | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 26      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 27      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 28      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 29      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 30      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 31<br>C | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 32      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 33<br>C | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 34<br>D | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 35<br>D | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 36      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 37      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 38      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 39<br>E | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 40      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 41      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |
| 42      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |  |  |  |



| ID      | Distance (m) | Direction | Details   |  |
|---------|--------------|-----------|---|--|
| 43      | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 44      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 45      | 0.0          | On Site   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 46      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 47      | 0.0          | On Site   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 48      | 2.0          | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 49      | 2.0          | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 50      | 2.0          | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 51<br>F | 2.0          | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 52<br>F | 2.0          | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 53      | 3.0          | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 54<br>B | 3.0          | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 55      | 3.0          | SE        | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined  |
| 56      | 3.0          | SE        | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined  |
| 57      | 4.0          | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 58<br>H | 8.0          | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 59<br>G | 9.0          | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 60      | 14.0         | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 61<br>G | 24.0         | E         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 62      | 26.0         | SW        | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined  |
| 63      | 31.0         | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |



| ID      | Distance (m) | Direction | Details   |  |
|---------|--------------|-----------|---|--|
| 64      | 40.0         | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 65<br>H | 41.0         | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 66      | 50.0         | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 67<br>L | 52.0         | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 68      | 52.0         | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 691     | 52.0         | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 701     | 52.0         | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 71J     | 68.0         | N         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 72J     | 68.0         | N         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 73      | 76.0         | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 74<br>K | 96.0         | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 75<br>K | 98.0         | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 76<br>K | 98.0         | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 77<br>K | 99.0         | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 78      | 102.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 79<br>P | 108.0        | W         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 80<br>N | 109.0        | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 81<br>K | 112.0        | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 82      | 112.0        | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 83      | 116.0        | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 84<br>L | 118.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |



| ID       | Distance (m) | Direction | ı   | Details   |
|----------|--------------|-----------|---|---|
| 85       | 119.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 86       | 122.0        | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 87       | 136.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 88<br>M  | 136.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 89<br>M  | 136.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 90       | 139.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 91<br>N  | 147.0        | E         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 92       | 147.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 93<br>M  | 149.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 94<br>O  | 151.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 95<br>L  | 152.0        | S         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 96       | 155.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 97       | 155.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 98<br>O  | 156.0        | S         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 99<br>S  | 158.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 10<br>0R | 158.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 10<br>1U | 160.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>2V | 164.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>3P | 165.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>4Q | 165.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>5T | 170.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |



| ID            | Distance (m) | Direction | ı   | Details   |
|---------------|--------------|-----------|---|---|
| 10<br>6Y      | 172.0        | E         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>7M      | 175.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>8       | 180.0        | SW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 10<br>9Q      | 182.0        | W         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>OR      | 184.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>1M      | 185.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>2S      | 189.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>3A<br>A | 190.0        | SW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>4T      | 191.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>5T      | 191.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>6M      | 196.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>7W      | 196.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>8U      | 198.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 11<br>9A<br>C | 199.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>0X      | 200.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 12<br>1V      | 200.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>2       | 203.0        | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>3       | 203.0        | NE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>4W      | 203.0        | E         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>5       | 204.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>6X      | 208.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Secondary River<br>Main River Status: Currently Undefined |



| ID            | Distance (m) | Direction | С   | Petails   |
|---------------|--------------|-----------|---|---|
| 12<br>7X      | 208.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 12<br>8Y      | 208.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 12<br>9X      | 209.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 13<br>0       | 214.0        | Е         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined   |
| 13<br>1R      | 214.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>2V      | 220.0        | Е         | River Name: Drains<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>3       | 230.0        | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>4Z      | 232.0        | E         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>5       | 234.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>6U      | 234.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>7Z      | 244.0        | E         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 13<br>8       | 249.0        | Е         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined   |
| 13<br>9A<br>A | 253.0        | SW        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>0A<br>B | 256.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>1A<br>B | 256.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>2Z      | 258.0        | Е         | River Name: Drains<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>3A<br>C | 264.0        | E         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined   |
| 14<br>4Z      | 264.0        | E         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>5       | 267.0        | SE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>6A<br>O | 276.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>7Y      | 277.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |



| ID            | Distance (m) | Direction | С   | Details   |
|---------------|--------------|-----------|---|---|
| 14<br>8A<br>D | 282.0        | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 14<br>9       | 283.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>0A<br>F | 290.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>1       | 290.0        | SW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>2Z      | 291.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>3       | 294.0        | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>4A<br>D | 301.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>5A<br>D | 301.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>6A<br>E | 303.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>7A<br>E | 310.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>8A<br>F | 310.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 15<br>9A<br>F | 311.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>0A<br>K | 315.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 16<br>1A<br>H | 317.0        | Е         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined   |
| 16<br>2A<br>G | 320.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>3       | 320.0        | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>4       | 320.0        | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>5A<br>F | 321.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>6A<br>F | 322.0        | Е         | River Name: Drains<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>7A<br>G | 322.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 16<br>8A<br>H | 324.0        | E         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined   |



| ID            | Distance (m) | Direction | Ε   | Details  |
|---------------|--------------|-----------|---|--|
| 16<br>9A<br>H | 324.0        | Е         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined  |
| 17<br>0       | 328.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>1       | 328.0        | W         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>2       | 342.0        | Е         | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: - | River Type: Primary River<br>Main River Status: Currently Undefined  |
| 17<br>3A<br>F | 343.0        | Е         | River Name: Drains<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>4       | 345.0        | S         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>5AI     | 348.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>6AI     | 348.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>7A<br>F | 348.0        | Е         | River Name: Drains<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>8A<br>J | 350.0        | W         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 17<br>9A<br>J | 350.0        | W         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>0       | 354.0        | SW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>1A<br>K | 359.0        | SE        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Culvert<br>Main River Status: Currently Undefined        |
| 18<br>2AI     | 365.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>3A<br>F | 366.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>4A<br>M | 372.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>5A<br>N | 375.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>6A<br>L | 376.0        | N         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>7A<br>L | 388.0        | N         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>8A<br>M | 391.0        | Е         | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -     | River Type: Tertiary River<br>Main River Status: Currently Undefined |
| 18<br>9A<br>P | 400.0        | N         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -         | River Type: Tertiary River<br>Main River Status: Currently Undefined |



| ID            | Distance (m) | tance (m) Direction | Details  |   |  |
|---------------|--------------|---------------------|--|---|--|
| 19<br>0       | 403.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>1       | 403.0        | W                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>2A<br>L | 406.0        | N                   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -        | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>3       | 411.0        | Е                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>4A<br>N | 413.0        | Е                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>5       | 423.0        | N                   | River Name: Nant y Crimp<br>Welsh River Name: -<br>Alternative Name: - | River Type: Secondary River<br>Main River Status: Currently Undefined |  |
| 19<br>6A<br>O | 423.0        | W                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Secondary River<br>Main River Status: Currently Undefined |  |
| 19<br>7A<br>X | 430.0        | W                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 19<br>8A<br>R | 430.0        | Е                   | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Primary River<br>Main River Status: Currently Undefined   |  |
| 19<br>9A<br>P | 431.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>0       | 433.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>1       | 439.0        | SW                  | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Primary River<br>Main River Status: Currently Undefined   |  |
| 20<br>2A<br>N | 439.0        | Е                   | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -        | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>3       | 453.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>4       | 455.0        | NW                  | River Name: Nant y Tarw<br>Welsh River Name: -<br>Alternative Name: -  | River Type: Secondary River<br>Main River Status: Currently Undefined |  |
| 20<br>5       | 456.0        | NE                  | River Name: Afon Llan<br>Welsh River Name: -<br>Alternative Name: -    | River Type: Primary River<br>Main River Status: Currently Undefined   |  |
| 20<br>6       | 456.0        | NE                  | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>7A<br>Q | 463.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |
| 20<br>8A<br>S | 464.0        | NW                  | River Name: Nant y Tarw<br>Welsh River Name: -<br>Alternative Name: -  | River Type: Secondary River<br>Main River Status: Currently Undefined |  |
| 20<br>9       | 464.0        | NW                  | River Name: Nant y Crimp<br>Welsh River Name: -<br>Alternative Name: - | River Type: Secondary River<br>Main River Status: Currently Undefined |  |
| 21<br>0A<br>Q | 466.0        | N                   | River Name: -<br>Welsh River Name: -<br>Alternative Name: -            | River Type: Tertiary River<br>Main River Status: Currently Undefined  |  |



| ID            | Distance (m) | Direction | D   | etails  |
|---------------|--------------|-----------|---|---|
| 21<br>1       | 478.0        | NW        | River Name: Nant y Tarw<br>Welsh River Name: -<br>Alternative Name: - | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 21<br>2       | 479.0        | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>3       | 481.0        | SW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Secondary River<br>Main River Status: Currently Undefined |
| 21<br>4A<br>R | 485.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>5B<br>B | 488.0        | NW        | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>6A<br>N | 492.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>7A<br>S | 493.0        | N         | River Name: Nant y Tarw<br>Welsh River Name: -<br>Alternative Name: - | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>8A<br>T | 495.0        | NE        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -       | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 21<br>9A<br>V | 495.0        | Е         | River Name: -<br>Welsh River Name: -<br>Alternative Name: -           | River Type: Tertiary River<br>Main River Status: Currently Undefined  |
| 22<br>0       | 499.0        | NW        | River Name: Drain<br>Welsh River Name: -<br>Alternative Name: -       | River Type: Tertiary River<br>Main River Status: Currently Undefined  |



# 5.10 Surface Water Features

Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:



| Distance (m) | Direction       |
|--------------|-----------------|
| 0.0          | On Site         |
|              | On Site         |
| 0.0          |                 |
| 0.0          | On Site         |
| 0.0          | On Site On Site |
|              |                 |
| 0.0          | On Site         |
| 1.0          | SE              |
|              |                 |



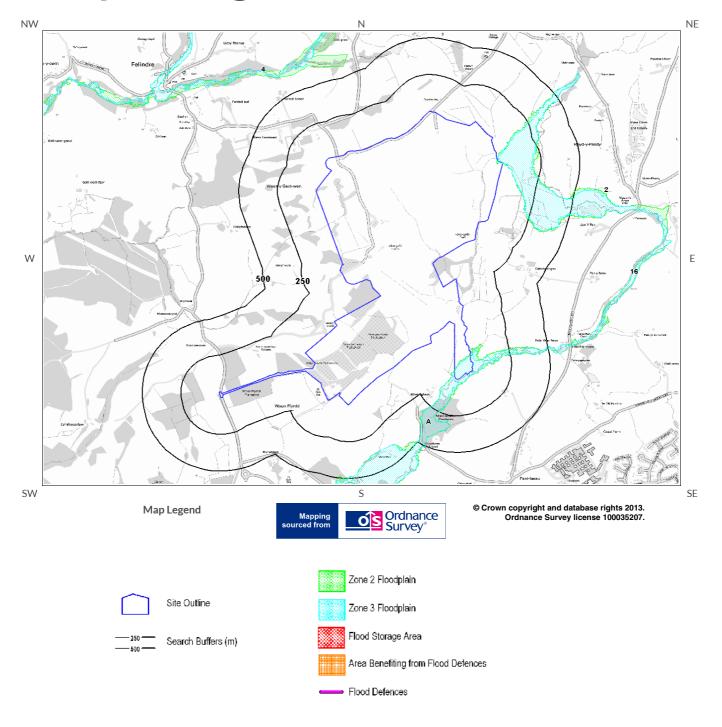
| Distance (m) | Direction |
|--------------|-----------|
| 1.0          | SE        |
| 2.0          | NW        |
| 2.0          | NW        |
| 2.0          | NE        |
| 2.0          | NE        |
| 2.0          | S         |
| 3.0          |           |
| 3.0          | NE        |
| 4.0          | W         |
| 8.0          | W         |
| 9.0          |           |
| 11.0         | NE        |
| 13.0         | N         |
| 14.0         | S         |
| 24.0         | E         |
| 28.0         | <br>N     |
| 31.0         | E         |
| 40.0         | NE        |
| 41.0         | W         |
| 52.0         | S         |
| 52.0         |           |
| 52.0         | NE        |
|              |           |
| 52.0         | NE C      |
| 57.0         | <u>\$</u> |
| 64.0         | SW        |
| 65.0         | SW        |
| 68.0         | N         |
| 68.0         | N         |
| 76.0         | S         |
| 91.0         | SE        |
| 95.0         | NW        |
| 95.0         | SW        |
| 96.0         | E         |
| 98.0         | SE        |
| 98.0         | E         |
| 98.0         | E         |
| 99.0         | E         |
| 102.0        | S         |
| 105.0        | NW        |
| 108.0        | W         |
| 109.0        | NE        |
| 112.0        | NE        |
| 112.0        | NE        |
| 117.0        | NE        |
| 117.0        | W         |
| 118.0        | S         |
| 119.0        |           |
| 121.0        |           |
| 122.0        | NE        |
| 136.0        | E         |
| 136.0        | E E       |
| 147.0        | E E       |
| 147.0        | E         |
| 147.0        | E         |
| 151.0        | SE        |
| 131.0        | <u> </u>  |



| Distance (m) | Direction |
|--------------|-----------|
| 152.0        | S         |
| 155.0        | E         |
| 155.0        | E         |
| 156.0        | S         |
| 160.0        | SE        |
| 161.0        | E         |
| 165.0        | W         |
| 165.0        | W         |
| 166.0        | E         |
| 169.0        | W         |
| 170.0        | SE        |
| 172.0        |           |
| 175.0        | E         |
| 180.0        | SW        |
| 182.0        | W         |
| 184.0        |           |
| 185.0        |           |
| 189.0        |           |
| 190.0        | SW        |
| 191.0        | SE        |
| 191.0        | SE        |
| 196.0        | E         |
| 196.0        | E         |
| 197.0        | NW        |
| 198.0        | SE        |
| 199.0        | E         |
| 200.0        |           |
| 203.0        | NE        |
| 203.0        | NE        |
| 203.0        |           |
| 205.0        | SE        |
| 207.0        | W         |
| 208.0        |           |
| 214.0        |           |
| 220.0        | <br>E     |
| 232.0        | NW        |
| 232.0        | E         |
| 234.0        | SE        |
| 234.0        | SE SE     |
| 239.0        | W         |
| 244.0        |           |
| 247.0        |           |
| 217.0        |           |



# 6. Environment Agency Flood Map for planning (from rivers and the sea)







# 6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

Is the site within 250m of an Environment Agency Zone 2 floodplain?

Yes

The following floodplain records are represented as green shading on the Flood Map:

| ID | Distance (m) | Direction | Update      | Туре                       |
|----|--------------|-----------|-------------|----------------------------|
| 1A | 0.0          | On Site   | 10-Jun-2014 | Zone 2 - (Fluvial Models ) |
| 2  | 0.0          | On Site   | 10-Jun-2014 | Zone 2 - (Fluvial Models ) |

# 6.2 Zone 3 Flooding

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning.

Is the site within 250m of an Environment Agency Zone 3 floodplain?

Yes

The following floodplain records are represented as blue shading on the Flood Map:

| ID | Distance (m) | Direction | Update      | Туре                       |
|----|--------------|-----------|-------------|----------------------------|
| 9A | 0.0          | On Site   | 10-Jun-2014 | Zone 3 - (Fluvial Models ) |
| 10 | 0.0          | On Site   | 10-Jun-2014 | Zone 3 - (Fluvial Models ) |

# 6.3 Flood Defences

Are there any Flood Defences within 250m of the study site?

No

Database searched and no data found.



# 6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

# 6.5 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

# 6.6 Groundwater Flooding Susceptibility Areas

6.6.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

# 6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

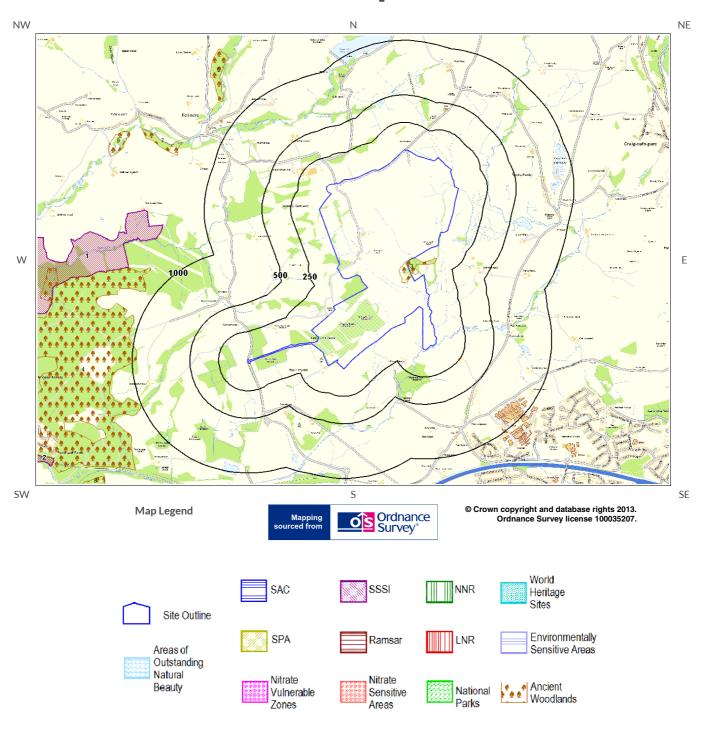
High

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.



# 7. Designated Environmentally Sensitive Sites Map





No



# 7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?

|   | _               |                       |  |                     |
|---|-----------------|-----------------------|--|---------------------|
| 7 | '.1 Record      | s of Sites of S       | Special Scientific Interest (SSSI) within 2000m of the study site:   | 2                   |
|   |                 |                       |  |                     |
| ( | Council fo      | or Wales a            | Special Scientific Interest (SSSI) records provided by Natural England/ond Scottish Natural Heritage are represented as polygons on the ive Sites Map: |                     |
|   | Distance<br>(m) | Direction             | SSSI Name  | Data Source         |
| L | 1334.0          | NW                    | Nant Y Crimp Countrys  | de Council for Wale |
| 2 | 1897.0          | SW                    | Penllergaer Railway Cutting Countrysi  | de Council for Wale |
| 7 | _<br>'.2 Record | s of National         | Nature Reserves (NNR) within 2000m of the study site:  Database searched and no data found.  | 0                   |
| 7 | -<br>'.3 Record | s of Special <i>F</i> | Areas of Conservation (SAC) within 2000m of the study site:  | 0                   |
|   |                 |                       | Database searched and no data found.   |                     |
| 7 | '.4 Record      | s of Special F        | Protection Areas (SPA) within 2000m of the study site:   | 0                   |
|   | _               |                       | Database searched and no data found.   | <u> </u>            |
| 7 | '.5 Record      | s of Ramsar s         | sites within 2000m of the study site:  | 0                   |
|   |                 |                       | Database searched and no data found.   |                     |



7.6 Records of Ancient Woodland within 2000m of the study site:

8

The following Ancient Woodland records are supplied by English Nature/Scottish Natural Heritage/Countryside Council for Wales and are represented as polygons on the Designated Environmentally Sensitive Sites Map:

| ID           | Distance<br>(m) | Direction | Ancient Woodland Name | Data Source                       |
|--------------|-----------------|-----------|-----------------------|-----------------------------------|
| 3            | 0.0             | On Site   | Unknown               | Ancient and Semi-Natural Woodland |
| 4            | 962.0           | W         | PENLLERGAER FOREST    | Ancient and Semi-Natural Woodland |
| 5            | 1196.0          | NW        | LLWYN-GWENO WOOD      | Ancient and Semi-Natural Woodland |
| Not<br>shown | 1235.0          | S         | Unknown               | Ancient and Semi-Natural Woodland |
| 7            | 1319.0          | W         | Unknown               | Ancient and Semi-Natural Woodland |
| 8            | 1616.0          | SW        | TIR-FFORDD WOOD       | Ancient and Semi-Natural Woodland |
| 9            | 1774.0          | W         | TYN-Y-CWM WOOD        | Ancient and Semi-Natural Woodland |
| Not<br>shown | 1989.0          | SW        | VALLEY WOOD           | Ancient Replanted Woodland        |

| 7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:                 | _ |
|--|---|
| Database searched and no data found.   |   |
| 7.8 Records of World Heritage Sites within 2000m of the study site:                        | _ |
| Database searched and no data found.   |   |
| 7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:             | _ |
| Database searched and no data found.   |   |
| 7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: | _ |
| Database searched and no data found.   |   |



| 7.11 Records of National Parks (NP) within 2000m of the study site:      | ( |
|--|---|
| Database searched and no data found.                                     |   |
| 7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:  | ( |
| Database searched and no data found.                                     |   |
| 7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site: | ( |
| Database searched and no data found.                                     |   |





# 8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **GroundSure GeoInsight**, available from **our website**. The following information has been found:

# 8.1.1 Shrink Swell

What is the maximum Shrink-Swell\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

### Hazard

Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

# 8.1.2 Landslides

What is the maximum Landslide\* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

# Hazard

Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.

# 8.1.3 Soluble Rocks

What is the maximum Soluble Rocks\* hazard rating identified on the study site?

Null - Negligible

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.



# 8.1.4 Compressible Ground

What is the maximum Compressible Ground\* hazard rating identified on the study site?

High

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

#### Hazard

Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.

# 8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

#### Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

# 8.1.6 Running Sand

What is the maximum Running Sand\*\* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

# Hazard

Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.





# 9. Mining

# 9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

| Distance | Direction  | Details   |
|----------|------------|---|
| 0.0      | On Site    | The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848. |
|          |            |   |
| 9.2 Shal | low Mining |   |

What is the subsidence hazard relating to shallow mining on-site\*?

Low

\*Please note this data is searched with a 150m buffer.

# 9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Guidance: No Guidance Required.



# **Contact Details**

GroundSure Helpline Telephone: 08444 159 000 info@groundsure.com



**British Geological Survey Enquiries** 

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email: enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 08708 506 506

Web:www.environment-agency.gov.uk Email:enquiries@environment-agency.gov.uk



Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email:enquiries@phe.gov.uk Main switchboard: 020 7654 8000

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505

Local Authority
Authority: Swansea City and Borough Council
Phone: 01792 636000
Web: www.swansea.gov.uk
Address: County Hall, Oystermouth Road, Swansea, SA1 3SN

**Gemapping PLC** 

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444















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## **Standard Terms and Conditions**

#### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**"Third Party Data Provider"** means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

**"Services"** means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

# 2 Scope of Services, terms and conditions, requests for insurance and quotations

- 2.1 GroundSure agrees to provide the Services in accordance with the Contract.
- 2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services
- 2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
- 2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions

implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.
- 3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
- 3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
- 3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

## 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

# 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

- 5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

## 6 Intellectual Property and Confidentiality

#### 6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.
- 6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- $6.4\ \mbox{The Client shall,}$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services:
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

## 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death

or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

- (i) loss of profits;
- (ii) loss of business;
- (iii) depletion of goodwill and/or similar losses;
- (iv) loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- (vii) loss of use;
- (viii) loss or corruption of data or information;
- (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \qquad \mbox{loss or damage to a computer, software, modem, telephone or other property; and} \\$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

# 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are
    - (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

# 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in

GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

### 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010:
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
  - (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- 12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English

law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

- 12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © GroundSure Limited June 2013



Parsons Brinckerhoff

27-29 PARSONS BRINCKERHOFF LTD, CATHEDRAL ROAD, CARDIFF, CF11 9HA GroundSure Reference:

GS-1587648

Your Reference:

PB84891

Report Date

29 Jul 2014

Report Delivery

Method:

Email - pdf

# **GroundSure Geoinsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above GroundSure reference number.

Yours faithfully,

Managing Director Groundsure Limited

Enc.

GroundSure GeoInsight



# GroundSure GeoInsight

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Date: 29 Jul 2014

Reference: GS-1587648

Client: Parsons Brinckerhoff

NW NE



SW SE

Aerial Photograph Capture date: 22-May-2010 Grid Reference: 265243,201702 Site Size: 146.24ha

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# **Overview of Findings**

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

| Section 1:Geology   |   |                  |            |  |               |              |  |  |  |
|---|---|------------------|------------|--|---------------|--------------|--|--|--|
| 1.1 Artificial Ground   | 1.1.1 Is there any Artificial Ground/ Made the study site?  | Ground preser    | nt beneath | No   |               |              |  |  |  |
|   | 1.1.2 Are there any records relating to per ground within the study site* boundary?   | meability of ar  | tificial   | No   |               |              |  |  |  |
| 1.2 Superficial<br>Geology and Landslips  | 1.2.1 Is there any Superficial Ground/Drift beneath the study site?   | t Geology prese  | ent        | Yes  | Yes           |              |  |  |  |
| 1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary? |   |                  |            | Yes  |               |              |  |  |  |
| $1.2.3\mbox{Are}$ there any records of landslip within 500m of the study site boundary?                     |   |                  |            |  |               |              |  |  |  |
|   | 1 2 4 Are there any records relating to permeability of landslins   |                  |            |  |               | No           |  |  |  |
| 1.3 Bedrock, Solid<br>Geology & Faults  | 1.3.1 For records of Bedrock and Solid Geo<br>site* see the detailed findings section.  | ology beneath t  | the study  |  |               |              |  |  |  |
| 1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?             |   |                  |            | Yes  |               |              |  |  |  |
|   | 1.3.3 Are there any records of faults within boundary?  | n 500m of the s  | tudy site  | Yes  |               |              |  |  |  |
| 1.4 Radon data  | 1.4.1 Is the property in a Radon Affected A<br>Health Protection Agency (HPA) and if so<br>homes are above the Action Level?                  |                  |            | The property is in a Radon Affected Area, as between 3 and 5% of properties are above the Action Level |               |              |  |  |  |
|   | 1.4.2 Is the property in an area where Radare required for new properties or extensi described in publication BR211 by the Bui Establishment? | ions to existing |            | Basic radon pi<br>necessary  | otective meas | ures are     |  |  |  |
| Section 2:Ground \  | Workings  | On-site          | 0-50m      | 51-250   | 251-500       | 501-1000     |  |  |  |
| 2.1 Historical Surface O<br>Mapping   | Ground Working Features from Small Scale  | 13               | 10         | 9  | Not Searched  | Not Searched |  |  |  |
| 2.2 Historical Undergro   | ound Workings from Small Scale Mapping  | 4                | 0          | 0  | 1             | 10           |  |  |  |
| 2.3 Current Ground W  | orkings   | 1                | 0          | 0  | 3             | 8            |  |  |  |
| Section 3:Mining, E   | Extraction & Natural Cavities   | On-site          | 0-50m      | 51-250   | 251-500       | 501-1000     |  |  |  |
| 3.1 Historical Mining   |   | 4                | 0          | 0  | 1             | 4            |  |  |  |

Report Reference: GS-1587648

PB84891



| Section 3:Mining, Extraction & Natural Cavities | On-site | 0-50m | 51-250 | 251-500      | 501-1000 |
|---|---------|-------|--------|--------------|----------|
| 3.2 Coal Mining                                 | 1       | 0     | 0      | 0            | 0        |
| 3.3 Johnson Poole and Bloomer Mining Area       | 0       | 0     | 0      | 0            | 0        |
| 3.4 Non-Coal Mining                             | 0       | 0     | 0      | 0            | 0        |
| 3.5 Non-Coal Mining Cavities                    | 0       | 0     | 0      | 0            | 0        |
| 3.6 Natural Cavities                            | 0       | 0     | 0      | 0            | 0        |
| 3.7 Brine Extraction                            | 0       | 0     | 0      | 0            | 0        |
| 3.8 Gypsum Extraction                           | 0       | 0     | 0      | 0            | 0        |
| 3.9 Tin Mining                                  | 0       | 0     | 0      | 0            | 0        |
| 3.10 Clay Mining                                | 0       | 0     | 0      | 0            | 0        |
| Section 4:Natural Ground Subsidence             | On-si   | ite   |        |              |          |
| 4.1 Shrink Swell Clay                           | Very L  | OW    |        |              |          |
| 4.2 Landslides                                  | Low     | 1     |        |              |          |
| 4.3 Ground Dissolution of Soluble Rocks         | Null    |       |        |              |          |
| 4.4 Compressible Deposits                       | High    |       |        |              |          |
| 4.5 Collapsible Deposits                        | Very L  | ow    |        |              |          |
| 4.6 Running Sand                                | Low     |       |        |              | ,        |
| Section 5:Borehole Records                      | On-site | 0-50m | 51-250 |              |          |
| 5 BGS Recorded Boreholes                        | 3       | 0     | 2      |              |          |
| Section 6:Estimated Background Soil Chemistry   | On-site | 0-50m | 51-250 |              |          |
| 6 Records of Background Soil Chemistry          | 43      | 3     | 34     |              |          |
| Section 7:Railways and Tunnels                  | On-site | 0-50m | 51-250 | 251-500      |          |
| 7.1 Tunnels                                     | 0       | 0     | 0      | Not Searched |          |
| 7.2 Historical Railway and Tunnel Features      | 9       | 2     | 0      | Not Searched |          |
| 7.3 Historical Railways                         | 0       | 0     | 0      | Not Searched |          |
| 7.4 Active Railways                             | 0       | 0     | 0      | Not Searched |          |

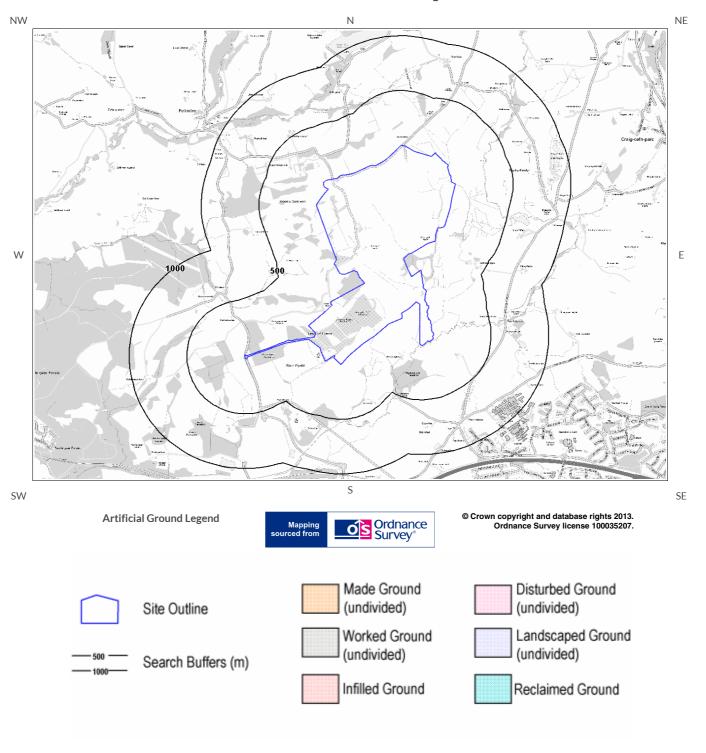


| Section 7:Railways and Tunnels | On-site | 0-50m | 51-250 | 251-500 |  |
|--------------------------------|---------|-------|--------|---------|--|
| 7.5 Railway Projects           | 0       | 0     | 0      | 0       |  |



# 1 Geology

# 1.1 Artificial Ground Map







# 1 Geology1.1 Artificial Ground

# 1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:247

Are there any records of Artificial/Made Ground within 500m of the study site boundary?

No

Database searched and no data found.

# 1.1.2 Permeability of Artificial Ground

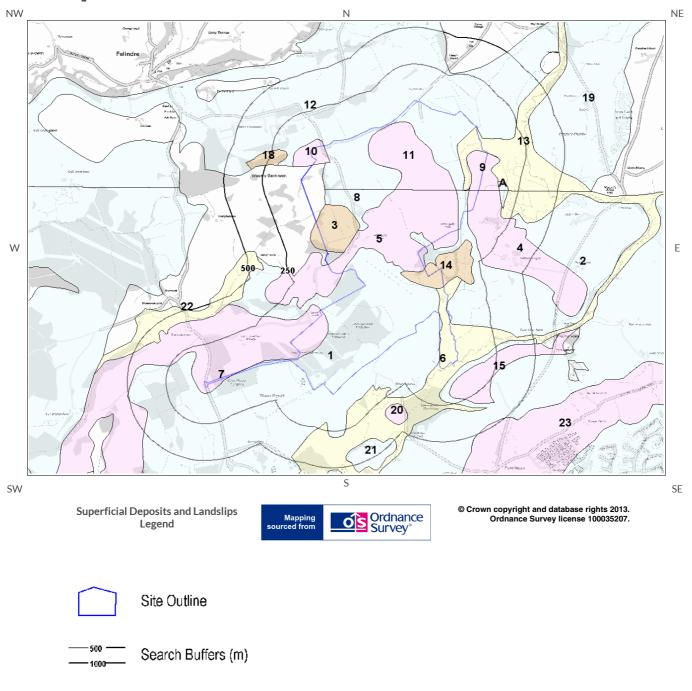
Are there any records relating to permeability of artificial ground within the study site boundary?

No

Database searched and no data found.



# 1.2 Superficial Deposits and Landslips Map





# 1.2 Superficial Deposits and Landslips

# 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary?

Yes

| ID  | Distance<br>(m) | Direction | LEX Code   | Description                             | Rock Description               |
|-----|-----------------|-----------|------------|---|--------------------------------|
| 1   | 0.0             | On Site   | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 2   | 0.0             | On Site   | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 3   | 0.0             | On Site   | PEAT-P     | PEAT                                    | PEAT                           |
| 4   | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 5   | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 6   | 0.0             | On Site   | ALV-CSSG   | ALLUVIUM                                | CLAY, SILT, SAND AND<br>GRAVEL |
| 7   | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 8   | 0.0             | On Site   | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 9   | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 10  | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 11  | 0.0             | On Site   | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 12  | 0.0             | On Site   | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 13  | 0.0             | On Site   | ALV-CSSG   | ALLUVIUM                                | CLAY, SILT, SAND AND<br>GRAVEL |
| 14  | 0.0             | On Site   | PEAT-P     | PEAT                                    | PEAT                           |
| 15  | 93.0            | SE        | GFSDD-SAGR | GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN | SAND AND GRAVEL                |
| 16A | 108.0           | E         | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 17A | 130.0           | E         | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 18  | 153.0           | W         | PEAT-P     | PEAT                                    | PEAT                           |
| 19  | 296.0           | Е         | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 20  | 311.0           | SE        | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |
| 21  | 376.0           | SE        | TILLD-DMTN | TILL, DEVENSIAN                         | DIAMICTON                      |
| 22  | 400.0           | NW        | ALV-CSSG   | ALLUVIUM                                | CLAY, SILT, SAND ANI<br>GRAVEL |
| 23  | 476.0           | SE        | GFDUD-SAGR | GLACIOFLUVIAL DEPOSITS, DEVENSIAN       | SAND AND GRAVEL                |



## 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary?

Yes

| Distance (m) | Direction | Flow Type     | Maximum Permeability | Minimum Permeability |
|--------------|-----------|---------------|----------------------|----------------------|
| 0.0          | On Site   | Intergranular | Very High            | High                 |
| 0.0          | On Site   | Mixed         | High                 | Low                  |
| 0.0          | On Site   | Intergranular | Very High            | High                 |
| 0.0          | On Site   | Intergranular | Very High            | High                 |
| 0.0          | On Site   | Mixed         | Low                  | Very Low             |
| 0.0          | On Site   | Intergranular | Very High            | High                 |
| 0.0          | On Site   | Mixed         | Low                  | Very Low             |
| 0.0          | On Site   | Mixed         | Low                  | Very Low             |
| 0.0          | On Site   | Intergranular | Very High            | High                 |
| 0.0          | On Site   | Mixed         | High                 | Low                  |
| 0.0          | On Site   | Mixed         | High                 | Low                  |
| 0.0          | On Site   | Intergranular | High                 | Very Low             |
| 0.0          | On Site   | Mixed         | High                 | Low                  |

## 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary?

No

## Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

## 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site\*\* boundary?

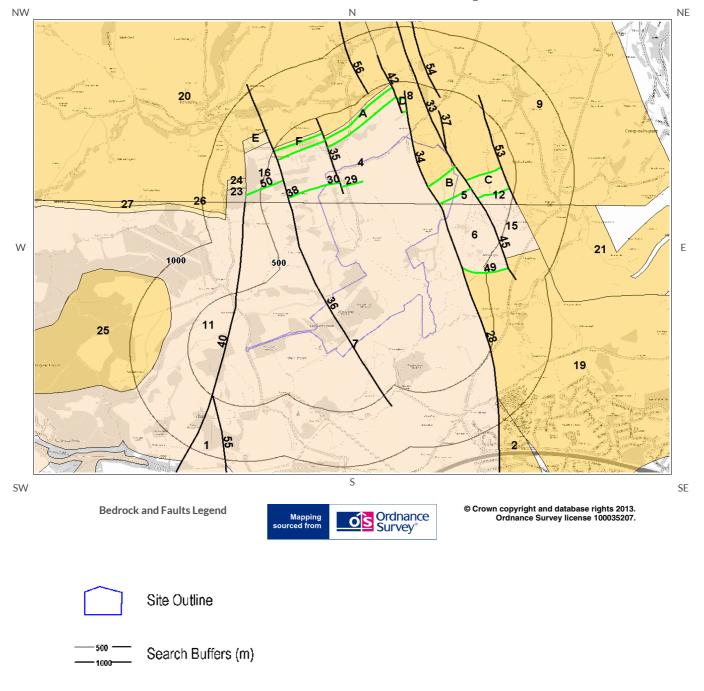
No

Database searched and no data found.

<sup>\*</sup> This includes an automatically generated 50m buffer zone around the site



# 1.3 Bedrock and Faults Map





# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:247

## 1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

| ID  | Distance (m) | Direction | LEX Code | Description  | Rock Age      |
|-----|--------------|-----------|----------|--|---------------|
| 1   | 492.0        | SW        | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 3В  | 0.0          | On Site   | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 4   | 0.0          | On Site   | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 5   | 0.0          | On Site   | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 6   | 0.0          | On Site   | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And Sandstone    | Westphalian D |
| 7   | 0.0          | On Site   | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 8   | 0.0          | On Site   | SW-SDST  | Swansea Member - Sandstone                                 | Westphalian D |
| 9   | 0.0          | On Site   | SW-SDST  | Swansea Member - Sandstone                                 | Westphalian D |
| 10C | 70.0         | E         | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 11  | 170.0        | W         | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 12  | 207.0        | E         | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And Sandstone    | Westphalian D |
| 13A | 218.0        | NW        | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 14D | 224.0        | Ν         | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 15  | 249.0        | E         | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 16  | 253.0        | W         | GDB-MDSS | Grovesend Formation - Mudstone, Siltstone And<br>Sandstone | Westphalian D |
| 17F | 271.0        | N         | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 18A | 294.0        | NW        | SW-MDSS  | Swansea Member - Mudstone, Siltstone And<br>Sandstone      | Westphalian D |
| 19  | 312.0        | Е         | SW-SDST  | Swansea Member - Sandstone                                 | Westphalian D |
| 20  | 325.0        | NW        | SW-SDST  | Swansea Member - Sandstone                                 | Westphalian D |
|     |              |           |          |  |               |



## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site \*boundary?

Yes

| Distance (m) | Direction | Flow Type | Maximum Permeability | Minimum Permeability |
|--------------|-----------|-----------|----------------------|----------------------|
| 0.0          | On Site   | Fracture  | Moderate             | Low                  |
| 0.0          | On Site   | Fracture  | Moderate             | Low                  |
| 0.0          | On Site   | Fracture  | Moderate             | Low                  |
| 0.0          | On Site   | Fracture  | High                 | Moderate             |

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

Yes

| ID  | Distance (m) | Direction | Category Description | Feature Description    |
|-----|--------------|-----------|----------------------|------------------------|
| 28  | 0.0          | On Site   | FAULT                | Normal fault, inferred |
| 29  | 0.0          | On Site   | ROCK                 | Coal seam, inferred    |
| 30  | 0.0          | On Site   | ROCK                 | Coal seam, inferred    |
| 31B | 0.0          | On Site   | ROCK                 | Coal seam, inferred    |
| 32B | 0.0          | On Site   | ROCK                 | Coal seam, inferred    |
| 33  | 0.0          | On Site   | FAULT                | Normal fault, observed |
| 34  | 0.0          | On Site   | FAULT                | Normal fault, observed |
| 35  | 0.0          | On Site   | FAULT                | Normal fault, inferred |
| 36  | 0.0          | On Site   | FAULT                | Normal fault, inferred |
| 37  | 18.0         | NE        | FAULT                | Normal fault, observed |
| 38  | 29.0         | NW        | ROCK                 | Coal seam, inferred    |
| 39C | 70.0         | E         | ROCK                 | Coal seam, inferred    |
| 40  | 170.0        | W         | FAULT                | Normal fault, inferred |
| 41C | 207.0        | Е         | ROCK                 | Coal seam, inferred    |
| 42  | 215.0        | N         | FAULT                | Normal fault, observed |
| 43A | 218.0        | NW        | ROCK                 | Coal seam, inferred    |
| 44D | 224.0        | Ν         | ROCK                 | Coal seam, observed    |
| 45  | 249.0        | Е         | FAULT                | Normal fault, inferred |
| 46E | 253.0        | W         | FAULT                | Normal fault, inferred |
| 47F | 271.0        | Ν         | ROCK                 | Coal seam, inferred    |
| 48A | 294.0        | NW        | ROCK                 | Coal seam, inferred    |
| 49  | 319.0        | NE        | ROCK                 | Coal seam, inferred    |
| 50  | 335.0        | NW        | ROCK                 | Coal seam, inferred    |
| 51F | 344.0        | N         | ROCK                 | Coal seam, inferred    |
| 52D | 344.0        | N         | ROCK                 | Coal seam, observed    |
| 53  | 373.0        | E         | FAULT                | Normal fault, inferred |
| 54  | 427.0        | N         | FAULT                | Normal fault, observed |
| 55  | 492.0        | SW        | FAULT                | Normal fault, inferred |

<sup>\*</sup> This includes an automatically generated 50m buffer zone around the site



| ID | Distance (m) | Direction | Category Description | Feature Description    |
|----|--------------|-----------|----------------------|------------------------|
| 56 | 495.0        | NW        | FAULT                | Normal fault, inferred |

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.



## 1.4 Radon Data

## 1.4.1 Radon Affected Areas

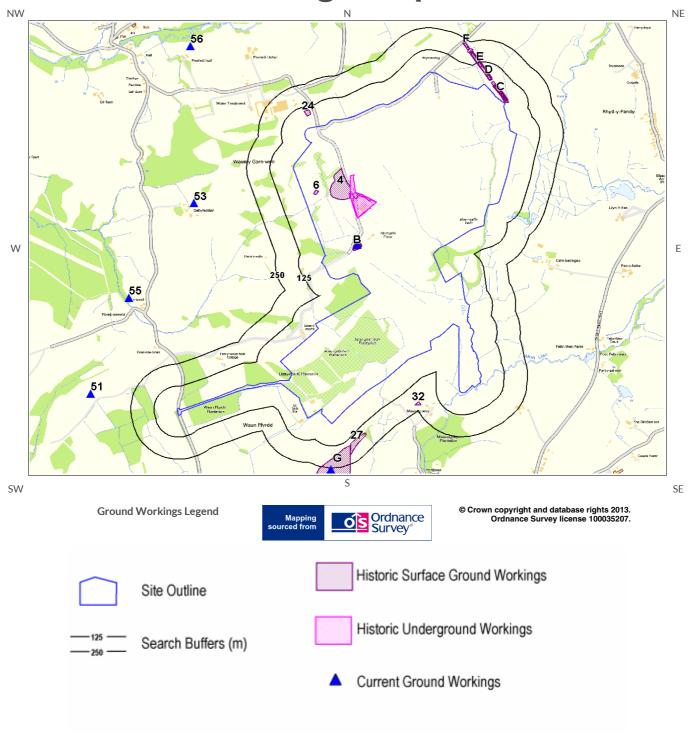
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 3 and 5% of properties are above the Action Level

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? Basic radon protective measures are necessary



# 2 Ground Workings Map







# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary?

Yes

The following Historical Surface Ground Working Features are provided by GroundSure:

| ID  | Distance (m) | Direction | NGR              | Use                         | Date |
|-----|--------------|-----------|------------------|-----------------------------|------|
| 1A  | 0.0          | On Site   | 265024<br>201864 | Refuse Heap                 | 1936 |
| 2A  | 0.0          | On Site   | 265070<br>201821 | Colliery                    | 1936 |
| 3B  | 0.0          | On Site   | 265033<br>201582 | Unspecified Pit             | 1936 |
| 4   | 0.0          | On Site   | 264946<br>201939 | Refuse Heap                 | 1964 |
| 5B  | 0.0          | On Site   | 265034<br>201586 | Old Gravel Pit              | 1913 |
| 6   | 0.0          | On Site   | 264815<br>201891 | Pond                        | 1914 |
| 7A  | 0.0          | On Site   | 265029<br>201871 | Refuse Heap                 | 1948 |
| 8B  | 0.0          | On Site   | 265033<br>201582 | Unspecified Pit             | 1948 |
| 9A  | 0.0          | On Site   | 265070<br>201821 | Colliery                    | 1948 |
| 10B | 0.0          | On Site   | 265040<br>201589 | Gravel Pit                  | 1897 |
| 11B | 0.0          | On Site   | 265036<br>201585 | Unspecified Pit             | 1975 |
| 12B | 0.0          | On Site   | 265027<br>201591 | Unspecified Pit             | 1964 |
| 13B | 0.0          | On Site   | 265035<br>201587 | Old Gravel Pit              | 1921 |
| 14C | 4.0          | NE        | 265807<br>202454 | Cuttings                    | 1921 |
| 15C | 8.0          | NE        | 265813<br>202453 | Unspecified Ground Workings | 1921 |
| 16C | 17.0         | NE        | 265814<br>202455 | Unspecified Pit             | 1964 |
| 17C | 17.0         | NE        | 265814<br>202455 | Unspecified Pit             | 1975 |
| 18C | 18.0         | NE        | 265800<br>202473 | Cuttings                    | 1897 |
| 19D | 33.0         | NE        | 265743<br>202550 | Cuttings                    | 1921 |
| 20D | 36.0         | NE        | 265750<br>202546 | Cuttings                    | 1921 |
| 21E | 36.0         | NE        | 265698<br>202621 | Cuttings                    | 1975 |



| ID  | Distance (m) | Direction | NGR              | Use               | Date |
|-----|--------------|-----------|------------------|-------------------|------|
| 22E | 36.0         | NE        | 265698<br>202621 | Cuttings          | 1964 |
| 23D | 37.0         | NE        | 265701<br>202614 | Cuttings          | 1897 |
| 24  | 69.0         | N         | 264769<br>202343 | Covered Reservoir | 1991 |
| 25E | 98.0         | N         | 265680<br>202646 | Cuttings          | 1921 |
| 26E | 101.0        | N         | 265677<br>202648 | Cuttings          | 1921 |
| 27  | 150.0        | SE        | 265020<br>200459 | Refuse Heap       | 1975 |
| 28G | 154.0        | SE        | 264905<br>200262 | Refuse Heap       | 1991 |
| 29F | 202.0        | N         | 265622<br>202725 | Cuttings          | 1921 |
| 30F | 205.0        | N         | 265625<br>202726 | Cuttings          | 1921 |
| 31F | 211.0        | NE        | 265621<br>202730 | Cuttings          | 1897 |
| 32  | 215.0        | SE        | 265363<br>200689 | Pond              | 1913 |

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary?

Yes

The following Historical Underground Working Features are provided by GroundSure:

| ID           | Distance (m) | Direction | NGR              | Use                      | Date |
|--------------|--------------|-----------|------------------|--------------------------|------|
| 33A          | 0.0          | On Site   | 265070<br>201869 | Unspecified Disused Mine | 1964 |
| 34A          | 0.0          | On Site   | 265070<br>201869 | Unspecified Disused Mine | 1975 |
| 35A          | 0.0          | On Site   | 265070<br>201821 | Colliery                 | 1948 |
| 36A          | 0.0          | On Site   | 265070<br>201821 | Colliery                 | 1936 |
| Not<br>showr | 480.0        | S         | 264756<br>200086 | Old Coal Pit             | 1914 |
| Not<br>showr | 515.0        | S         | 264707<br>200029 | Coal Pit                 | 1878 |
| Not<br>showr | า 536.0      | S         | 264701<br>200070 | Unspecified Shaft        | 1878 |
| Not<br>showr | 787.0        | S         | 264931<br>199675 | Colliery                 | 1948 |
| Not<br>showr | /8/()        | S         | 264931<br>199675 | Colliery                 | 1936 |
| Not<br>showr | 992.0        | S         | 264918<br>199568 | Tunnel                   | 1964 |



| ID           | Distance (m) | Direction | NGR              | Use    | Date |
|--------------|--------------|-----------|------------------|--------|------|
| Not<br>shown | 993.0        | S         | 265755<br>199362 | Tunnel | 1913 |
| Not<br>shown | 993.0        | S         | 264918<br>199568 | Tunnel | 1994 |
| Not<br>shown | 993.0        | S         | 264918<br>199568 | Tunnel | 1980 |
| Not<br>shown | 993.0        | S         | 264918<br>199568 | Tunnel | 1968 |
| Not          | 998.0        | S         | 265739<br>199358 | Tunnel | 1921 |

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary?

Yes

The following Current Ground Workings information is provided by British Geological Survey:

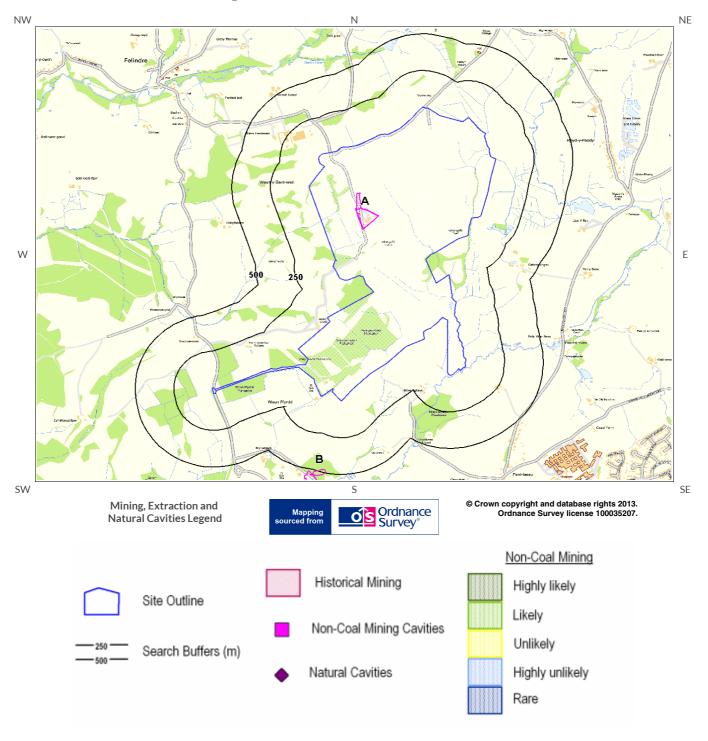
| ID           | Distance<br>(m) | Direction | NGR              | Commodity<br>Produced | Pit Name                              | Type of working  | Status |
|--------------|-----------------|-----------|------------------|-----------------------|---------------------------------------|--|--------|
| 48B          | 0.0             | On Site   | 265036<br>201591 | Sand & Gravel         | Aber-gelli-fach Gravel Pit            | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| 49G          | 261.0           | S         | 264893<br>200311 | Sand & Gravel         | Bryn-whilach Plantation<br>Gravel Pit | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| Not<br>shown | 465.0           | NE        | 265652<br>202994 | Sandstone             | Waun-fach                             | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| 51           | 476.0           | W         | 263598<br>200743 | Sand                  | Waen Ffyrdd Plantation<br>Sand Pit    | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| Not<br>shown | 507.0           | S         | 264757<br>200086 | Coal, Deep            | Bryn-whilach                          | Working is wholly underground, access<br>by shaft, adit or drift. Working may be<br>termed Colliery, Mine, Drift Mine, Slant,<br>Level, Adit or Ingoing Eye (Ingaun Ee -<br>Scots) | Ceased |
| 53           | 573.0           | W         | 264154<br>201828 | Sandstone             | Gelli-feddan                          | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| Not<br>shown | 620.0           | N         | 264937<br>202972 | Sandstone             | Gelli-gron                            | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| 55           | 681.0           | NW        | 263805<br>201290 | Sandstone             | Llidiard -y-cleders                   | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| 56           | 786.0           | NW        | 264137<br>202724 | Sandstone             | Pen-y-fedw-isaf                       | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| Not<br>shown | 874.0           | S         | 264288<br>199775 | Sand                  | Nant-y-ganol Wood Sand<br>Pit         | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |
| Not<br>shown | 877.0           | NW        | 264910<br>203289 | Sandstone             | Waterworks Cottage                    | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site   | Ceased |



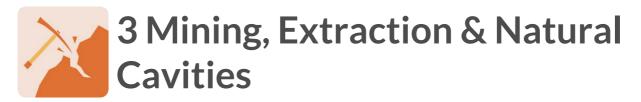
| ID           | Distance<br>(m) | Direction | NGR              | Commodity<br>Produced | Pit Name     | Type of working  | Status |
|--------------|-----------------|-----------|------------------|-----------------------|--------------|--|--------|
| Not<br>shown | 958.0           | E         | 266801<br>201886 | Sandstone             | Rhyd-y-pandy | A surface mineral working. It may be<br>termed Quarry, Sand Pit, Clay Pit or<br>Opencast Coal Site | Ceased |



# 3 Mining, Extraction & Natural Cavities Map







## 3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary?

Yes

The following Historical Mining information is provided by GroundSure:

| ID           | Distance<br>(m) | Direction | NGR              | Details                  | Date |
|--------------|-----------------|-----------|------------------|--------------------------|------|
| 1A           | 0.0             | On Site   | 265070<br>201869 | Unspecified Disused Mine | 1975 |
| 2A           | 0.0             | On Site   | 265070<br>201869 | Unspecified Disused Mine | 1964 |
| ЗА           | 0.0             | On Site   | 265070<br>201821 | Colliery                 | 1936 |
| 4A           | 0.0             | On Site   | 265070<br>201821 | Colliery                 | 1948 |
| 5B           | 480.0           | S         | 264756<br>200086 | Old Coal Pit             | 1914 |
| 6B           | 515.0           | S         | 264707<br>200029 | Coal Pit                 | 1878 |
| 7B           | 536.0           | S         | 264701<br>200070 | Unspecified Shaft        | 1878 |
| Not<br>shown | 787.0           | S         | 264931<br>199675 | Colliery                 | 1936 |
| Not<br>shown | 787.0           | S         | 264931<br>199675 | Colliery                 | 1948 |

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

Yes

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

| Distance (m) | Direction | Details   |
|--------------|-----------|---|
| 0.0          | On Site   | The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848. |



## 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

## 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.



## 3.8 Gypsum Extraction

 $This \ dataset \ provides \ information \ on \ Gypsum \ extraction \ from \ British \ Gypsum \ records.$ 

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

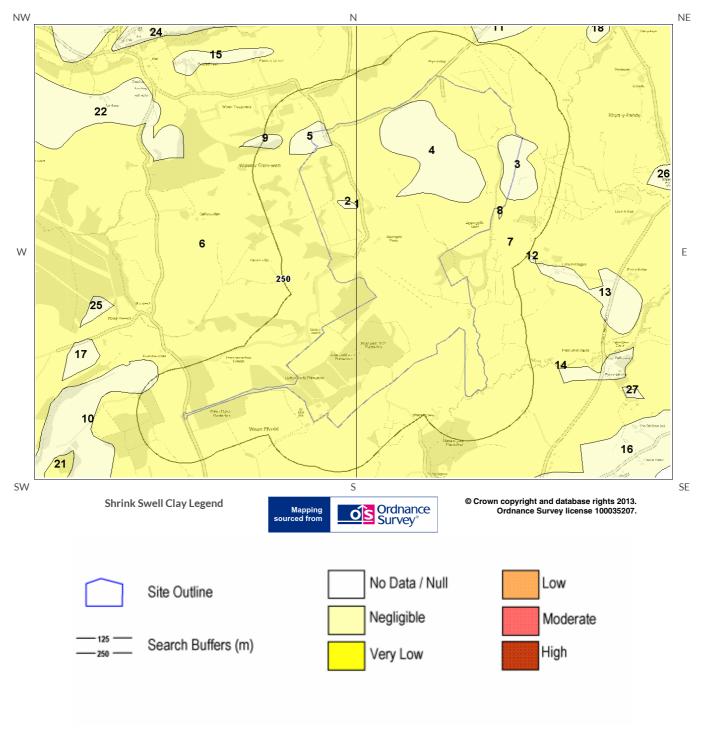
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

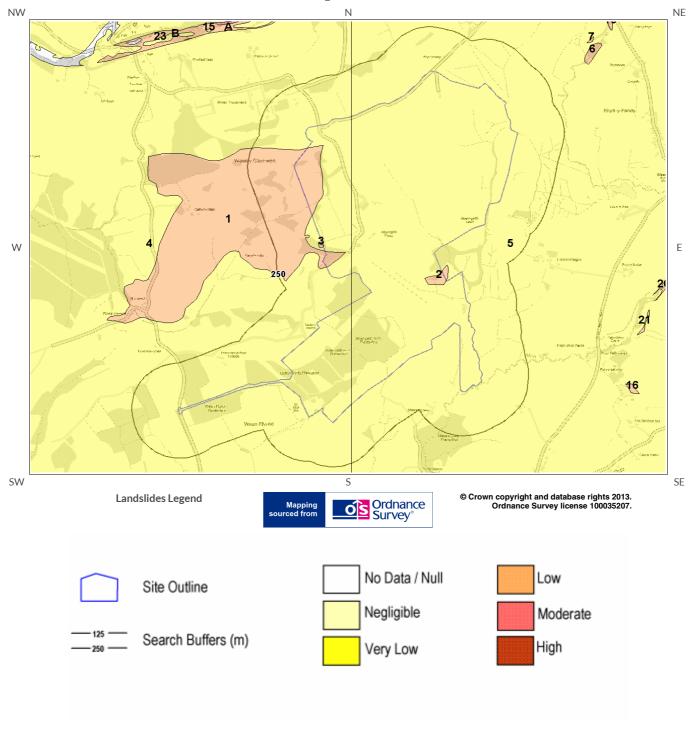


# 4 Natural Ground Subsidence 4.1 Shrink-Swell Clay Map



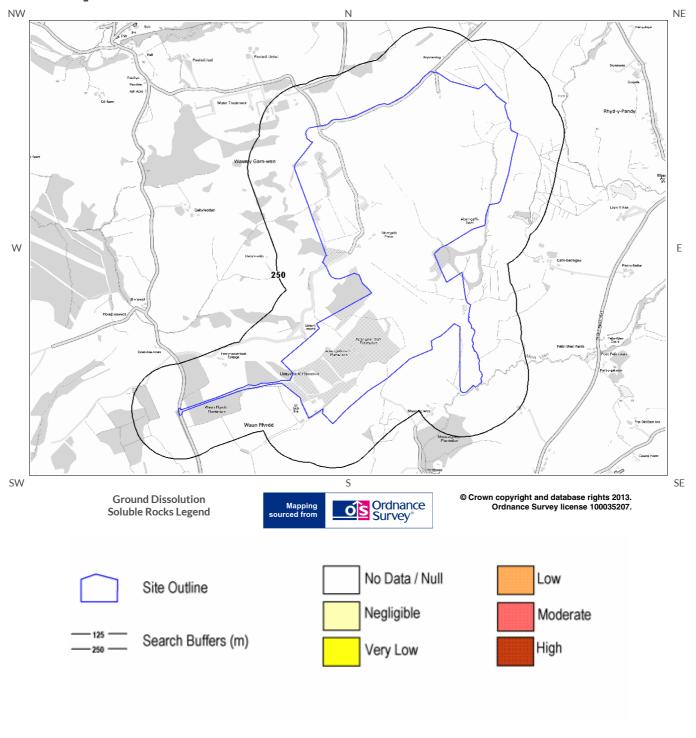


# 4.2 Landslides Map



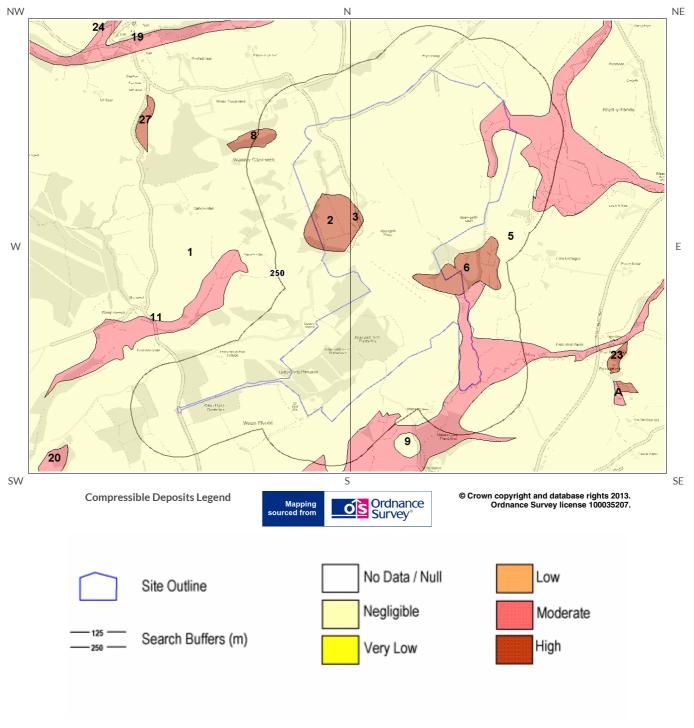


# 4.3 Ground Dissolution Soluble Rocks Map



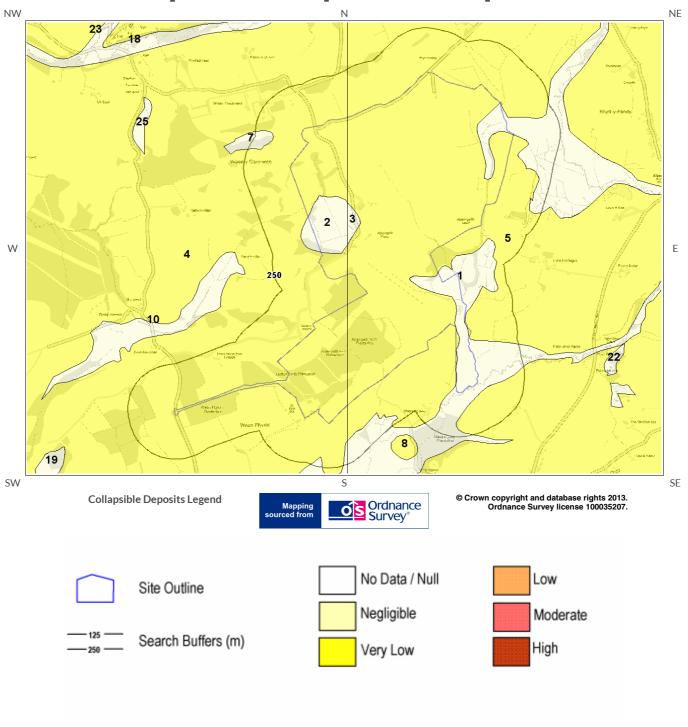


# 4.4 Compressible Deposits Map



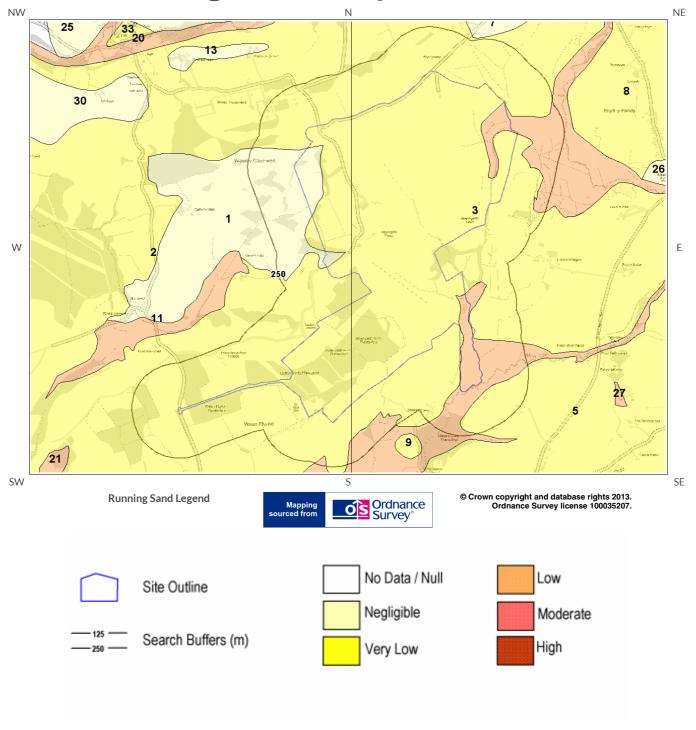


# 4.5 Collapsible Deposits Map





# 4.6 Running Sand Map







## 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\* boundary?

High

## 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

| ID | Distance (m) | Direction | Hazard Rating | Details  |
|----|--------------|-----------|---------------|--|
| 1  | 0.0          | On Site   | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |
| 2  | 0.0          | On Site   | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |
| 3  | 0.0          | On Site   | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |
| 4  | 0.0          | On Site   | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |
| 5  | 0.0          | On Site   | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |
| 6  | 0.0          | On Site   | Very Low      | Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.     |
| 7  | 0.0          | On Site   | Very Low      | Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.     |
| 8  | 10.0         | S         | Negligible    | Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays. |

<sup>\*</sup> This includes an automatically generated 50m buffer zone around the site



## 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

| ID | Distance (m) | Direction | Hazard Rating | Details   |
|----|--------------|-----------|---------------|---|
| 1  | 0.0          | On Site   | Low           | Possibility of slope instability problems after major changes in ground conditions.  Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems. |
| 2  | 0.0          | On Site   | Low           | Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.  |
| 3  | 0.0          | On Site   | Low           | Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.  |
| 4  | 0.0          | On Site   | Very Low      | Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.   |
| 5  | 0.0          | On Site   | Very Low      | Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.   |

## 4.3 Ground Dissolution of Soluble Rocks

The following Compressible Deposits information provided by the British Geological Survey:

| Distance (m) | Direction | Hazard Rating   | Details  |
|--------------|-----------|-----------------|--|
| 0            | On site   | Null-Negligible | Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks. |

## 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

| ID | Distance<br>(m) | Direction | Hazard Rating | Details  |
|----|-----------------|-----------|---------------|--|
| 1  | 0.0             | On Site   | Negligible    | No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits. |



| ID | Distance<br>(m) | Direction | Hazard Rating | Details   |
|----|-----------------|-----------|---------------|---|
| 2  | 0.0             | On Site   | High          | Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly. |
| 3  | 0.0             | On Site   | High          | Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly. |
| 4  | 0.0             | On Site   | Moderate      | Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.                 |
| 5  | 0.0             | On Site   | Negligible    | No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.  |
| 6  | 0.0             | On Site   | High          | Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly. |

## 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

| ID | Distance<br>(m) | Direction | Hazard Rating | Details  |
|----|-----------------|-----------|---------------|--|
| 1  | 0.0             | On Site   | Negligible    | No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits. |
| 2  | 0.0             | On Site   | Negligible    | No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits. |
| 3  | 0.0             | On Site   | Negligible    | No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits. |
| 4  | 0.0             | On Site   | Very Low      | Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.                              |
| 5  | 0.0             | On Site   | Very Low      | Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.                              |



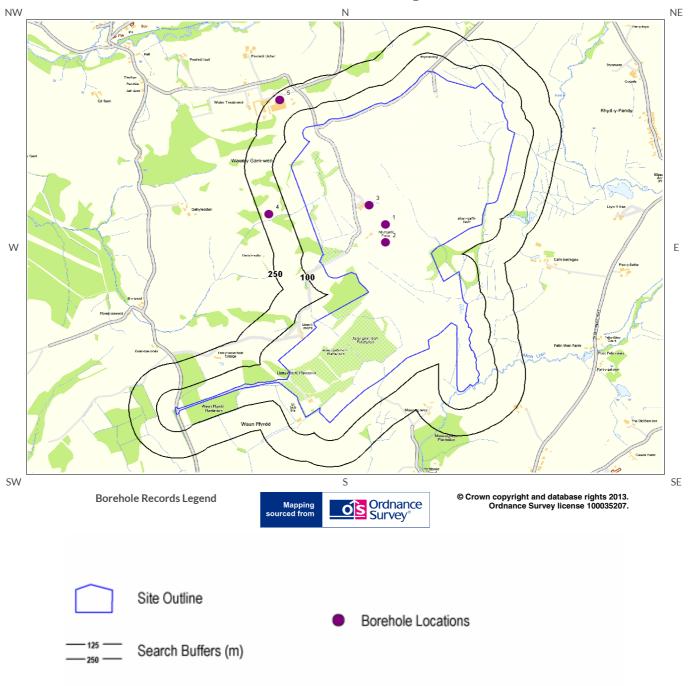
## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

| ID | Distance<br>(m) | Direction | Hazard Rating | Details  |
|----|-----------------|-----------|---------------|--|
| 1  | 0.0             | On Site   | Negligible    | No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.  |
| 2  | 0.0             | On Site   | Very Low      | Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand.  No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.  |
| 3  | 0.0             | On Site   | Very Low      | Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand.  No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.  |
| 4  | 0.0             | On Site   | Low           | Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely. |



# 5 Borehole Records Map







## **5 Borehole Records**

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

5

| ID | Distance<br>(m) | Direction | NGR              | BGS Reference | Drilled Length | Borehole Name  |
|----|-----------------|-----------|------------------|---------------|----------------|--|
| 1  | 0.0             | On Site   | 265200<br>201700 | SN60SE16      | -1.0           | ABERGELLI SLANT, BRYN<br>WHILACH. 2FT V<br>WORKINGS PLAN |
| 2  | 0.0             | On Site   | 265200<br>201600 | SN60SE24      | 16.0           | ABERGELLI-FACH FARM<br>P4                                |
| 3  | 0.0             | On Site   | 265110<br>201810 | SN60SE15      | -1.0           | ABERGELLI COLLIERY                                       |
| 4  | 203.0           | W         | 264570<br>201760 | SN60SW68      | 7.92           | ABERGELLI. BOREHOLES                                     |
| 5  | 210.0           | NW        | 264630<br>202410 | SN60SW63      | 1.98           | RIVER TOWN SCHEME,<br>LOWER LLIW RESERVOIR,<br>TP.10     |

Additional online information is available for the following boreholes listed above:

#1: scans.bgs.ac.uk/sobi\_scans/boreholes/256136

#2: scans.bgs.ac.uk/sobi\_scans/boreholes/256144

#3: scans.bgs.ac.uk/sobi\_scans/boreholes/256135

#4: scans.bgs.ac.uk/sobi\_scans/boreholes/256277

#5: scans.bgs.ac.uk/sobi\_scans/boreholes/256272





# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

80

For further information on how this data is calculated and limitations upon its use, please see the GroundSure GeoInsight User Guide, available on request.

| Distance (m) | Direction | Sample Type | Arsenic (As)  | Cadmium (Cd) | Chromium (Cr) | Nickel (Ni)   | Lead (Pb)  |
|--------------|-----------|-------------|---------------|--------------|---------------|---------------|------------|
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 15 - 25 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 15 - 25 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 15 - 25 mg/kg | < 1.8 mg/kg  | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |

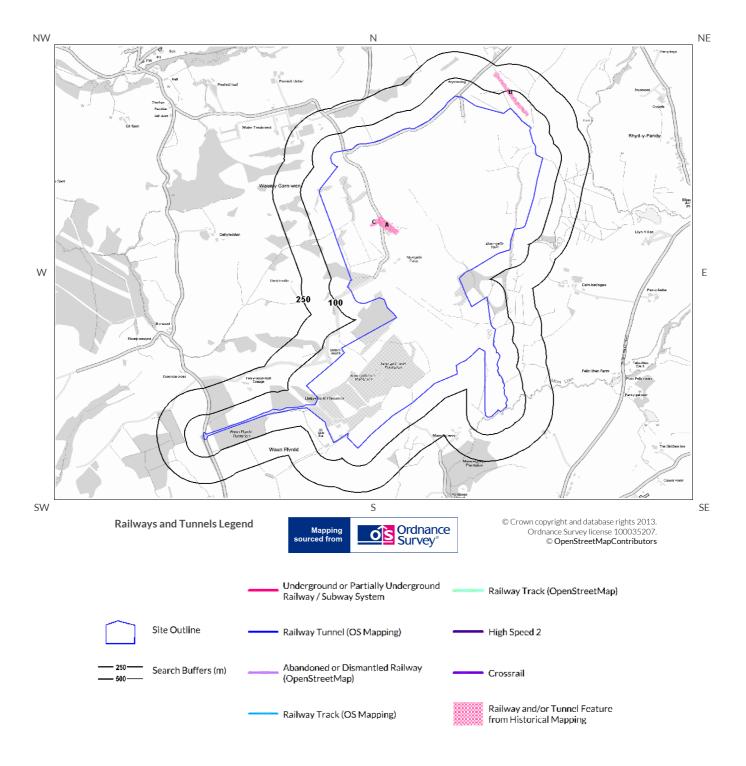


| Distance (m) | Direction | Sample Type | Arsenic (As)  | Cadmium (Cd) | Chromium (Cr) | Nickel (Ni)   | Lead (Pb)  |
|--------------|-----------|-------------|---------------|--------------|---------------|---------------|------------|
| 0.0          | On Site   | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 12.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 19.0         | NE        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 49.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 51.0         | SE        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 56.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 67.0         | W         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 67.0         | W         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 70.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 77.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 78.0         | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 93.0         | SE        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 103.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 106.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 108.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 115.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 126.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 129.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 130.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 137.0        | NE        | Sediment    | 15 - 25 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 137.0        | SE        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 146.0        | Е         | Sediment    | 35 - 45 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 149.0        | Е         | Sediment    | 35 - 45 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 153.0        | W         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 156.0        | Е         | Sediment    | 35 - 45 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 156.0        | NW        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 168.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 170.0        | W         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 30 - 45 mg/kg | <150 mg/kg |
| 173.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 179.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 207.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 208.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 214.0        | N         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 218.0        | NW        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 221.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 224.0        | NW        | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 224.0        | N         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
| 249.0        | Е         | Sediment    | 25 - 35 mg/kg | <1.8 mg/kg   | 60 - 90 mg/kg | 15 - 30 mg/kg | <150 mg/kg |
|              |           |             |               |              |               |               |            |

 $<sup>^*</sup>$ As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.



# 7 Railways and Tunnels Map







# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?

No

Have any underground railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?

No

Have any other railway tunnels been identified within 250m of the site boundary?

Nο

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.2 Historical Railway and Tunnel Features

This data is derived from GroundSure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

 $Have any \ historical \ railway \ or \ tunnel \ features \ been \ identified \ within \ the \ study \ site \ boundary?$ 

Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary?

Yes

| ID  | Distance<br>(m) | Direction | NGR              | Details         | Date |
|-----|-----------------|-----------|------------------|-----------------|------|
| 1C  | 0               | On Site   | 264984<br>201852 | Railway Sidings | 1964 |
| 2A  | 0               | On Site   | 265040<br>201842 | Railway Sidings | 1948 |
| 3A  | 0               | On Site   | 265058<br>201840 | Railway Sidings | 1964 |
| 4A  | 0               | On Site   | 265040<br>201842 | Railway Sidings | 1936 |
| 5A  | 0               | On Site   | 265043<br>201843 | Railway Sidings | 1938 |
| 8A  | 0               | On Site   | 264970<br>201835 | Railway Sidings | 1960 |
| 9C  | 0               | On Site   | 264992<br>201849 | Railway Sidings | 1989 |
| 10C | 0               | On Site   | 264992<br>201850 | Railway Sidings | 1958 |



| ID  | Distance<br>(m) | Direction | NGR              | Details         | Date |
|-----|-----------------|-----------|------------------|-----------------|------|
| 11A | 0               | On Site   | 265034<br>201845 | Railway Sidings | 1935 |
| 6B  | 36              | NE        | 265728<br>202586 | Tramway Sidings | 1975 |
| 7B  | 36              | NE        | 265728<br>202586 | Tramway Sidings | 1964 |

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?

No

Have any historical railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?

No

Have any active railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail.

Is the study site within 5km of the route of the High Speed 2 rail project?

No

Is the study site within 500m of the route of the Crossrail rail project?

No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **GroundSure HS2** and **Crossrail Report**.

## **Contact Details**



GroundSure Helpline Telephone: 08444 159 000 info@groundsure.com



#### **B**ritish Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276.

Email:enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



## **British Gypsum**

British Gypsum Ltd East Leake Loughborough Leicestershire LE12 6HX



## The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



## **Public Health England**

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

 $\label{lem:https://www.gov.uk/government/organisations/public-health-england } Email: enquiries@phe.gov.uk$ 

Main switchboard: 020 7654 8000



## Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane Brierley Hill, West Midlands DY5 3LH Tel: +44 (0) 1384 262 000 Email:enquiries.gs@jpb.co.uk Website: www.jpb.co.uk



## Ordnance Survey

Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505

Website: http://www.ordnancesurvey.co.uk/





## Getmapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444

Website:http://www1.getmapping.com/



## Peter Brett Associates

Caversham Bridge House Waterman Place Reading Berkshire RG18DN Tel: +44 (0)118 950 0761 E-mail:reading@pba.co.uk Website:http://www.peterbrett.com/home



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#### Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

"Services" means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

## 2 Scope of Services, terms and conditions, requests for insurance and quotations

 $2.1\,Ground Sure\,agrees\,to\,provide\,the\,Services\,in\,accordance\,with\,the\,Contract.$ 

2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order

shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

#### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

## 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

## 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

## 6 Intellectual Property and Confidentiality

6.1 Subject to

full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.

6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

- $6.4\ {\rm The}\ {\rm Client}\ {\rm shall},$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (iv) not combine the Services with or incorporate such Services into any other information data or service;
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

## 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them: and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
- 7.4 GroundSure shall not be liable for
  - (i) loss of profits;
  - (ii) loss of business;
  - (iii) depletion of goodwill and/or similar losses;
  - (iv) loss of anticipated savings;
  - (v) loss of goods;
  - (vi) loss of contract;
  - (vii) loss of use;
  - (viii) loss or corruption of data or information;
  - (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \qquad \mbox{loss or damage to a computer, software, modem, telephone or other property; and} \\$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

## 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
  - (i) the Client fails to pay any sum due to GroundSure within 30

days of the Payment Date; or

- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

## 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

- (i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in GroundSure's possession or control; and
- (ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

## 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010:
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

## 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
- (ix) any other reason beyond GroundSure's reasonable control. In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.
- 12.8 Any notice provided shall be in writing and shall be deemed to be properly

given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

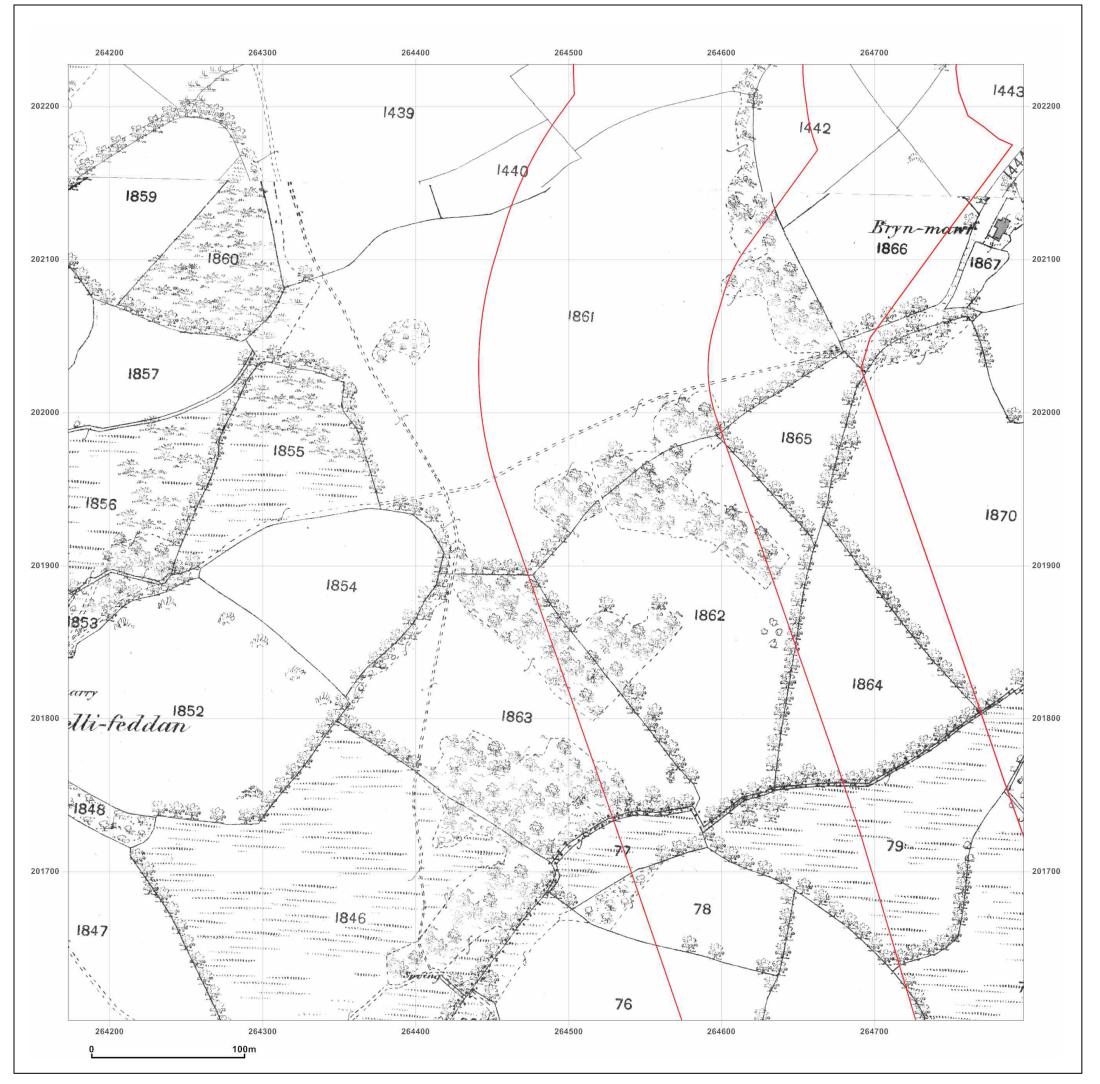
12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

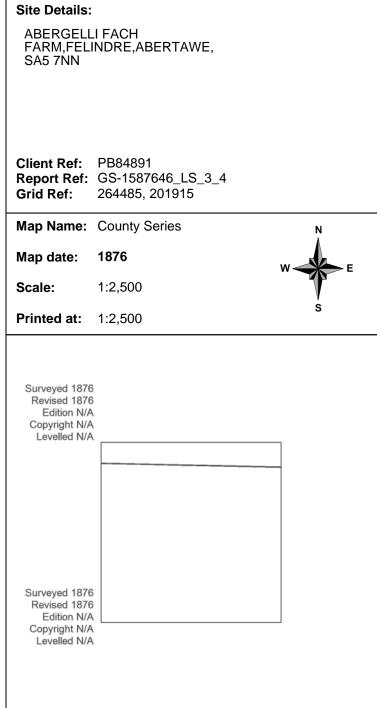
12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

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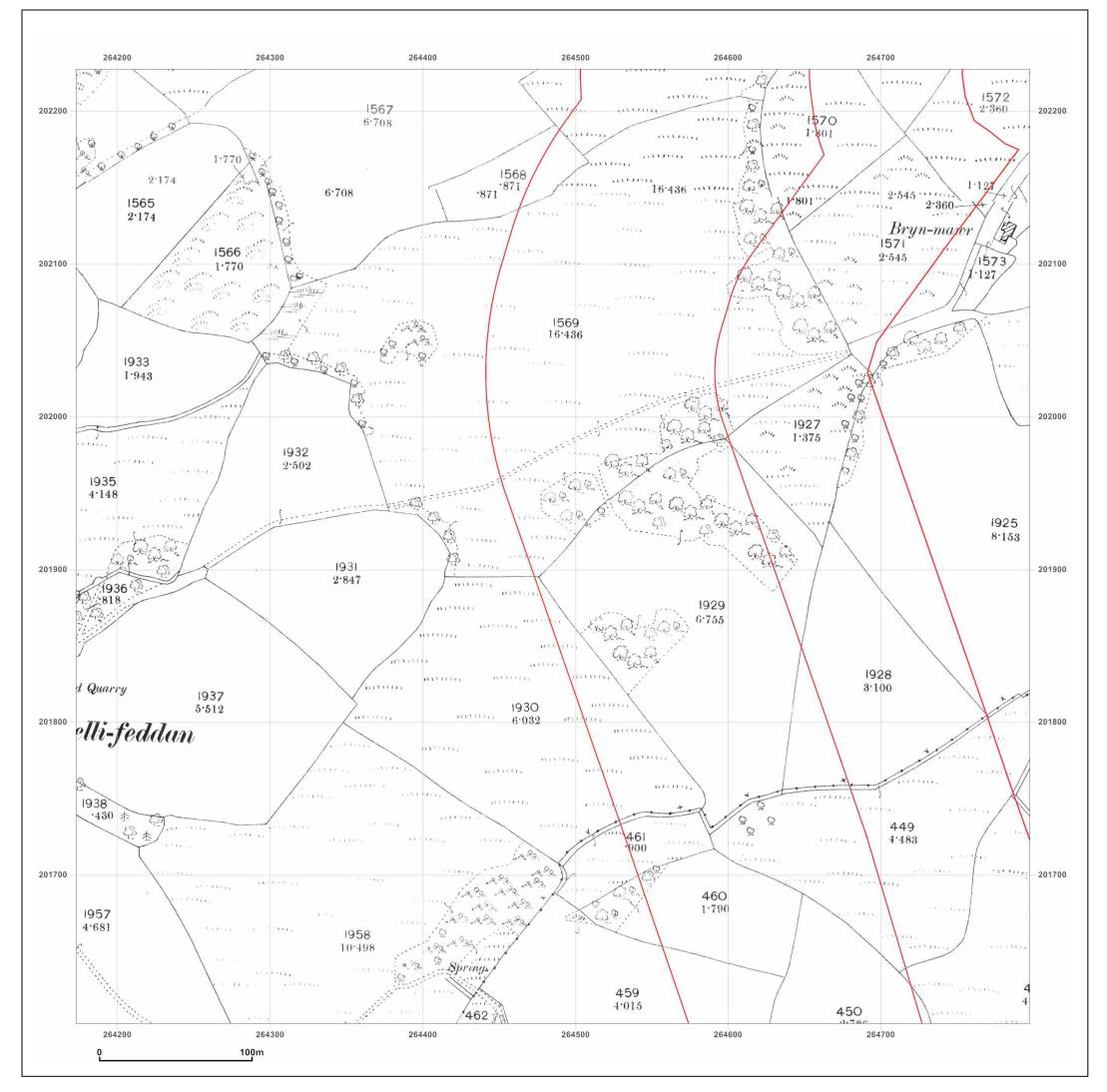


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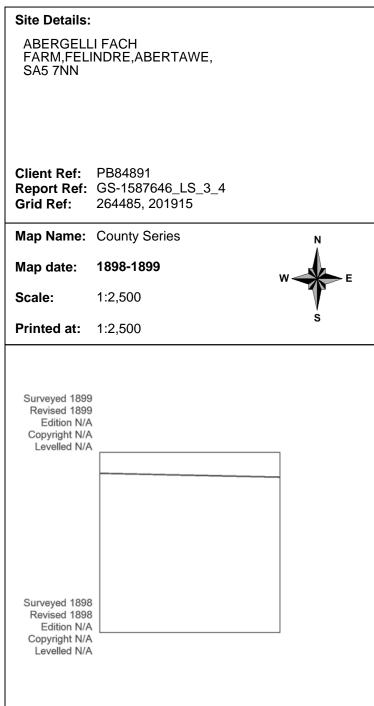
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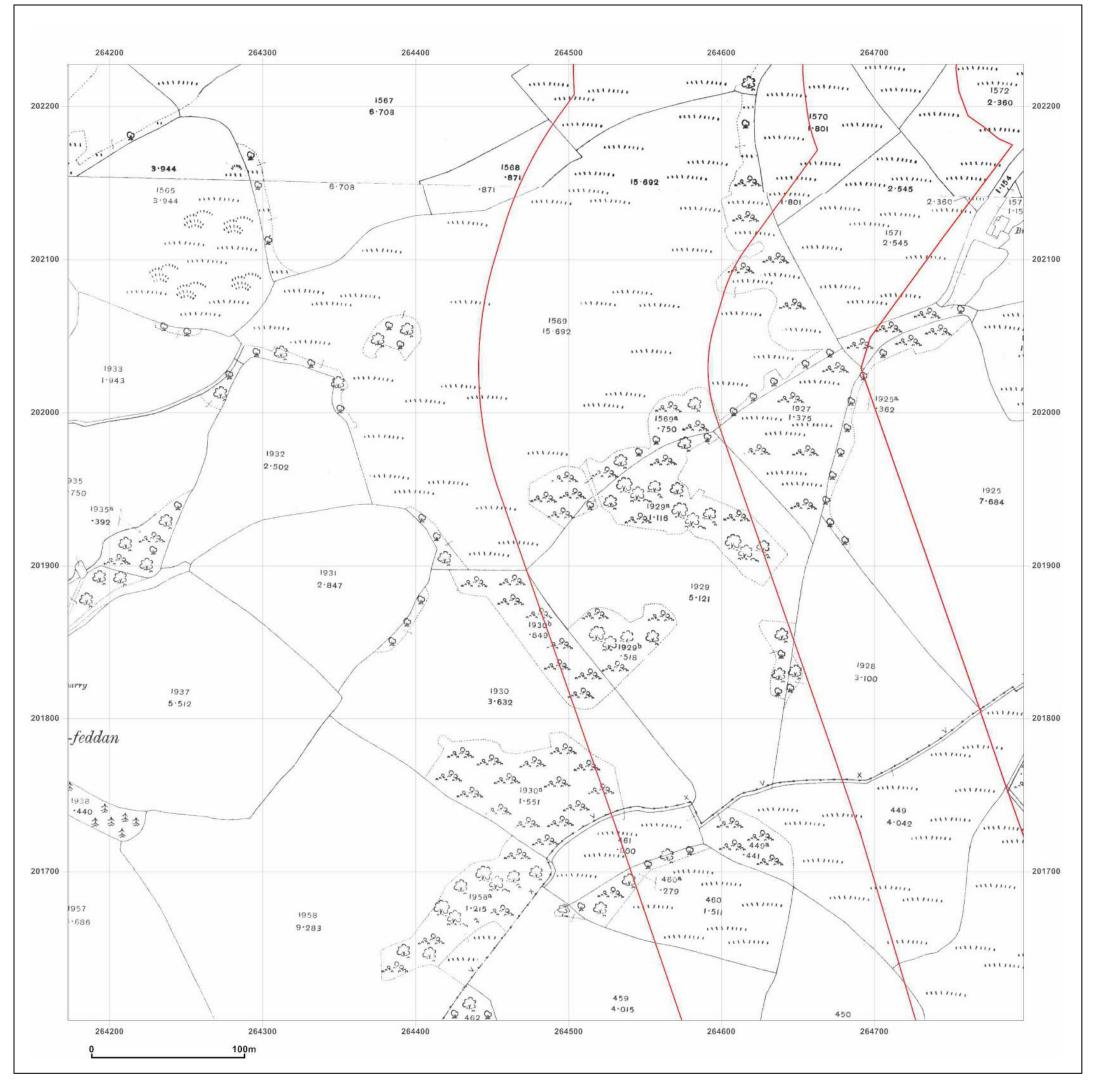


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| Site Details:   |  |     |  |
|---|--|-----|--|
| ABERGELL<br>FARM,FEL<br>SA5 7NN   | LI FACH<br>INDRE,ABERTAWE,                     |     |  |
| Client Ref:<br>Report Ref:<br>Grid Ref:                                       | PB84891<br>GS-1587646_LS_3_4<br>264485, 201915 |     |  |
| Map Name:   | County Series                                  | N   |  |
| Map date:   | 1916   | W E |  |
| Scale:  | 1:2,500  |     |  |
| Printed at:   | 1:2,500  | S   |  |
| Surveyed 1916<br>Revised 1916<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | )<br>\   |     |  |
| Surveyed 1916<br>Revised 1916<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |     |  |

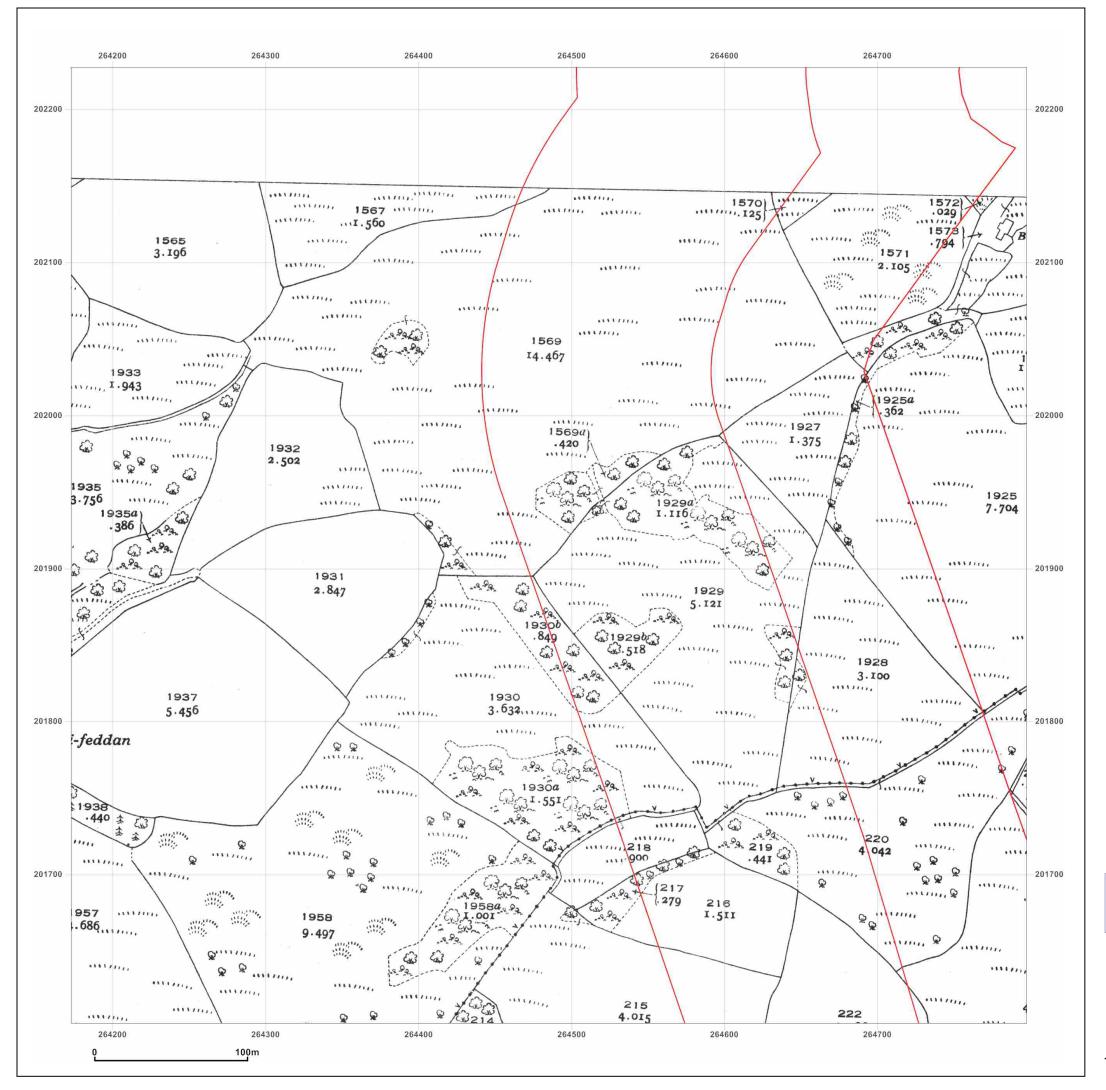


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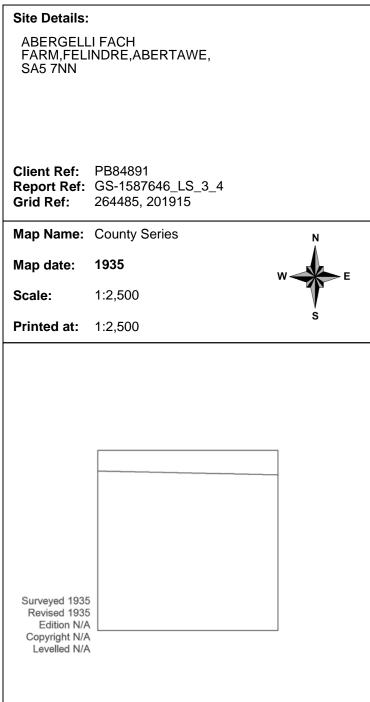
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Production date: 30 July 2014







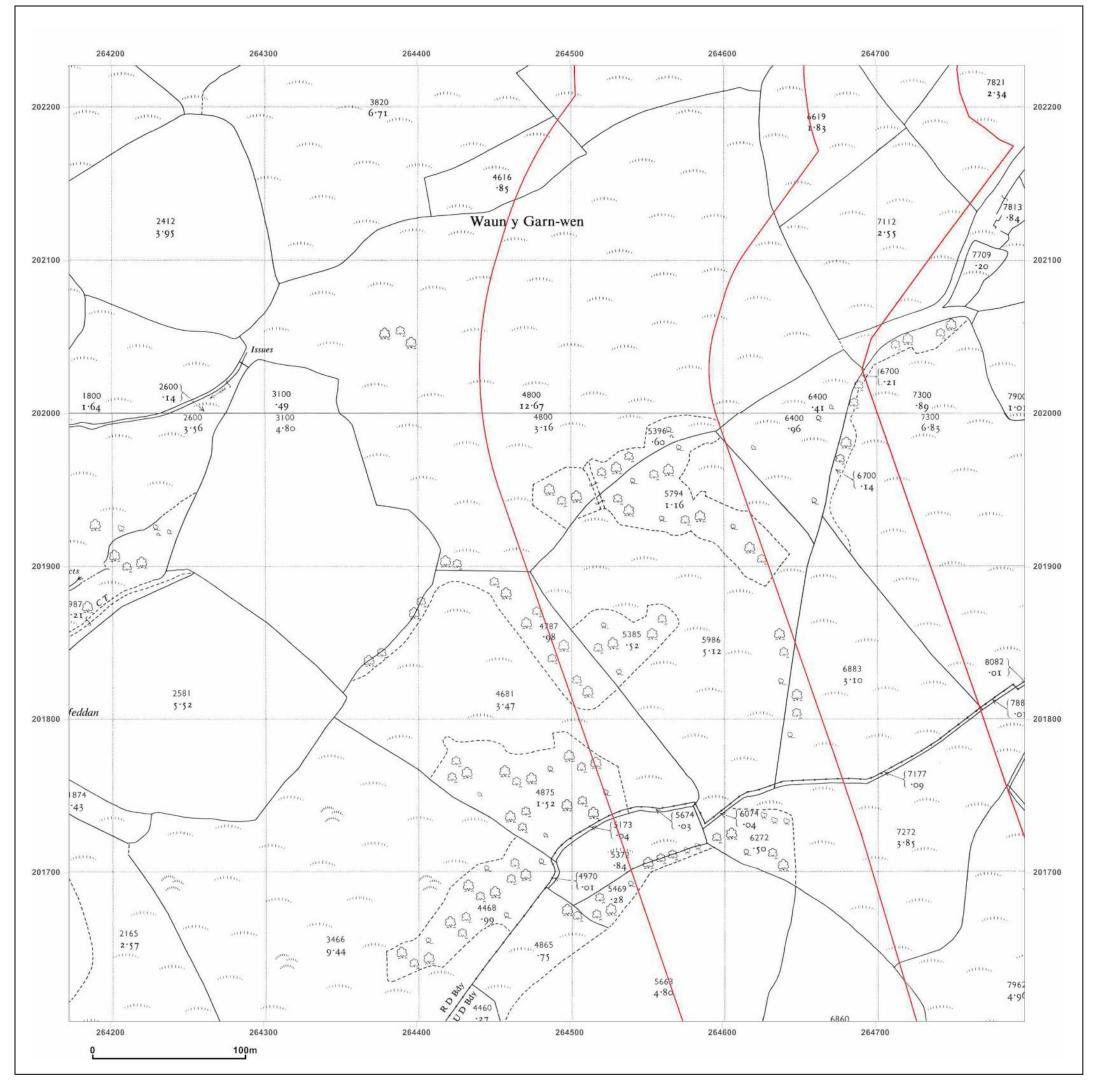


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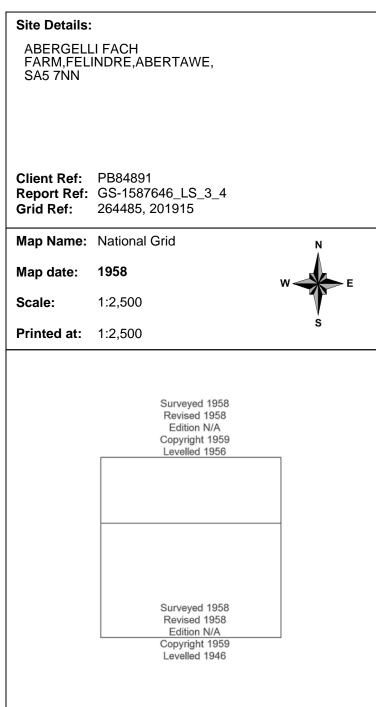
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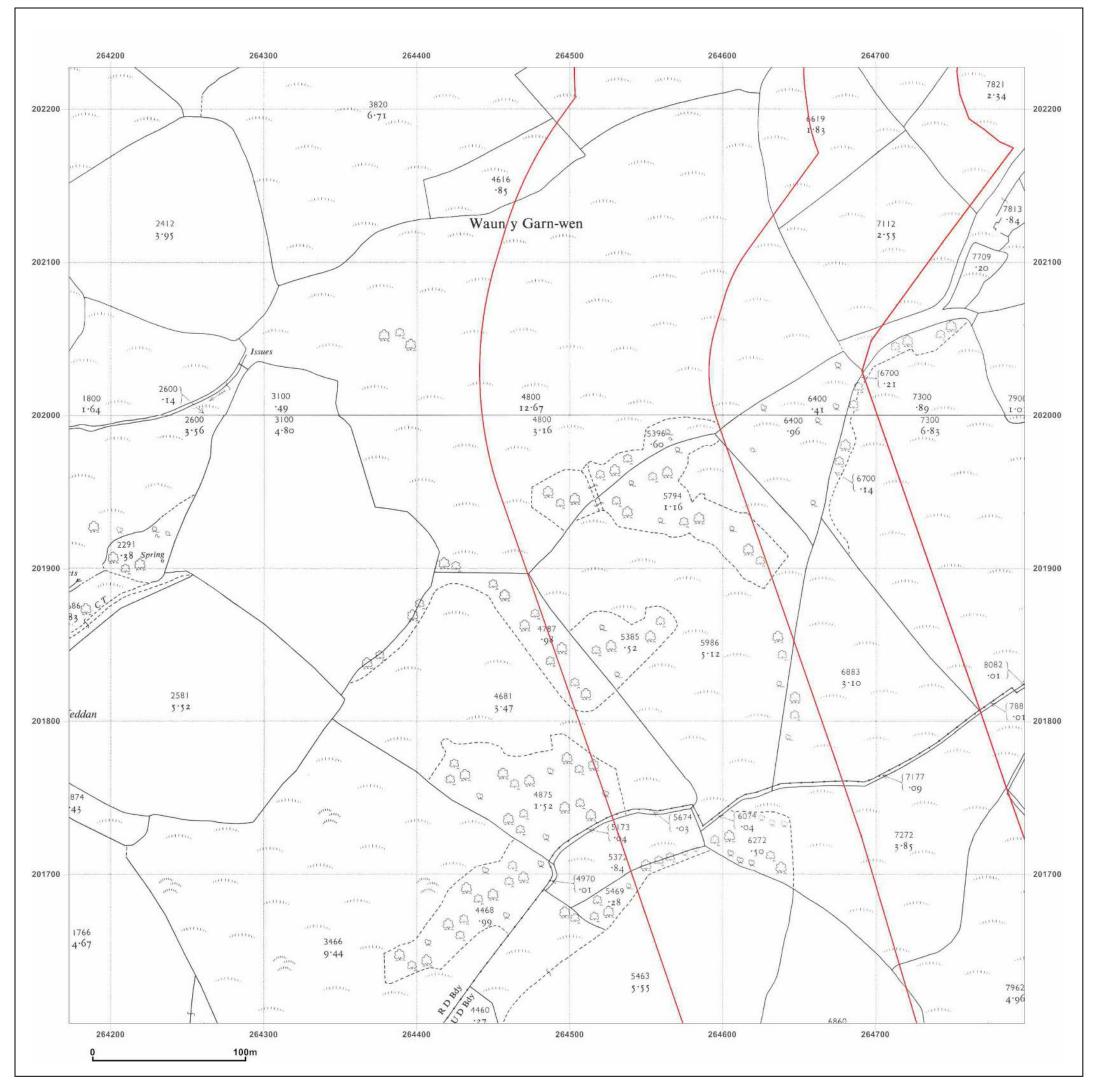
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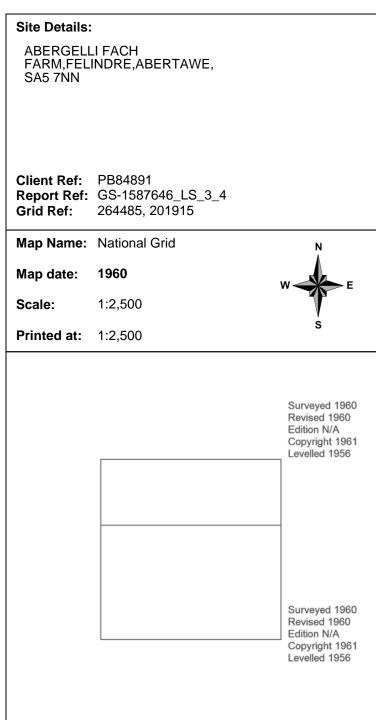
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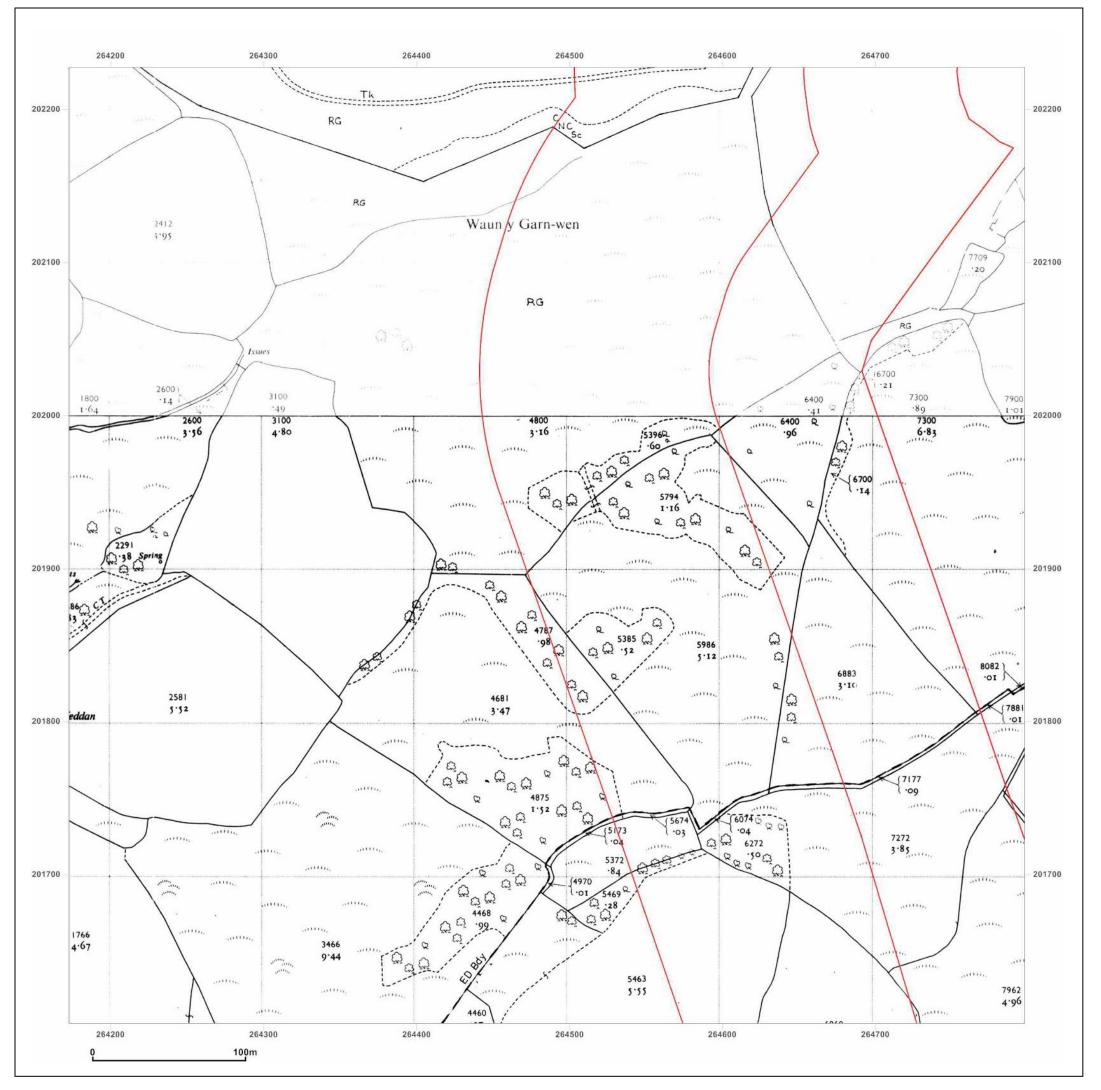


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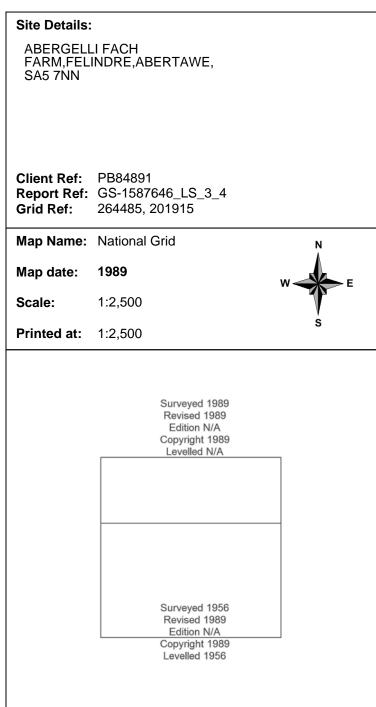
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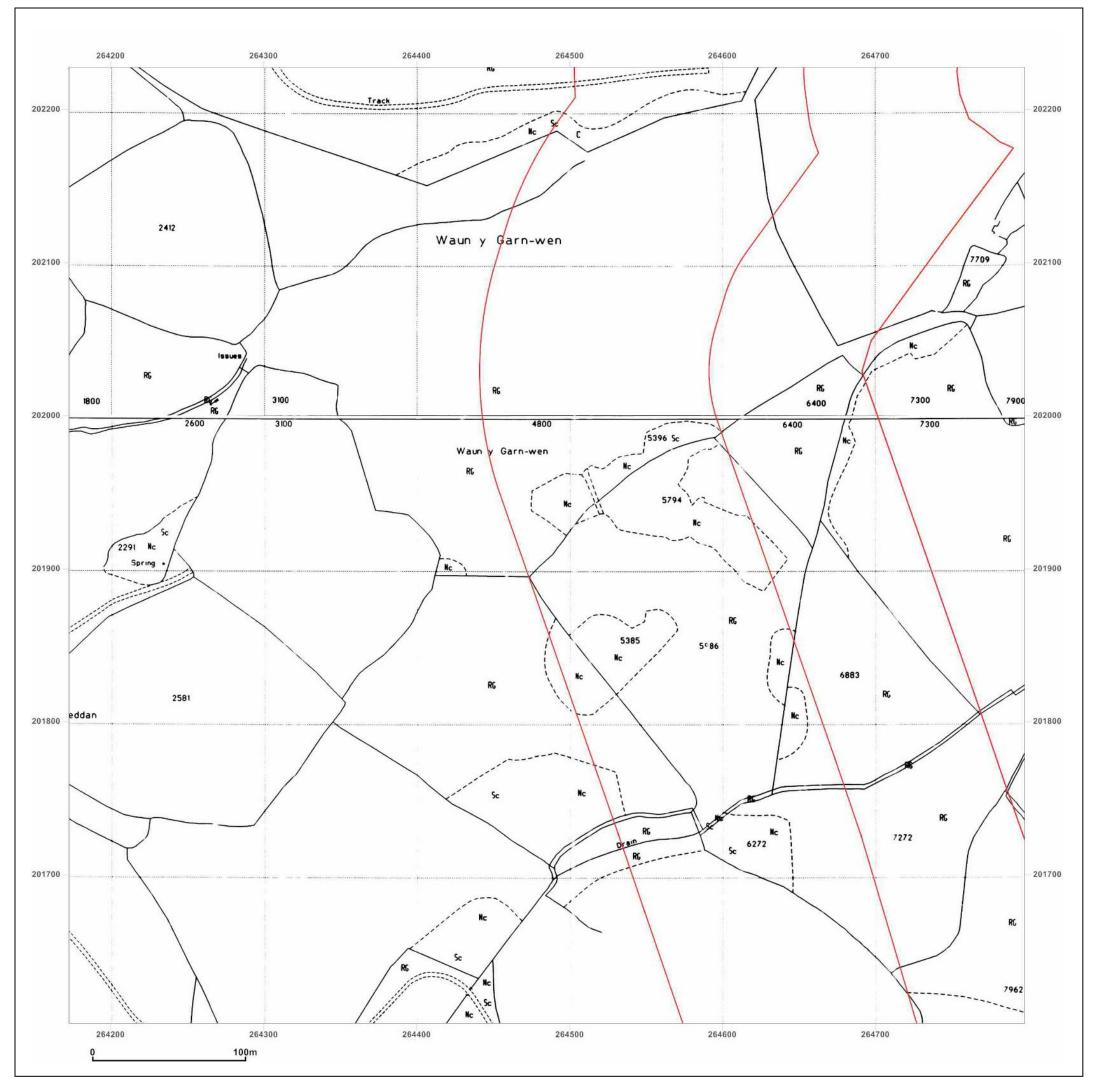
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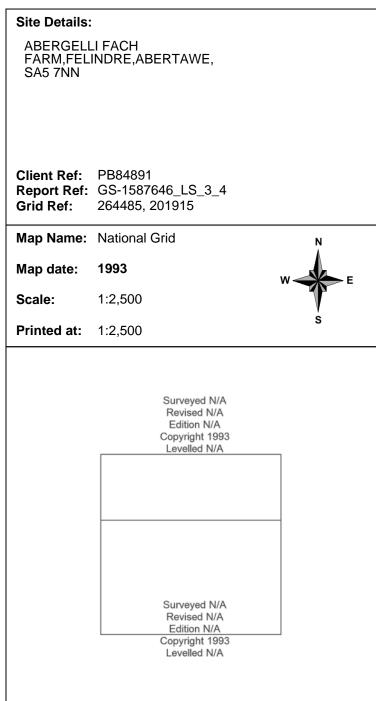
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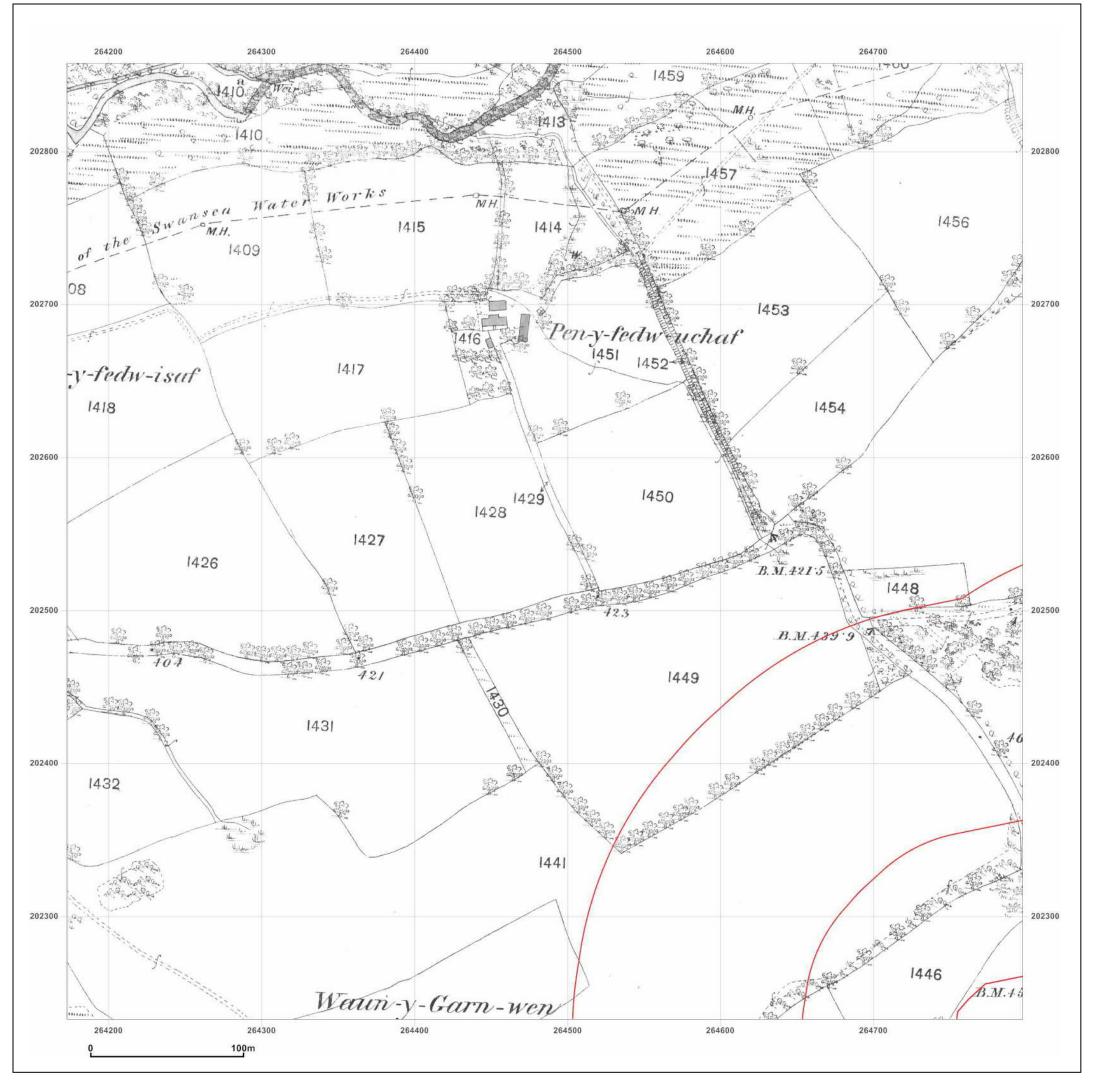
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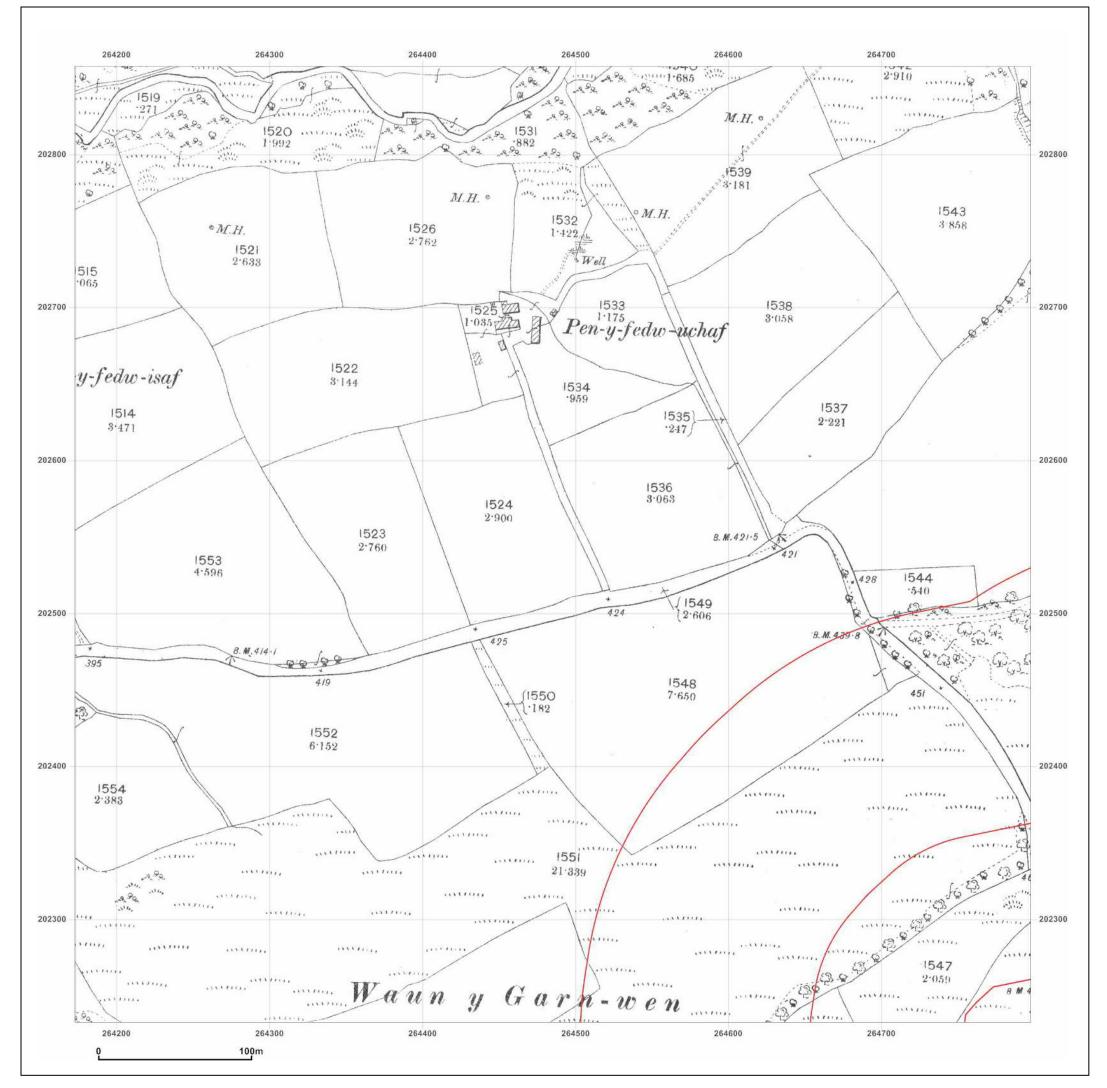
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|--|--|--|--|
| ABERGELLI FACH<br>FARM,FELINDRE,ABERTAWE,<br>SA5 7NN |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| PB84891<br>GS-1587646_LS_3_5<br>264485, 202545       |  |  |  |
| County Carino  |  |  |  |
| County Series  | N  |  |  |
| 1876   | W E  |  |  |
| 1:2,500  | A.   |  |  |
| 1:2,500  | S  |  |  |
|  |  |  |  |
|  | PB84891 GS-1587646_LS_3_5 264485, 202545  County Series 1876 1:2,500 1:2,500 |  |  |



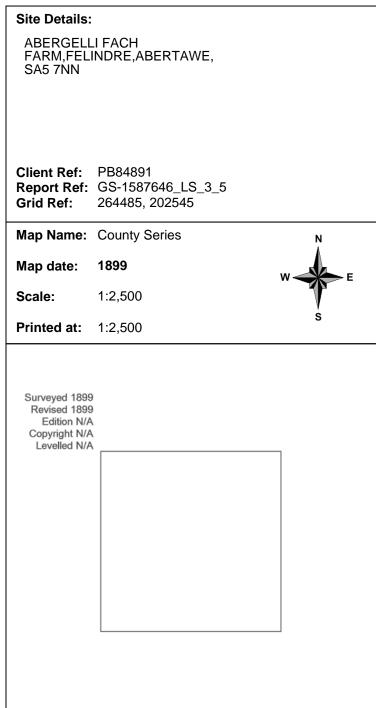
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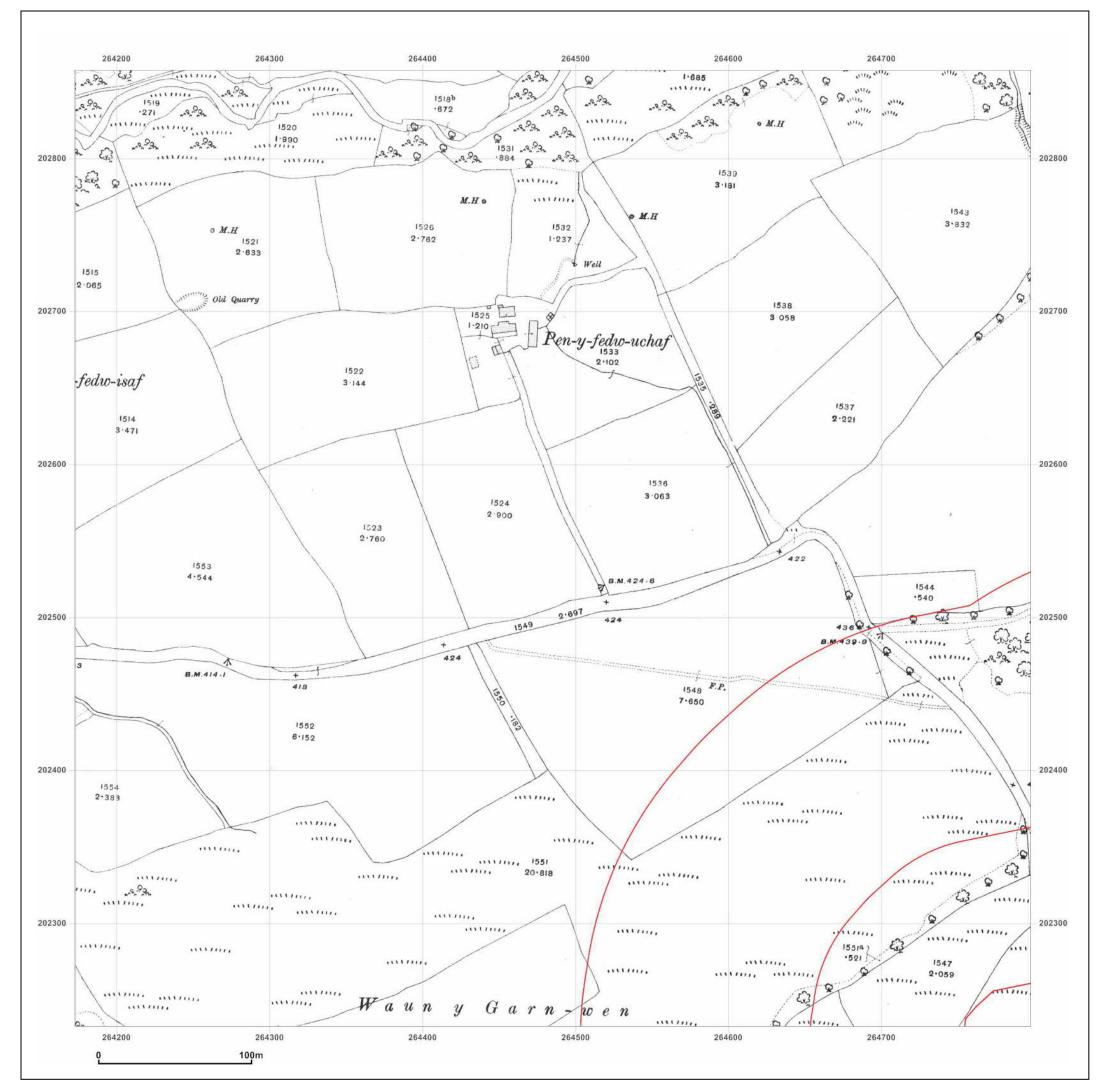


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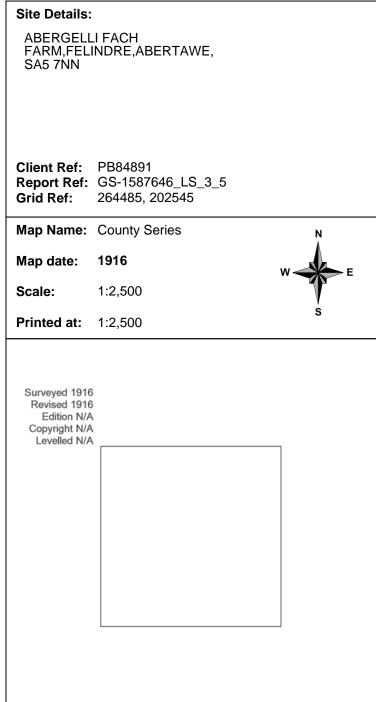
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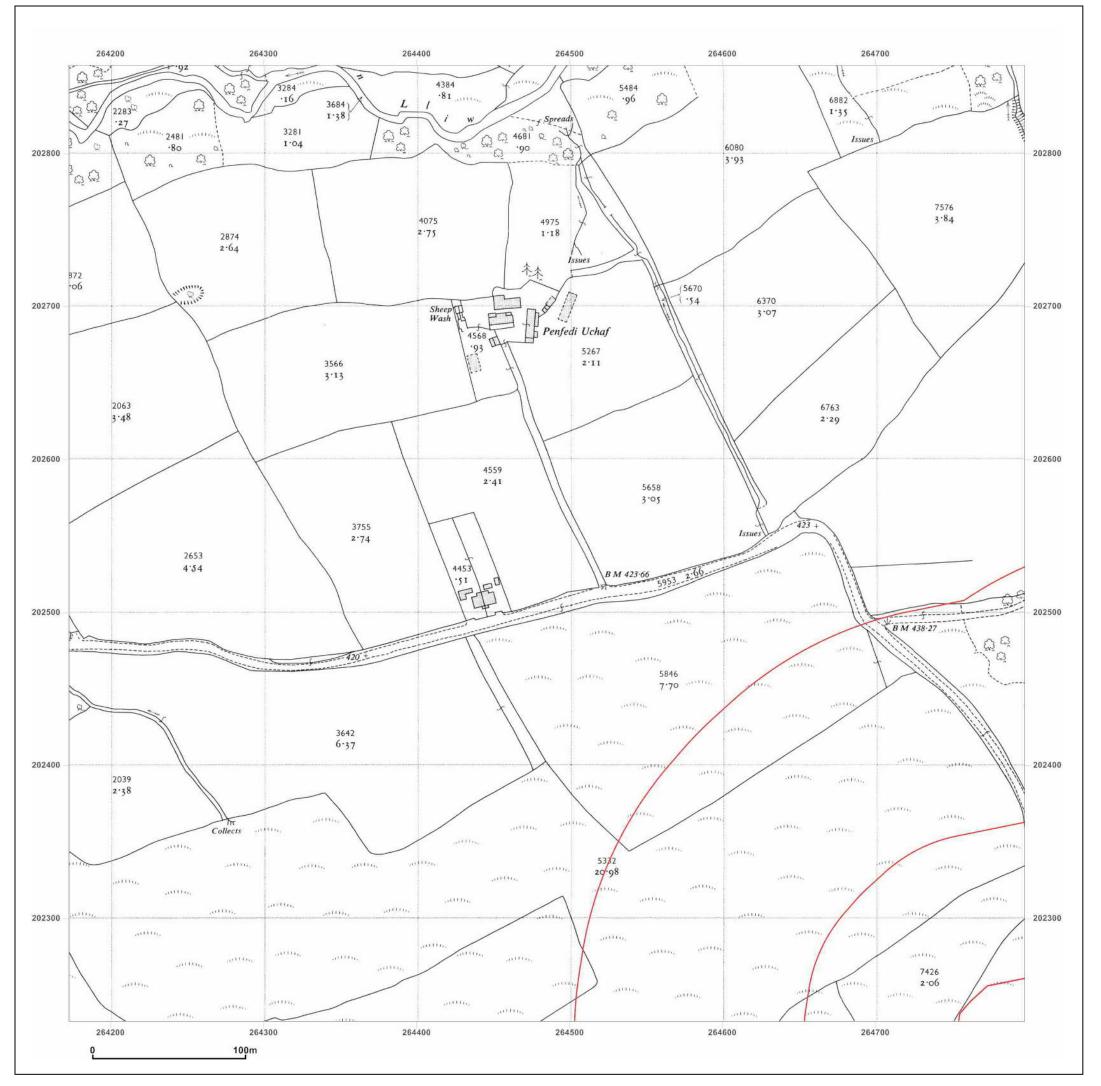


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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_3\_5 Grid Ref: 264485, 202545

Map Name: National Grid

1958 Map date:

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed 1958 Revised 1958 Edition N/A Copyright 1959 Levelled 1956



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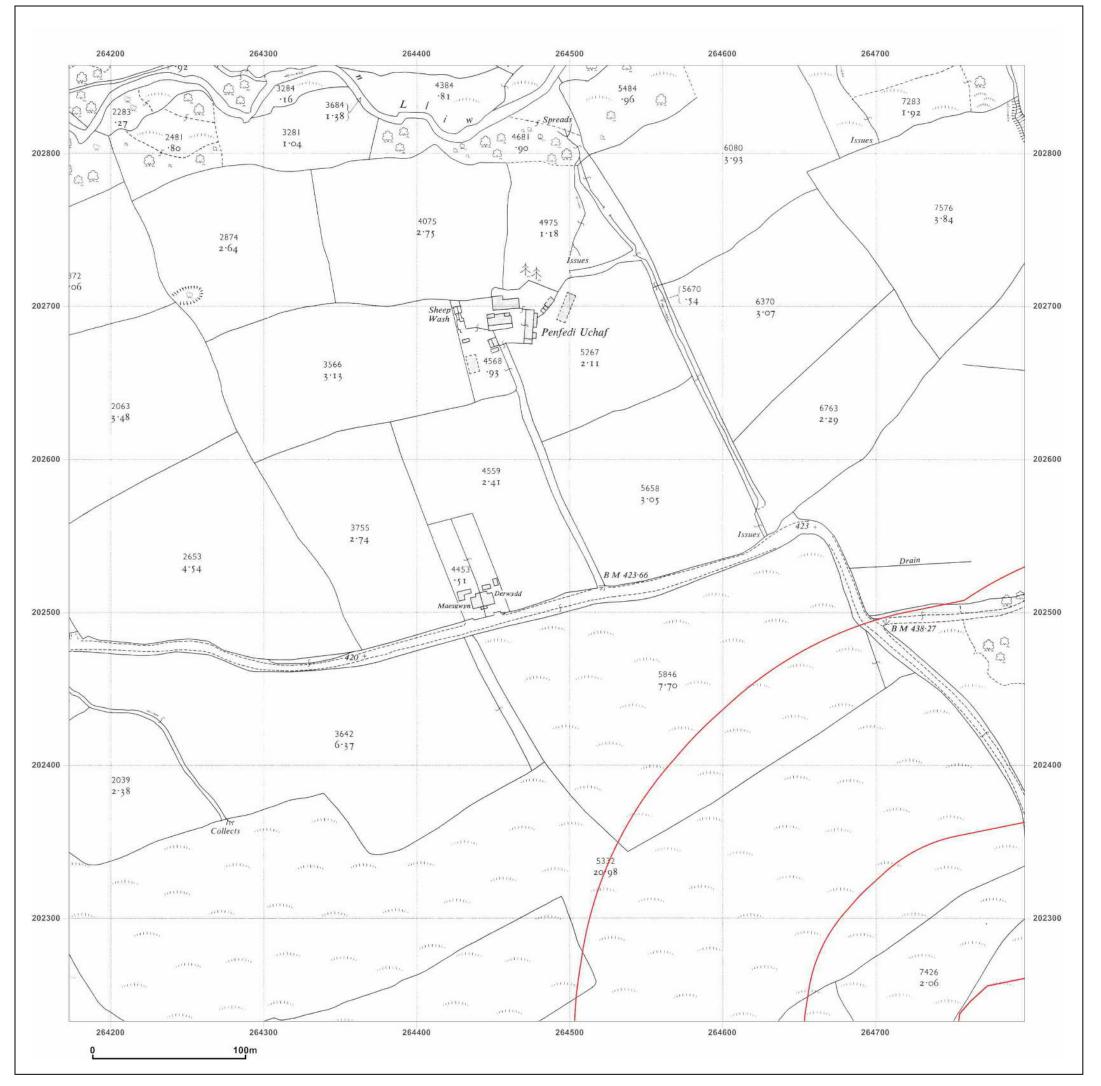
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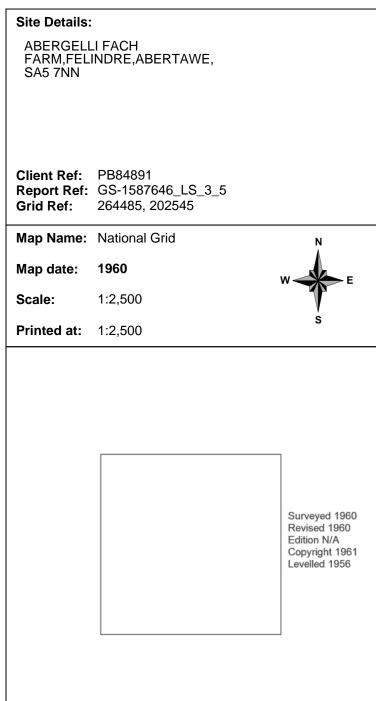
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Production date: 30 July 2014









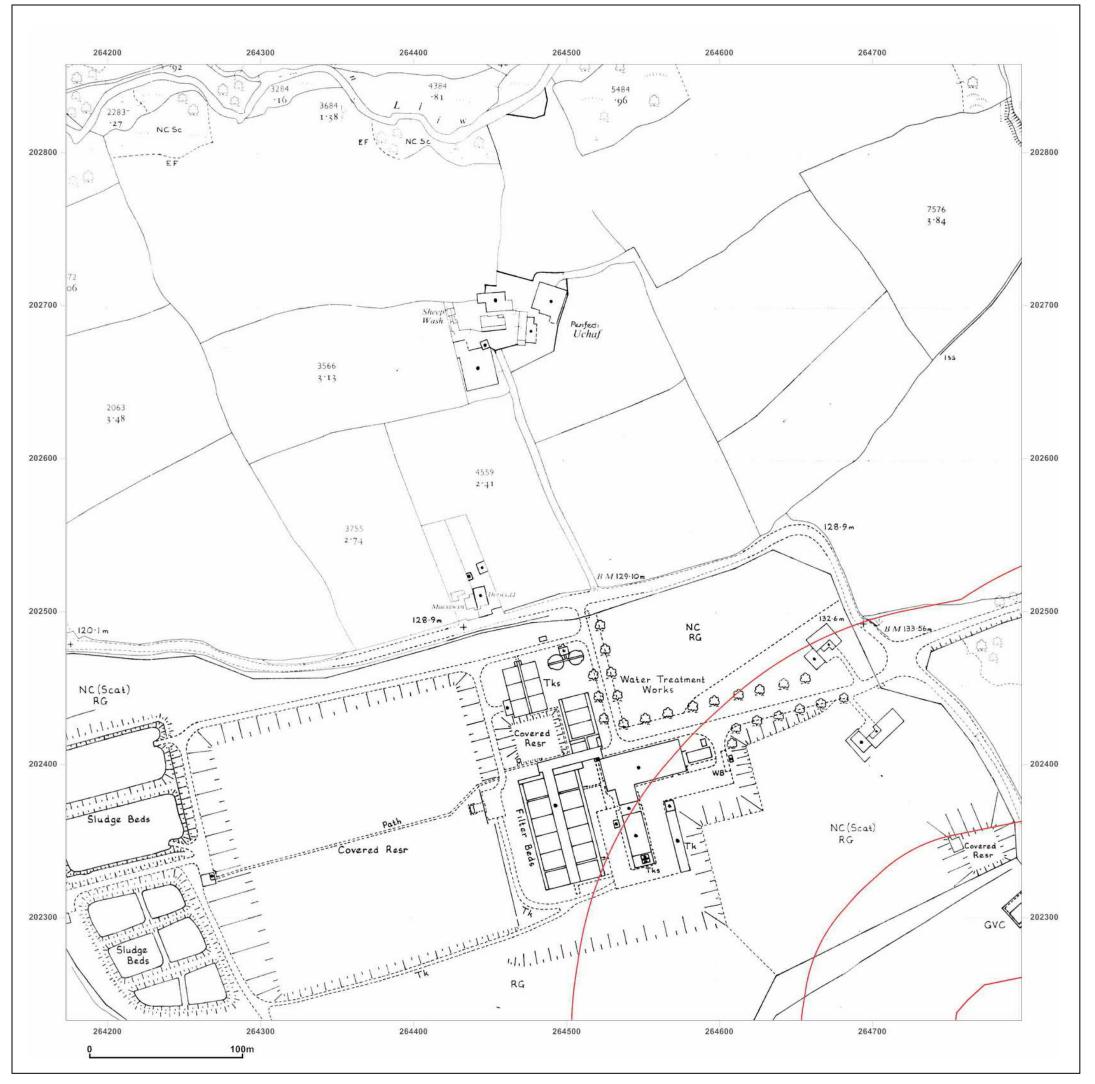
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Production date: 30 July 2014







ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_3\_5 264485, 202545 Grid Ref:

Map Name: National Grid

1989 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1989 Revised 1989 Edition N/A Copyright 1989 Levelled N/A



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Production date: 30 July 2014







ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_3\_5 Grid Ref: 264485, 202545

Map Name: National Grid

1993 Map date:

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed N/A Revised N/A Edition N/A Copyright 1993 Levelled N/A



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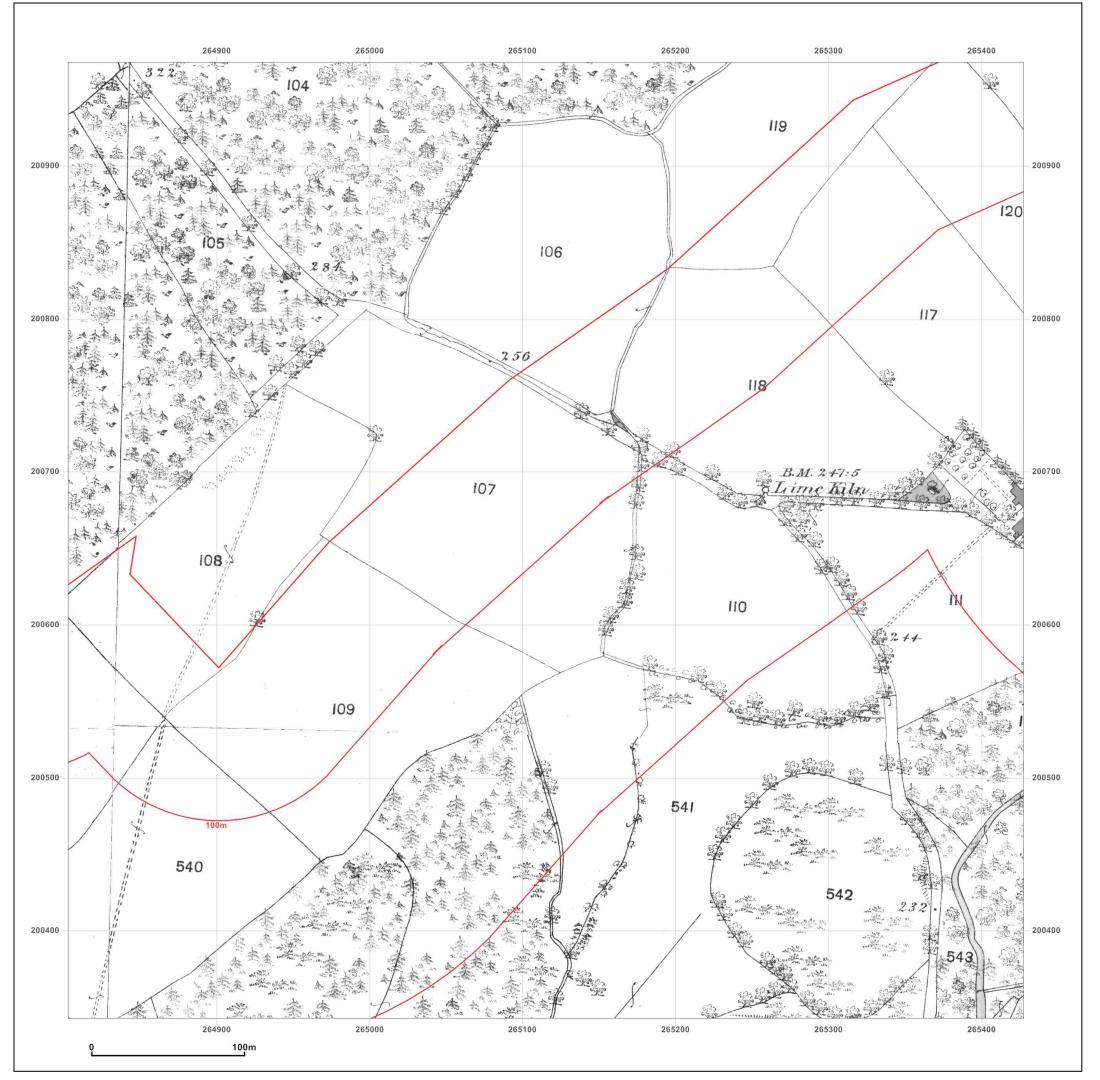
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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_2

Grid Ref: 265115, 200655

Map Name: County Series

Map date: 1876-1878

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1876 Revised 1876 Edition N/A Surveyed 1876 Revised 1876 Edition N/A
Copyright N/A
Levelled N/A Copyright N/A Levelled N/A Surveyed 1878 Revised 1878 Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A Copyright N/A Levelled N/A

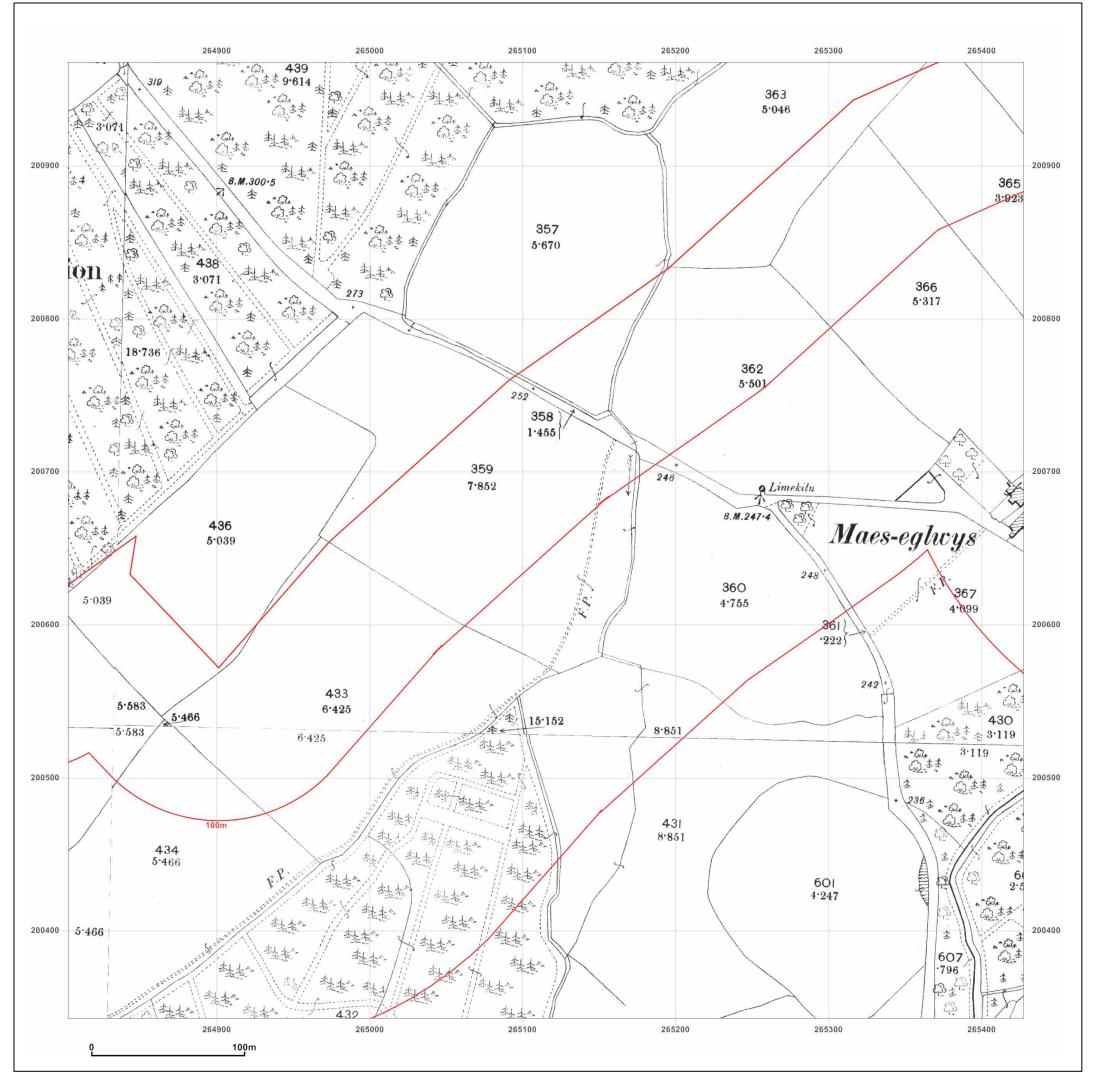


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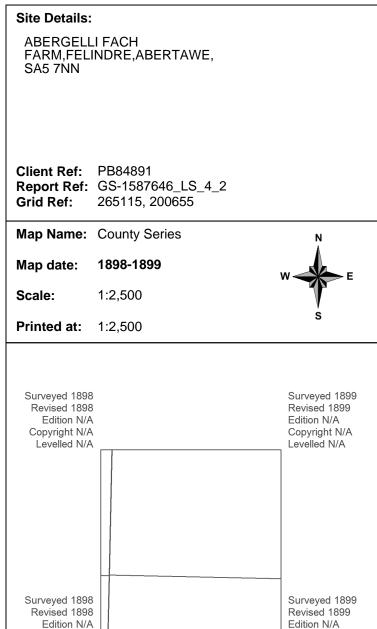
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Levelled N/A

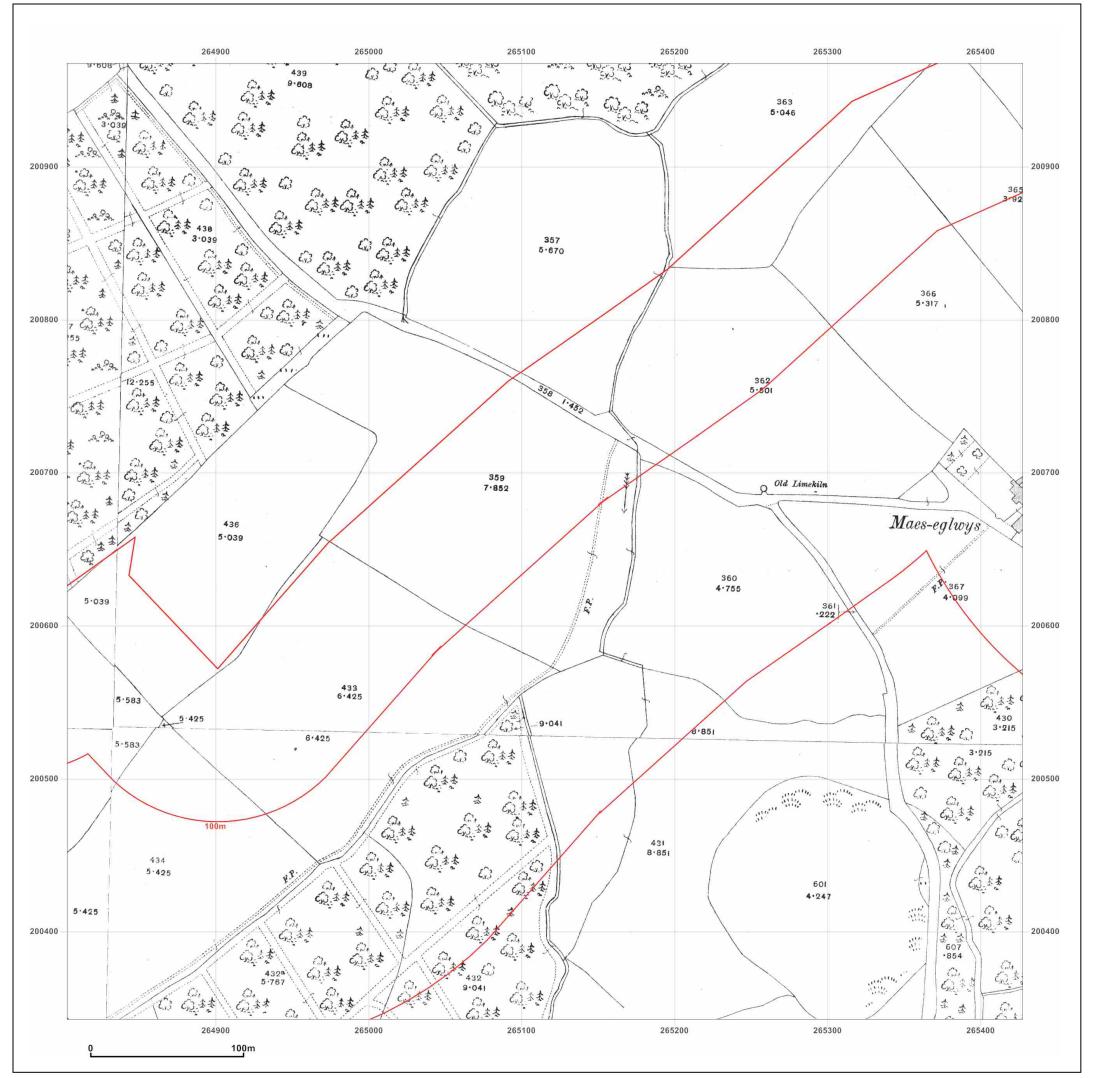
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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_2 Grid Ref: 265115, 200655

Map Name: County Series

1916-1918 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1916 Surveyed 1918 Revised 1916 Revised 1918 Edition N/A Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A Surveyed 1916 Surveyed 1917 Revised 1916 Revised 1917 Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A



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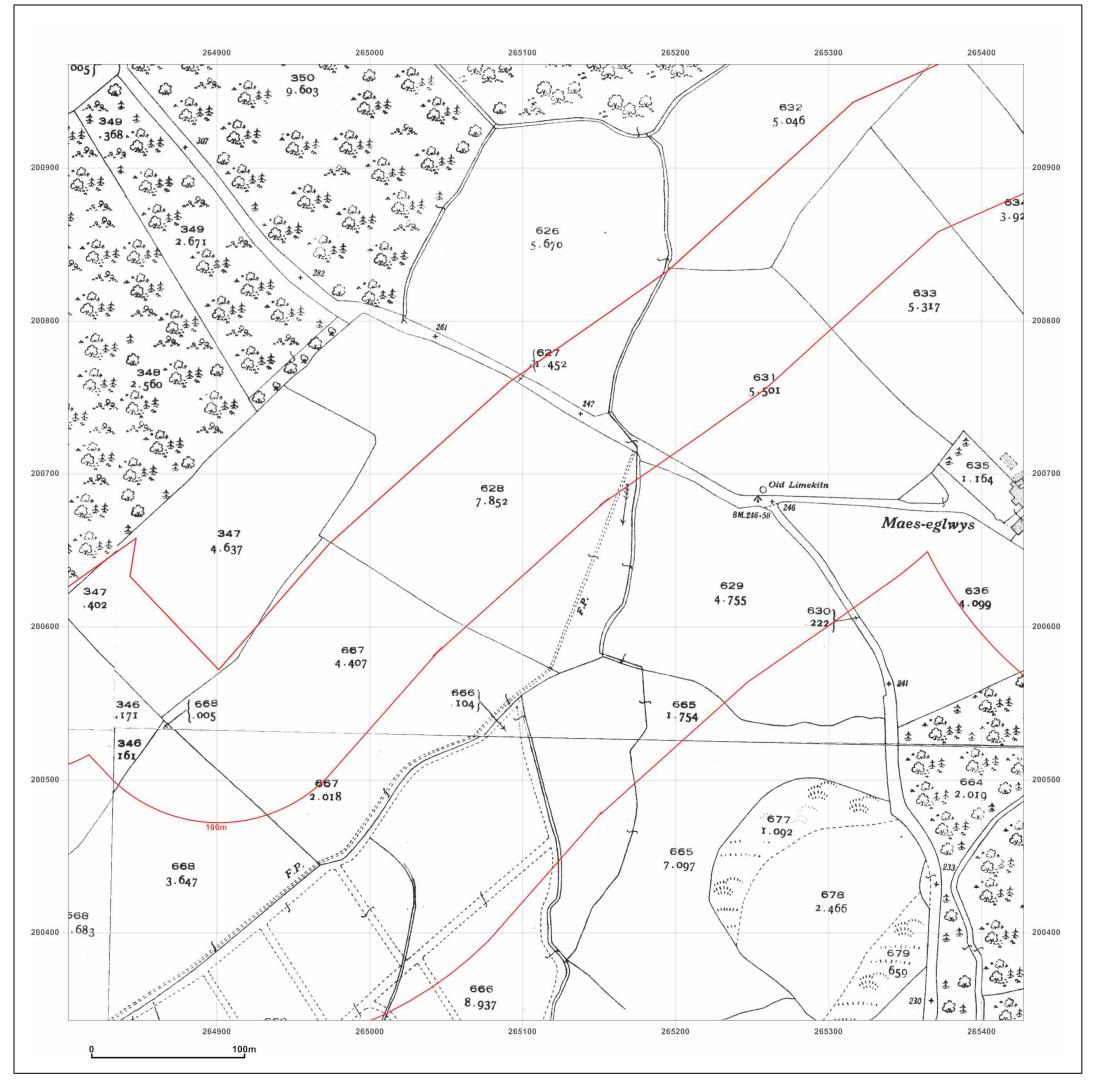
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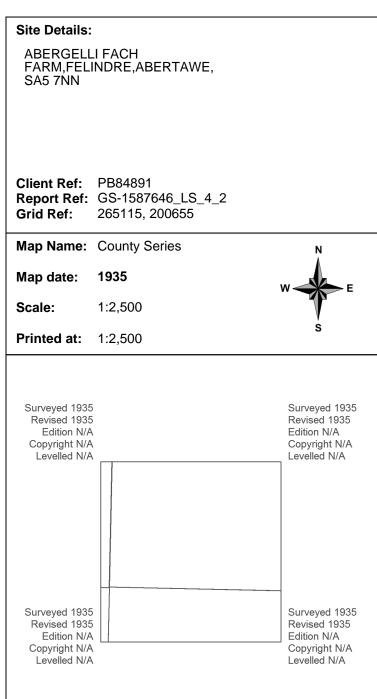
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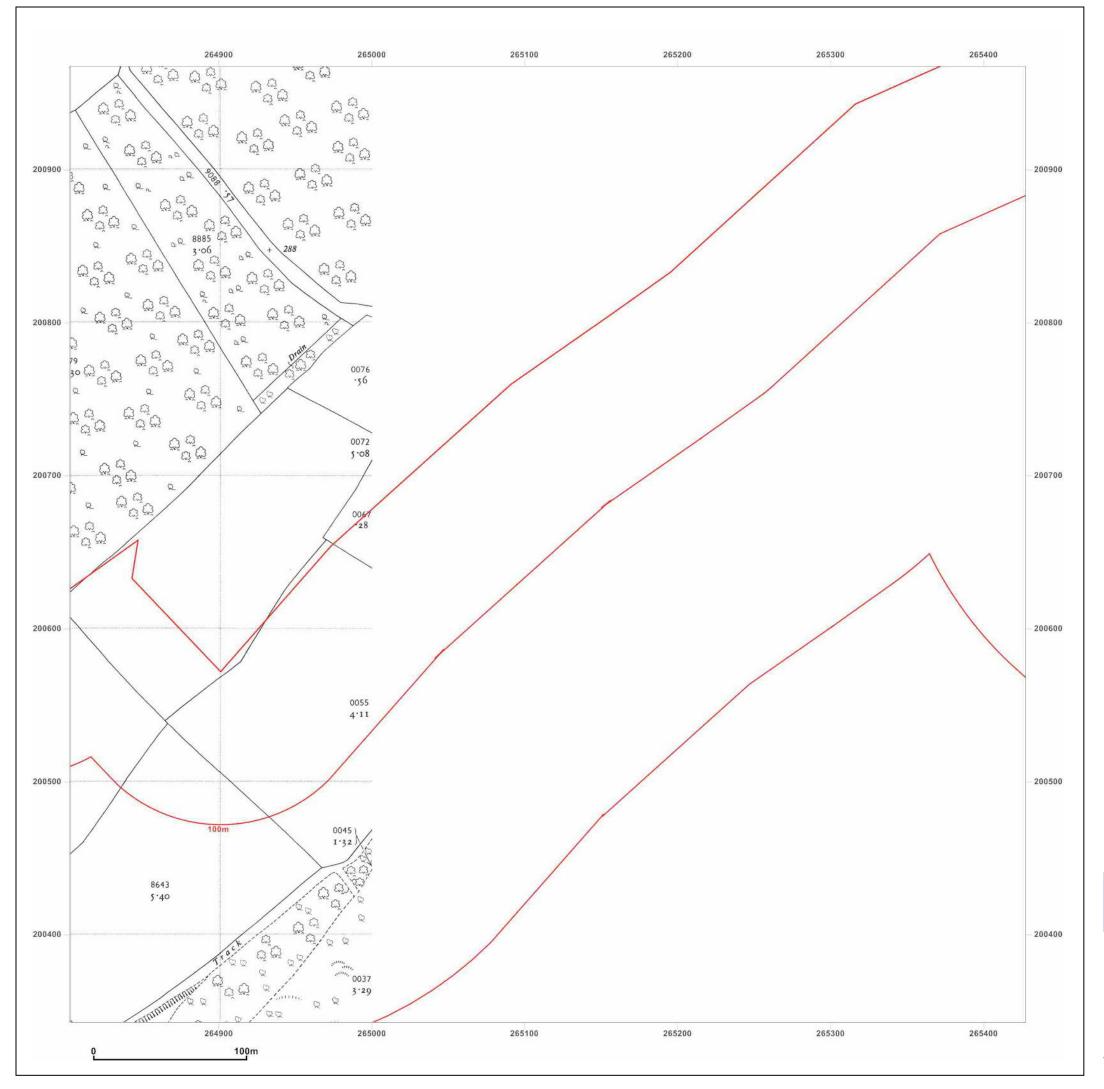
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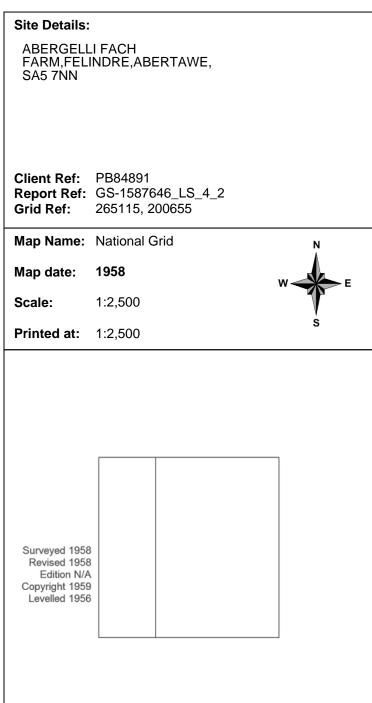
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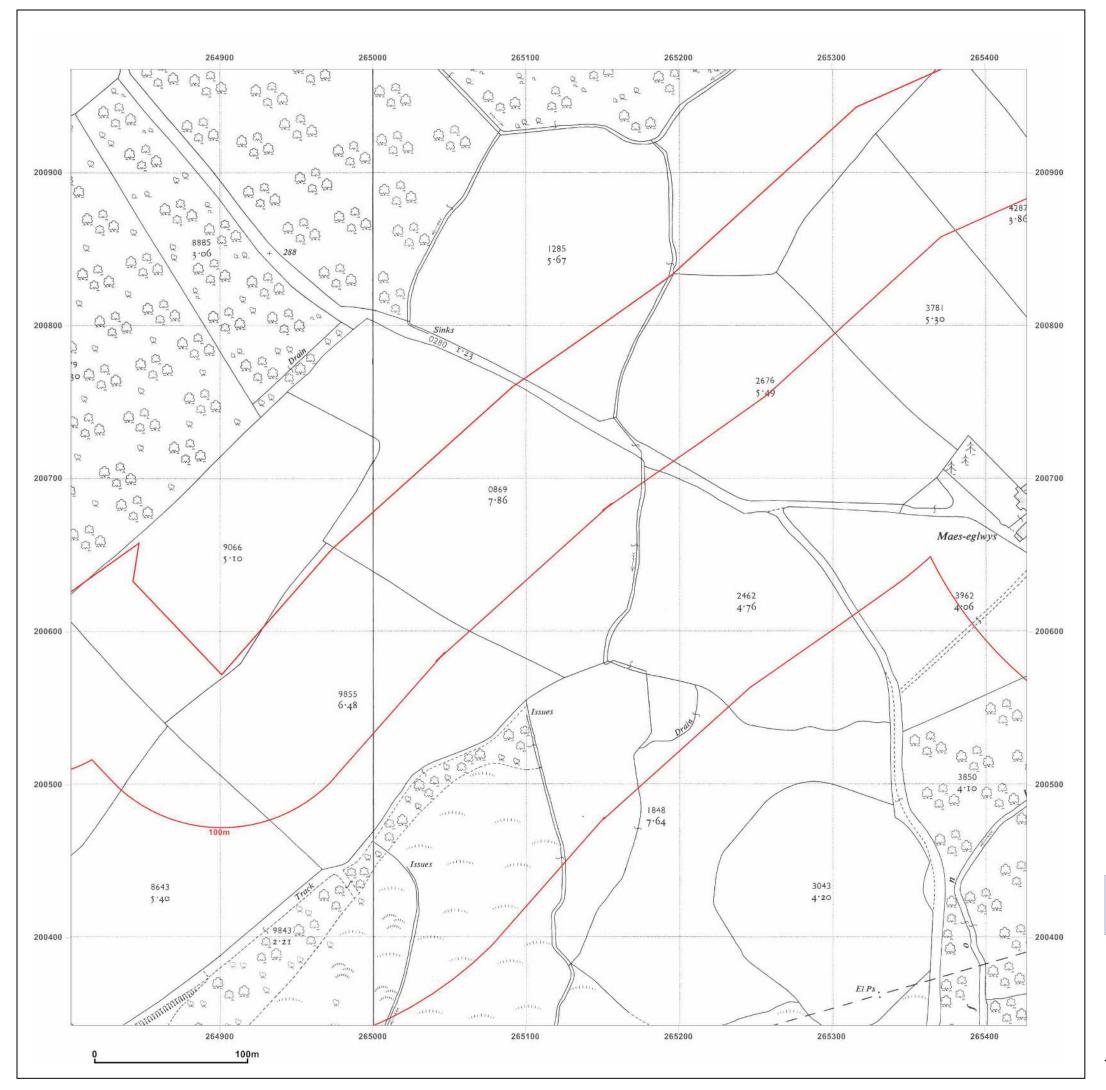
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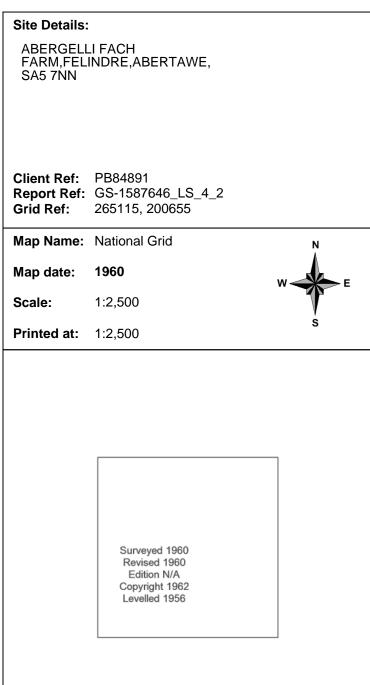
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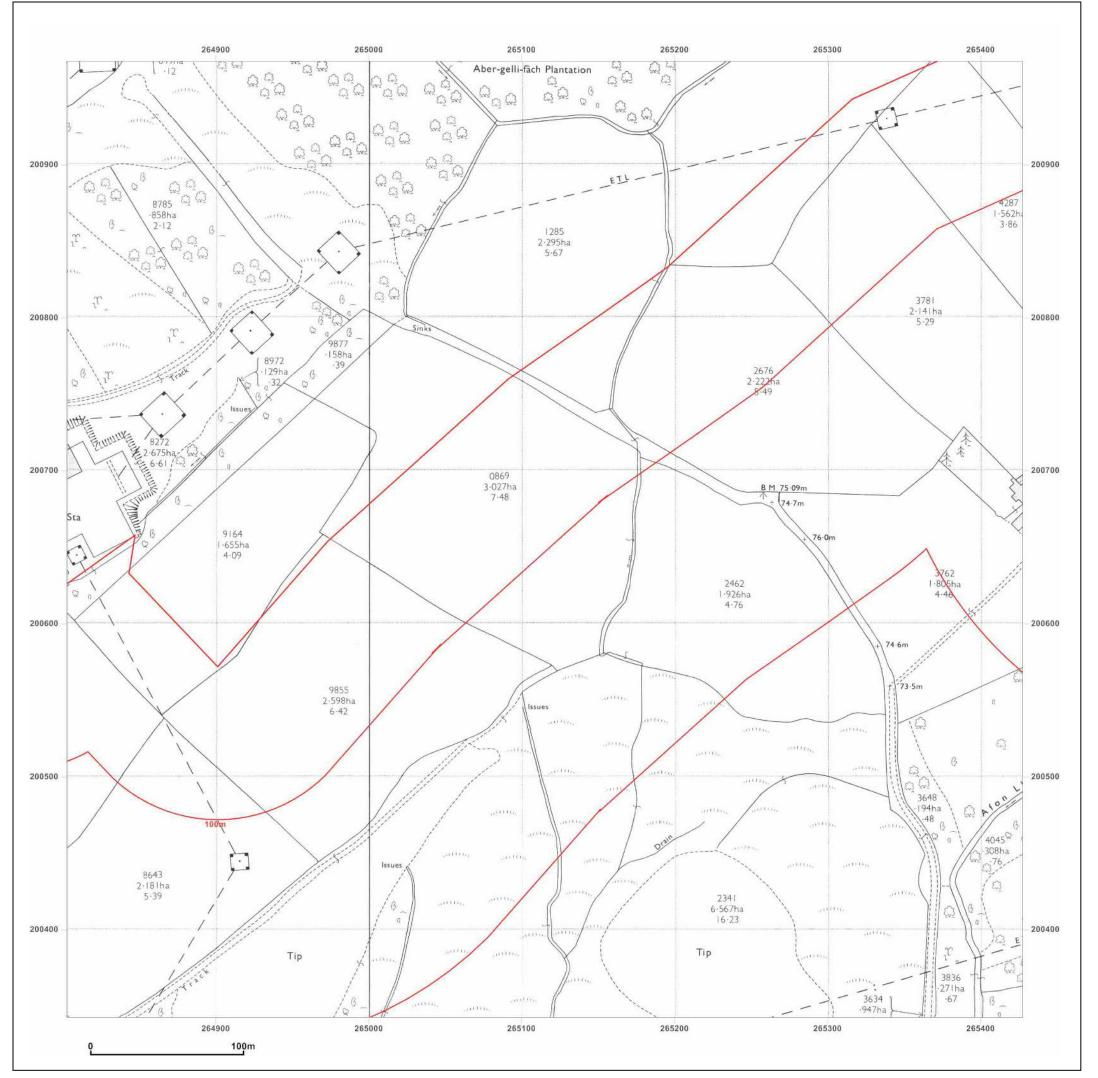


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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_2 Grid Ref: 265115, 200655

Map Name: National Grid

Map date: 1974

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed 1974 Revised 1974 Edition N/A Copyright 1975 Levelled 1963



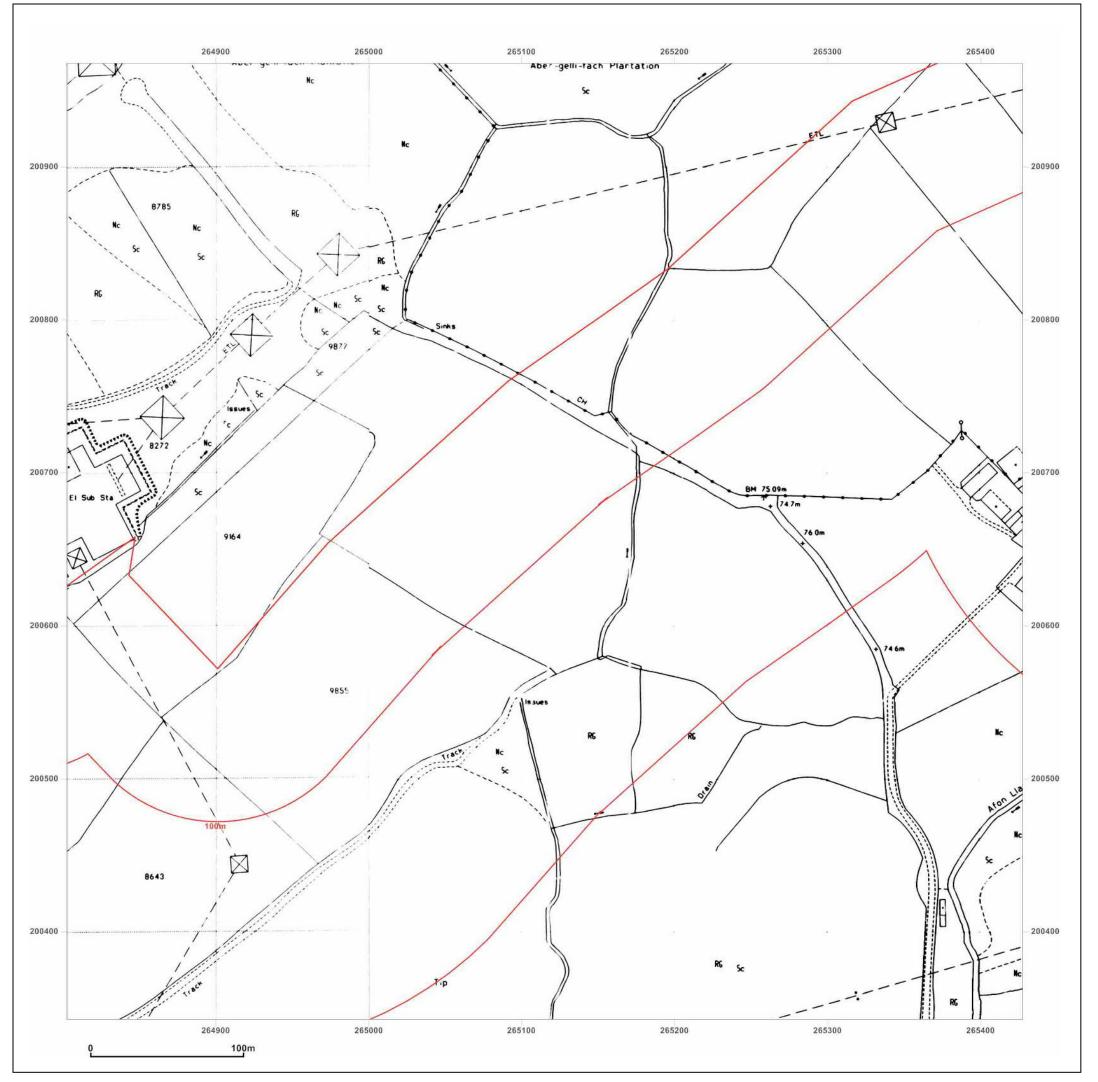
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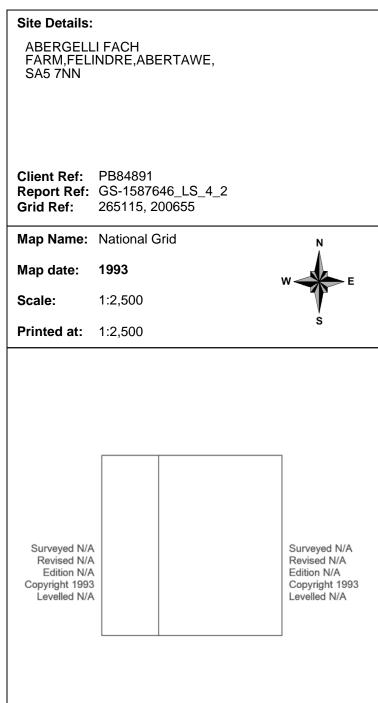
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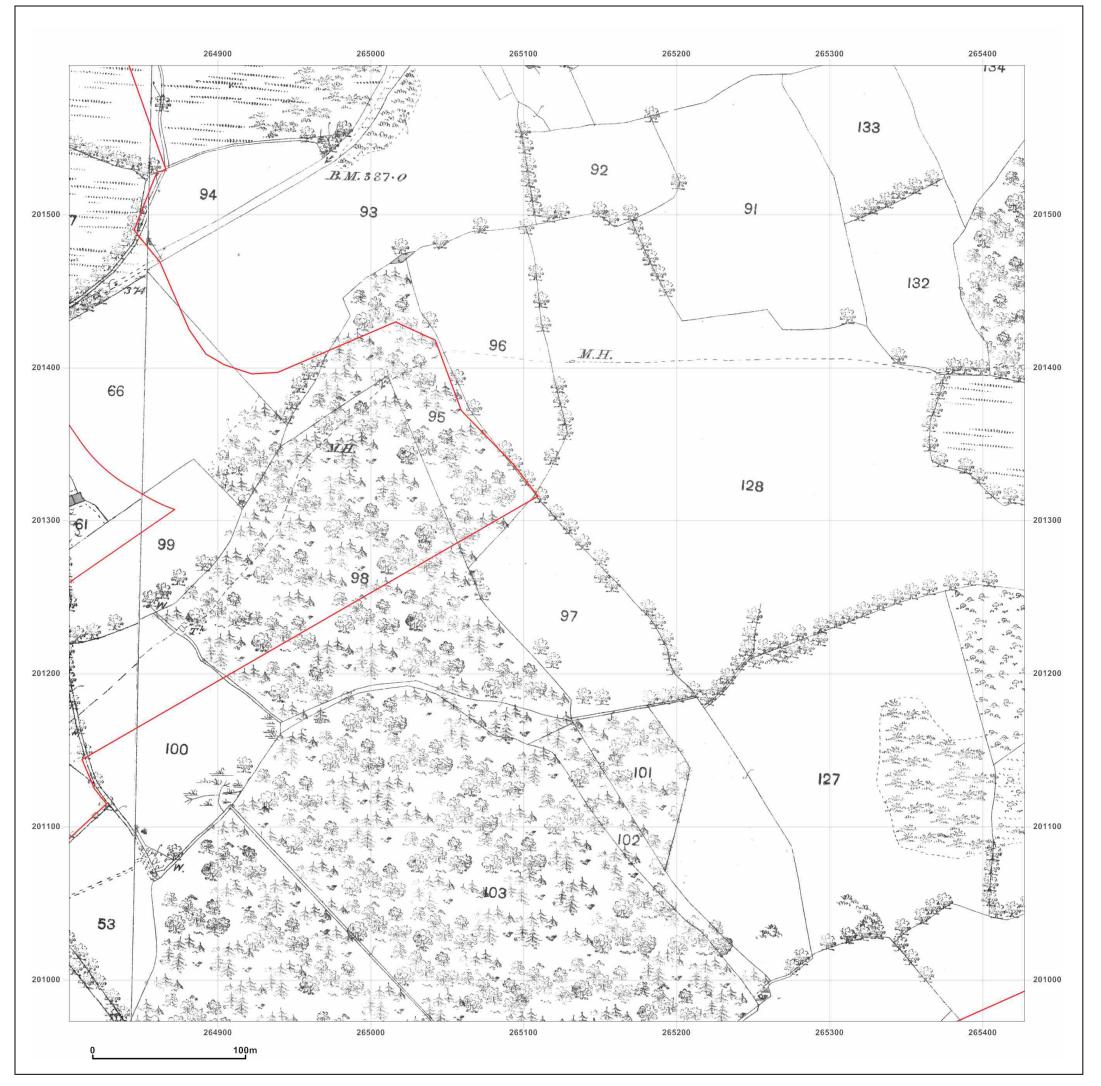




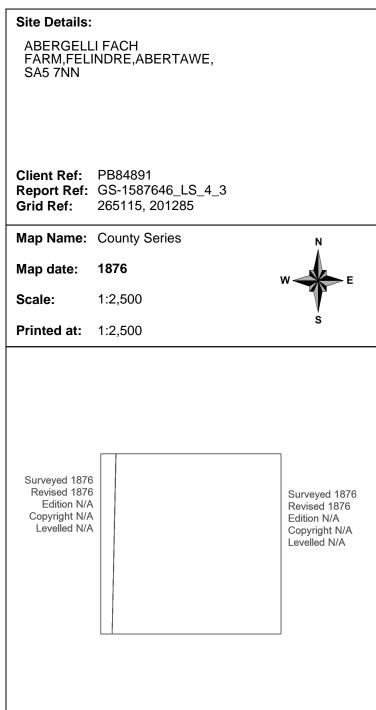
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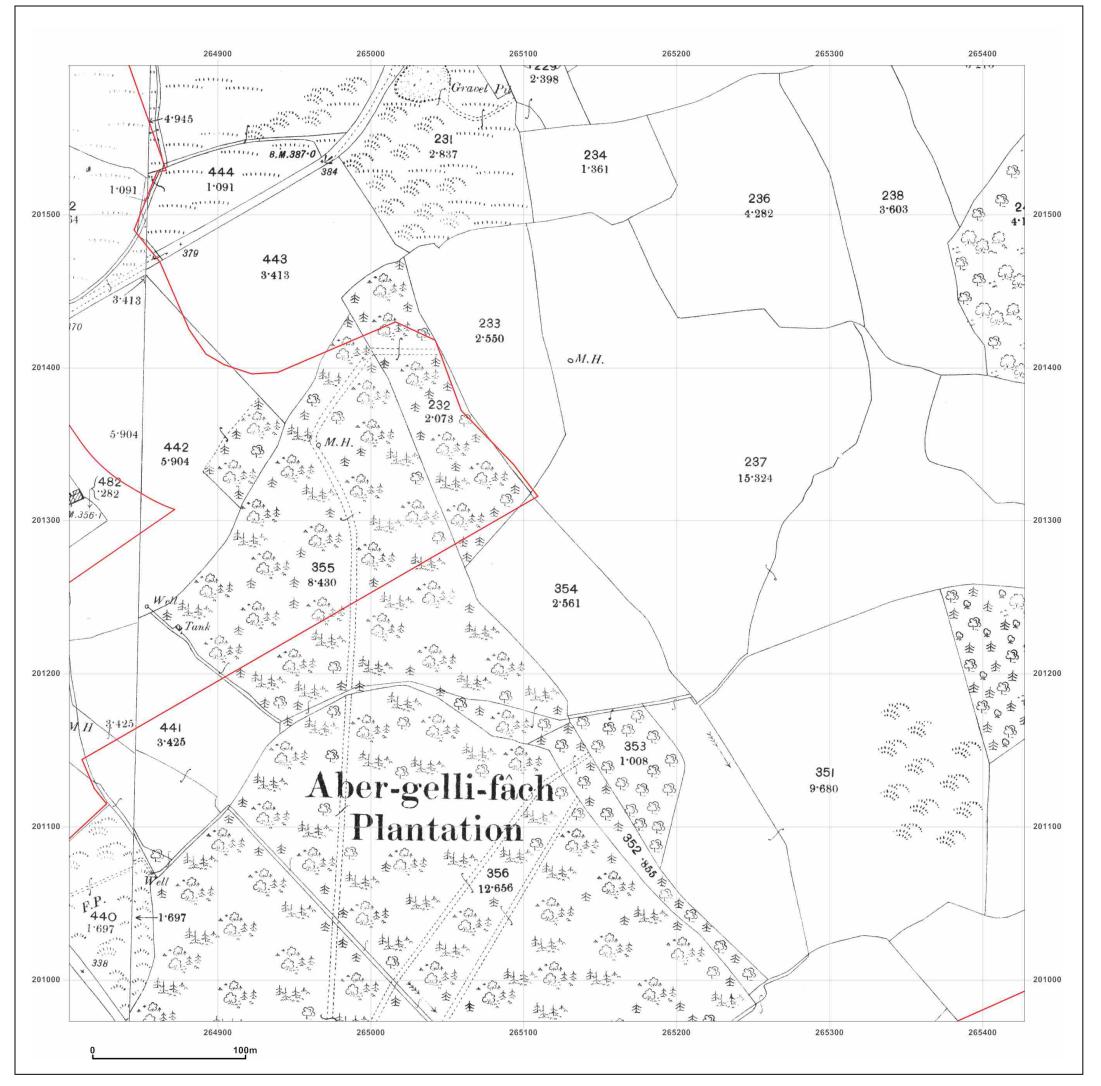




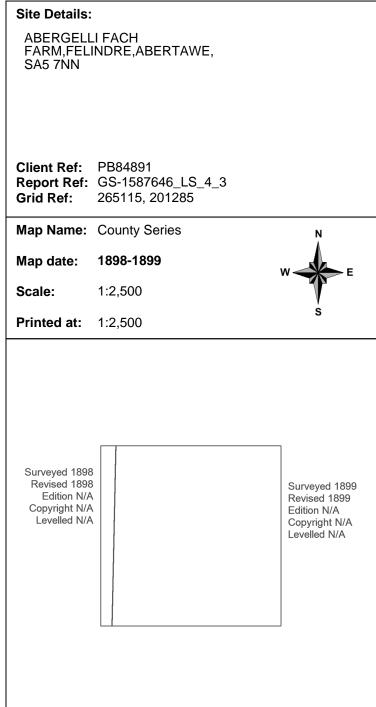
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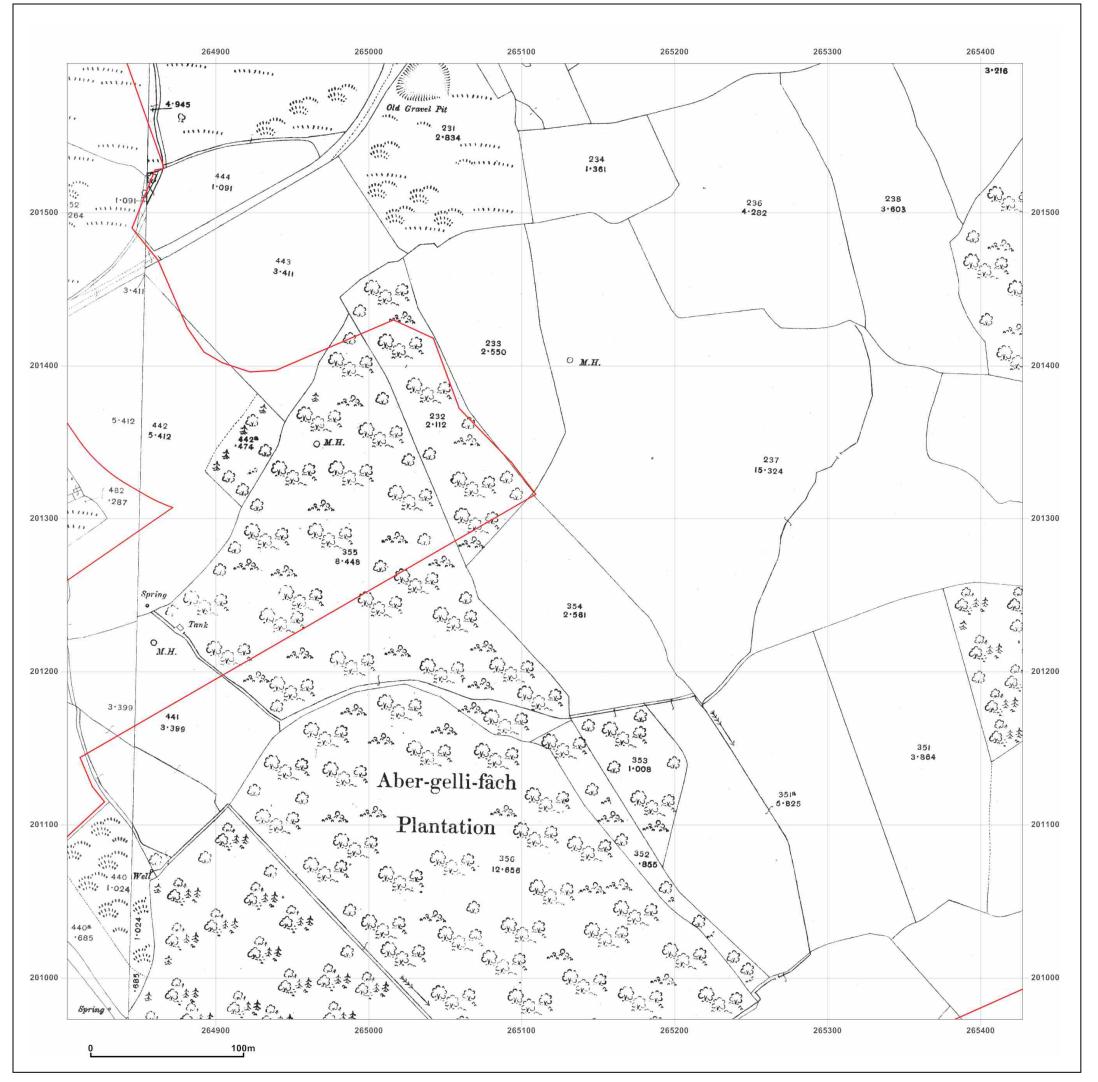
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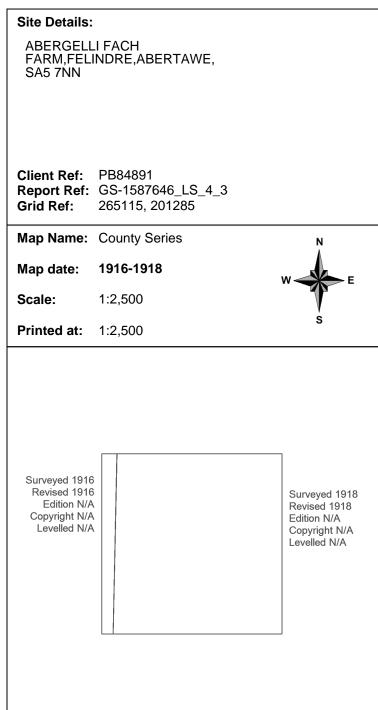
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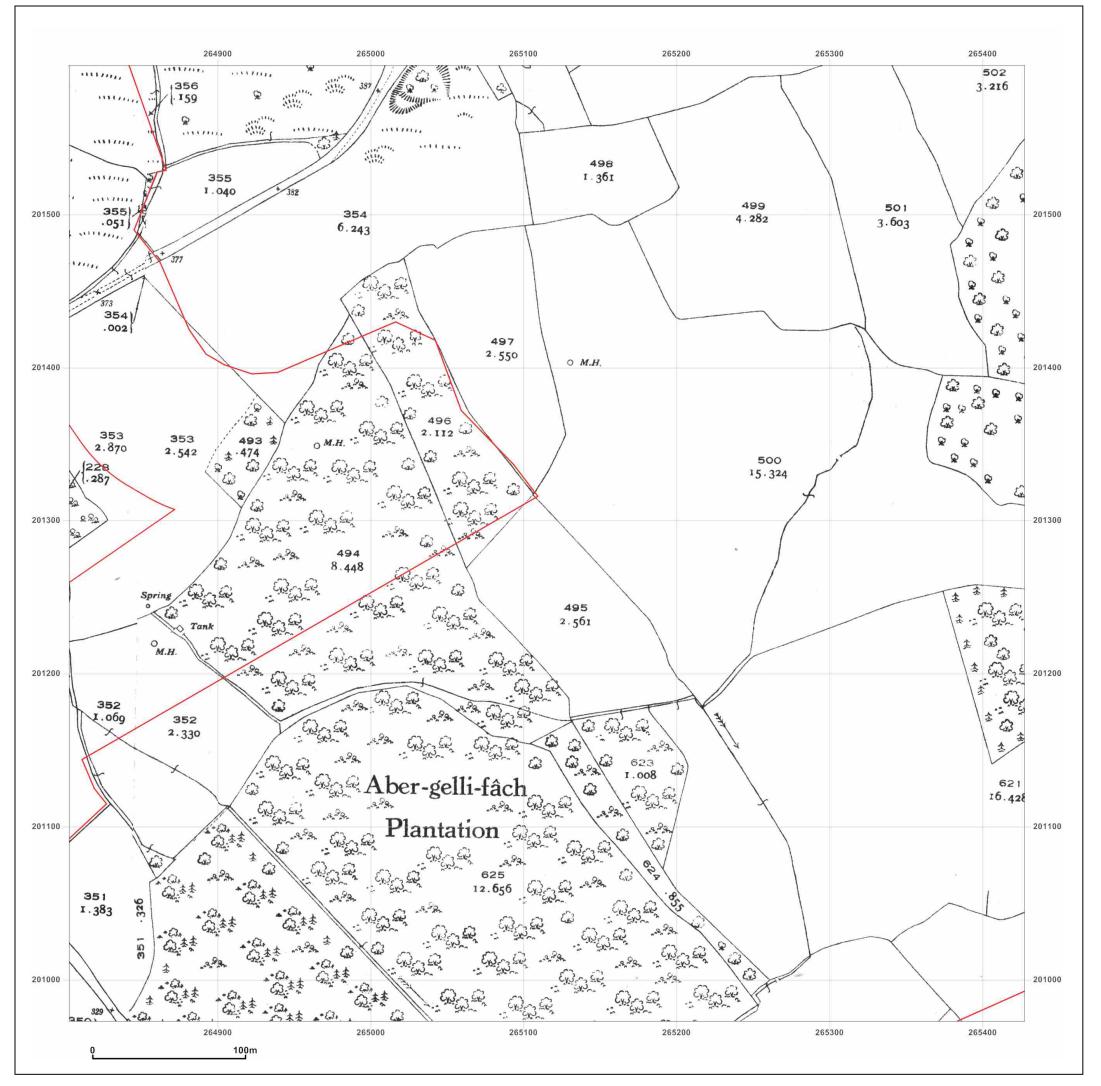
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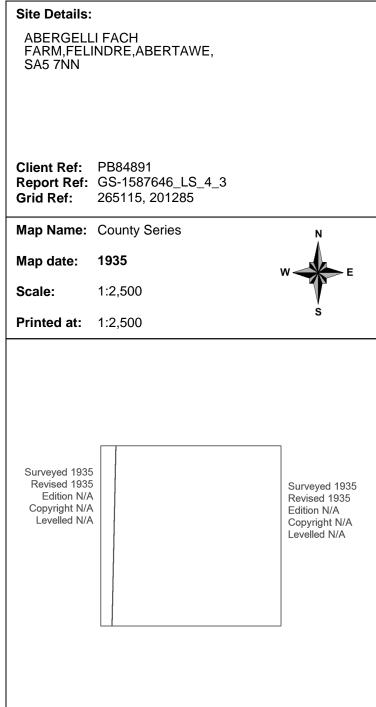
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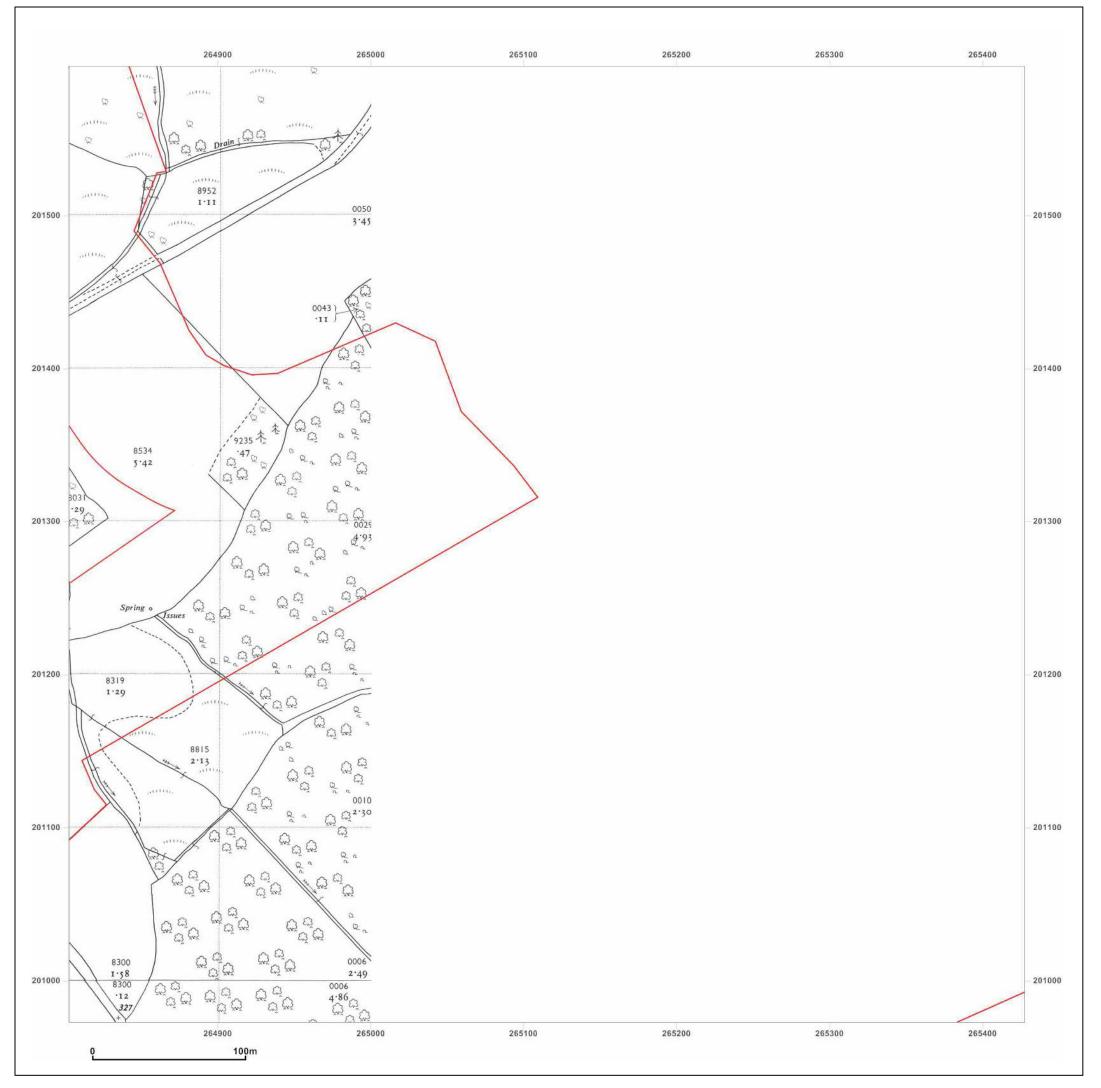
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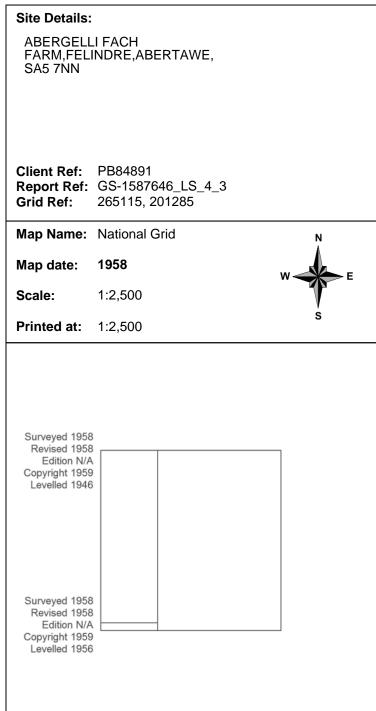
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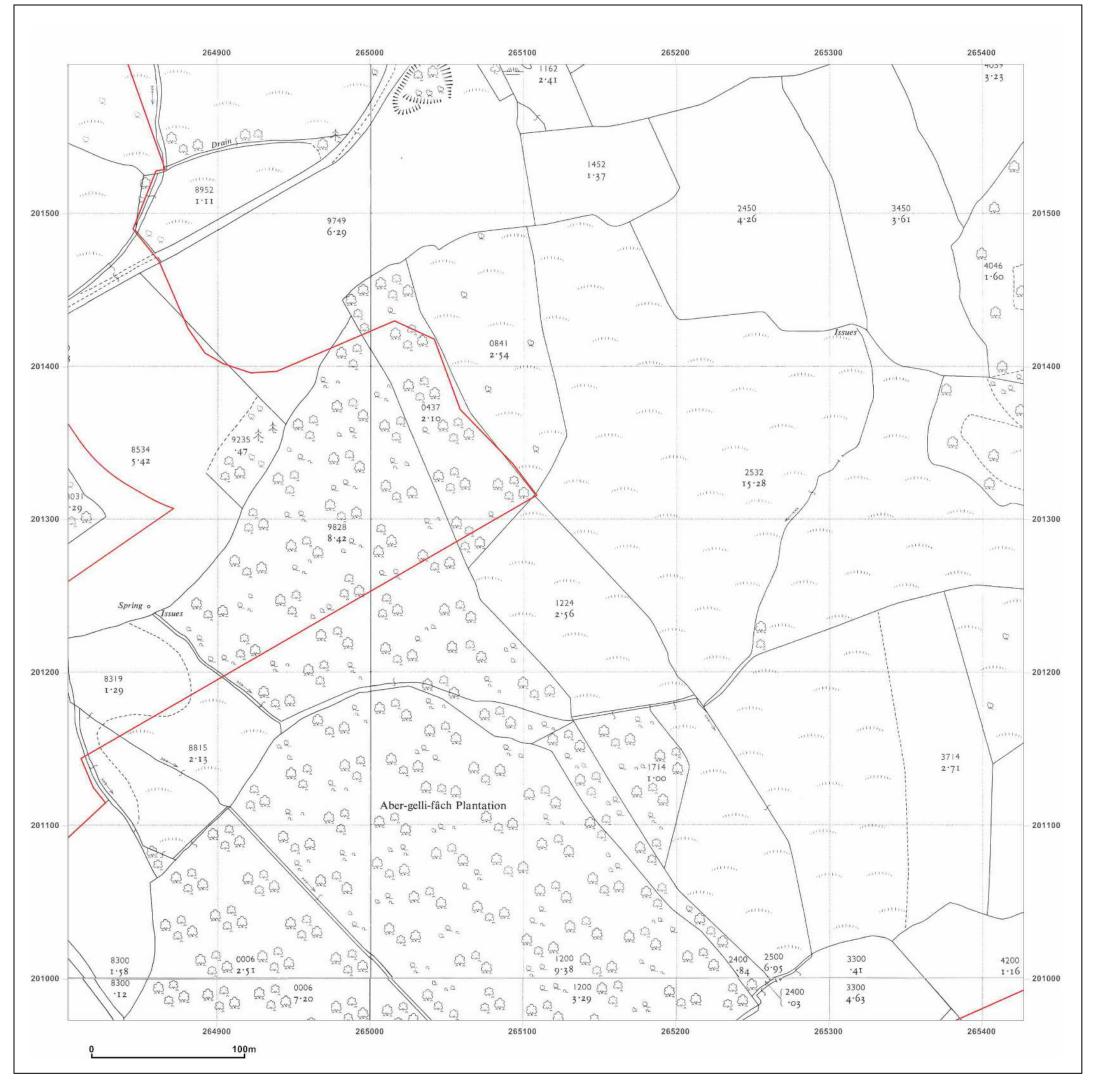
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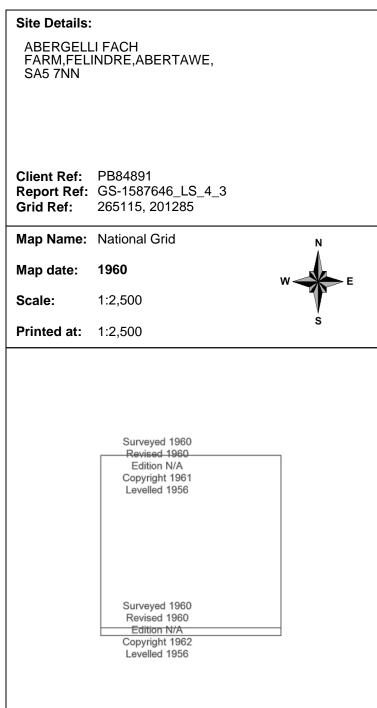
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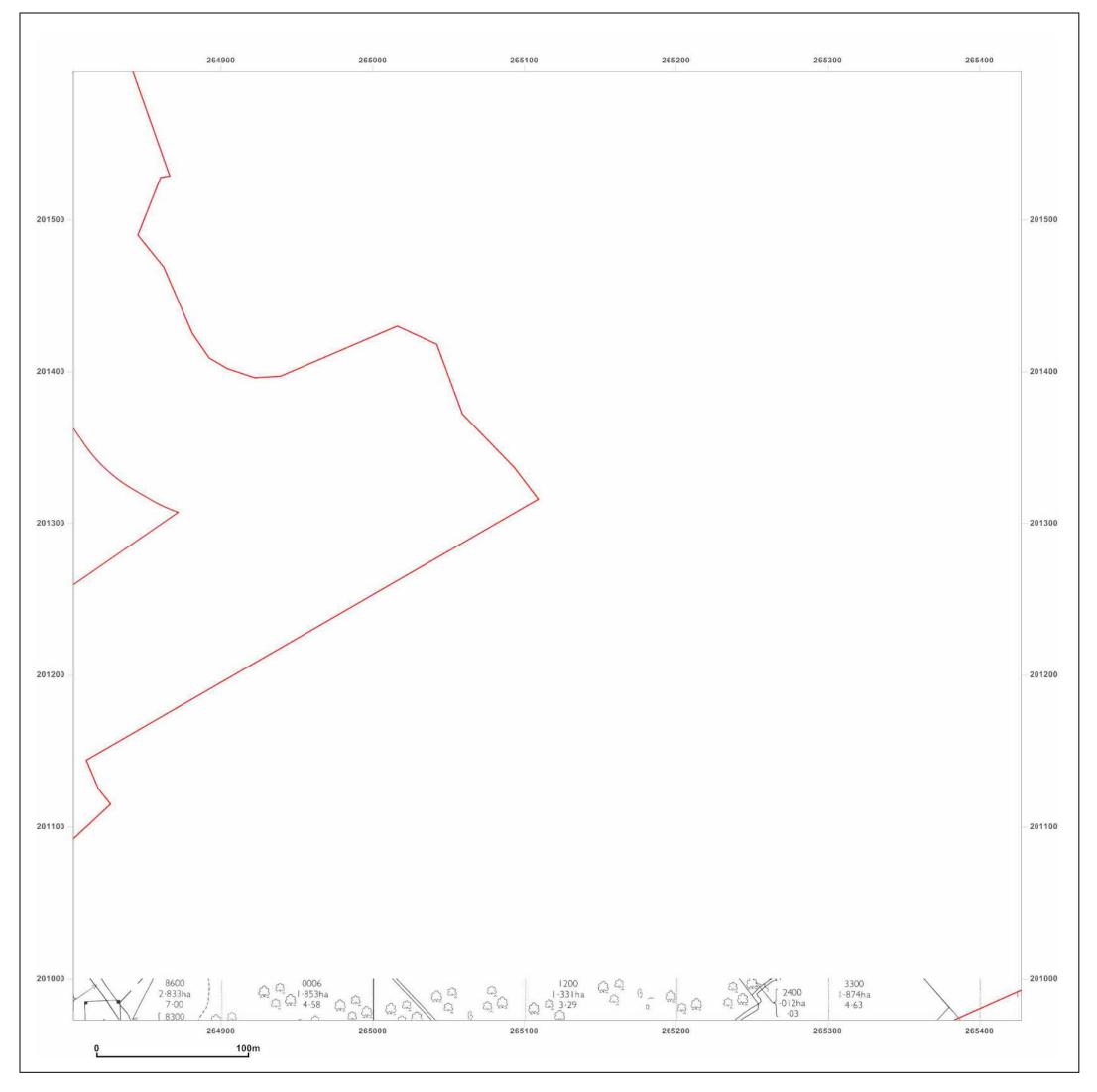
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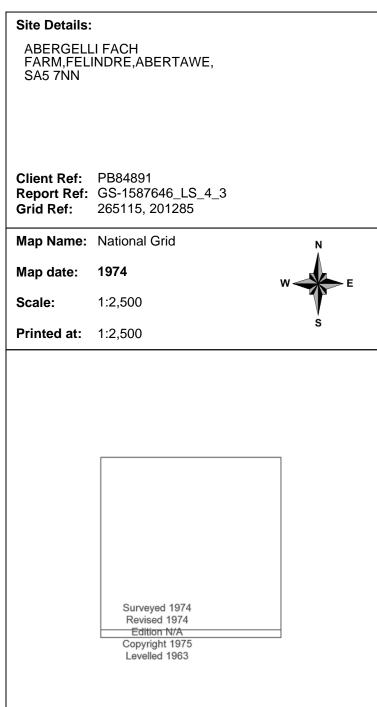
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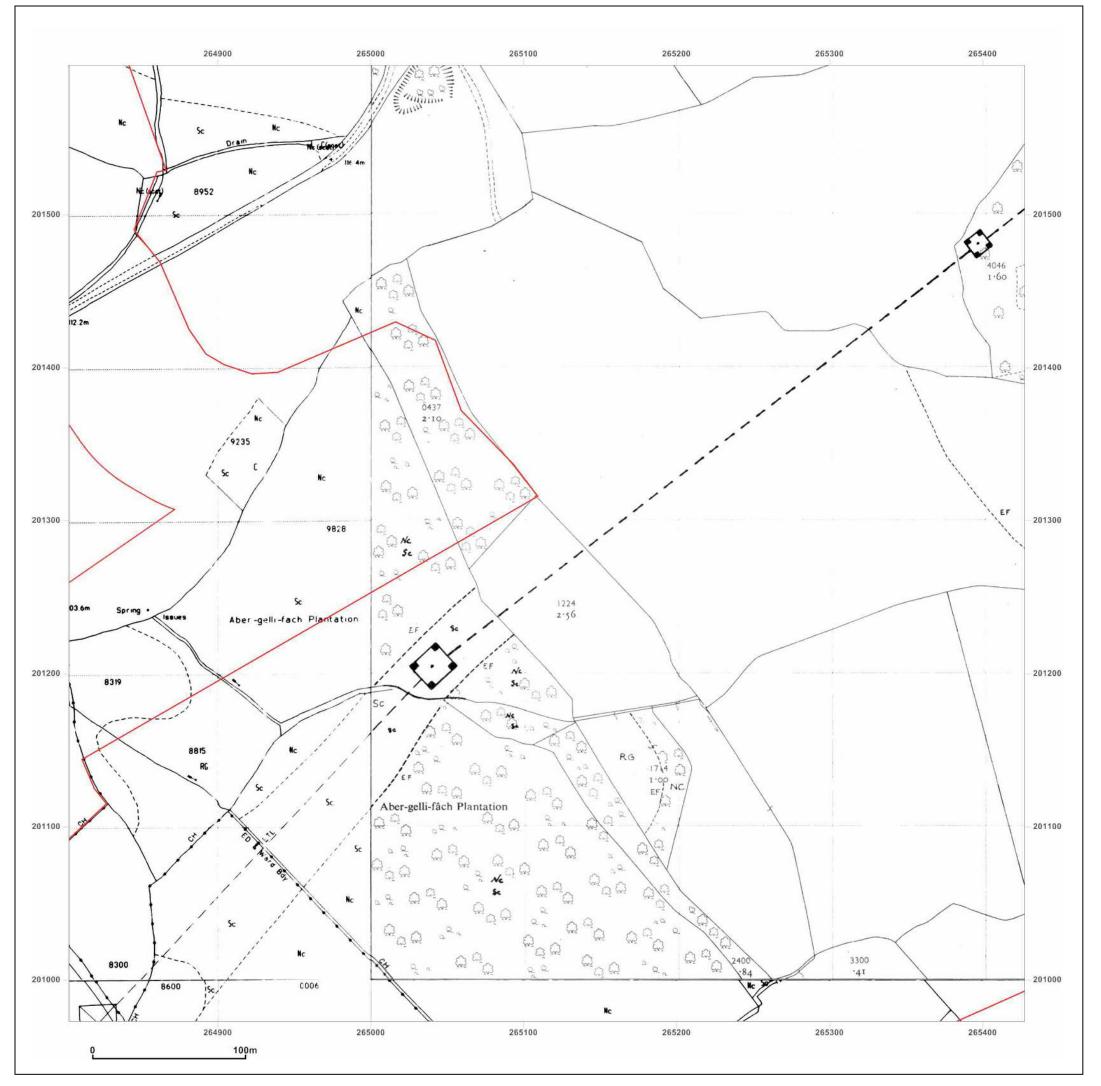
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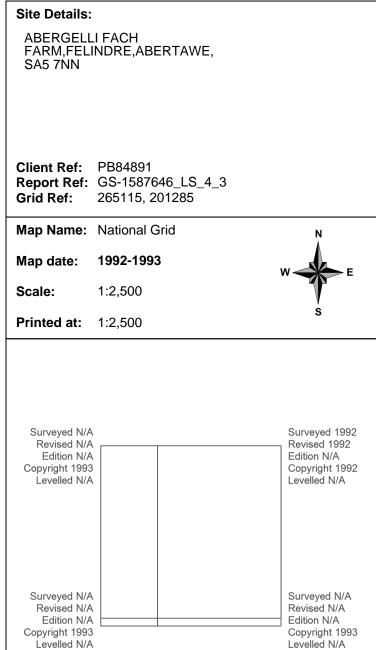
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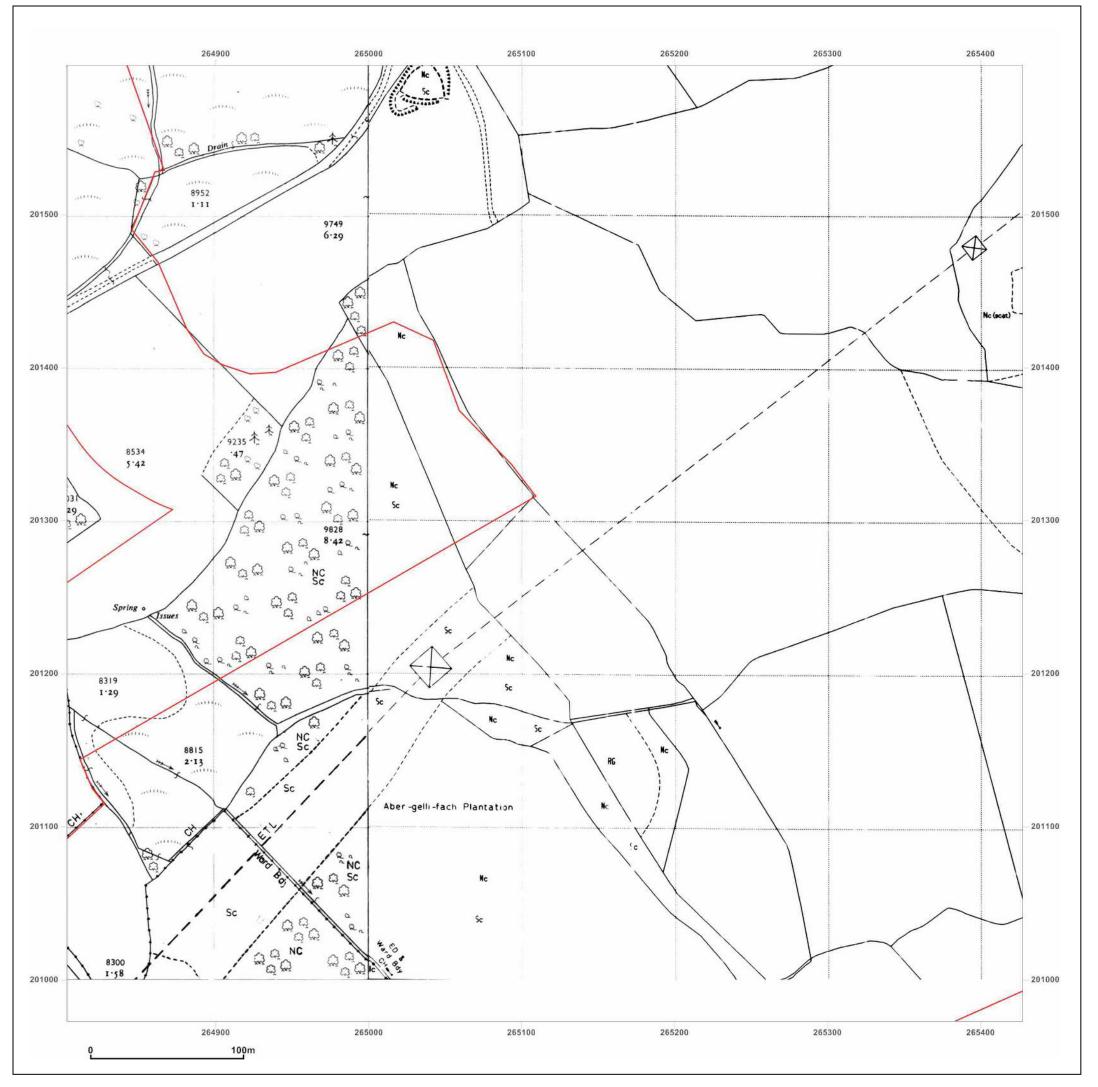
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E: info@groundsure.com

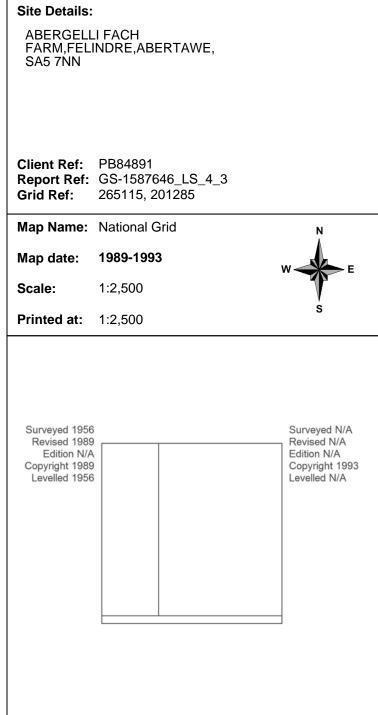
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Production date: 30 July 2014









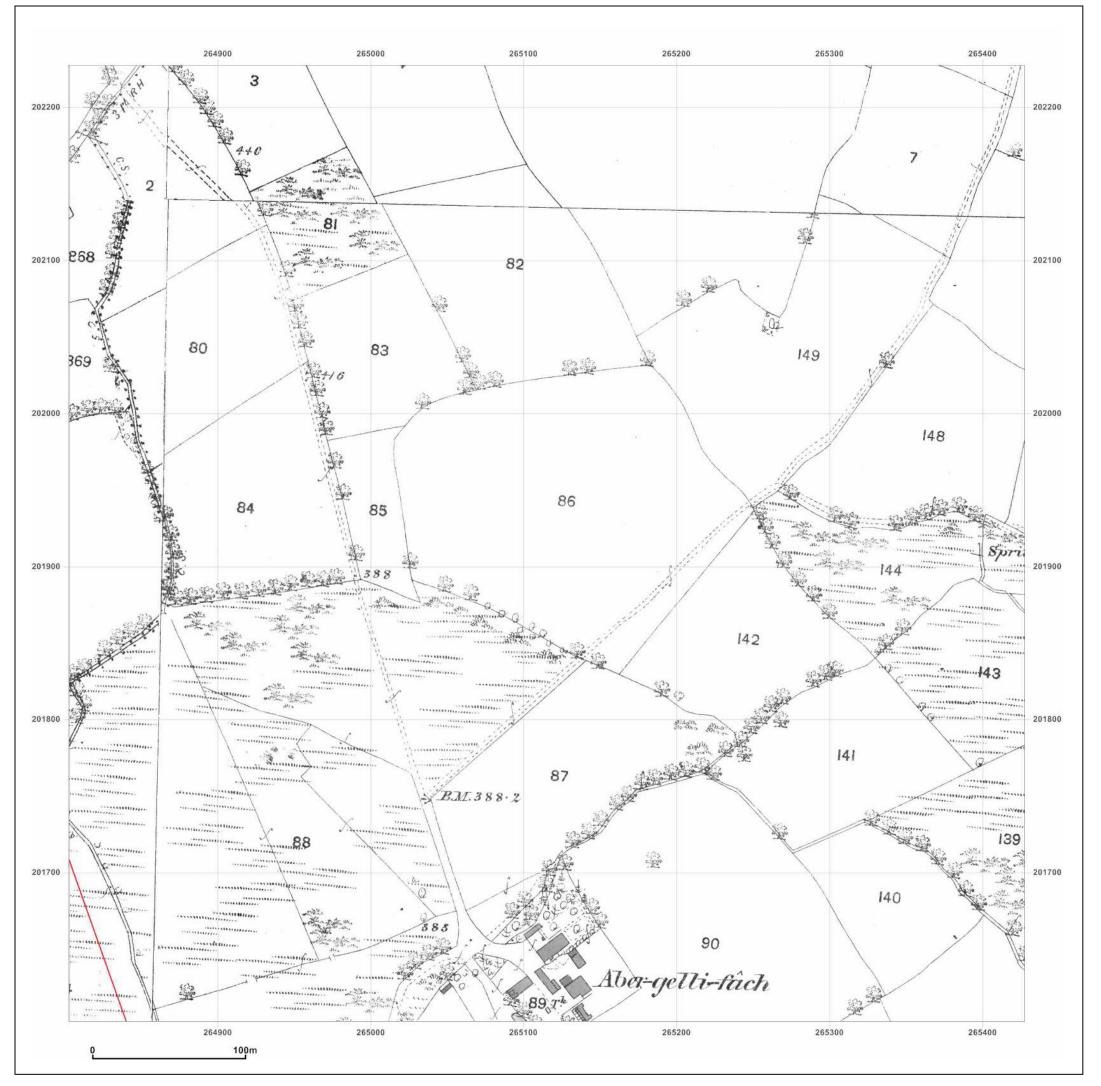
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Site Details:

SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_4 Grid Ref: 265115, 201915

Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1876 Revised 1876 Surveyed 1876 Revised 1876 Edition N/A
Copyright N/A
Levelled N/A Edition N/A Copyright N/A Levelled N/A Surveyed 1876 Revised 1876 Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A



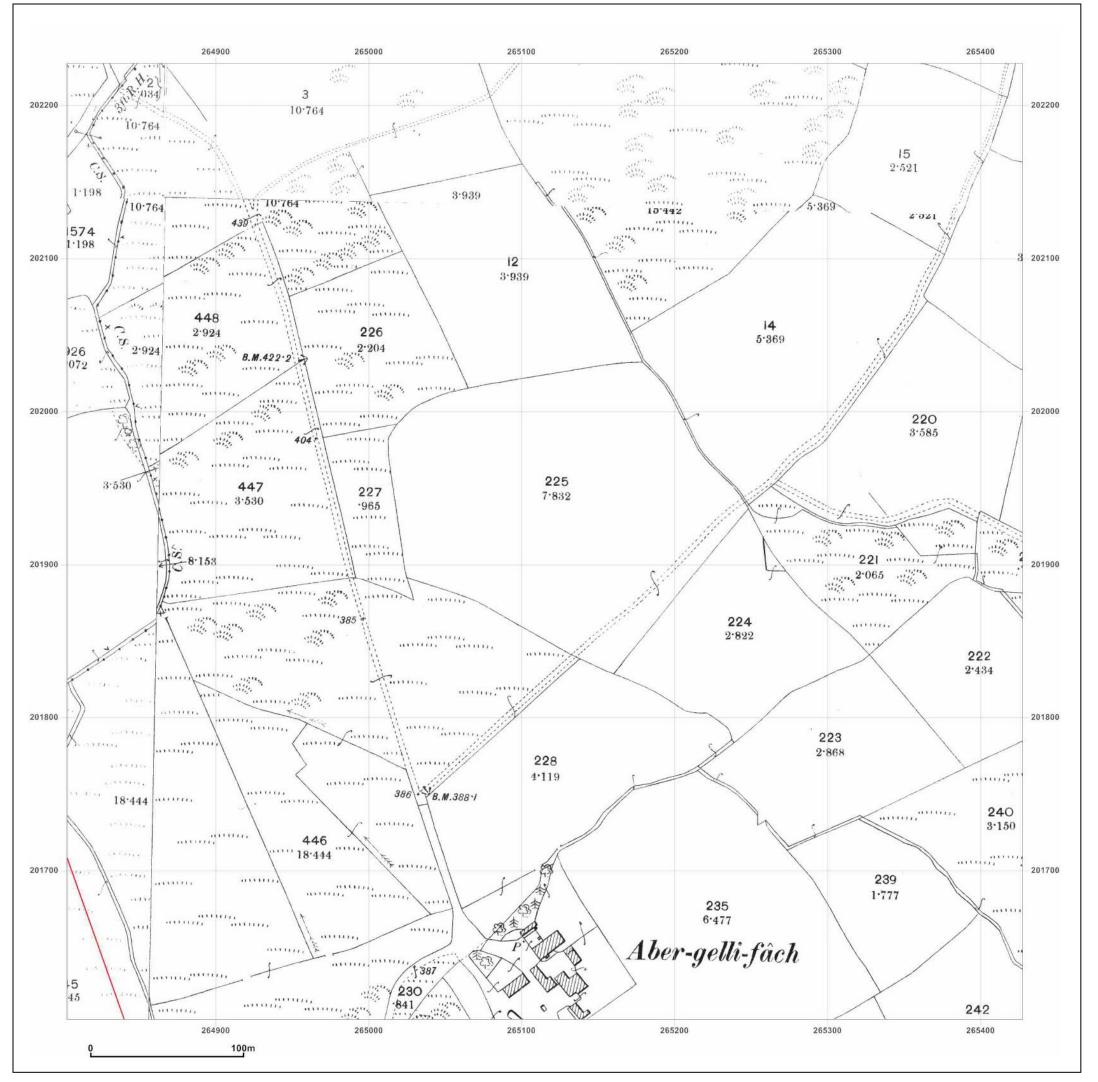
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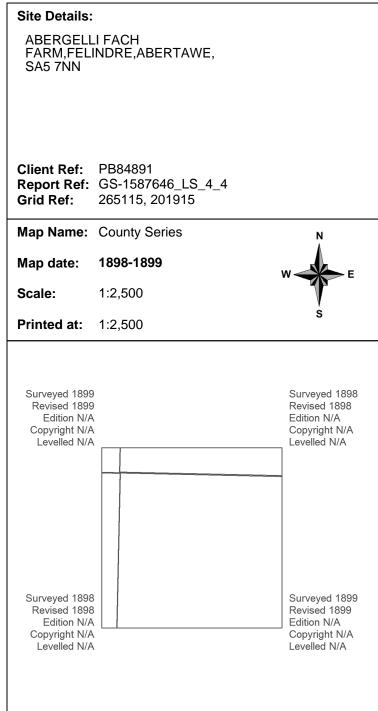
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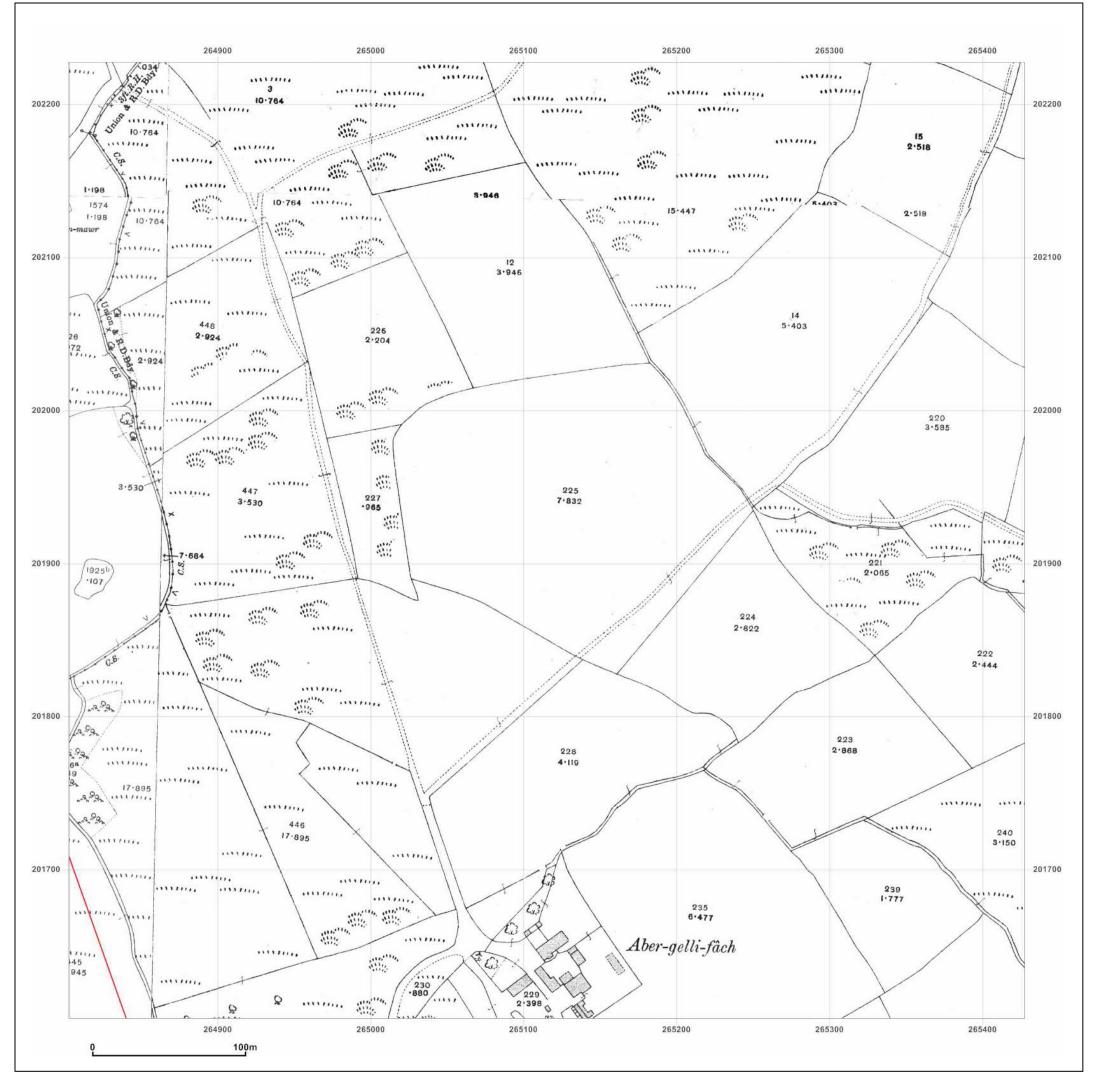
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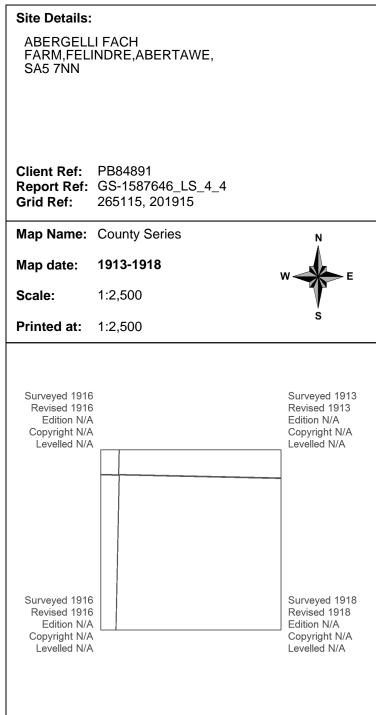
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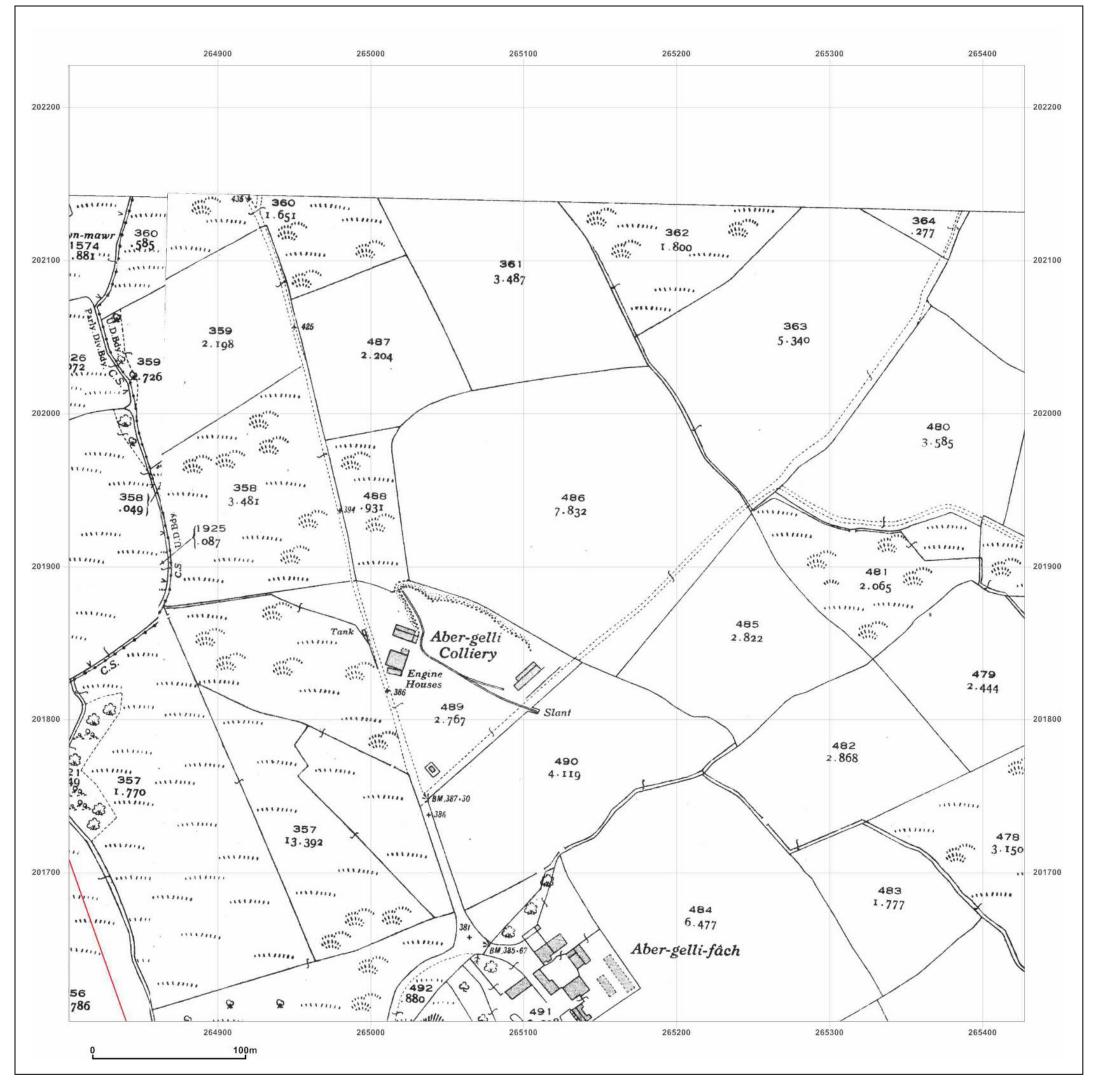
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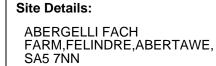
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Production date: 30 July 2014







Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_4 **Grid Ref:** 265115, 201915

Map Name: County Series

Map date: 1935

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A



Produced by GroundSure Environmental Insight

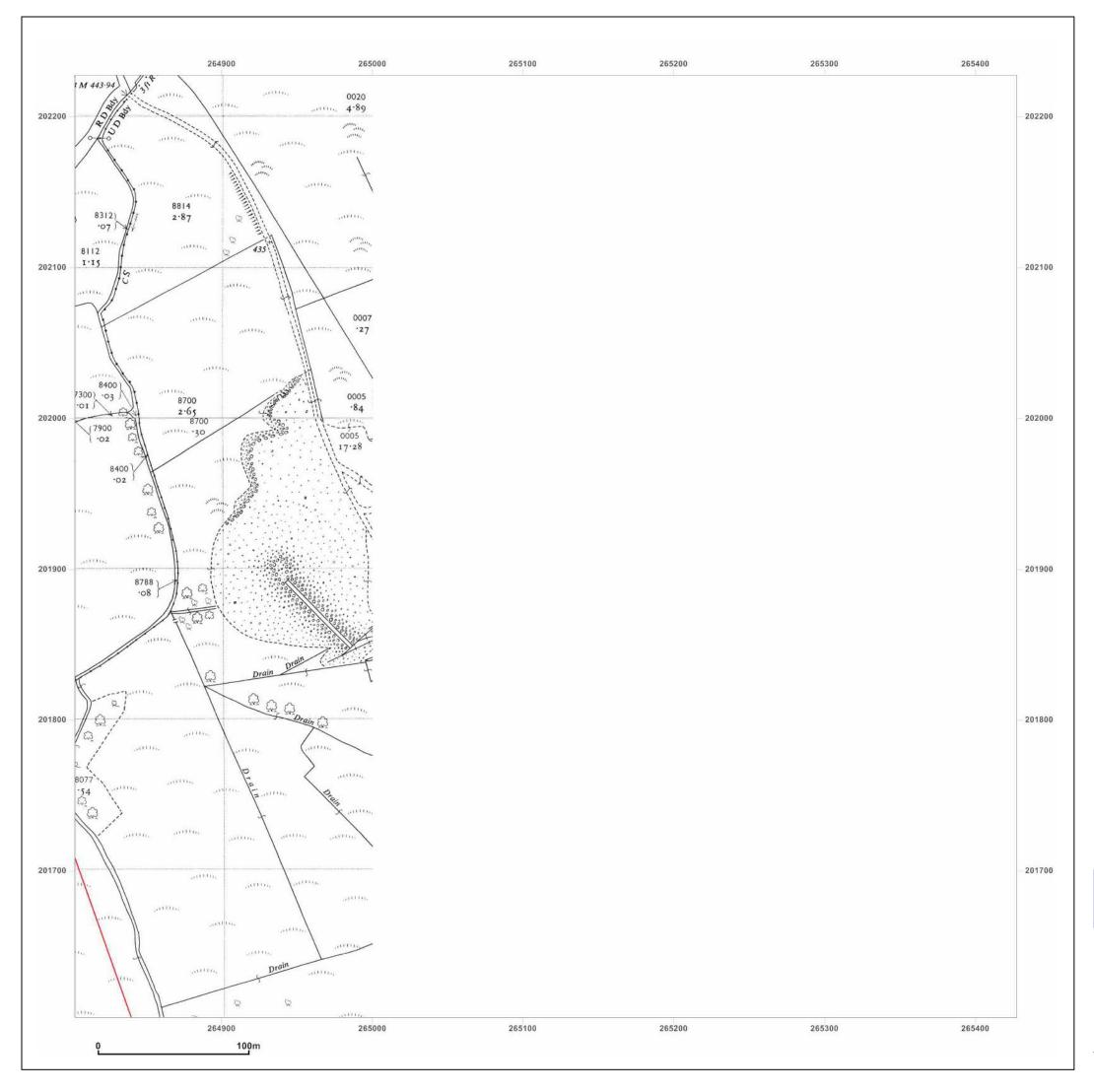
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Production date: 30 July 2014





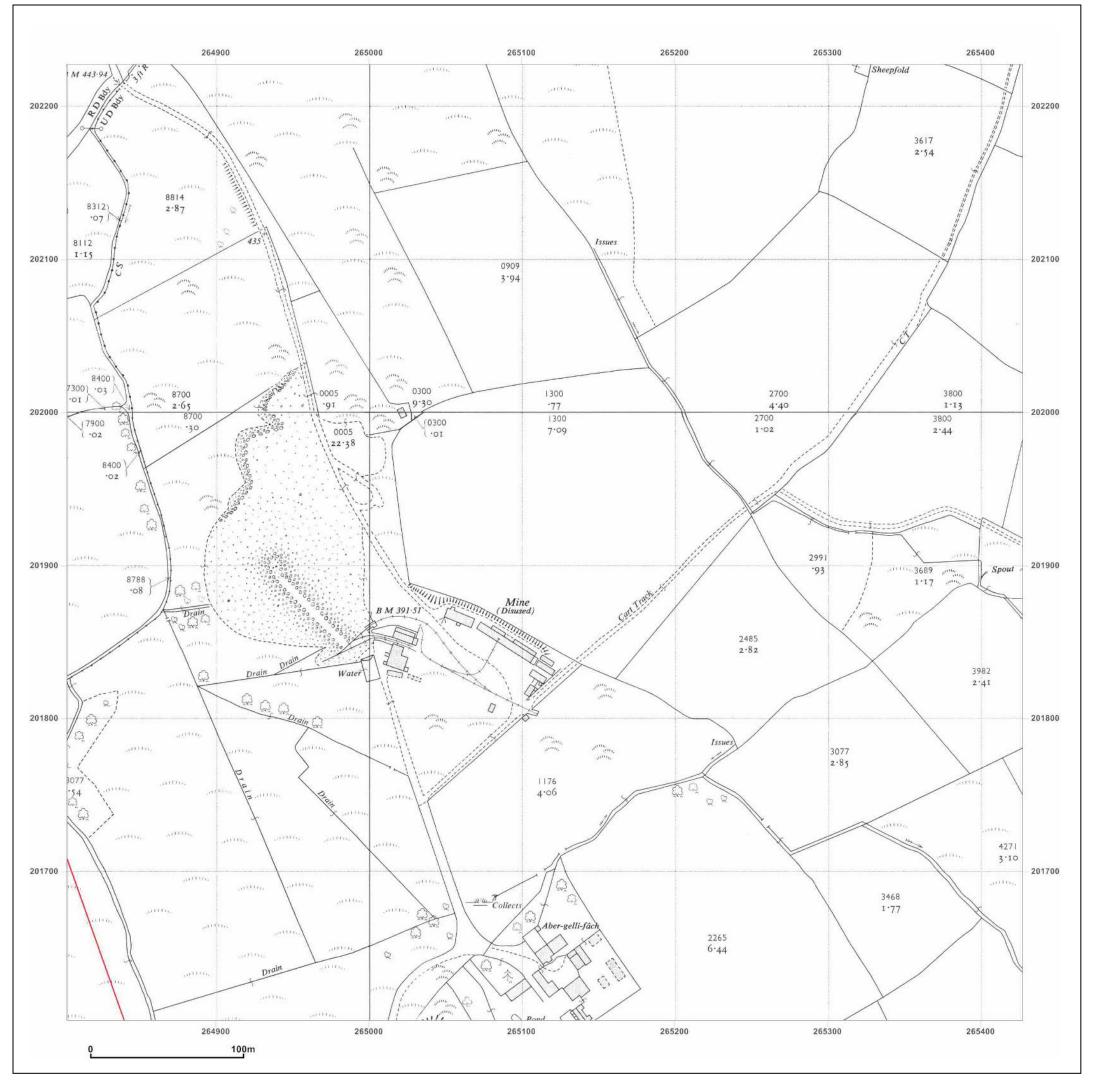
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|---|-------------------|--------|--|
| ABERGELLI FACH<br>FARM,FELINDRE,ABERTAWE,<br>SA5 7NN                            |                   |        |  |
|   | GS-1587646_LS_4_4 |        |  |
| Grid Ref:   | 265115, 201915    |        |  |
| Map Name:   | National Grid     | N<br>A |  |
| Map date:   | 1958              | W E    |  |
| Scale:  | 1:2,500           |        |  |
| Printed at:   | 1:2,500           | S      |  |
| Surveyed 1958<br>Revised 1958<br>Edition N/A<br>Copyright 1959<br>Levelled 1956 |                   |        |  |
| Surveyed 1958<br>Revised 1958<br>Edition N/A<br>Copyright 1959<br>Levelled 1946 |                   |        |  |



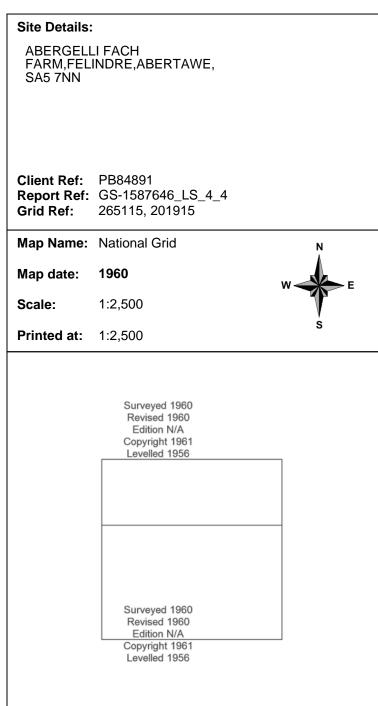
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Production date: 30 July 2014









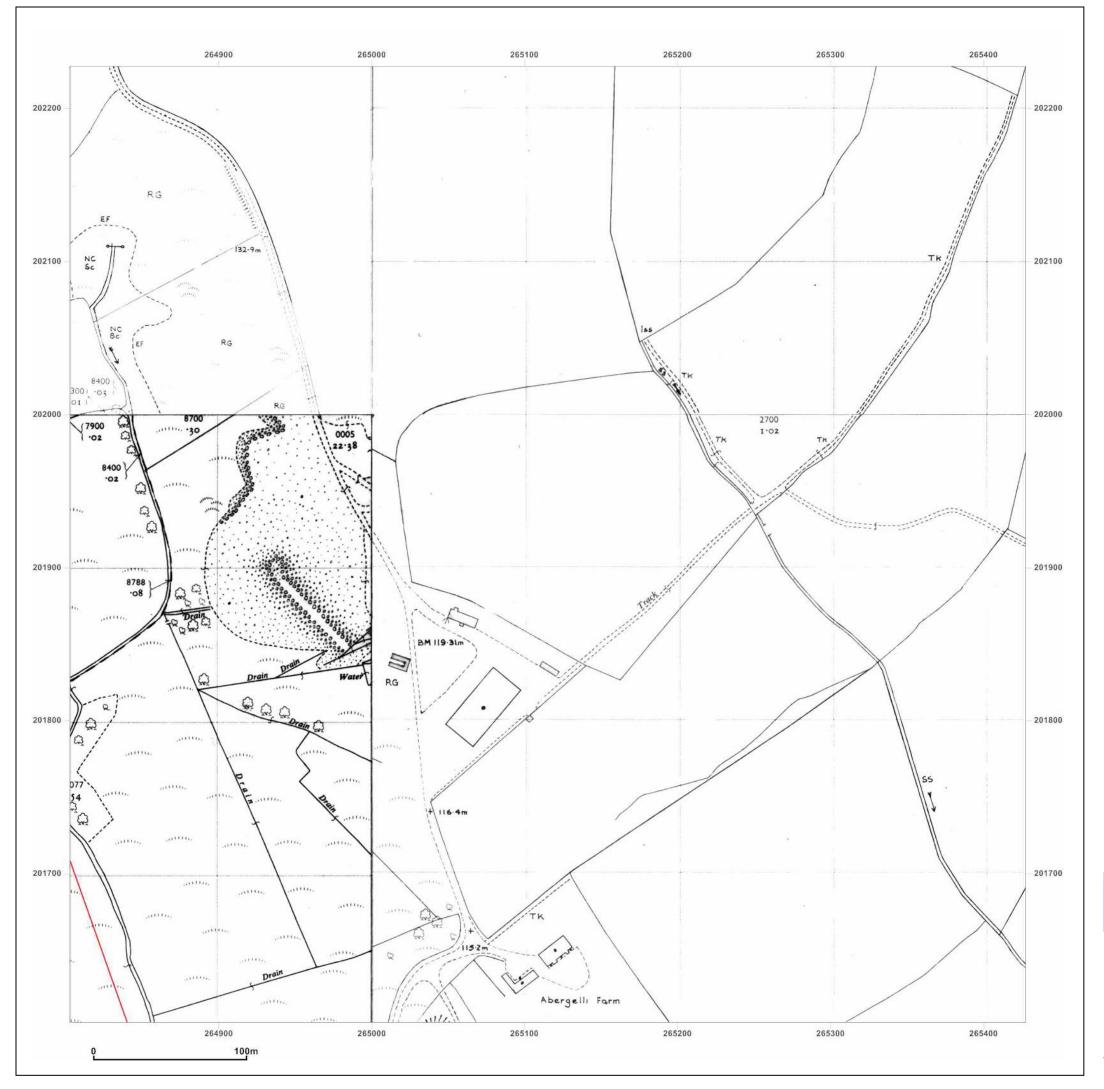
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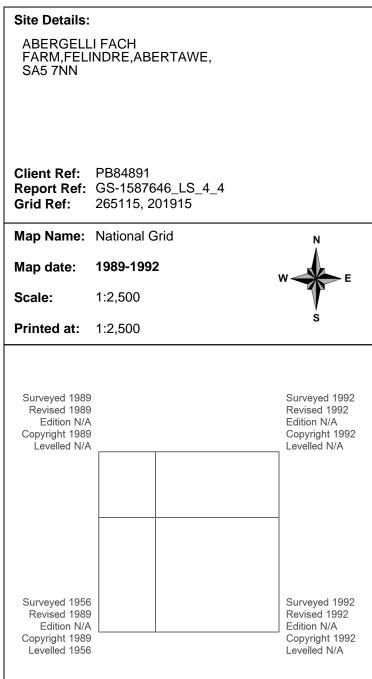
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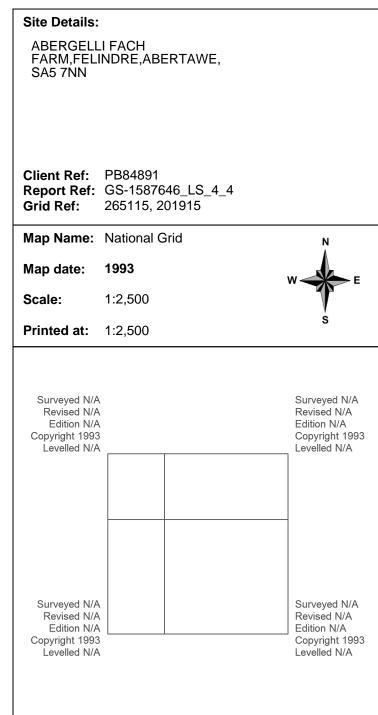
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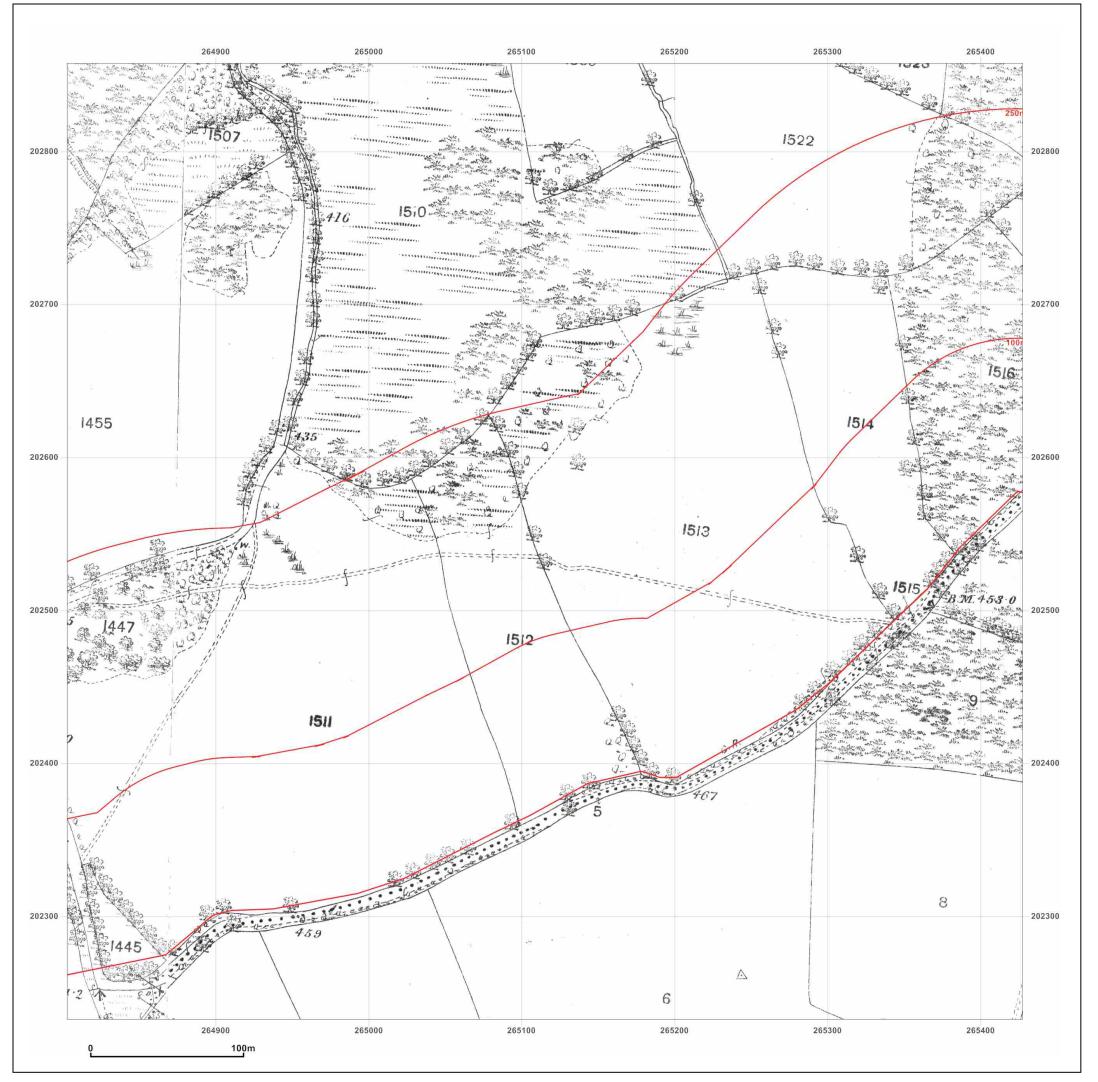
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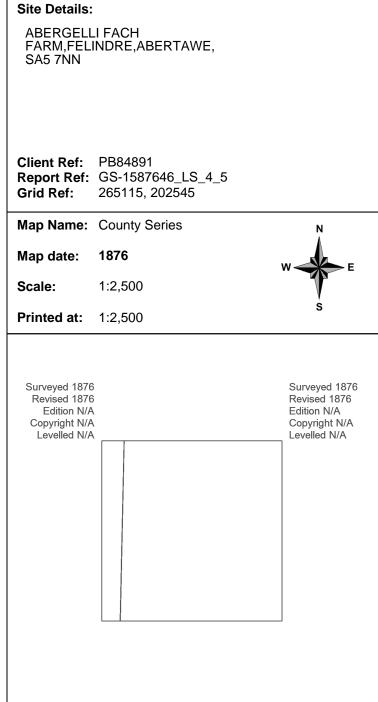
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Production date: 30 July 2014





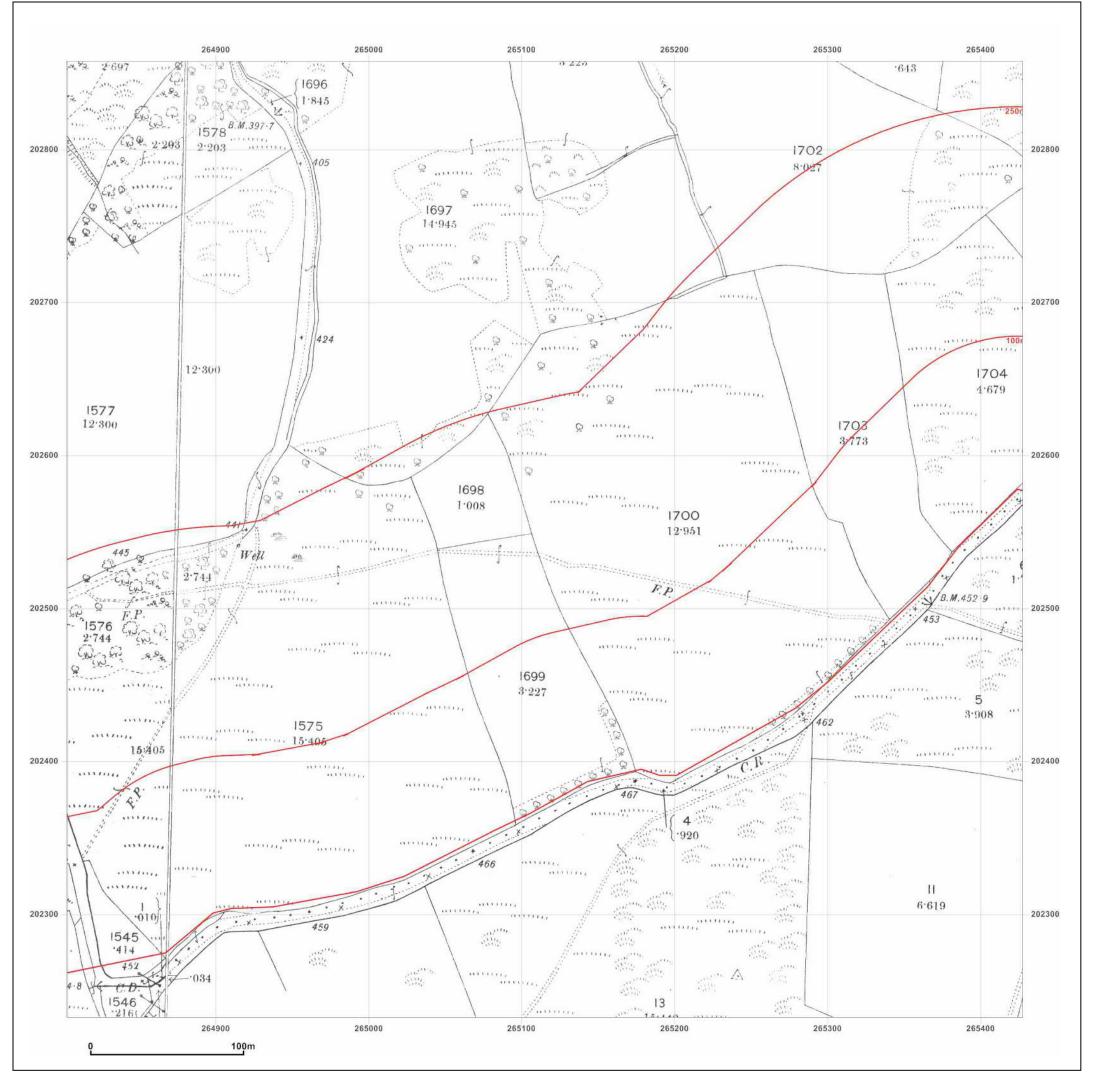




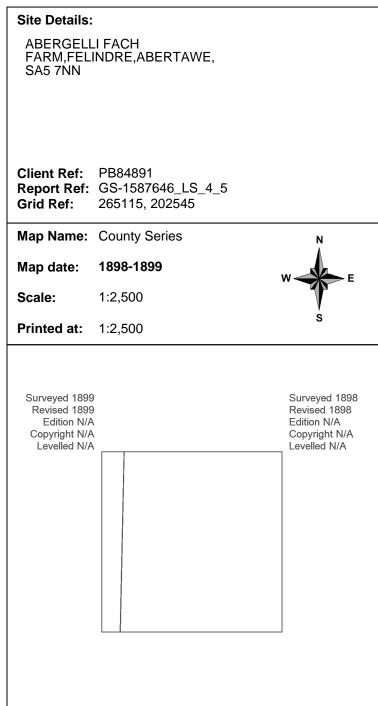
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Production date: 30 July 2014







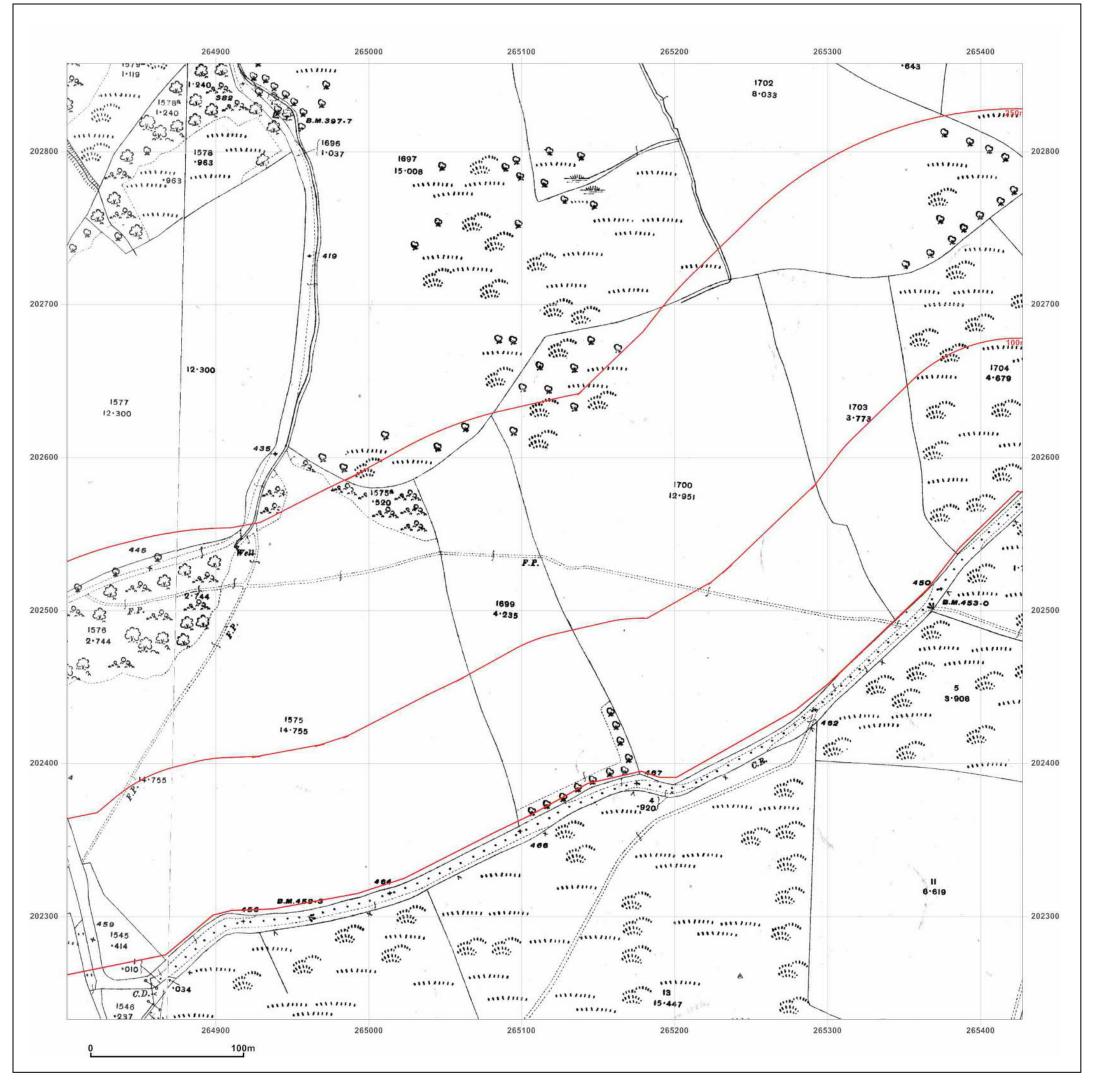


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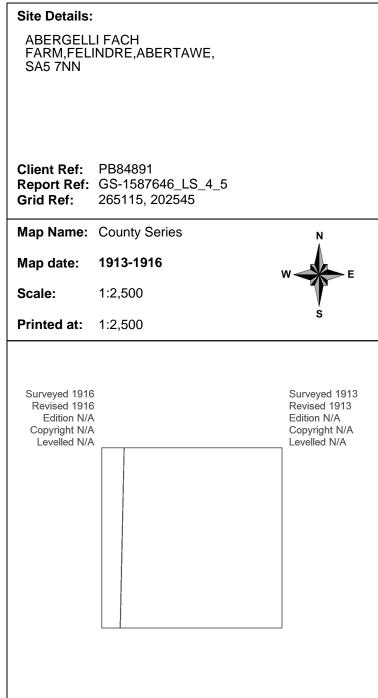
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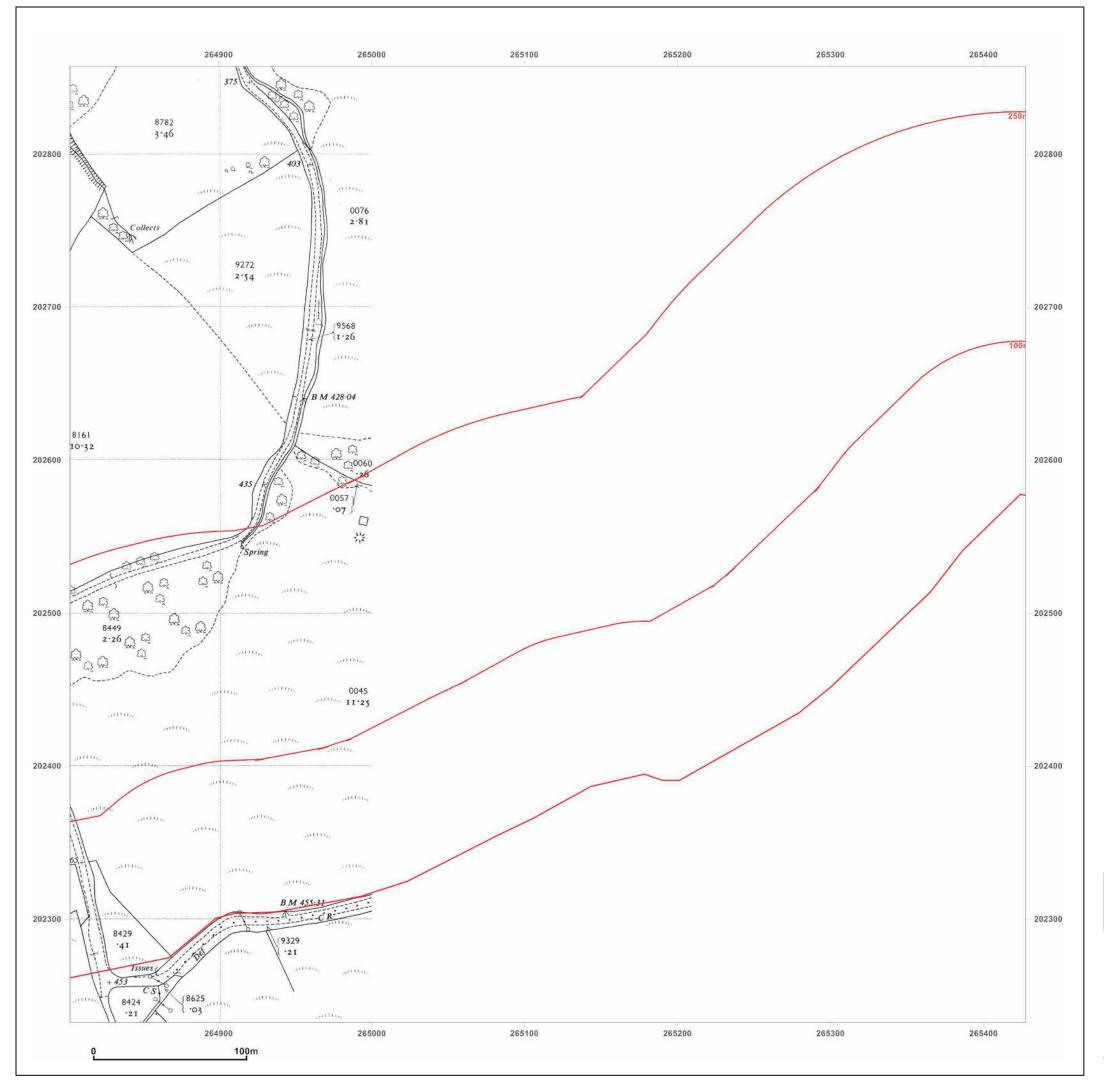


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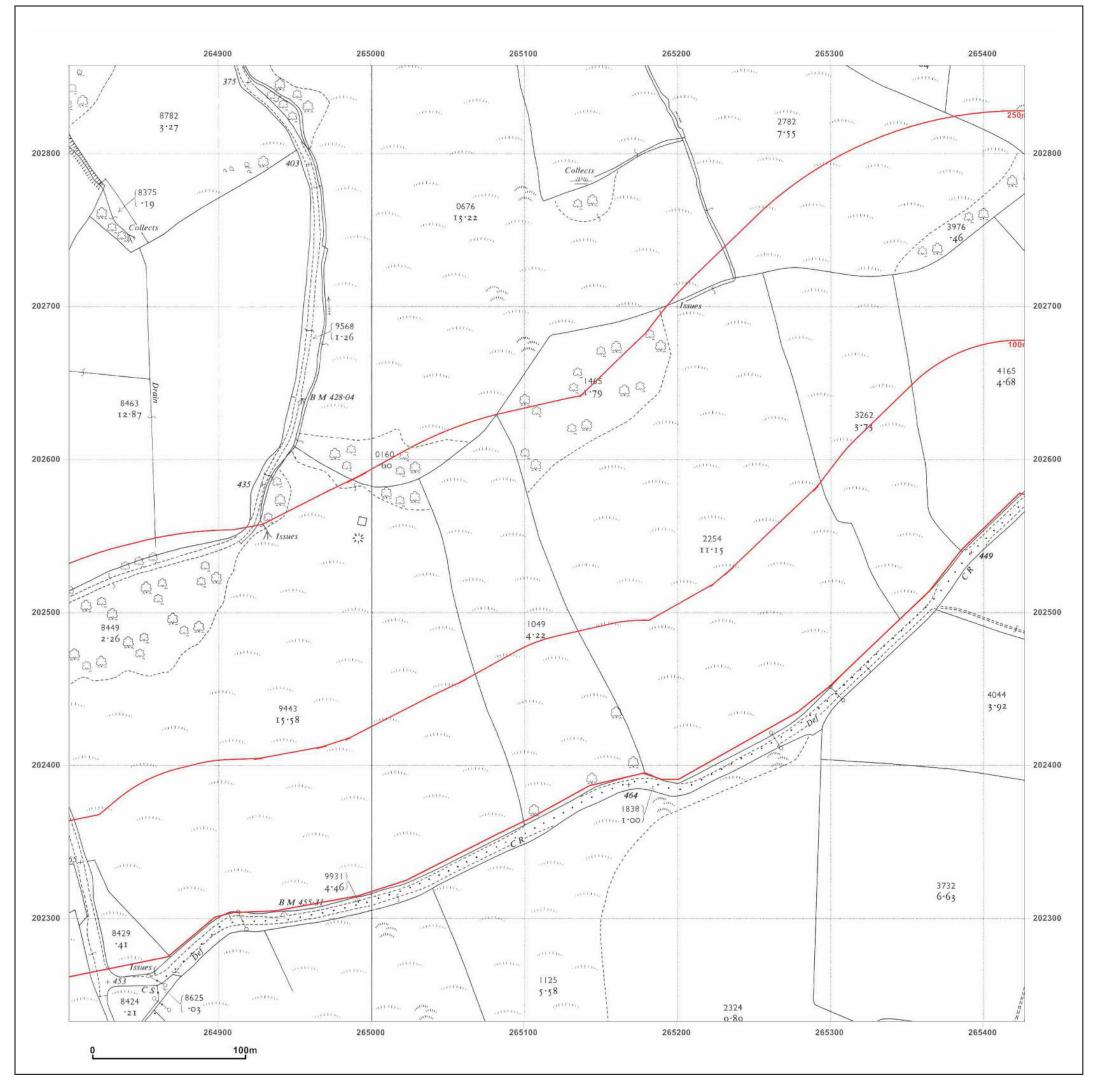
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|---|--|--|--|
| ABERGELL<br>FARM,FEL<br>SA5 7NN   | LI FACH<br>INDRE,ABERTAWE,                     |  |  |
|   | PB84891<br>GS-1587646_LS_4_5<br>265115, 202545 |  |  |
| Map Name:   | National Grid                                  |  |  |
| Map date:   | 1958 W E                                       |  |  |
| Scale:  | 1:2,500  |  |  |
| Printed at:   | 1:2,500 s                                      |  |  |
| Surveyed 1958<br>Revised 1958<br>Edition N/A<br>Copyright 1959<br>Levelled 1956 |  |  |  |



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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_5 Grid Ref: 265115, 202545

Map Name: National Grid

1960 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956



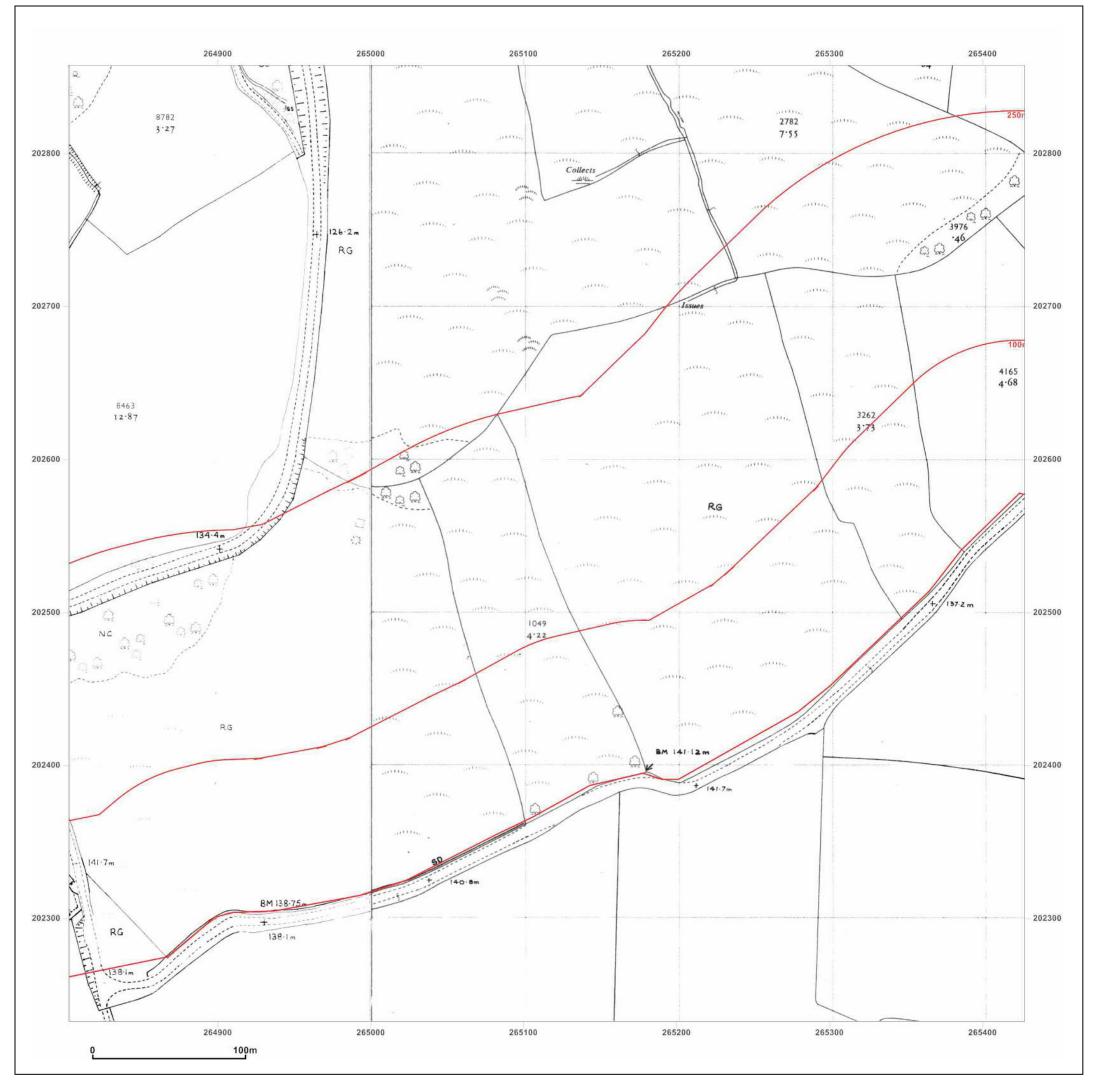
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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_4\_5 Grid Ref: 265115, 202545

Map Name: National Grid

1989-1992 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1989 Revised 1989 Surveyed 1992 Revised 1992 Edition N/A Edition N/A Copyright 1989 Levelled N/A Copyright 1992 Levelled N/A



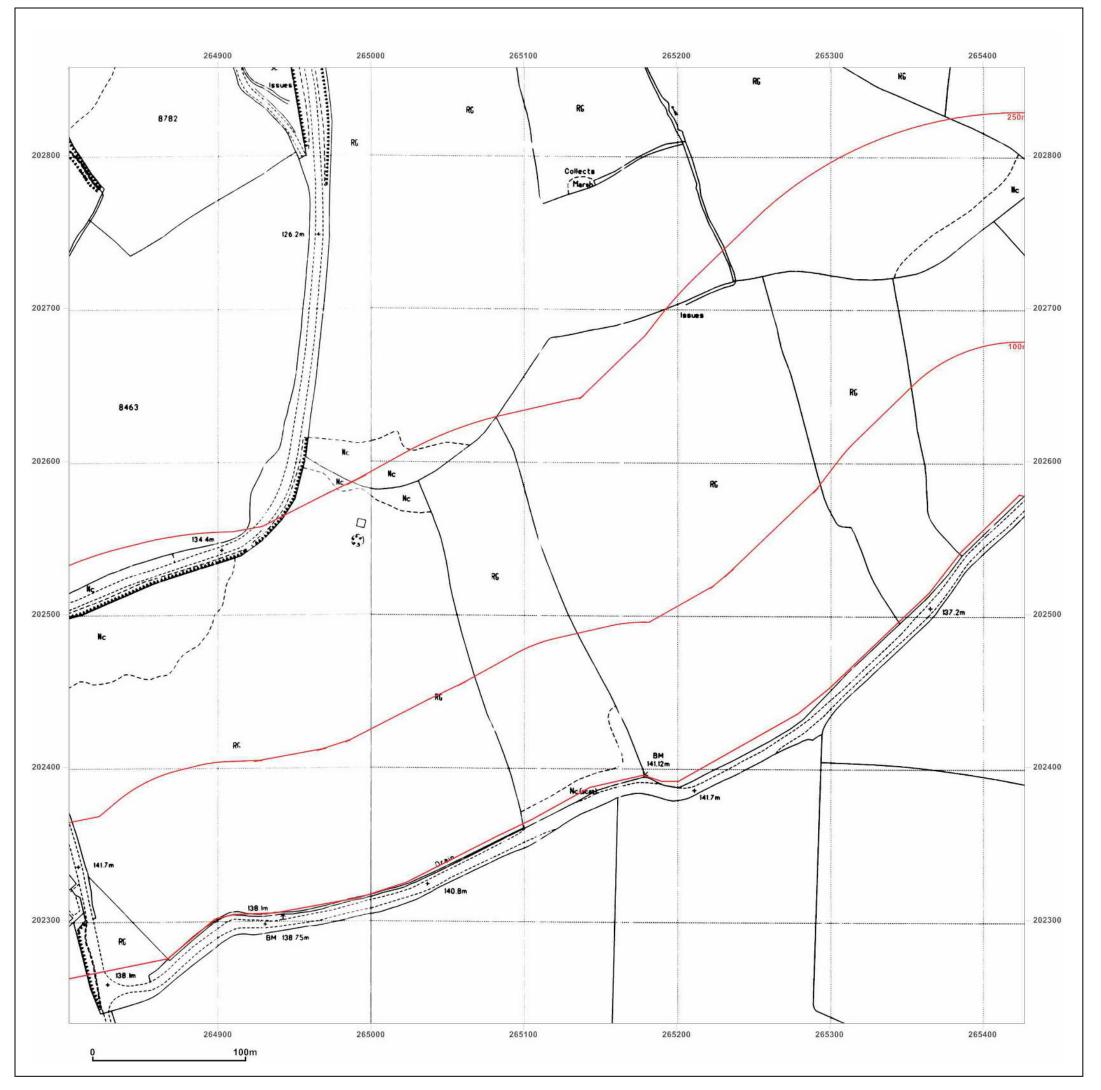
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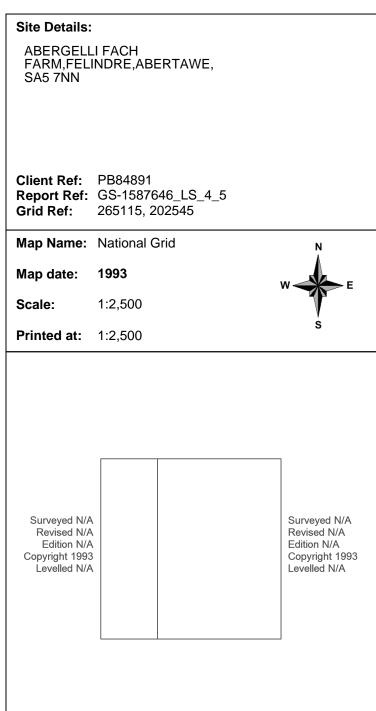
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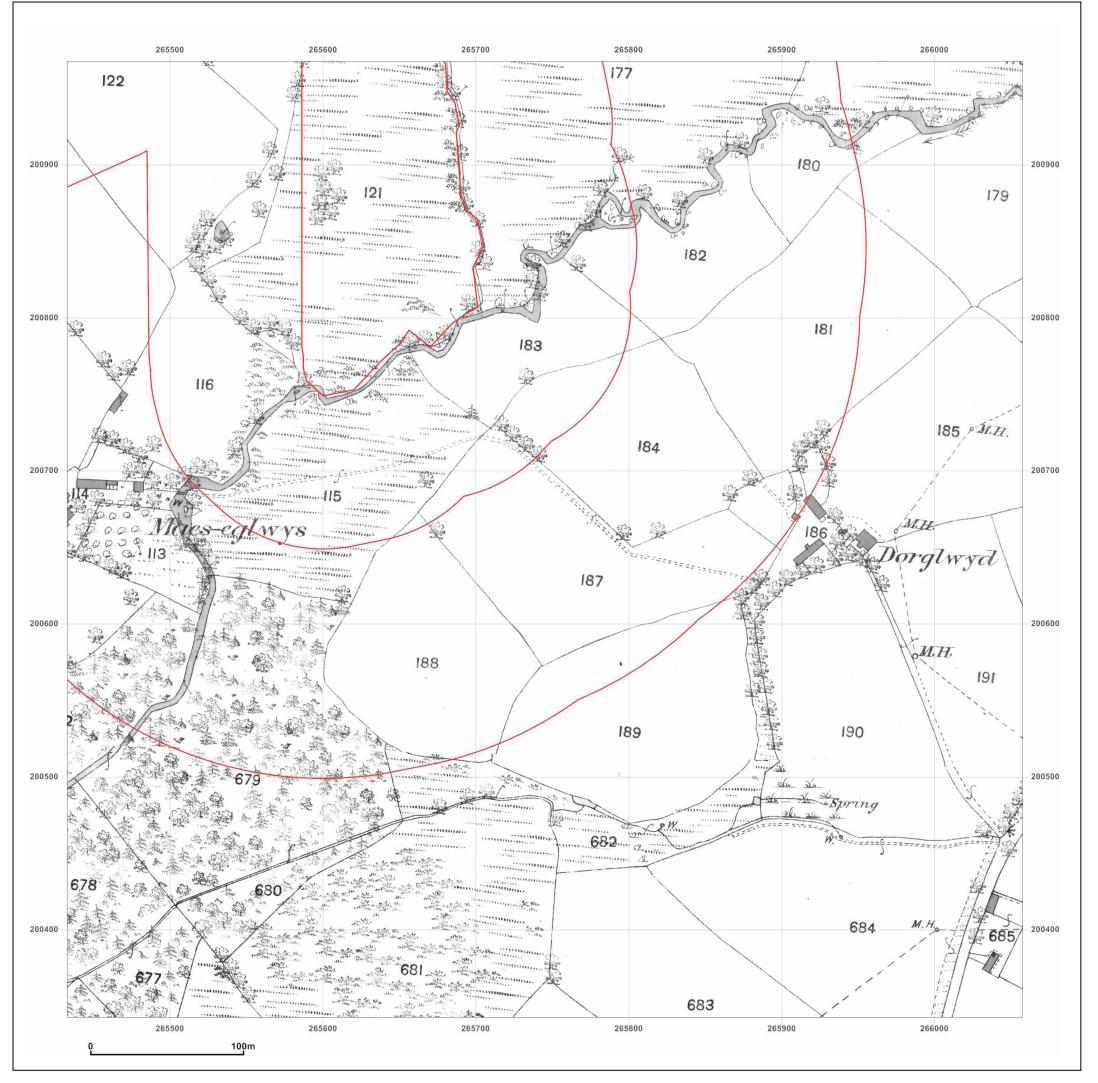




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## ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Site Details:

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_5\_2 Grid Ref: 265745, 200655

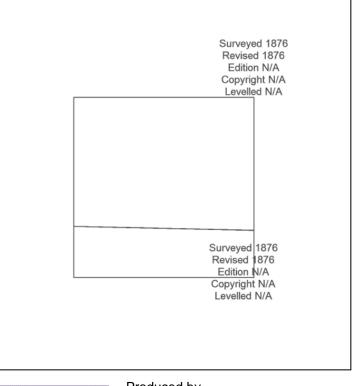
Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500





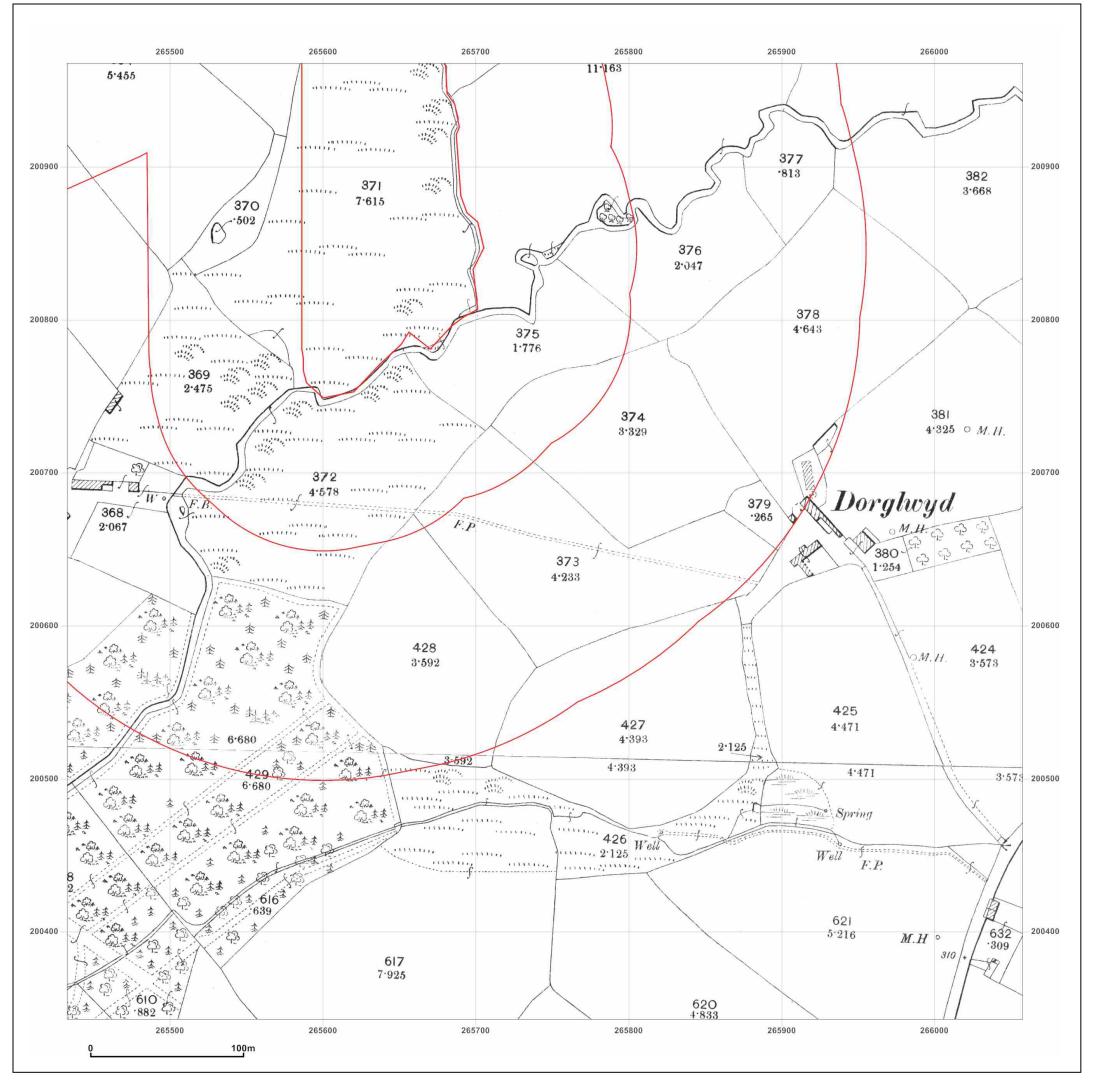


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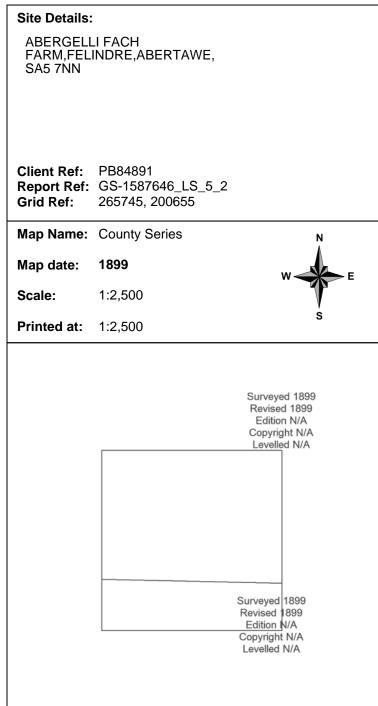
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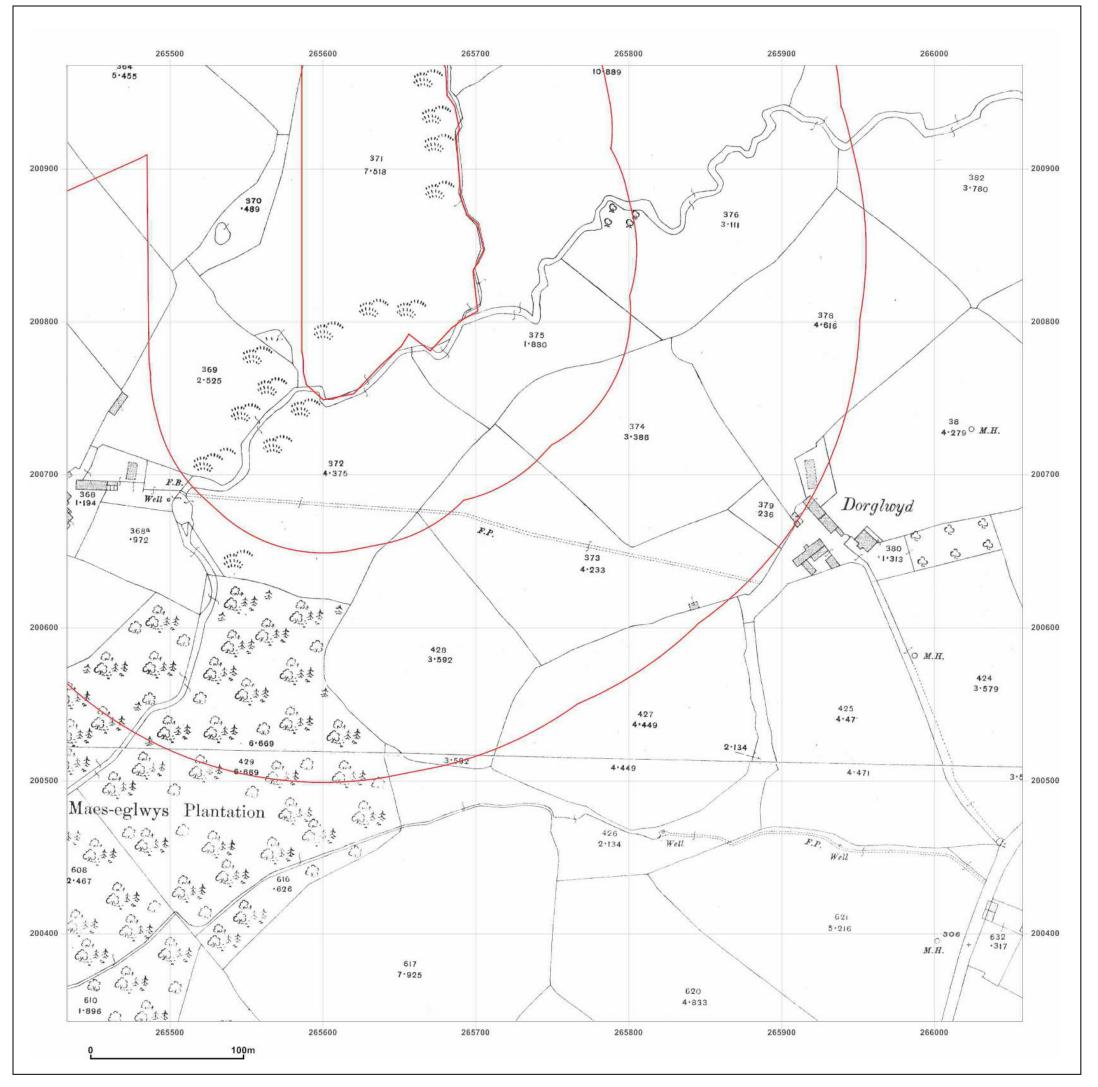


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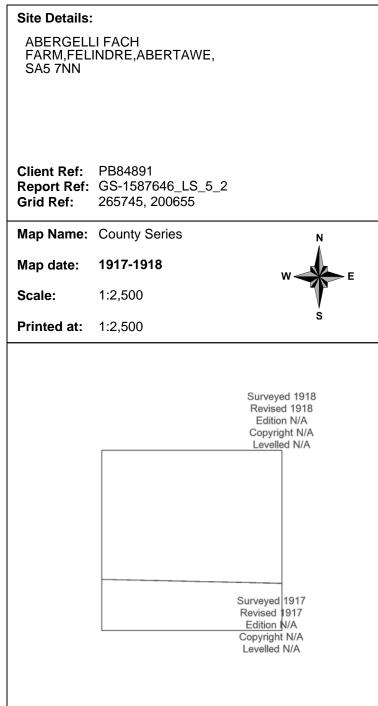
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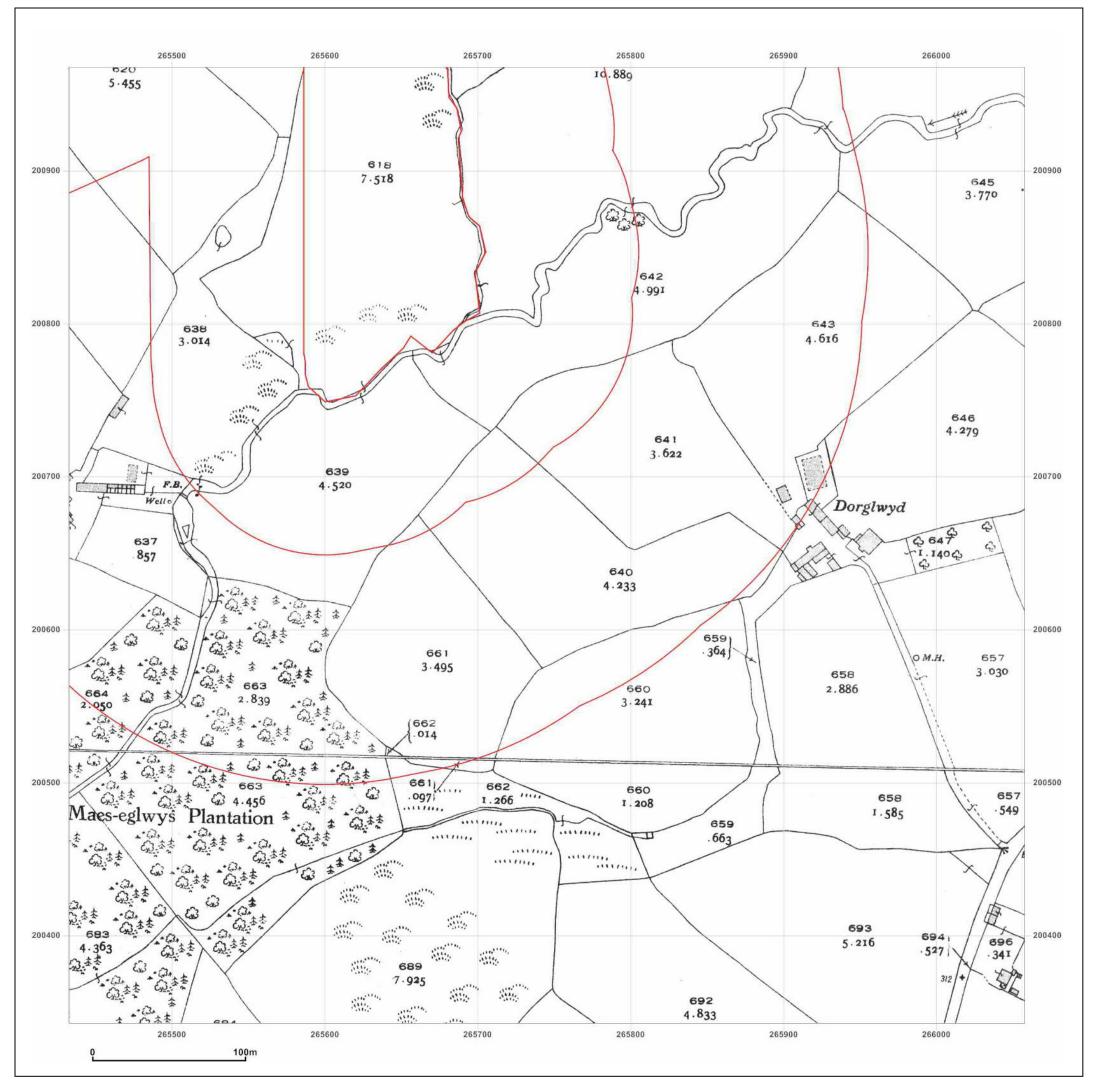


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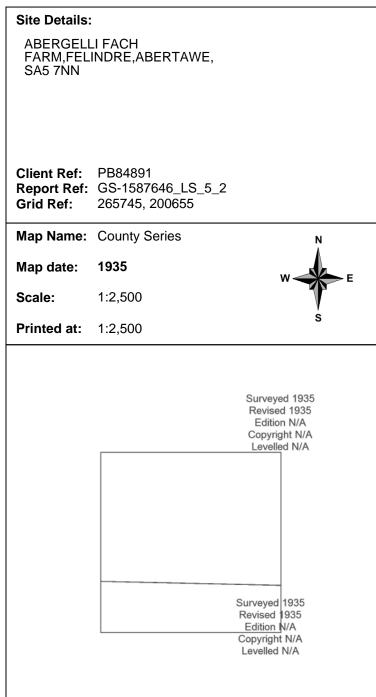
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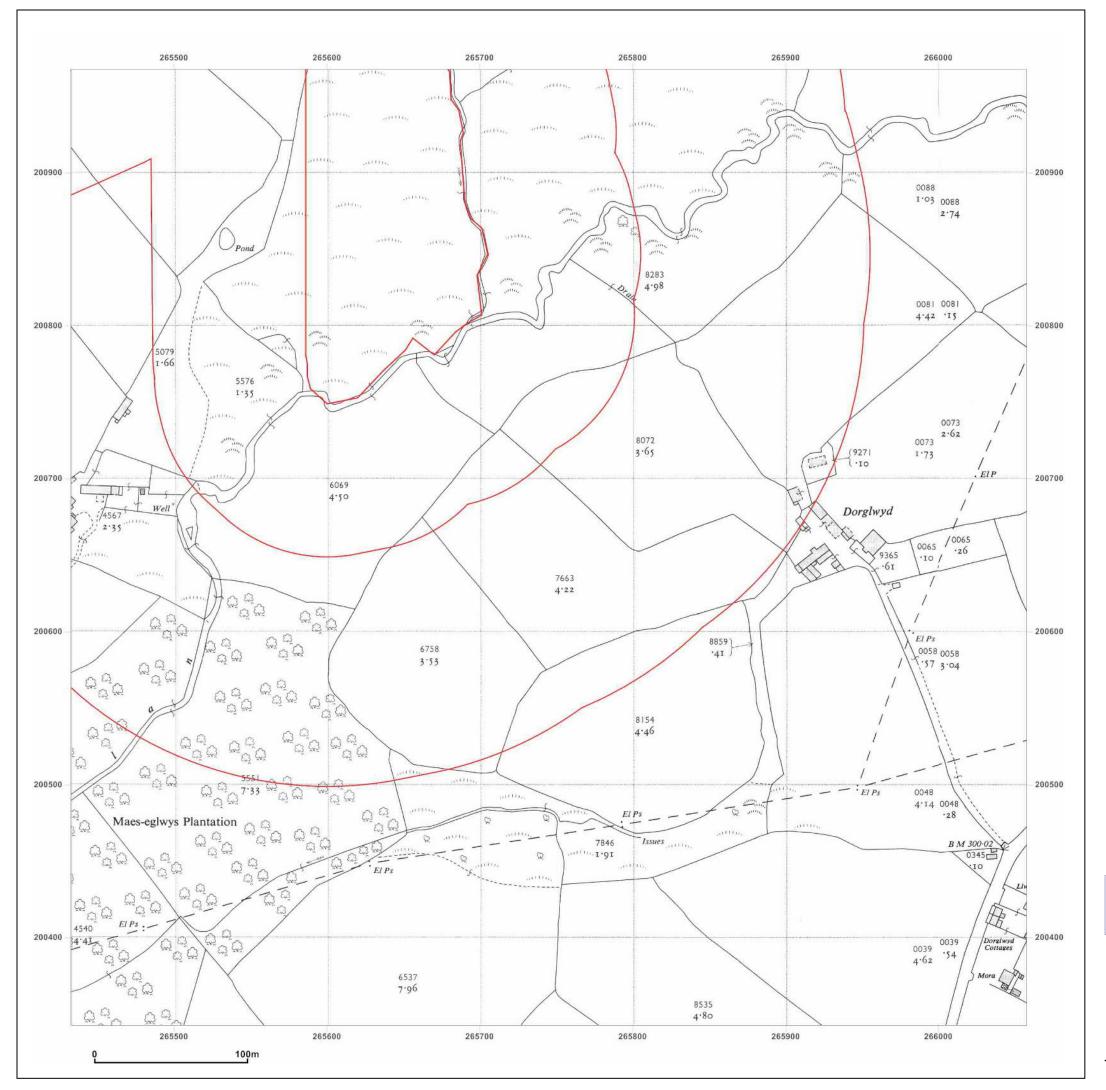
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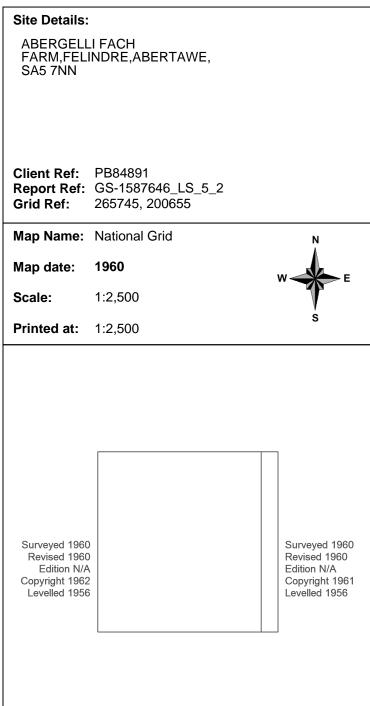
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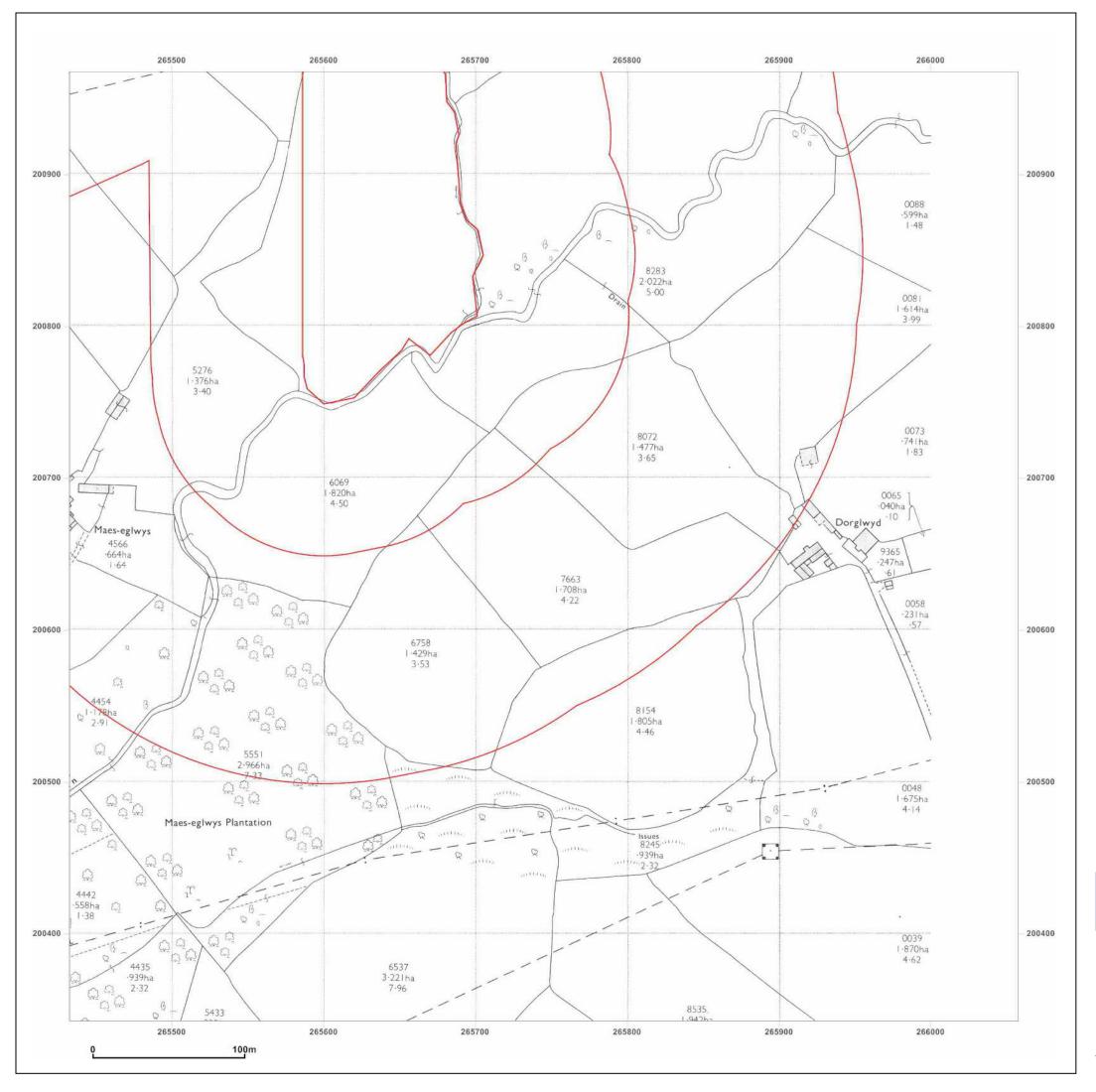
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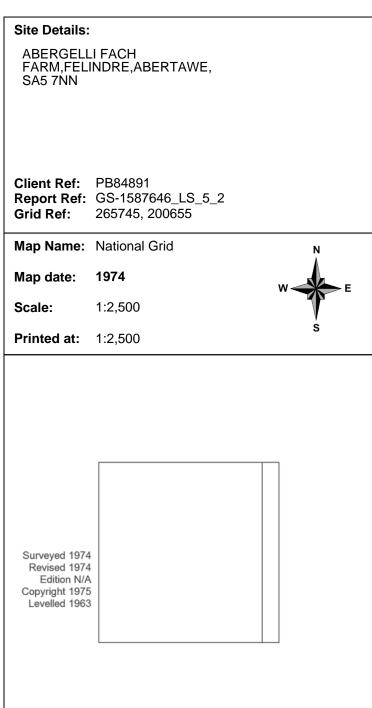
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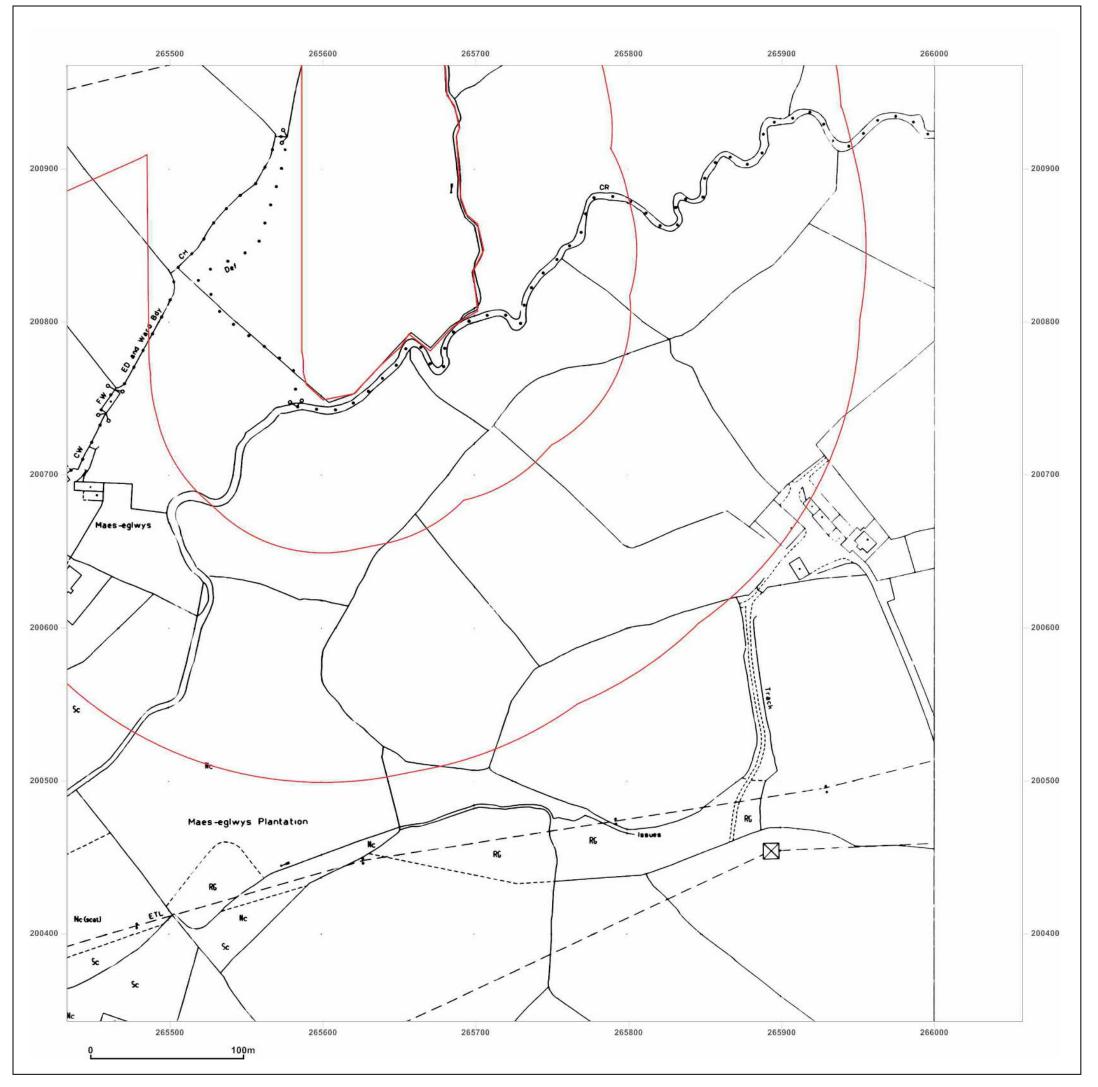
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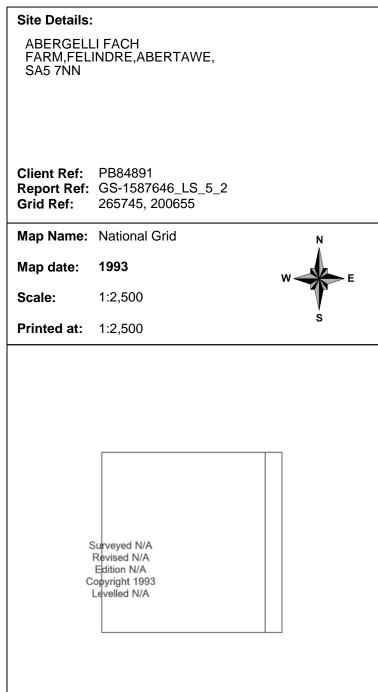
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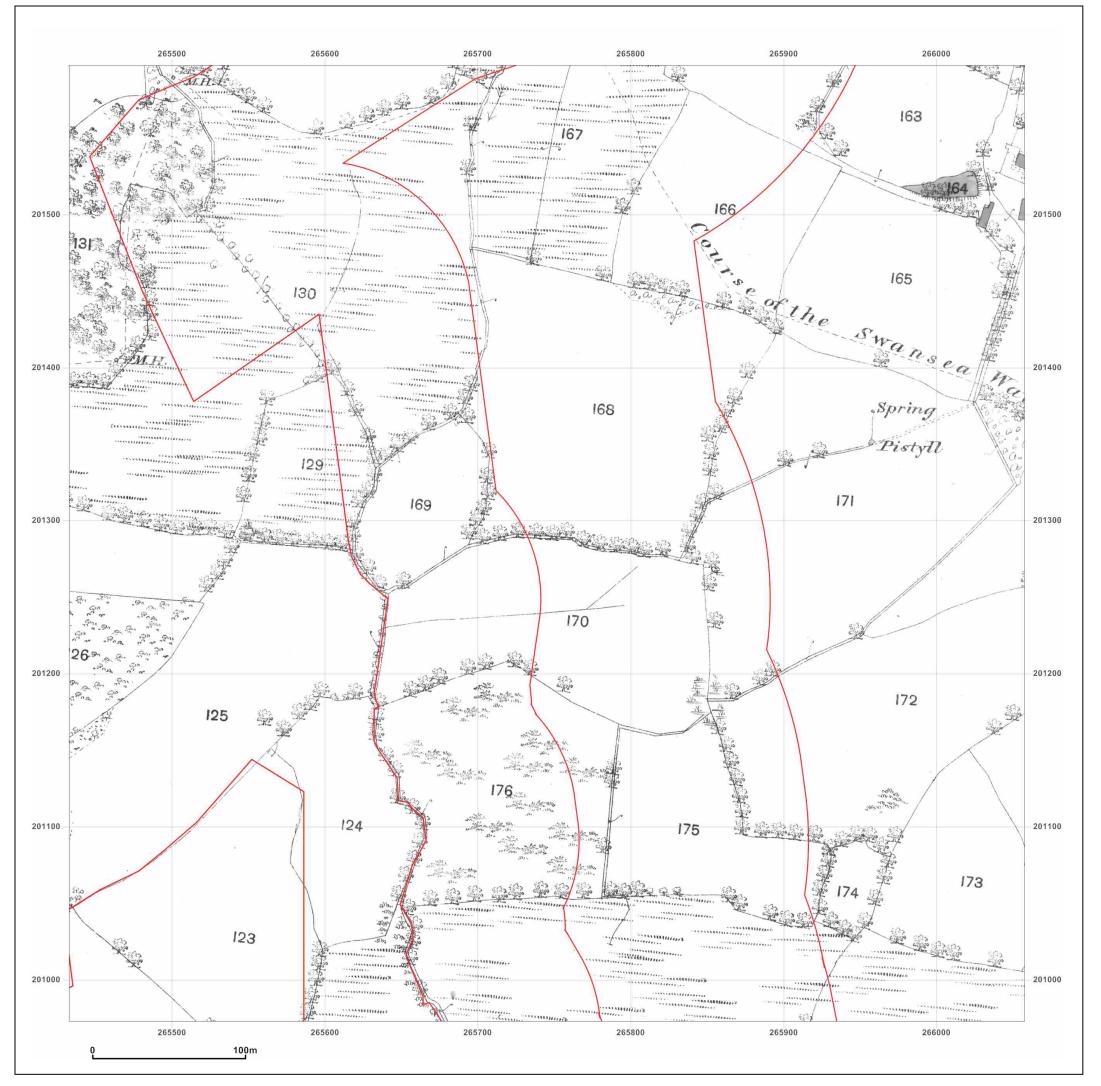




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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

Report Ref: GS-1587646\_LS\_5\_3
Grid Ref: 265745, 201285

Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A

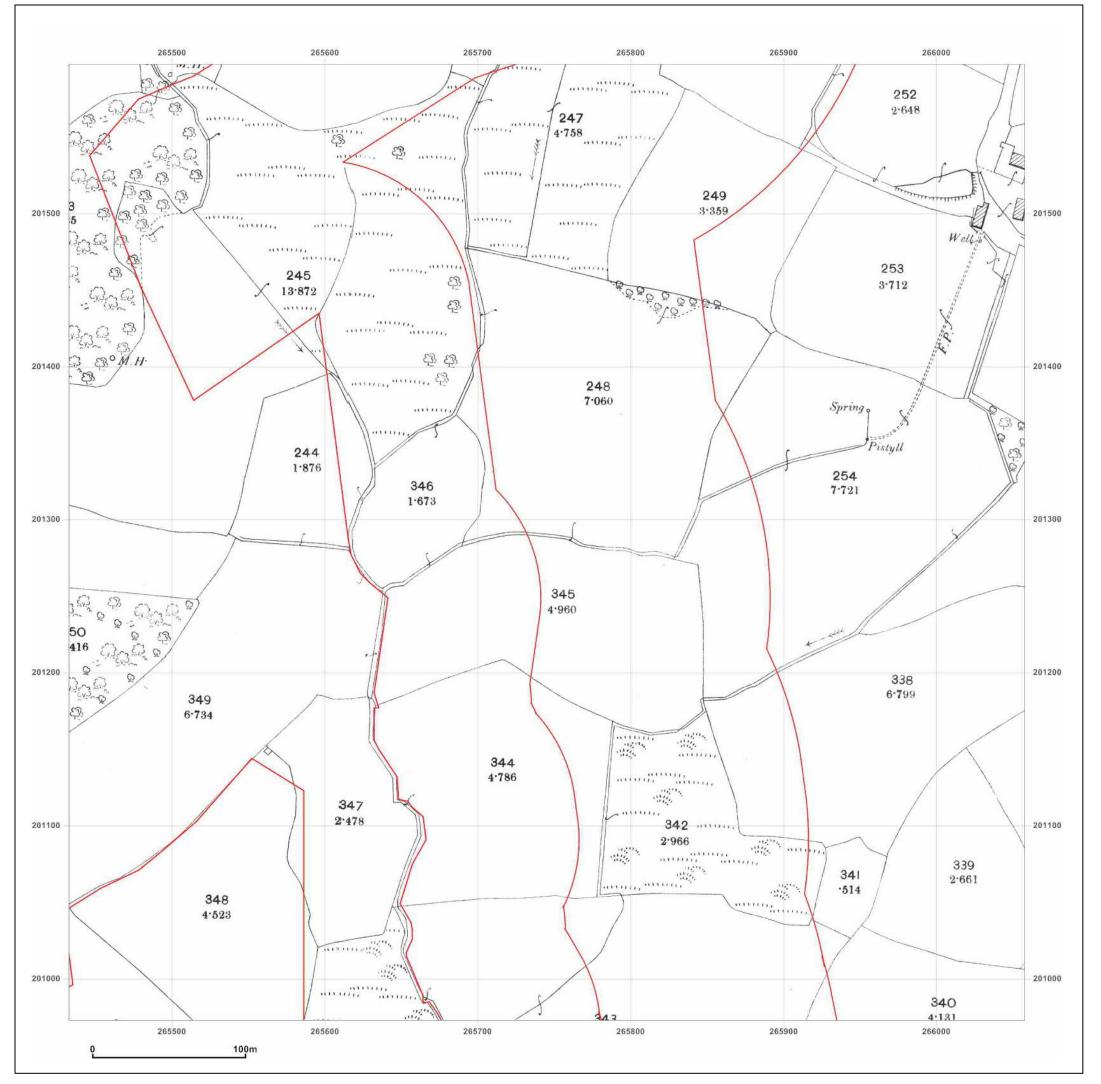


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Production date: 30 July 2014







Client Ref: PB84891

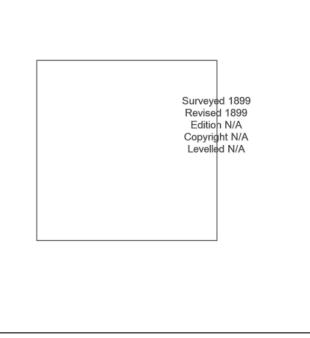
**Report Ref:** GS-1587646\_LS\_5\_3 **Grid Ref:** 265745, 201285

Map Name: County Series

Map date: 1899

**Scale:** 1:2,500

**Printed at:** 1:2,500





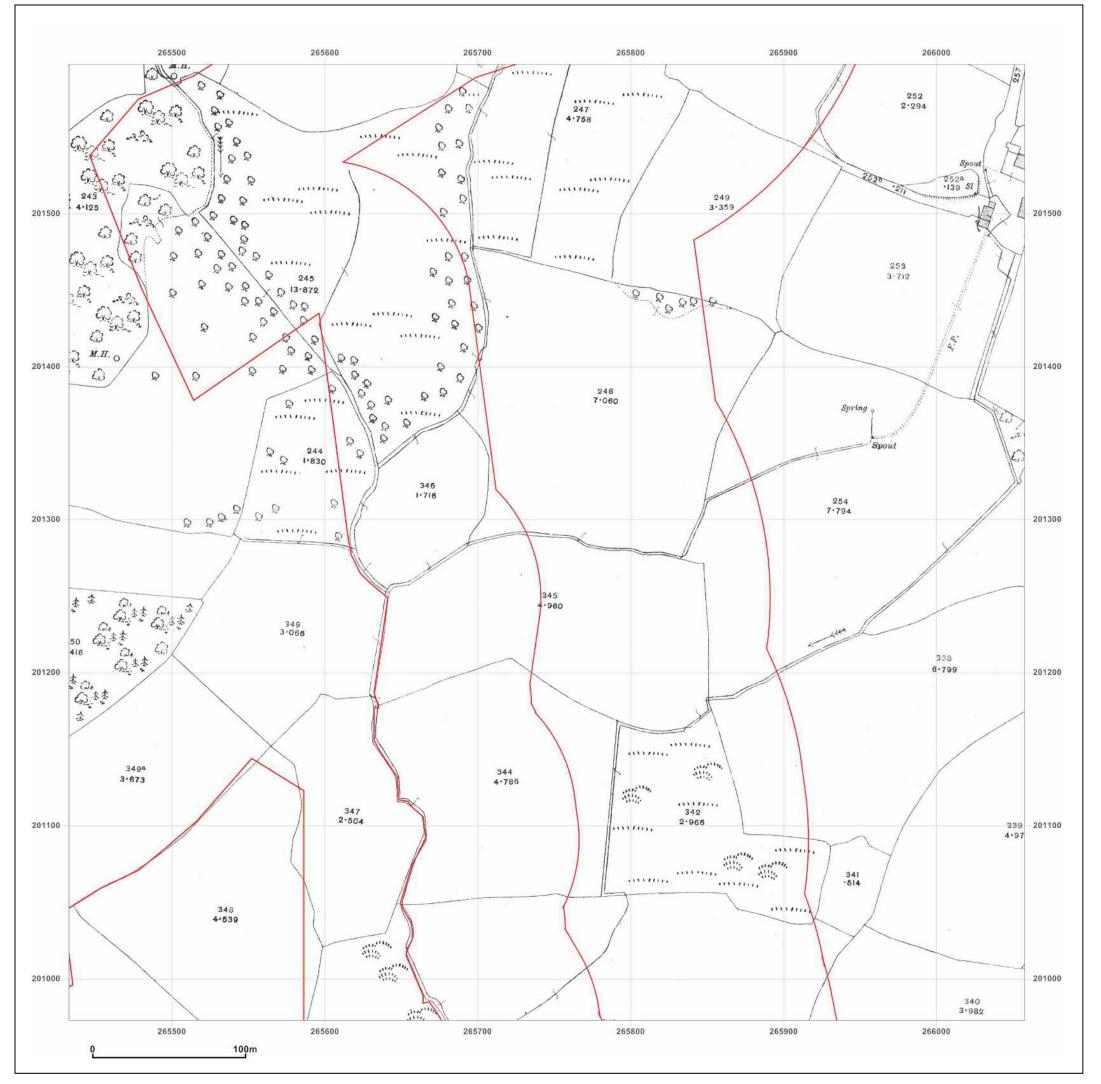
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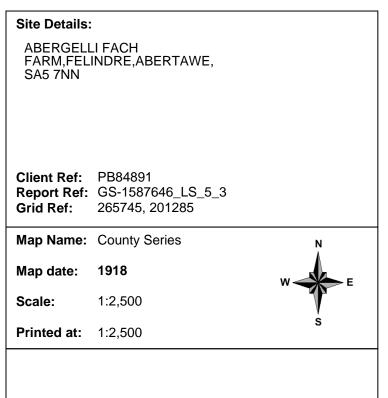
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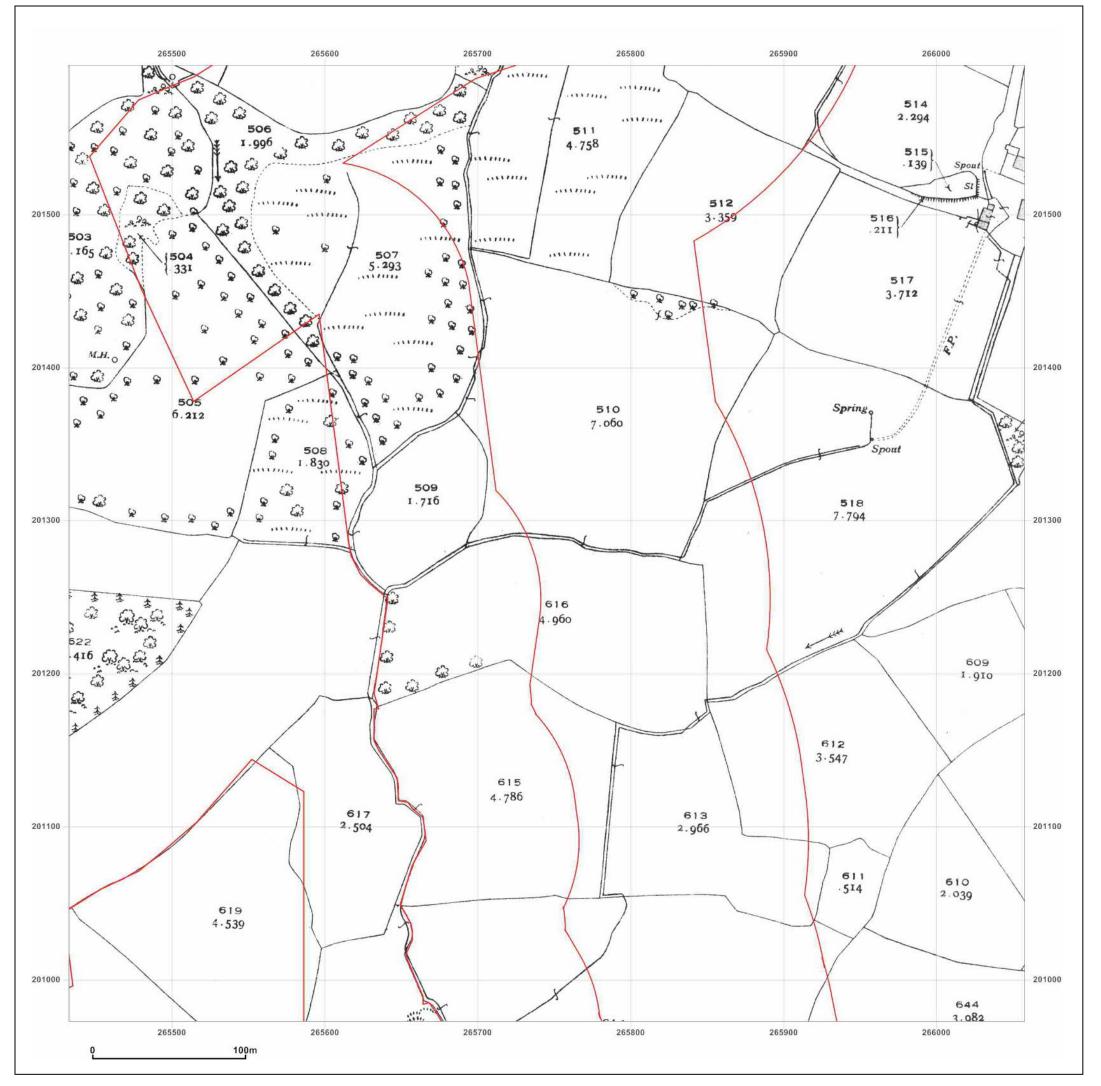
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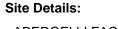
Surveyed 1918 Revised 1918 Edition N/A Copyright N/A Levelled N/A

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ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_5\_3 **Grid Ref:** 265745, 201285

Map Name: County Series

Map date: 1935

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1935 Revised 1935

Edition N/A Copyright N/A Levelled N/A



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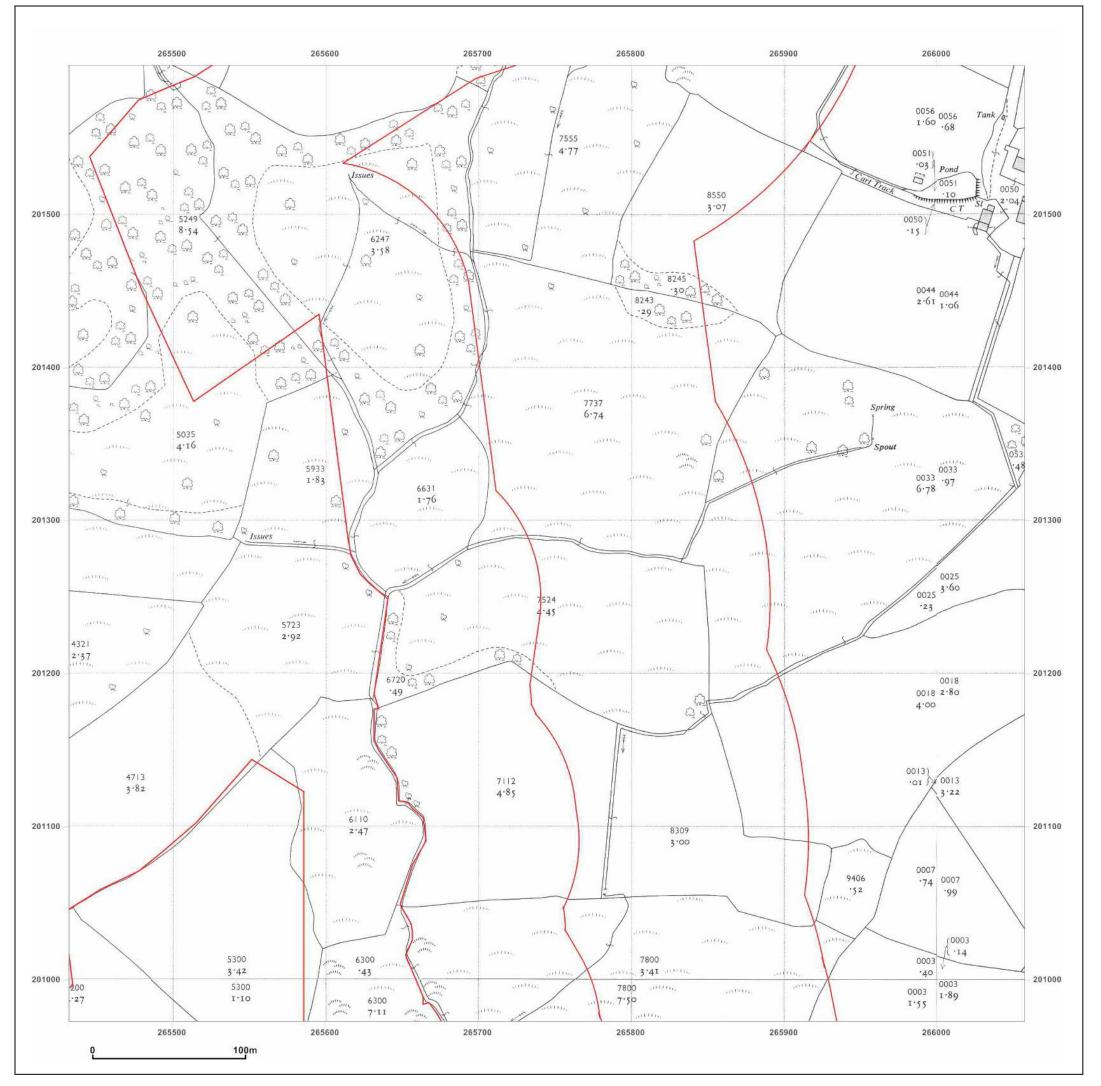
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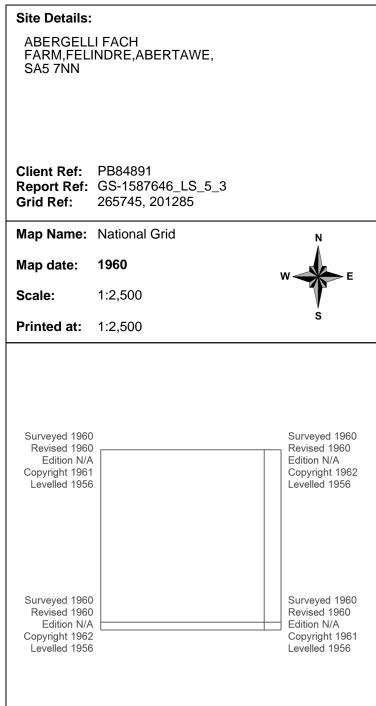
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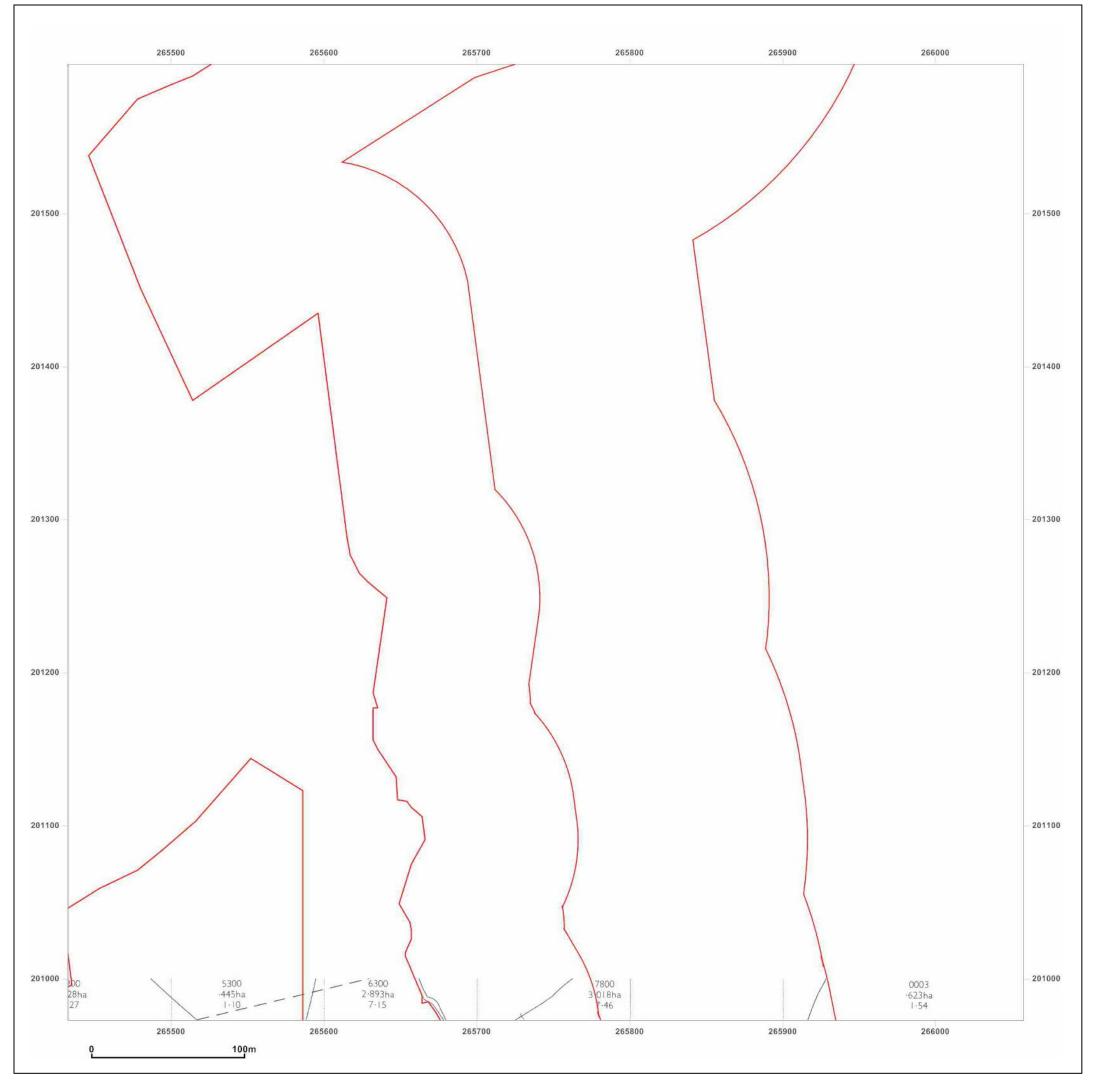
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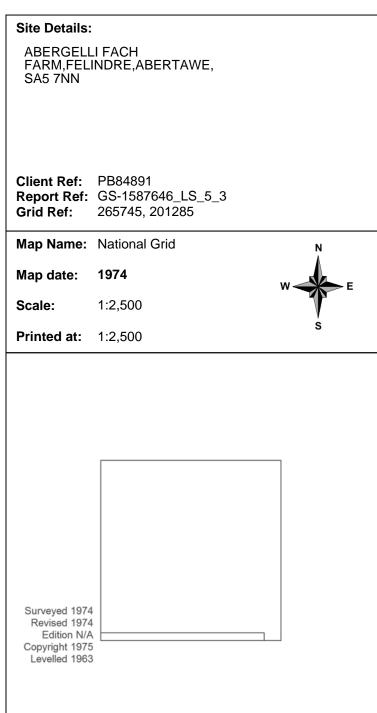
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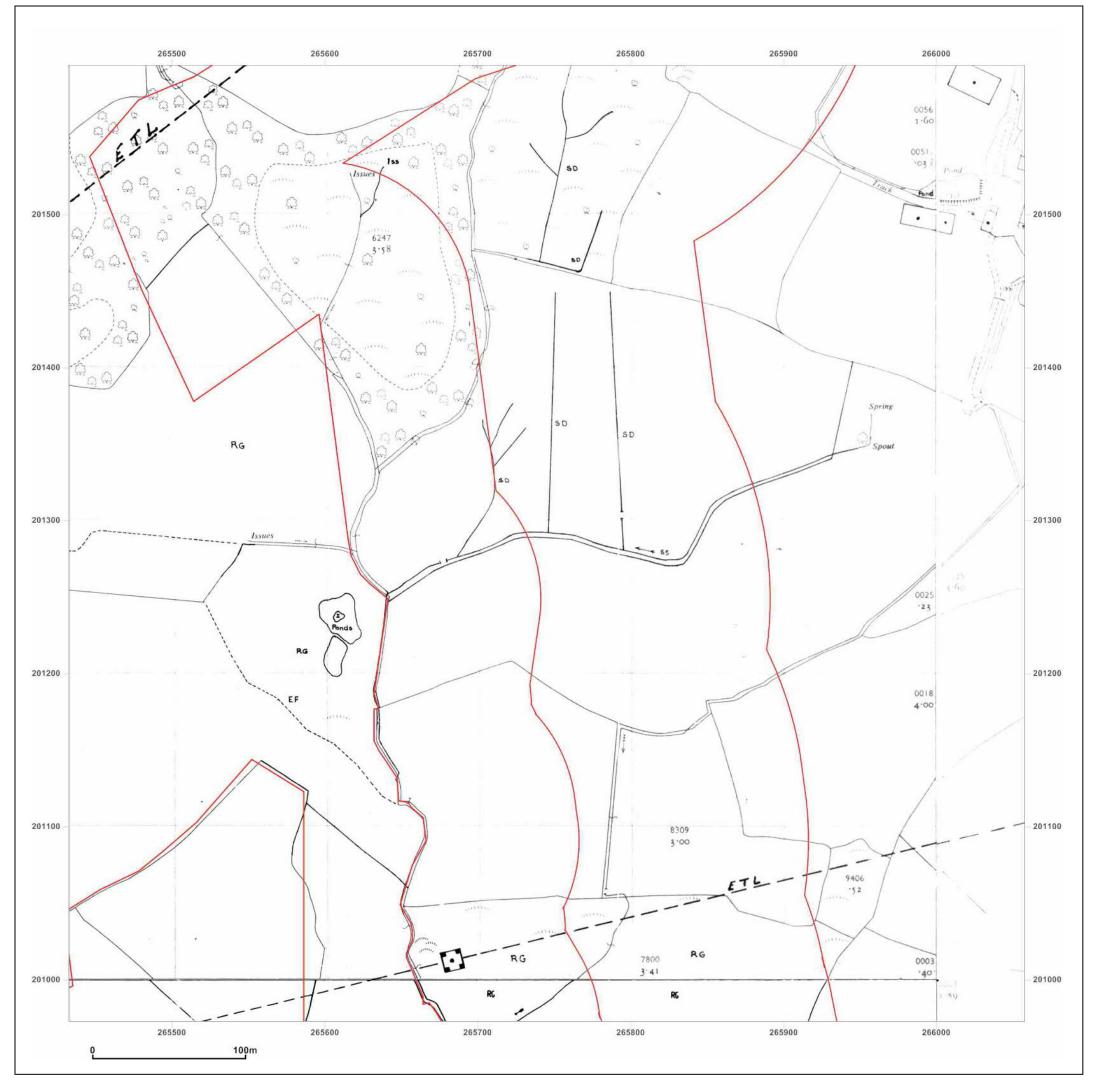
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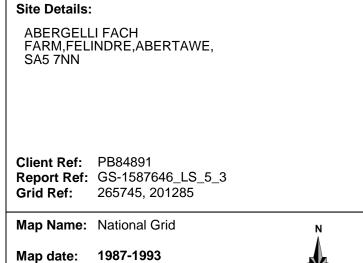
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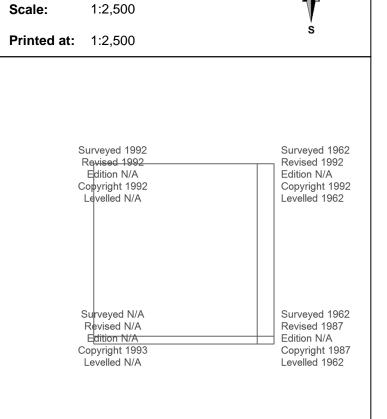
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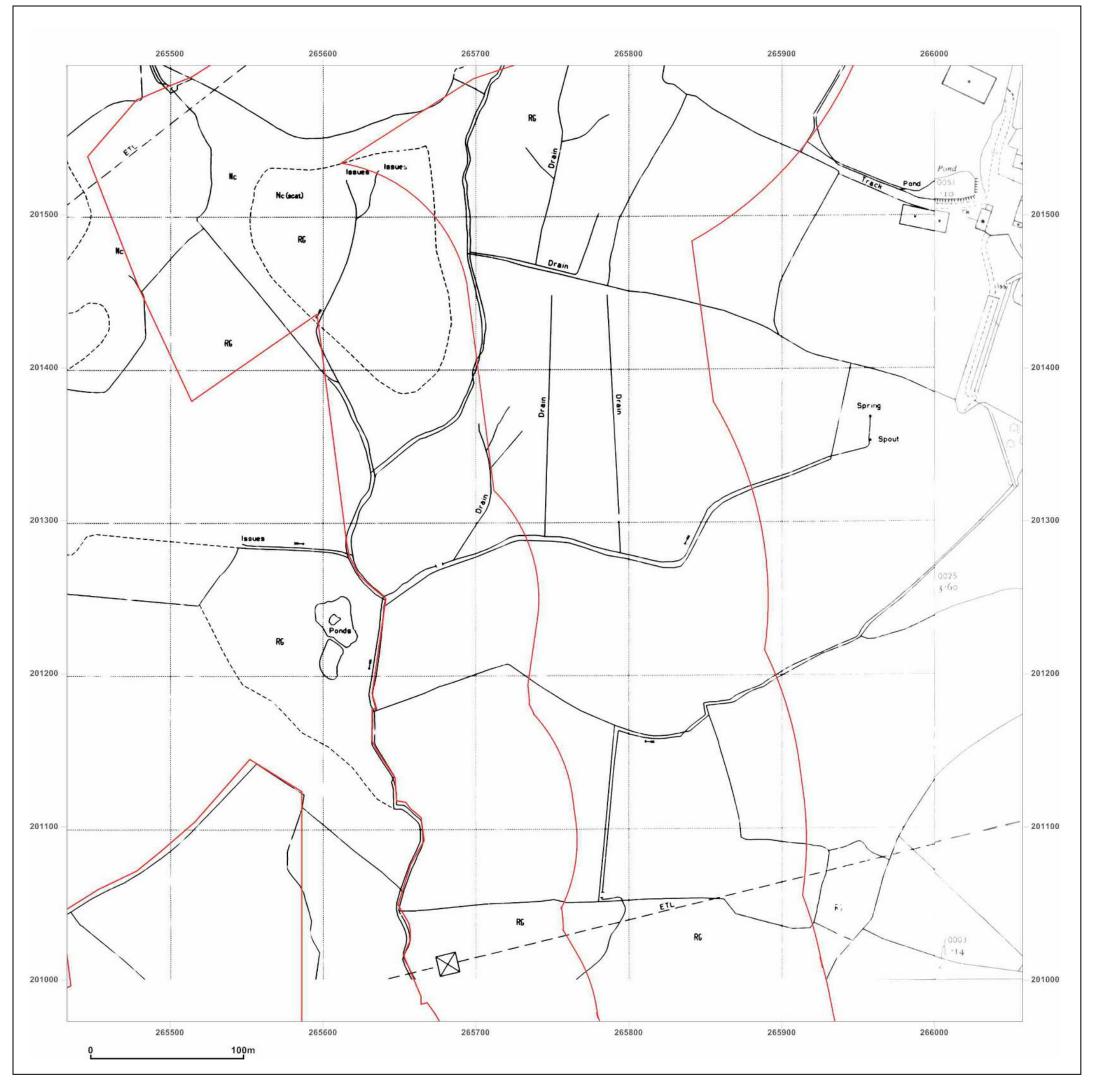
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E: info@groundsure.com

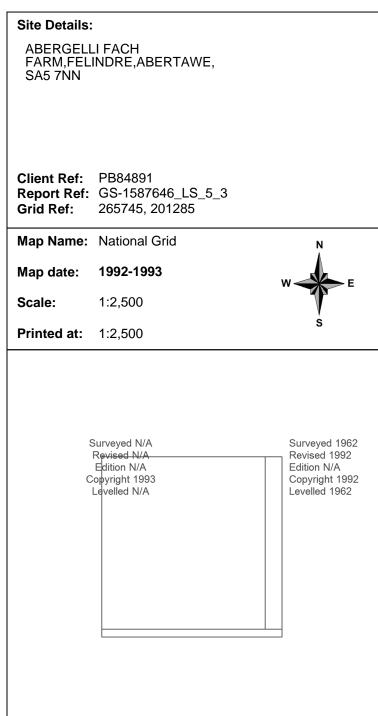
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Production date: 30 July 2014







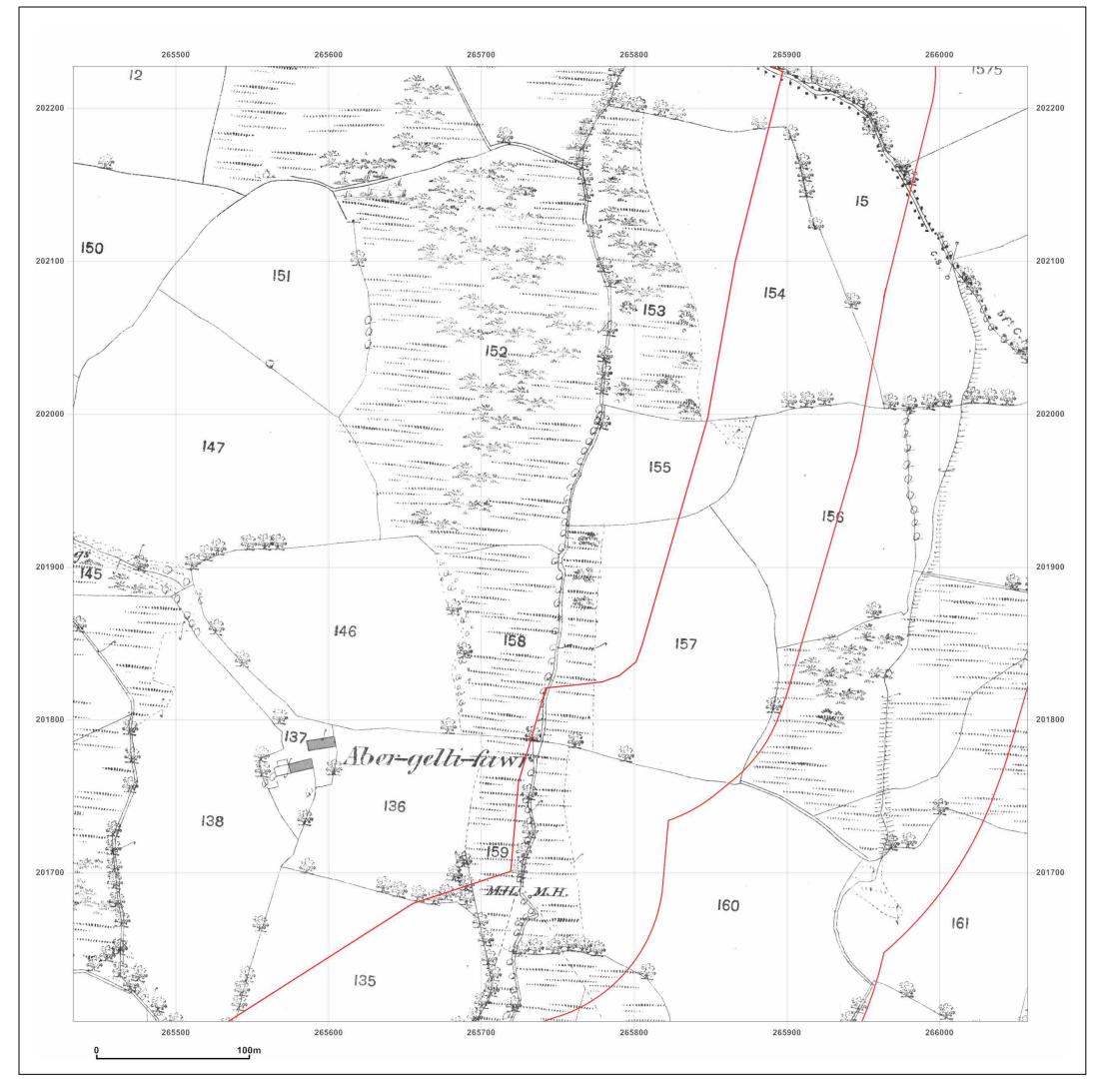


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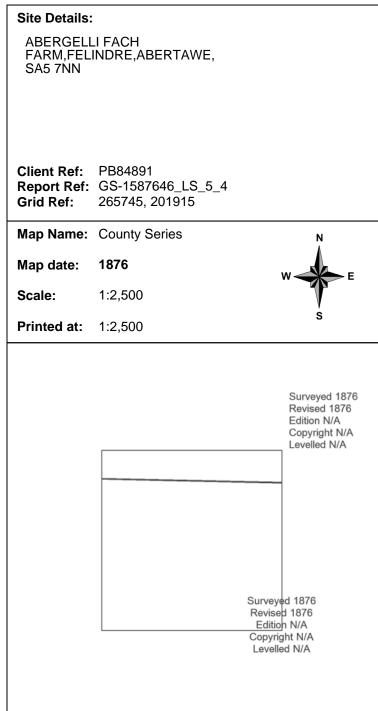
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Production date: 30 July 2014





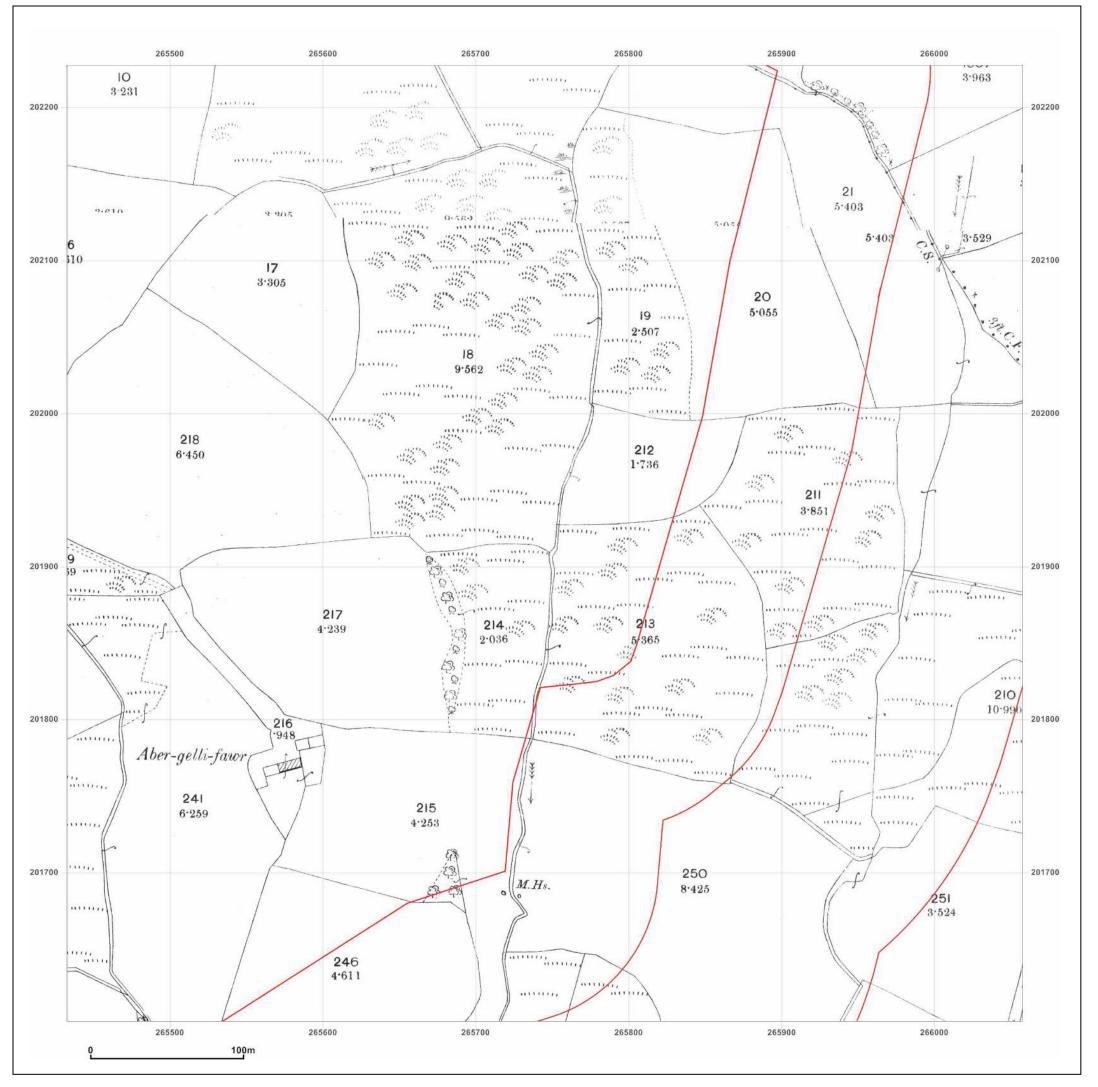




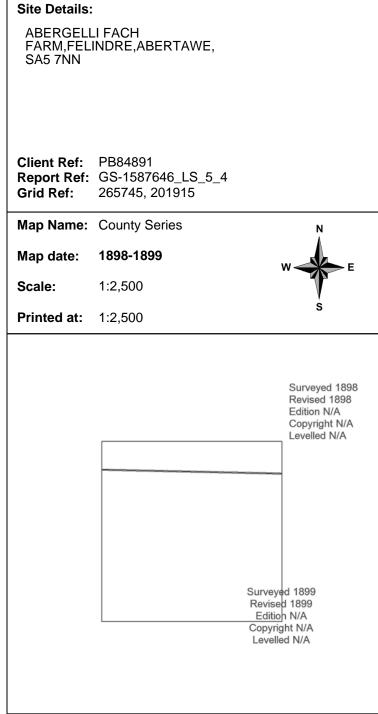
E: <u>info@groundsure.com</u>
W: www.groundsure.com

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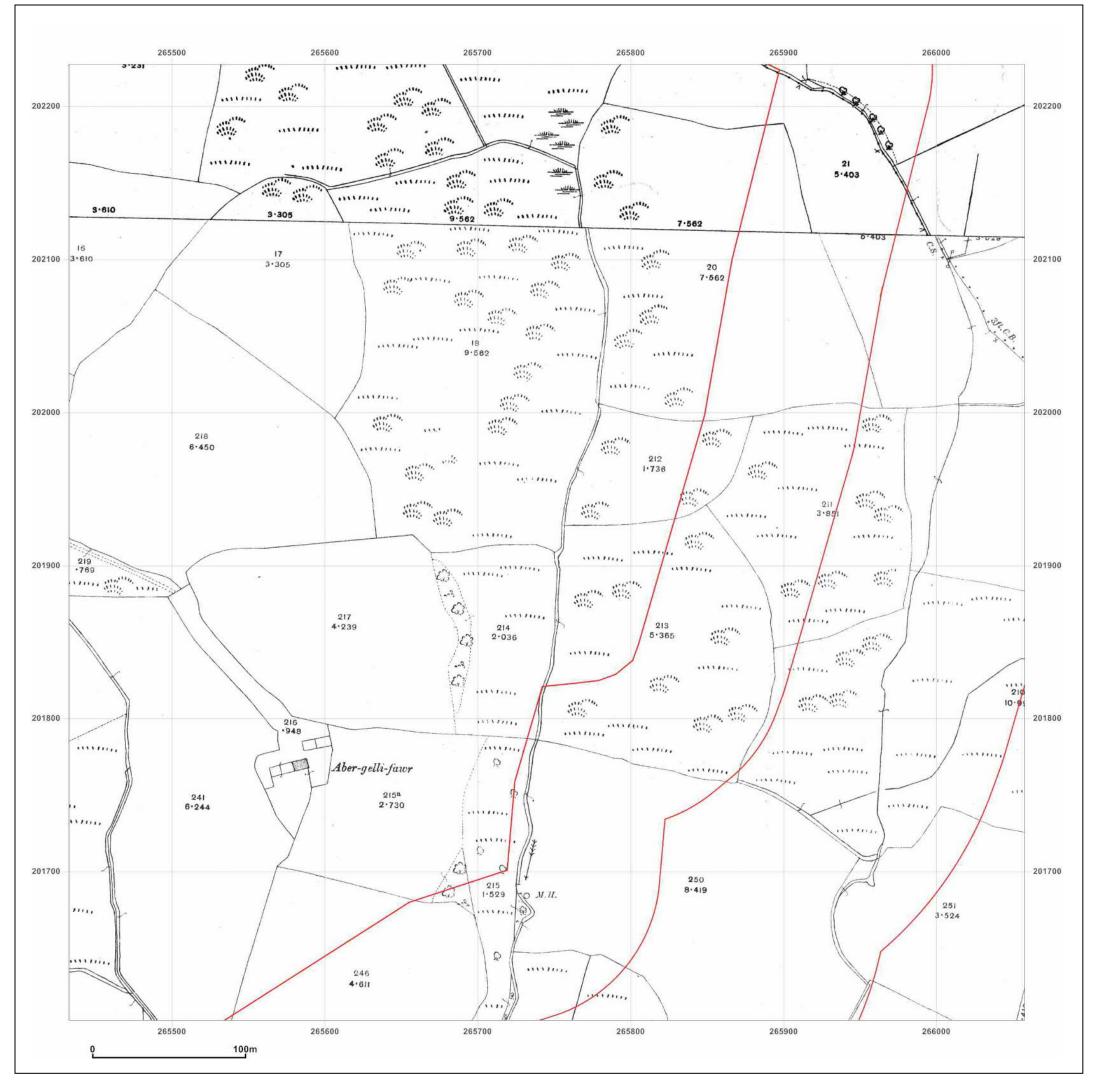
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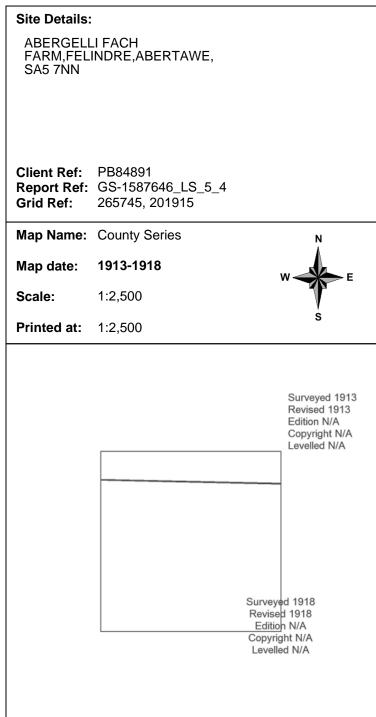
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W: www.groundsure.com

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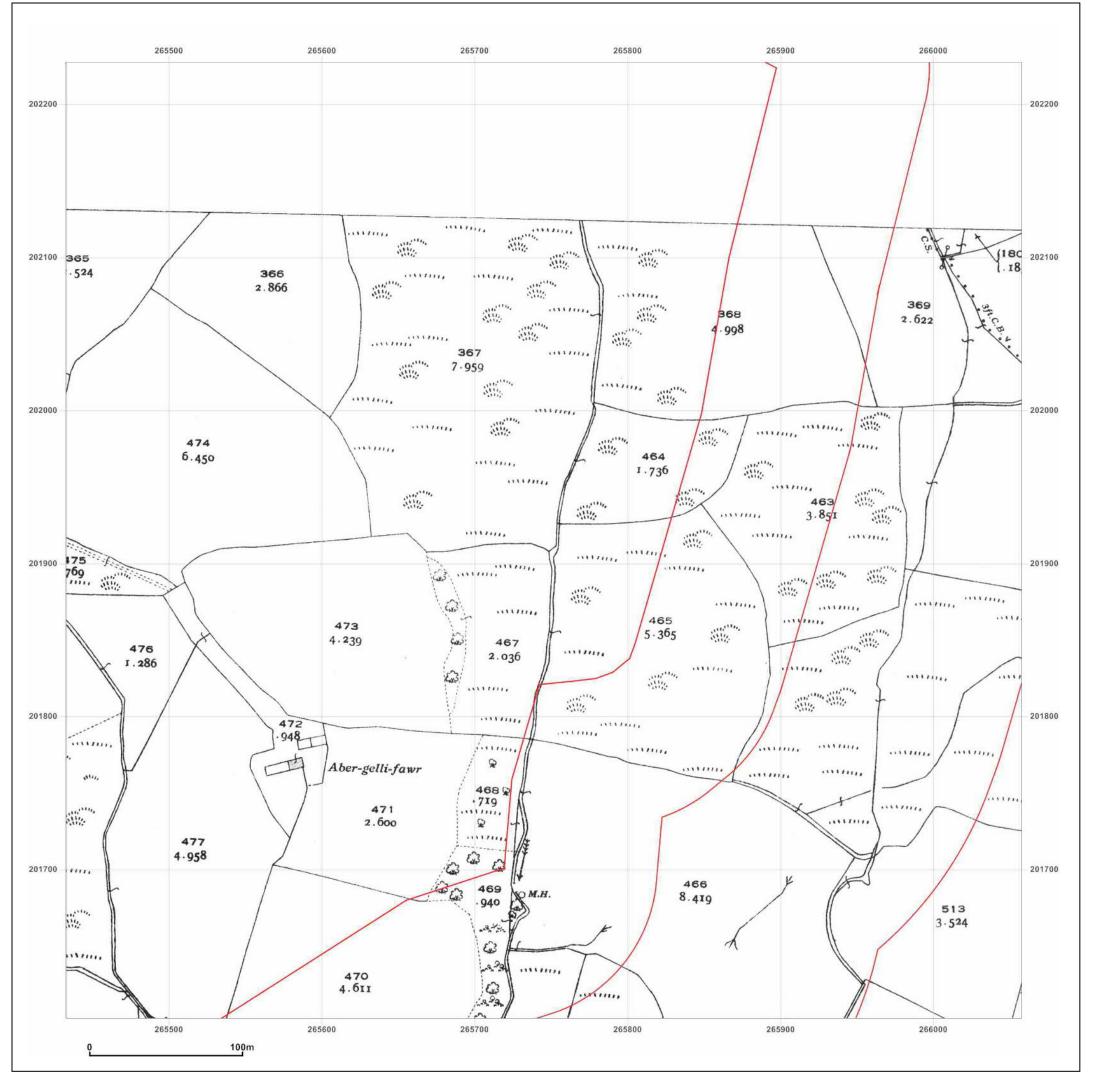


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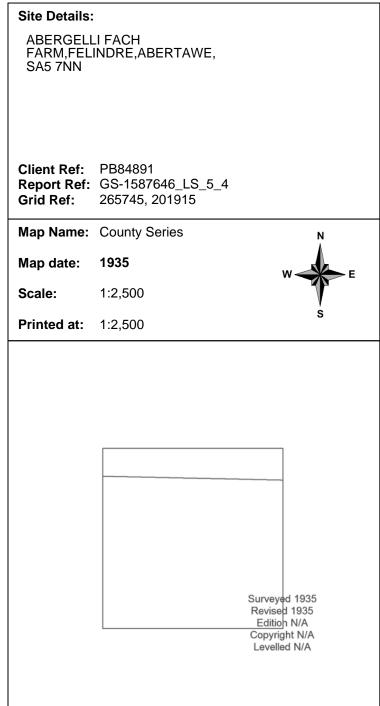
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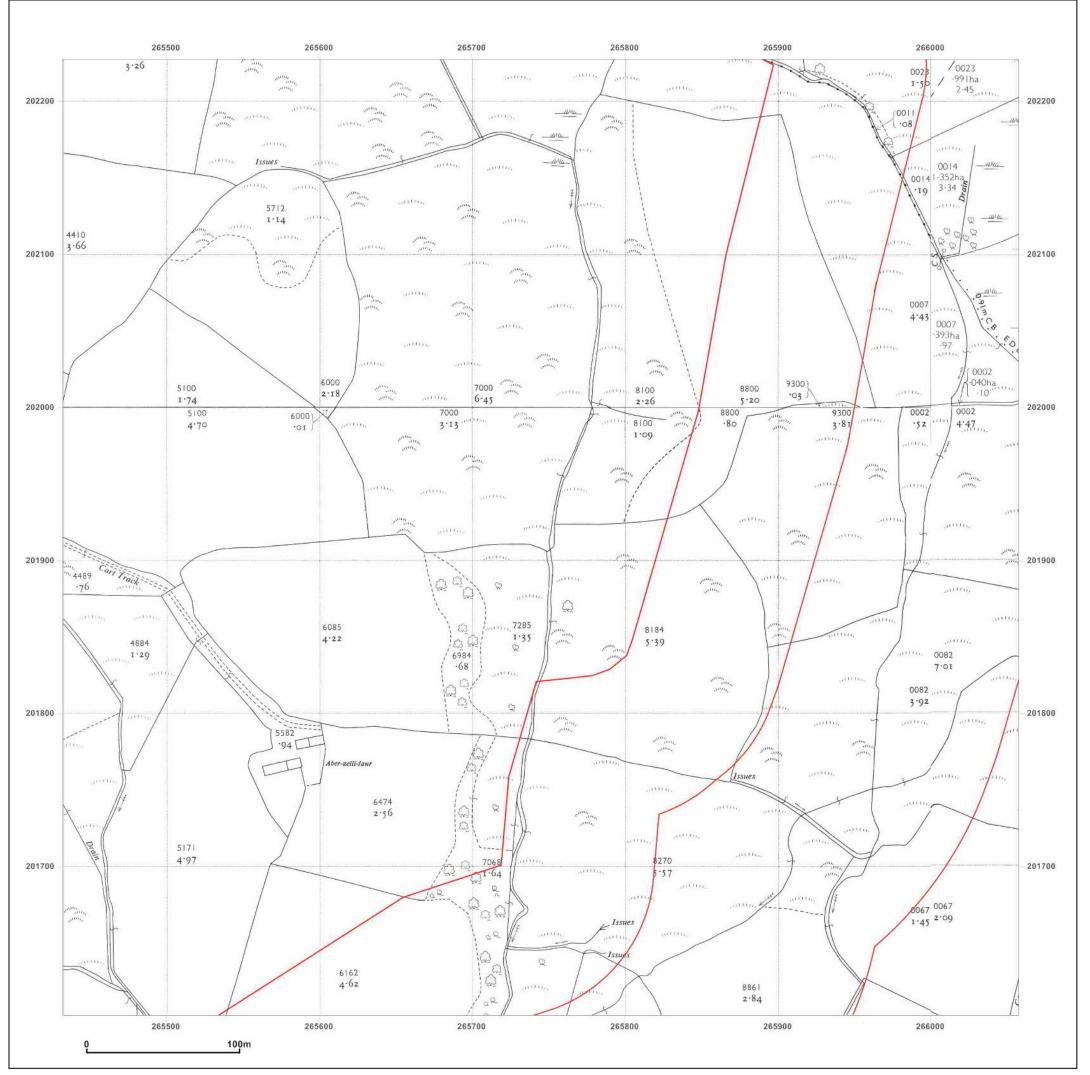
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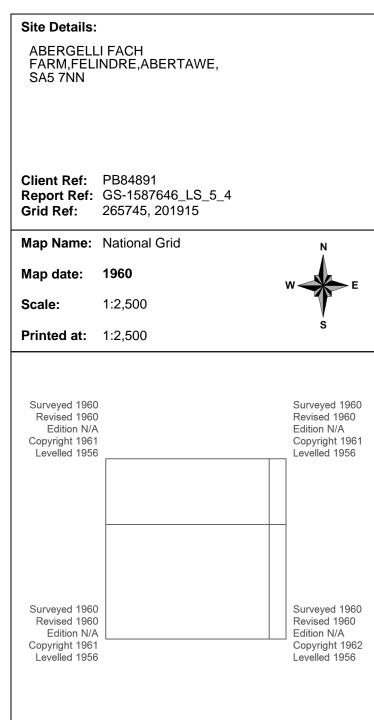
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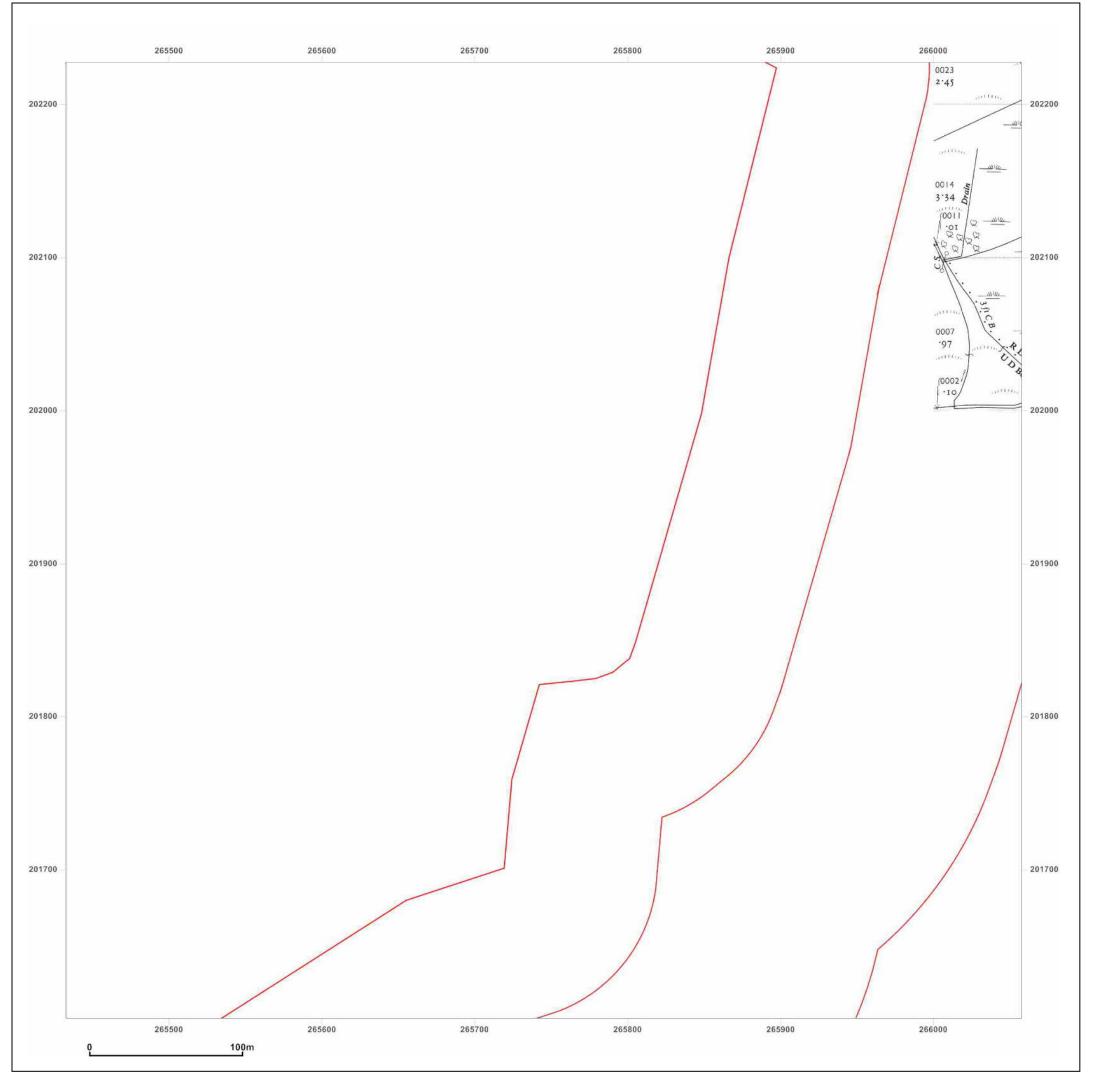
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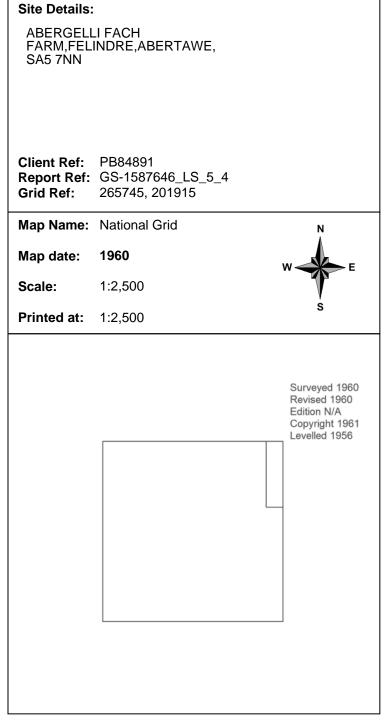
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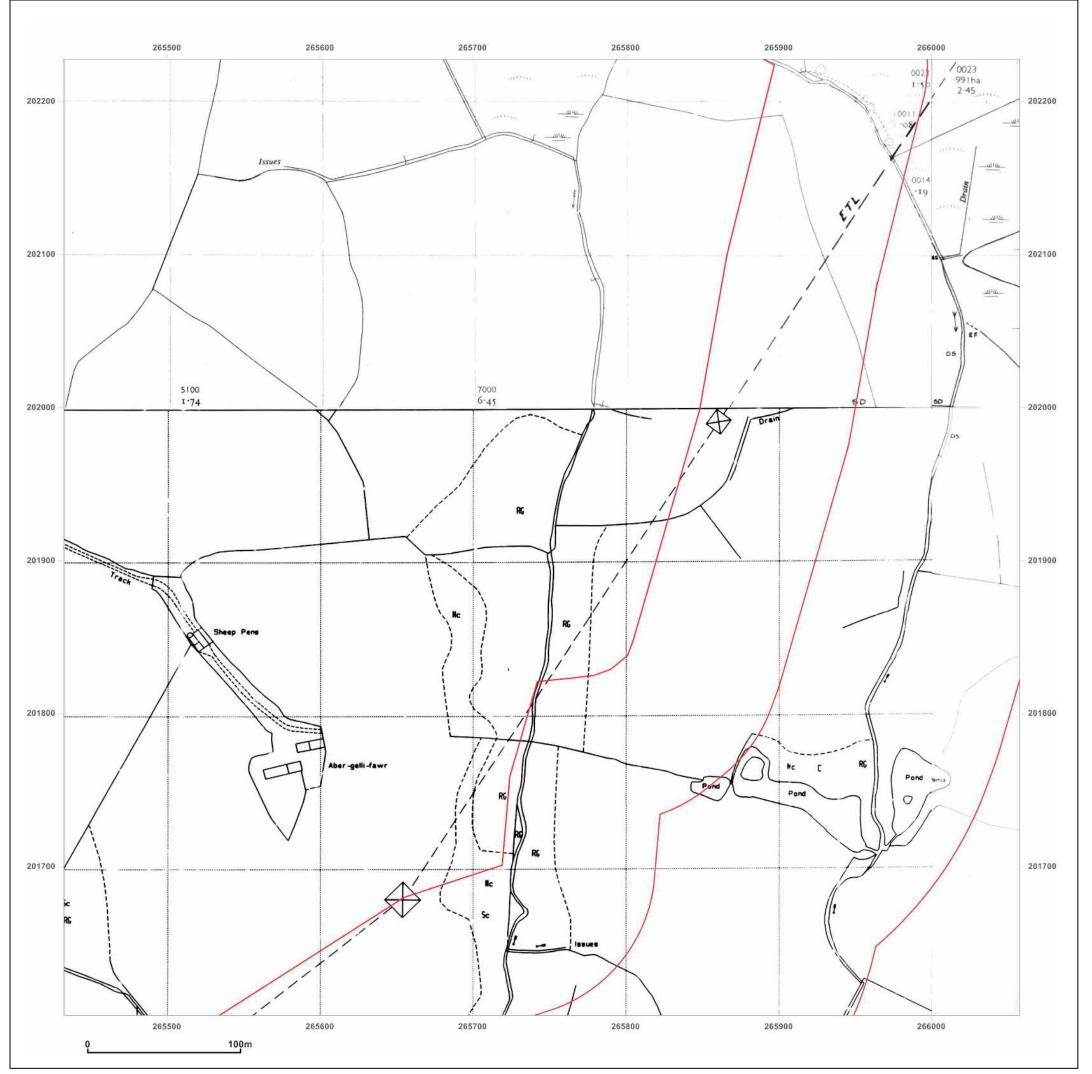


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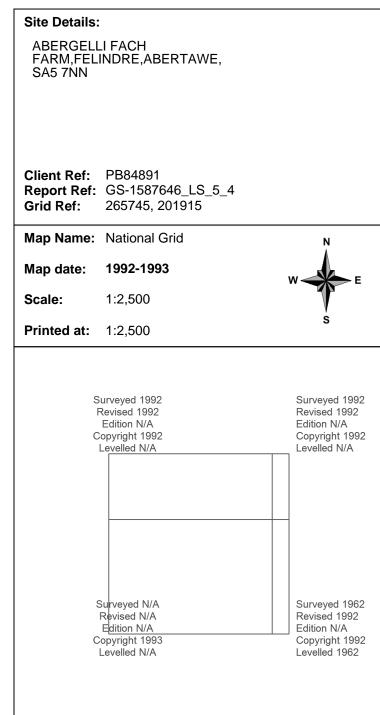
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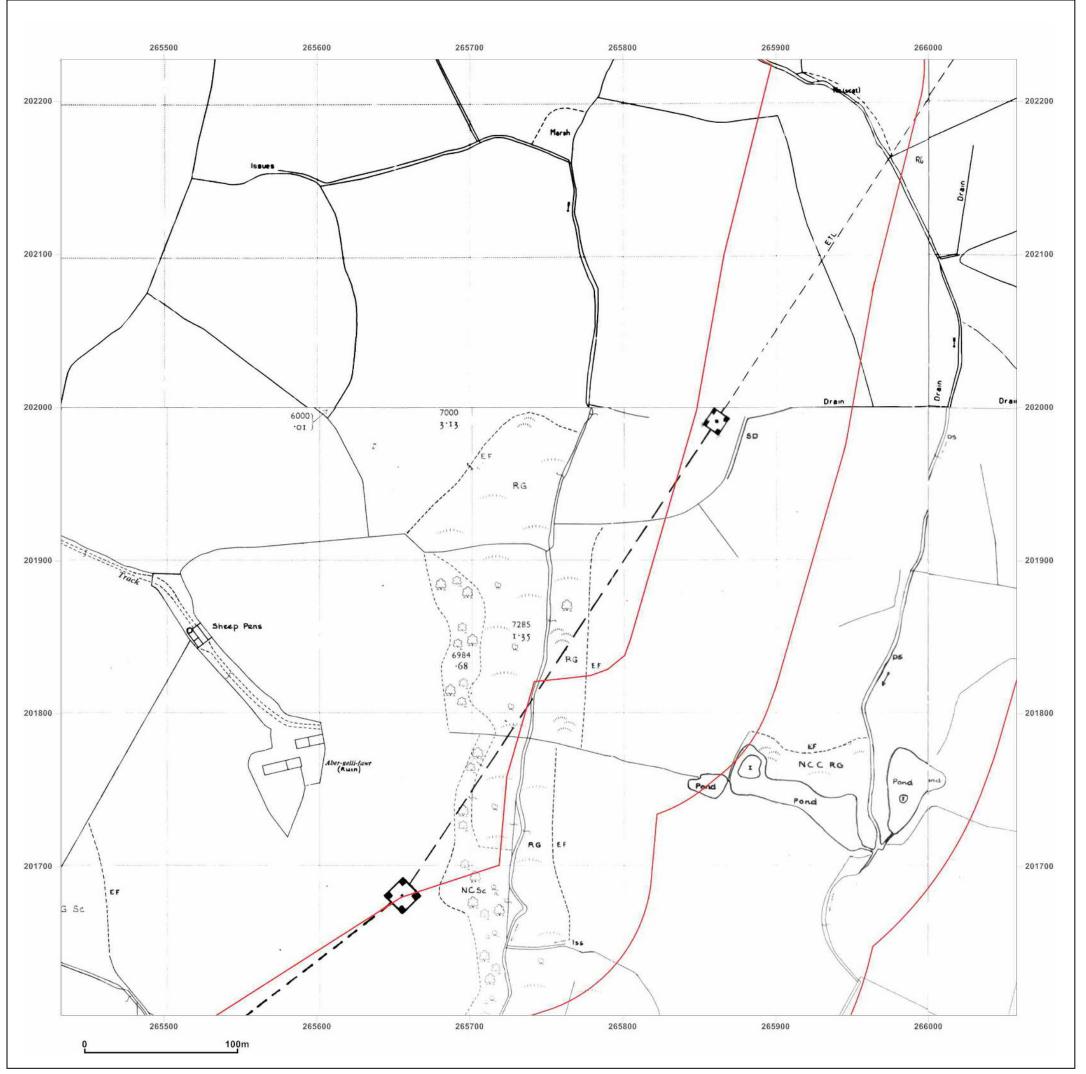
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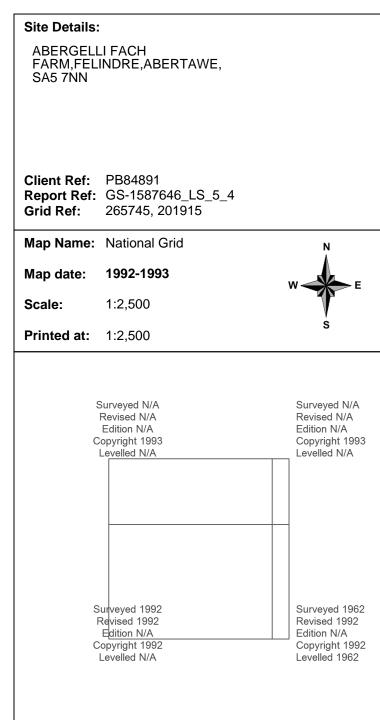
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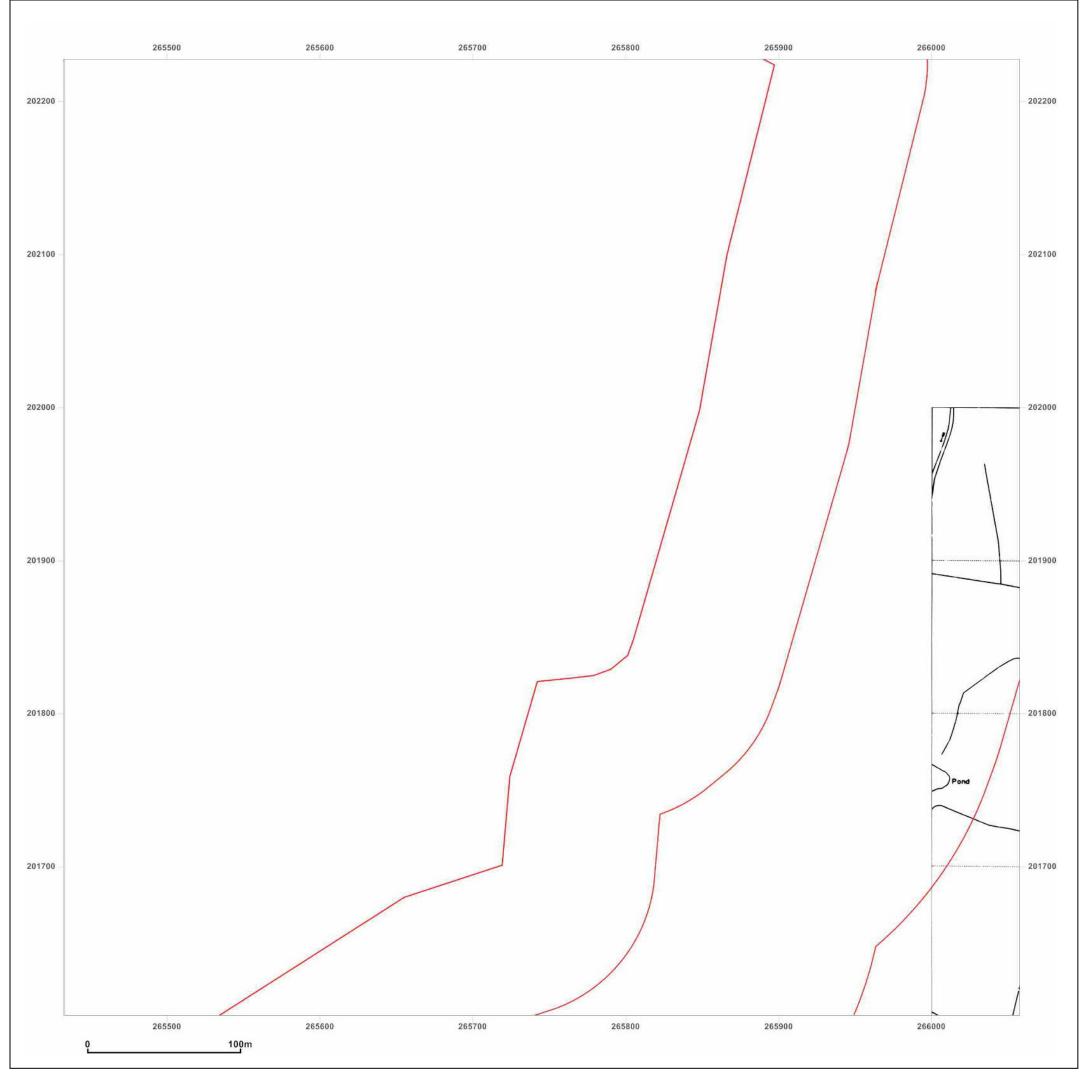
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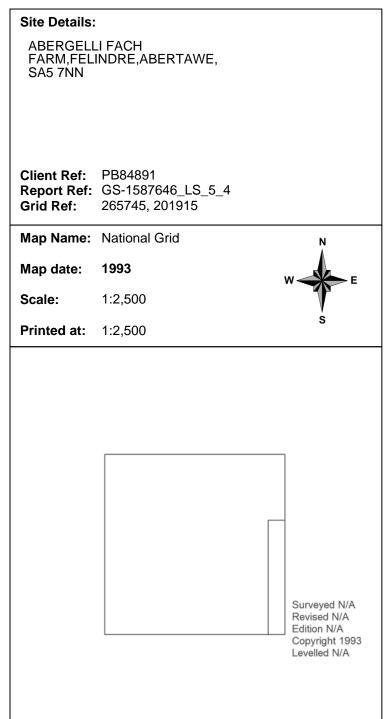
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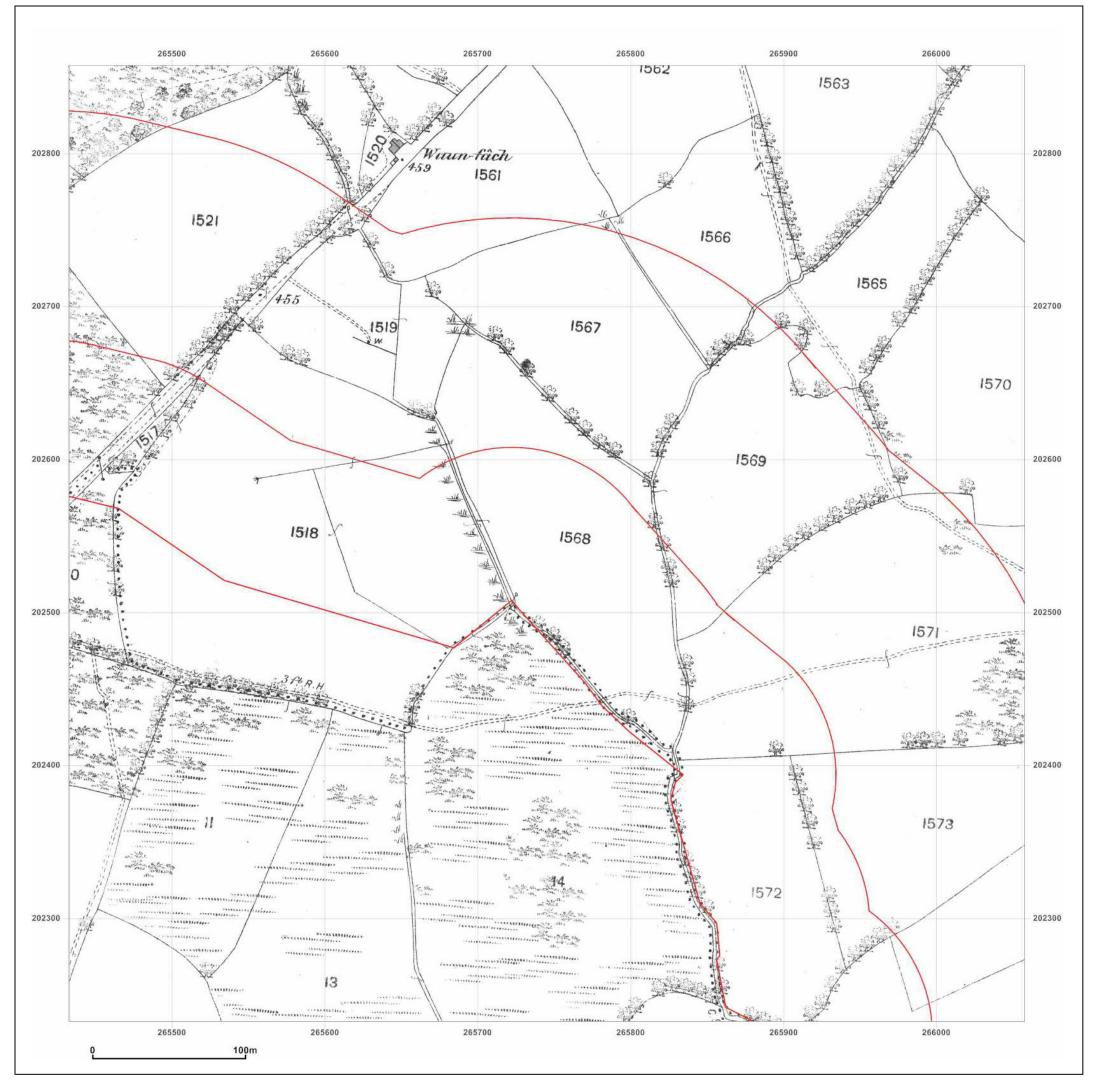


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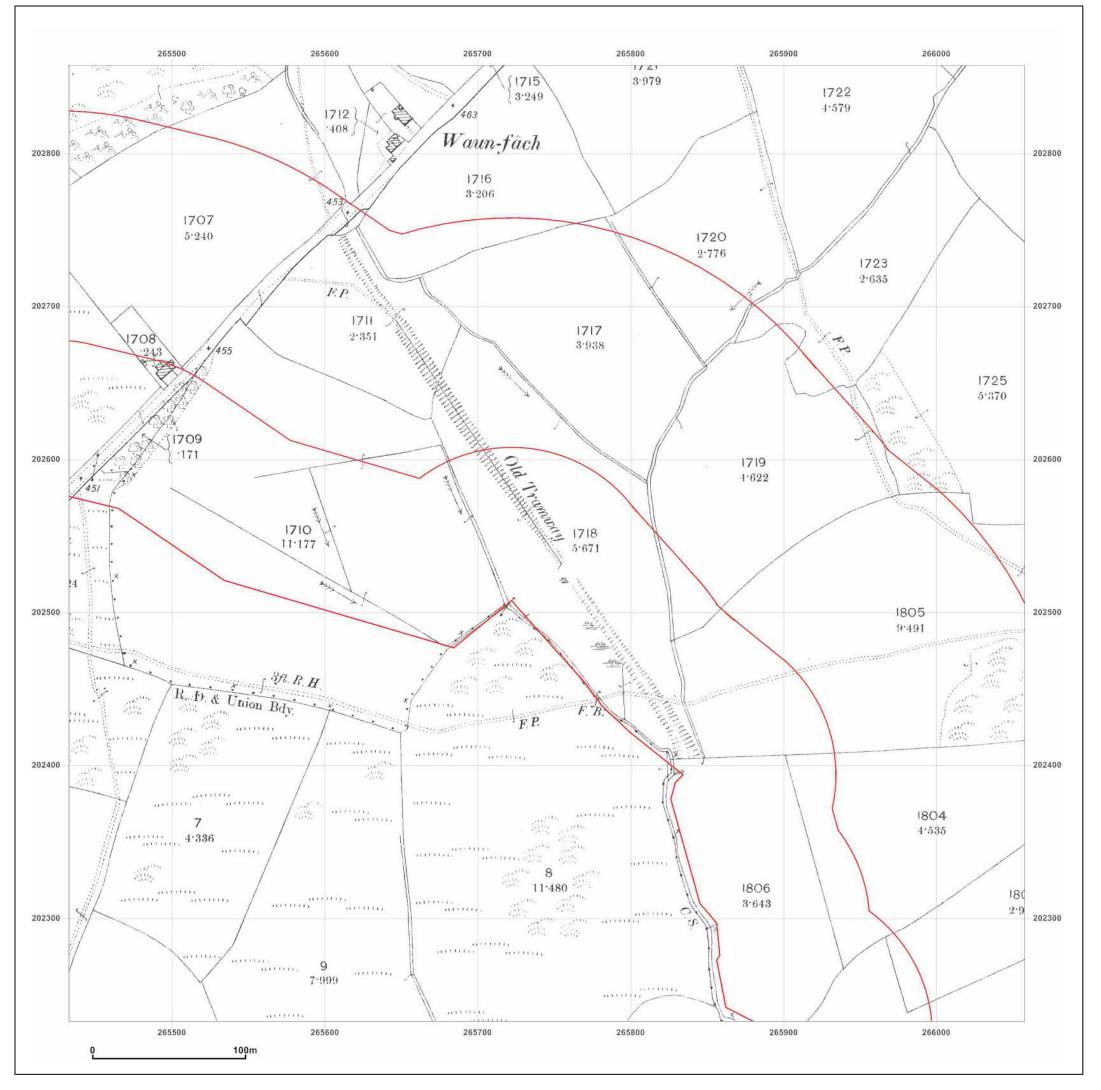
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| Map date:                               | 1876   | W E   |  |  |
| Scale:                                  | 1:2,500  | <b>*</b>  |  |  |
| Printed at:                             | 1:2,500  | S   |  |  |
|   |  | Surveyed 1876<br>Revised 1876<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |  |



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|---------------------------------|--|---|
| ABERGELL<br>FARM,FEL<br>SA5 7NN | LI FACH<br>INDRE,ABERTAWE,                     |   |
|                                 |  |   |
|                                 |  |   |
|                                 |  |   |
|                                 | PB84891<br>GS-1587646_LS_5_5<br>265745, 202545 |   |
| Map Name:                       | County Series                                  | N   |
| Map date:                       | 1898   | W E   |
| Scale:                          | 1:2,500  |   |
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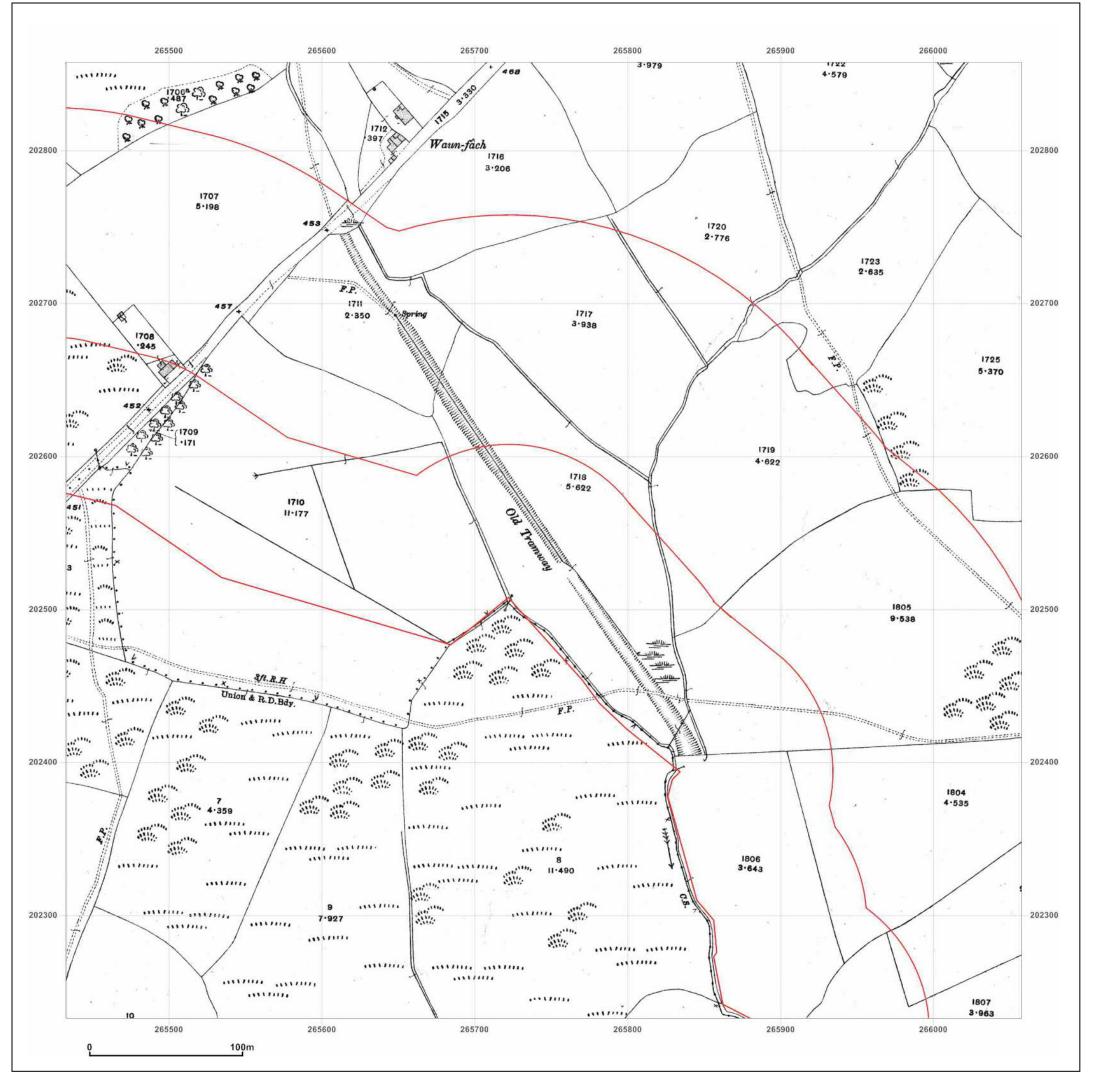


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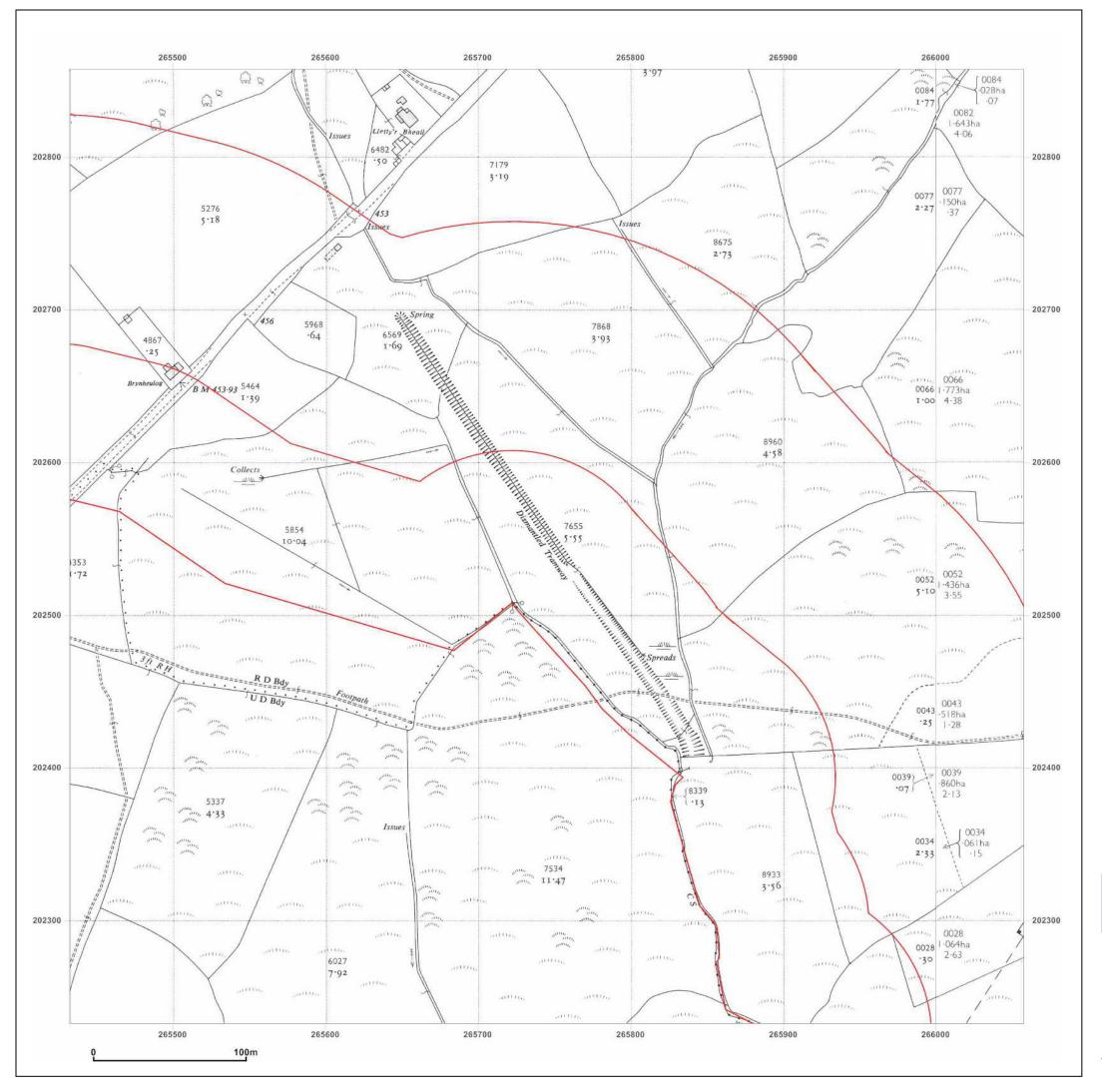
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| County Series                                  | N  |
| 1913   | W E  |
| 1:2,500  |  |
| 1:2,500  | S  |
|  | Surveyed 1913 Revised 1913 Edition N/A Copyright N/A Levelled N/A    |
|  | PB84891 GS-1587646_LS_5_5 265745, 202545  County Series 1913 1:2,500 |



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Site Details: ABERGELLI FACH FARM,FELINDRE,ABERTAWE,

SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_5\_5 265745, 202545 Grid Ref:

Map Name: National Grid

1960 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956

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GroundSure Environmental Insight

Surveyed 1960

Revised 1960

Levelled 1956

Edition N/A Copyright 1961

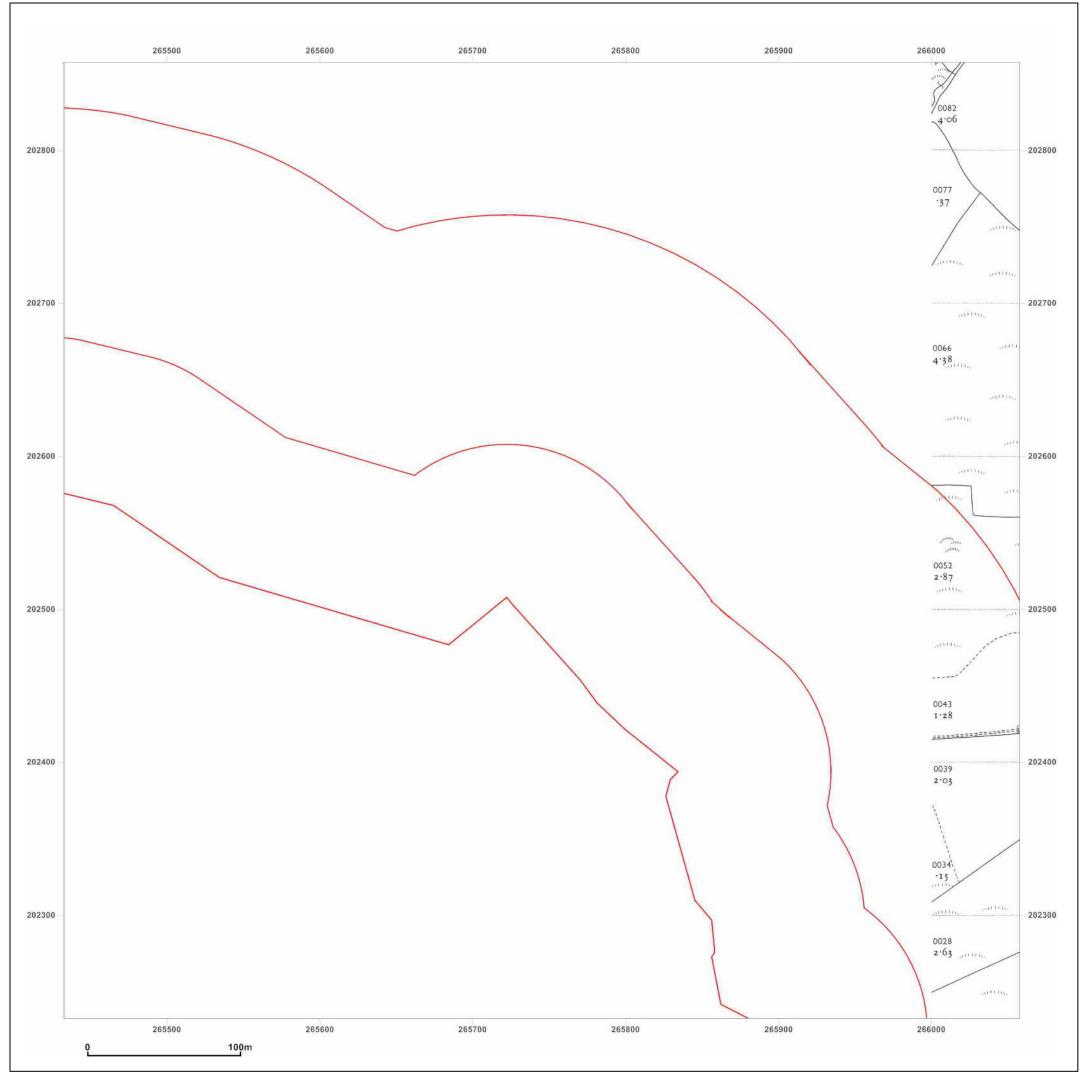
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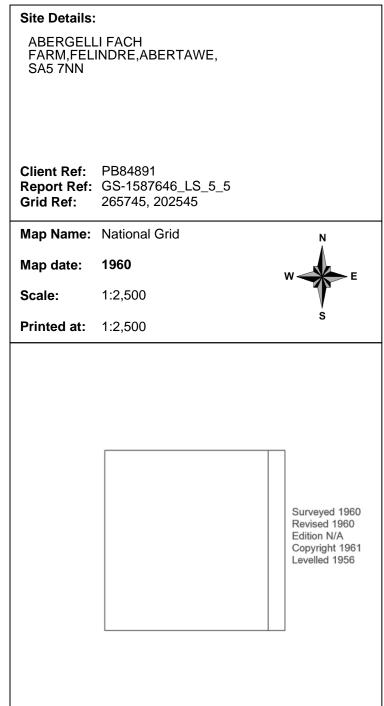
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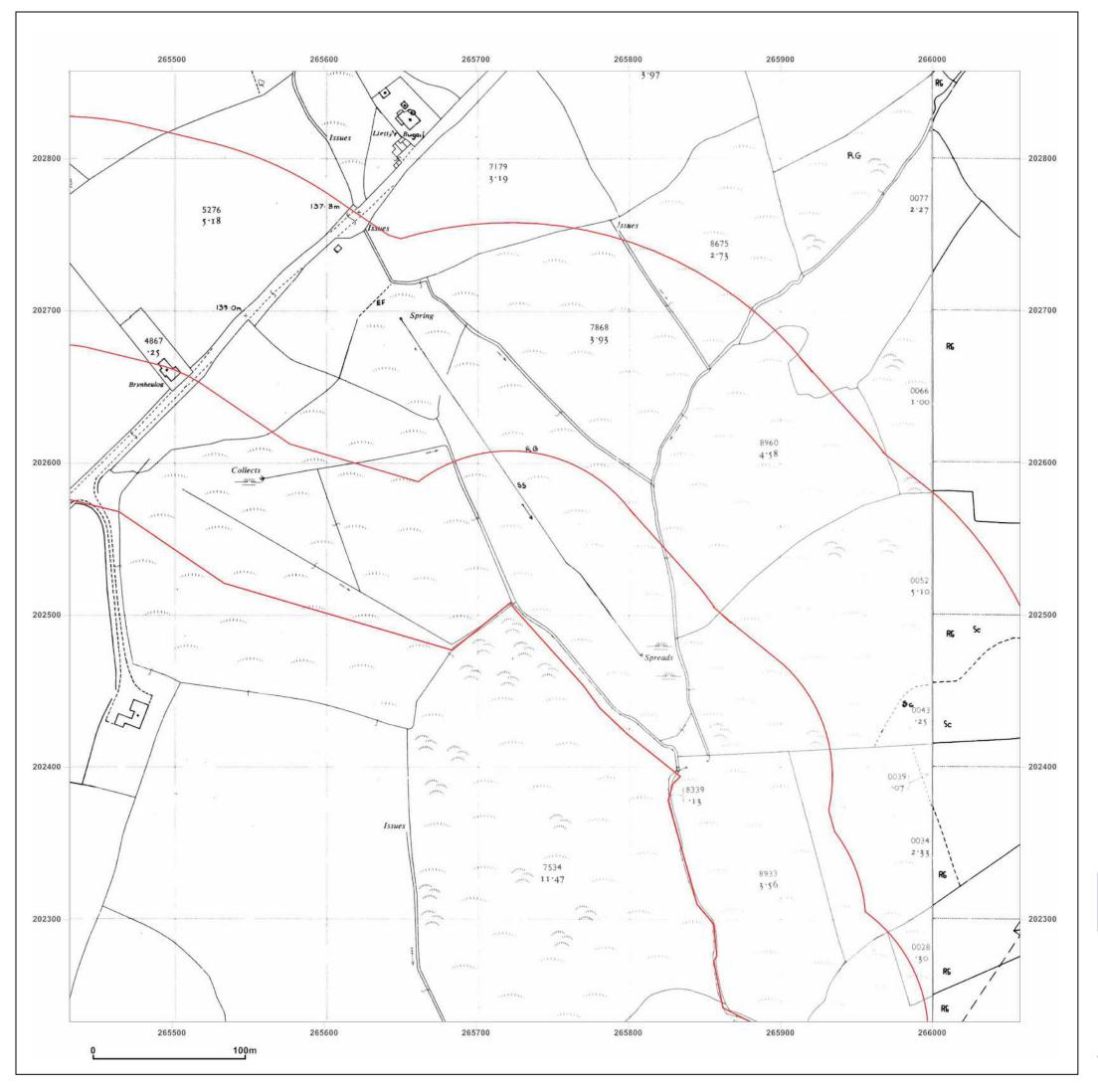
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ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

Report Ref: GS-1587646\_LS\_5\_5 Grid Ref: 265745, 202545

Map Name: National Grid

1992-1993 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1992 Revised 1992 Surveyed N/A Revised N/A Edition N/A Edition N/A Copyright 1992 Levelled N/A Copyright 1993 Levelled N/A



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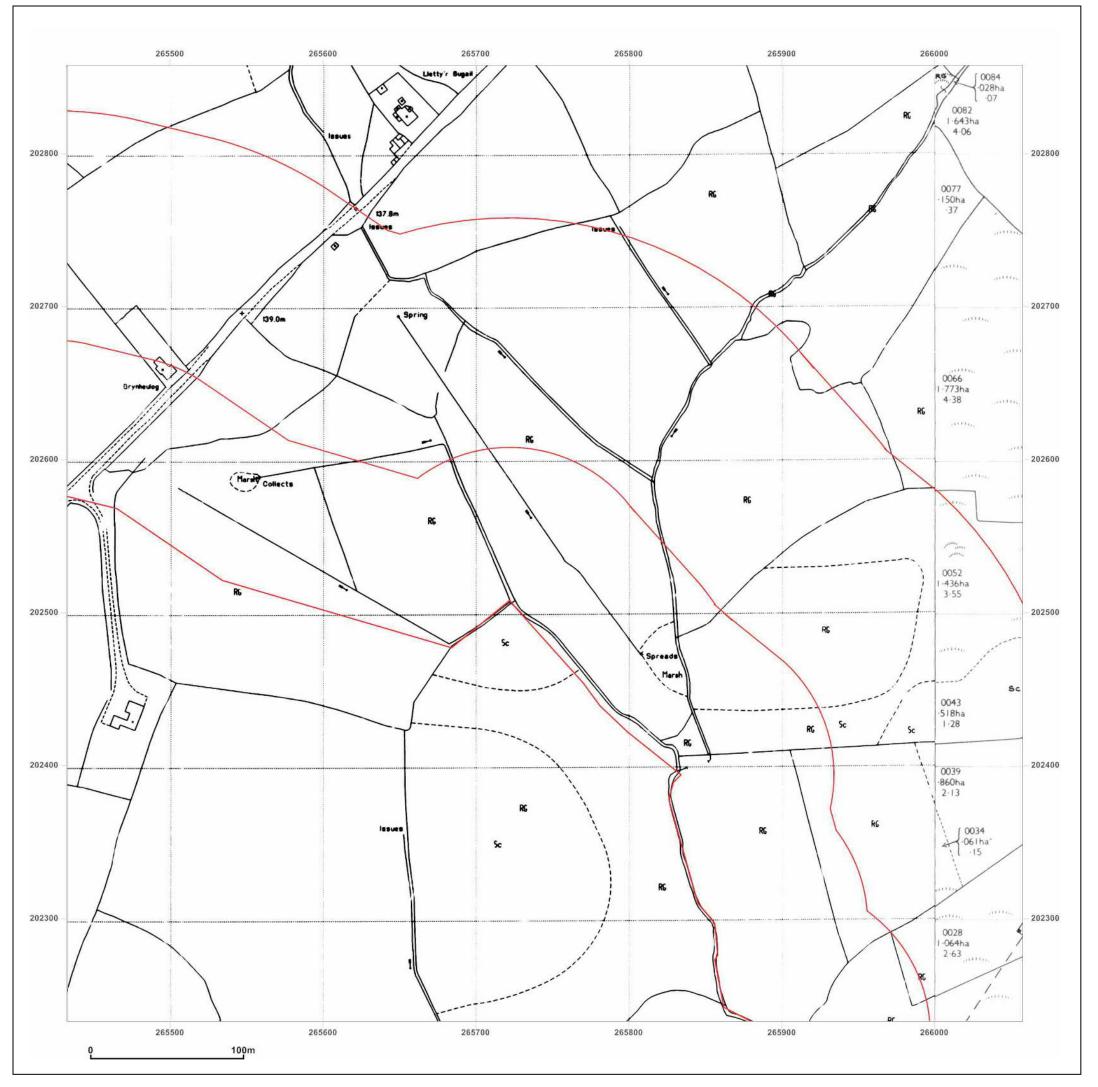
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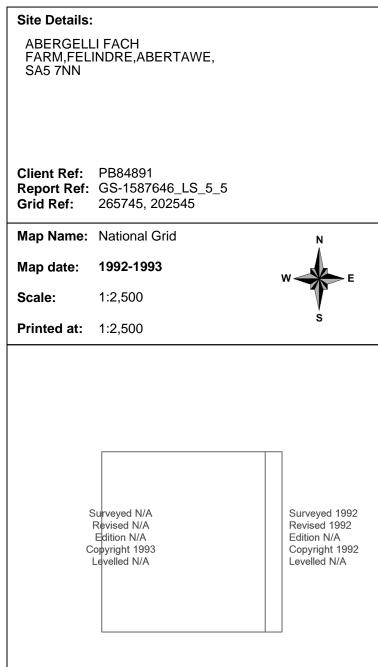
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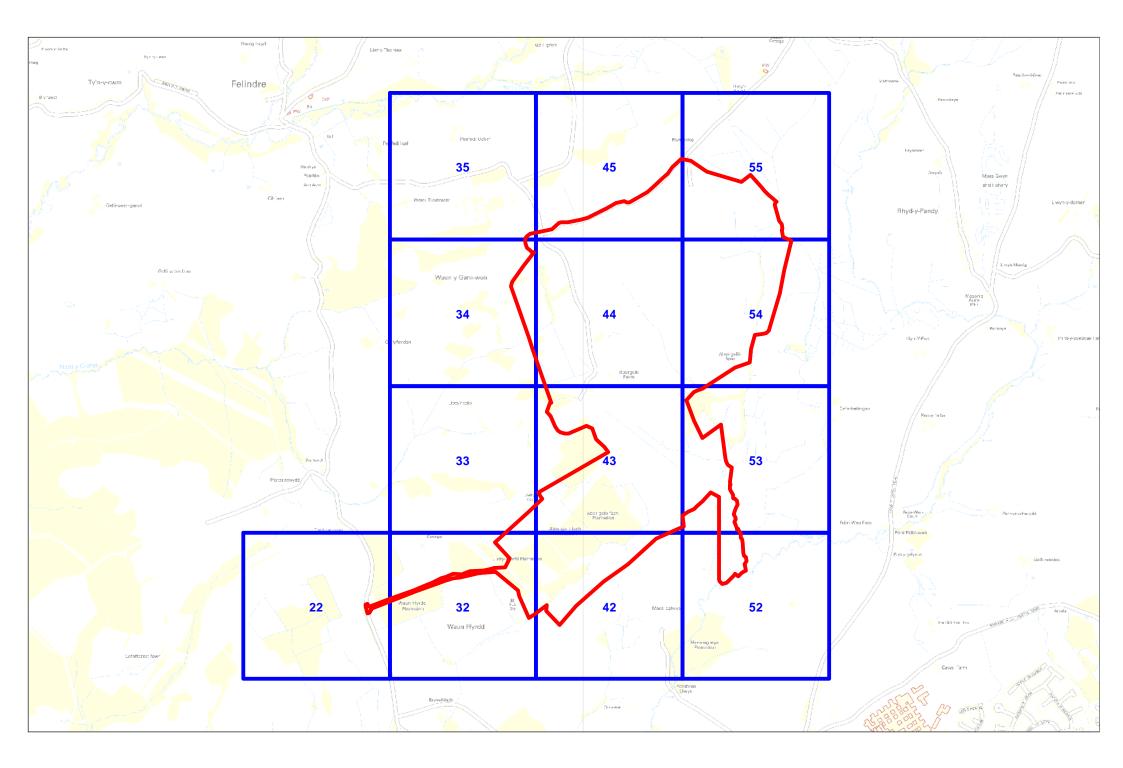
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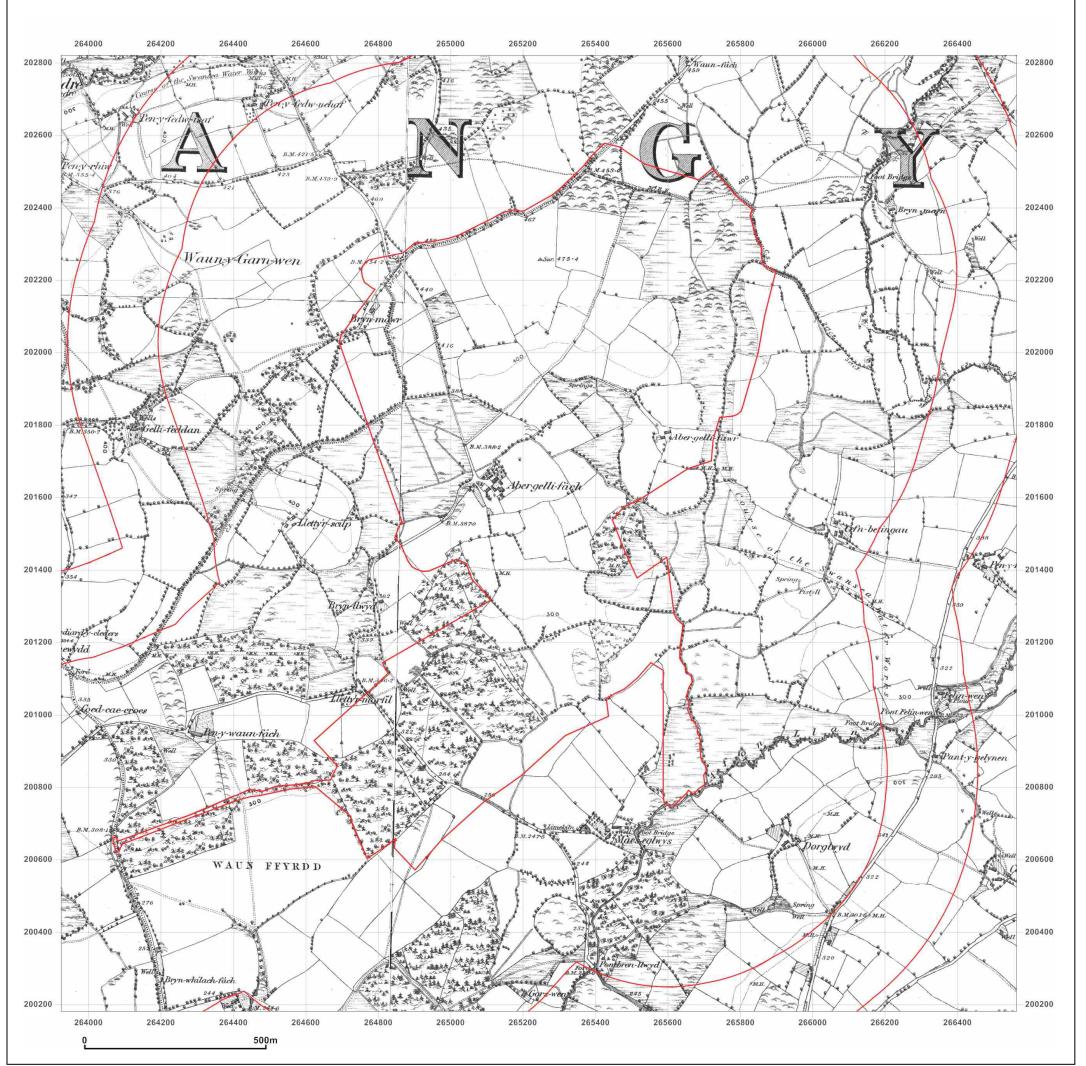
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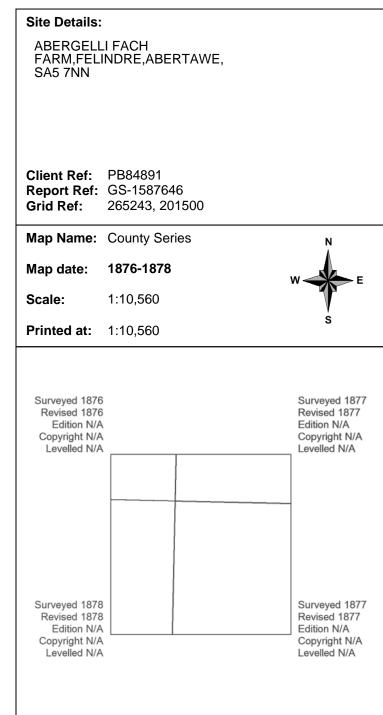


APPENDIX A

**GROUNDSURE REPORTS** 









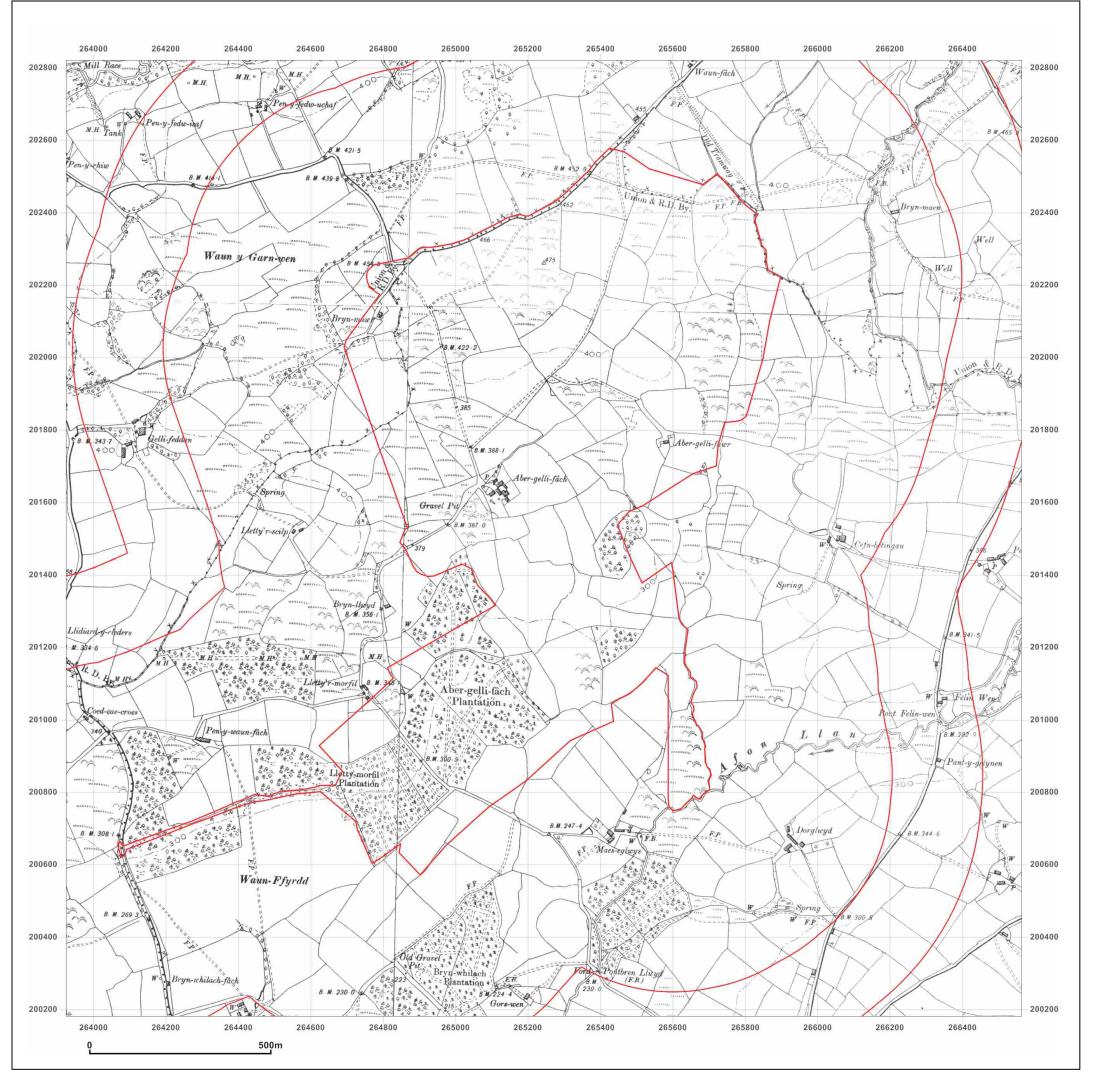
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|                 |
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| 877<br>97<br>/A |
|                 |



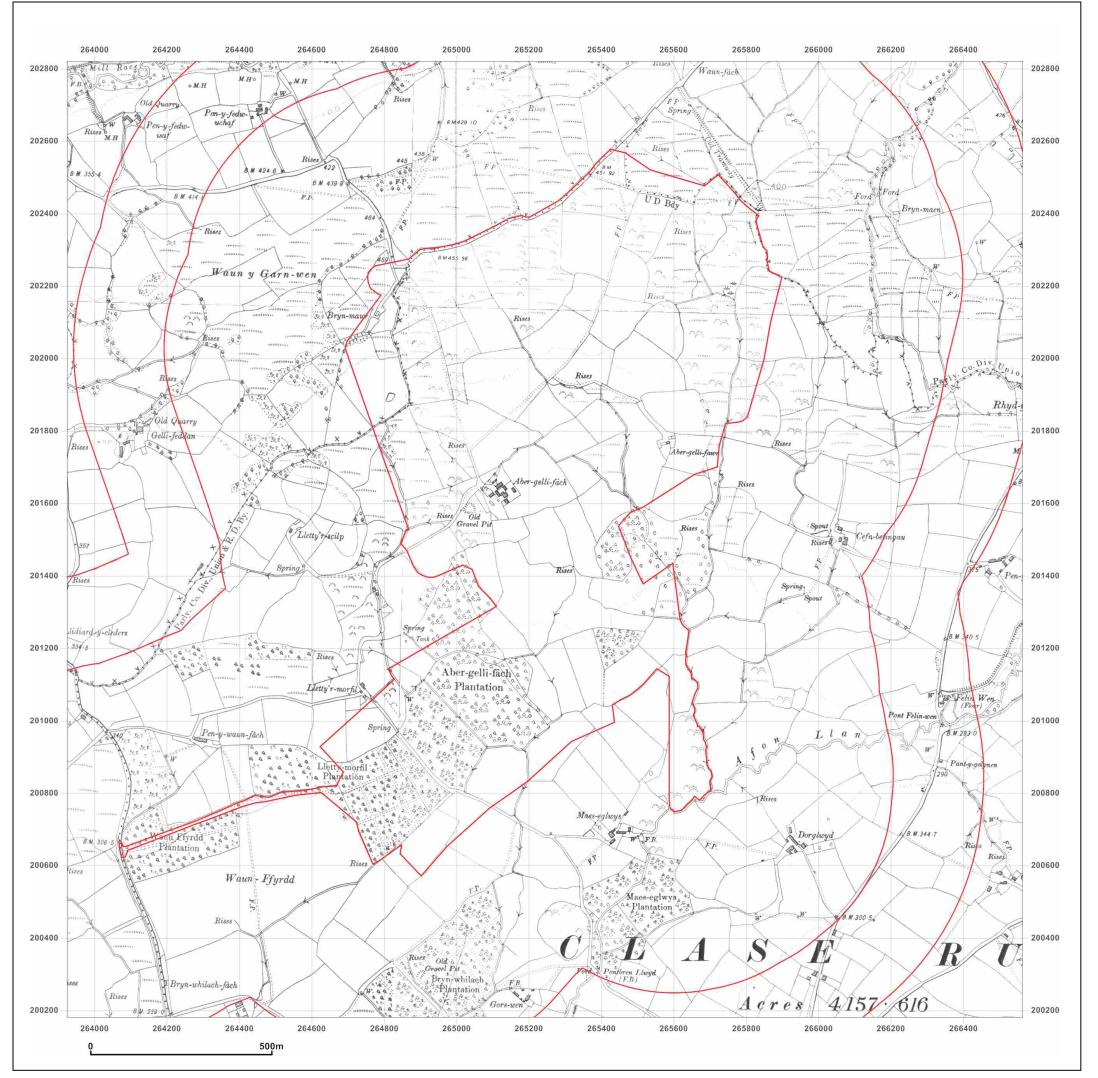
GroundSure Environmental Insight

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| Site Details:   |   |   |
|---|---|---|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | I FACH<br>INDRE,ABERTAWE,               |   |
|   |   |   |
|   | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:   | County Series                           | N<br>,  |
| Map date:   | 1913-1914                               | W E   |
| Scale:  | 1:10,560                                |   |
| Printed at:   | 1:10,560                                | S   |
| Surveyed 1875<br>Revised 1913<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | ;                                       | Surveyed 1875 Revised 1913 Edition N/A Copyright N/A Levelled N/A             |
| Surveyed 1875<br>Revised 1914<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |   | Surveyed 1876<br>Revised 1913<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



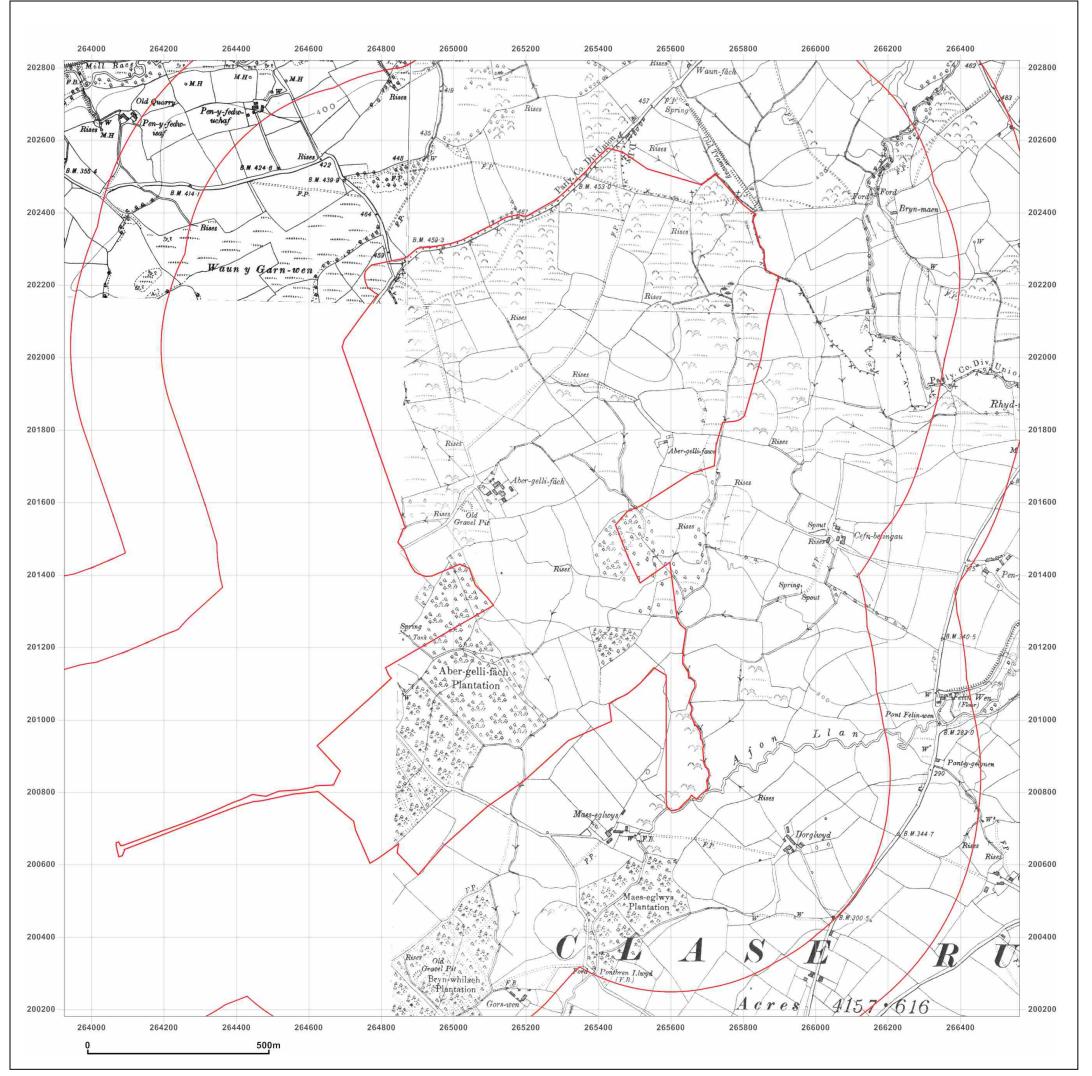
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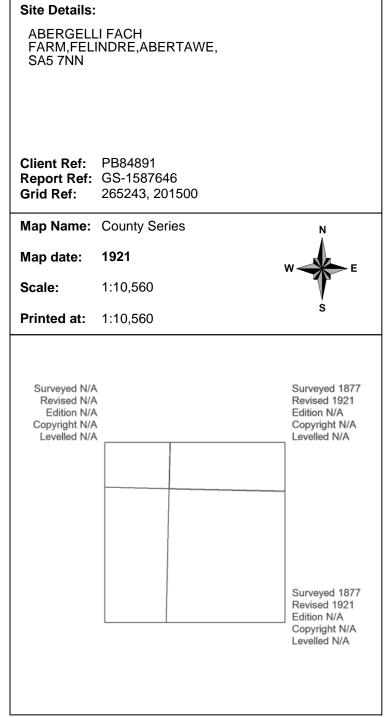
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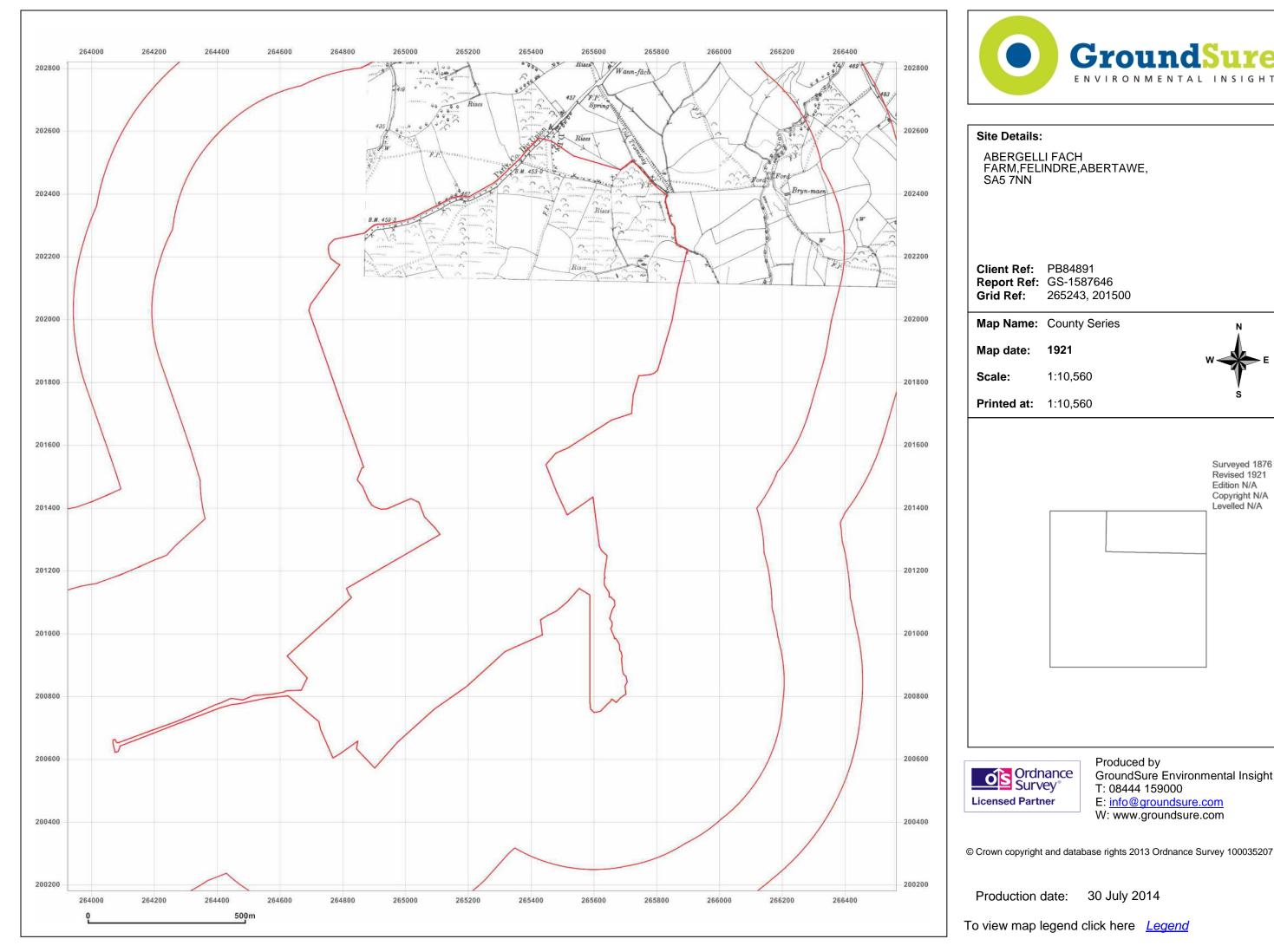
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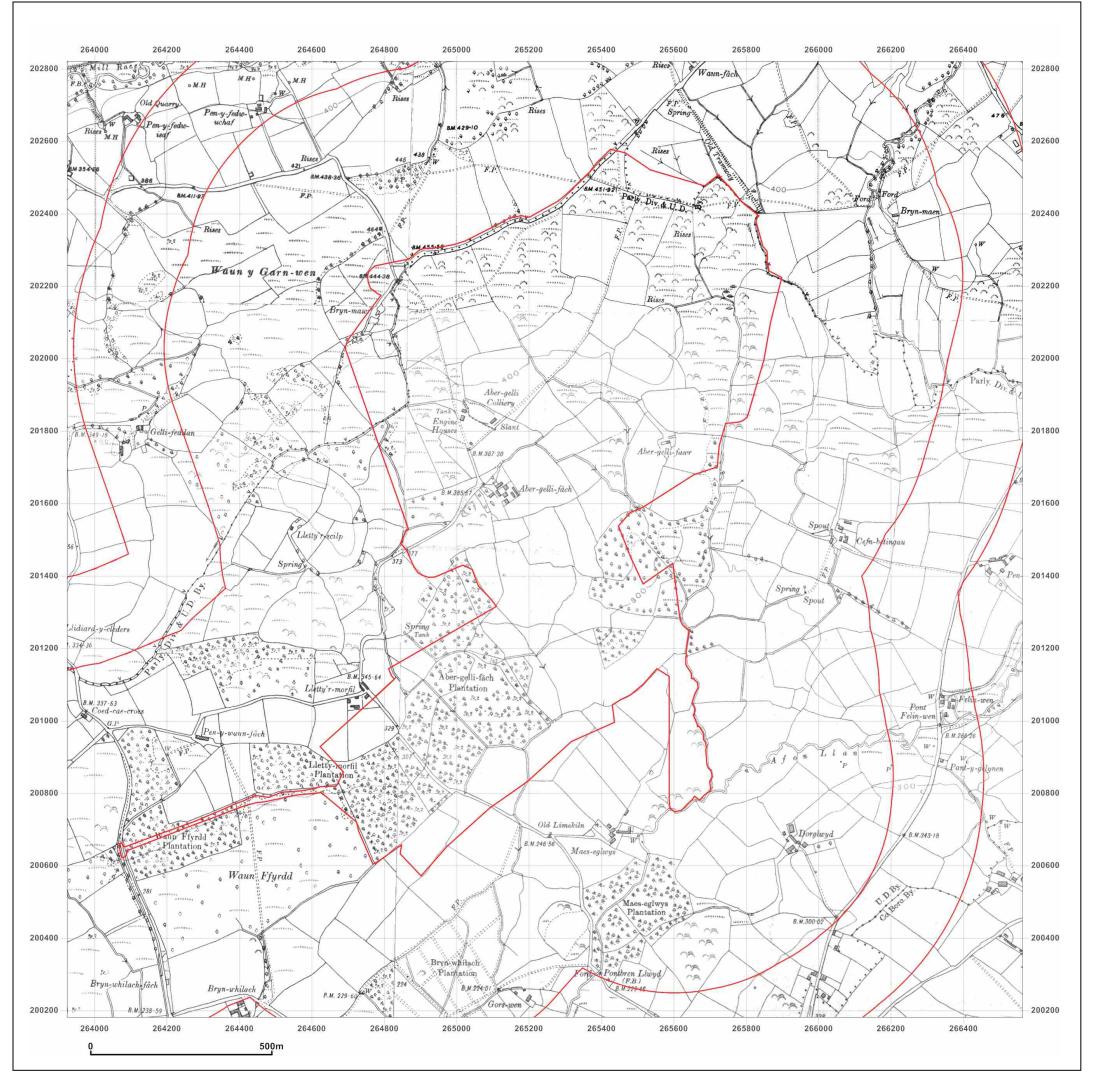
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|                                  |   |   |
|                                  | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:                        | County Series                           | N   |
| Map date:                        | 1921                                    | W E   |
| Scale:                           | 1:10,560                                | Y   |
| Printed at:                      | 1:10,560                                | S   |
|                                  |   | Surveyed 1876<br>Revised 1921<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



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Production date: 30 July 2014





| Site Details:  |                              |   |
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|  | GS-1587646<br>265243, 201500 |   |
| Map Name:  | County Series                | N   |
| Map date:  | 1935-1938                    | W E   |
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| Printed at:  | 1:10,560                     | S   |
| Surveyed 1875<br>Revised 1938<br>Edition 1938<br>Copyright N/A<br>Levelled N/A |                              | Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright N/A<br>Levelled N/A   |
| Surveyed 1875<br>Revised 1935<br>Edition N/A<br>Copyright N/A<br>Levelled N/A  |                              | Surveyed 1876<br>Revised 1936<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



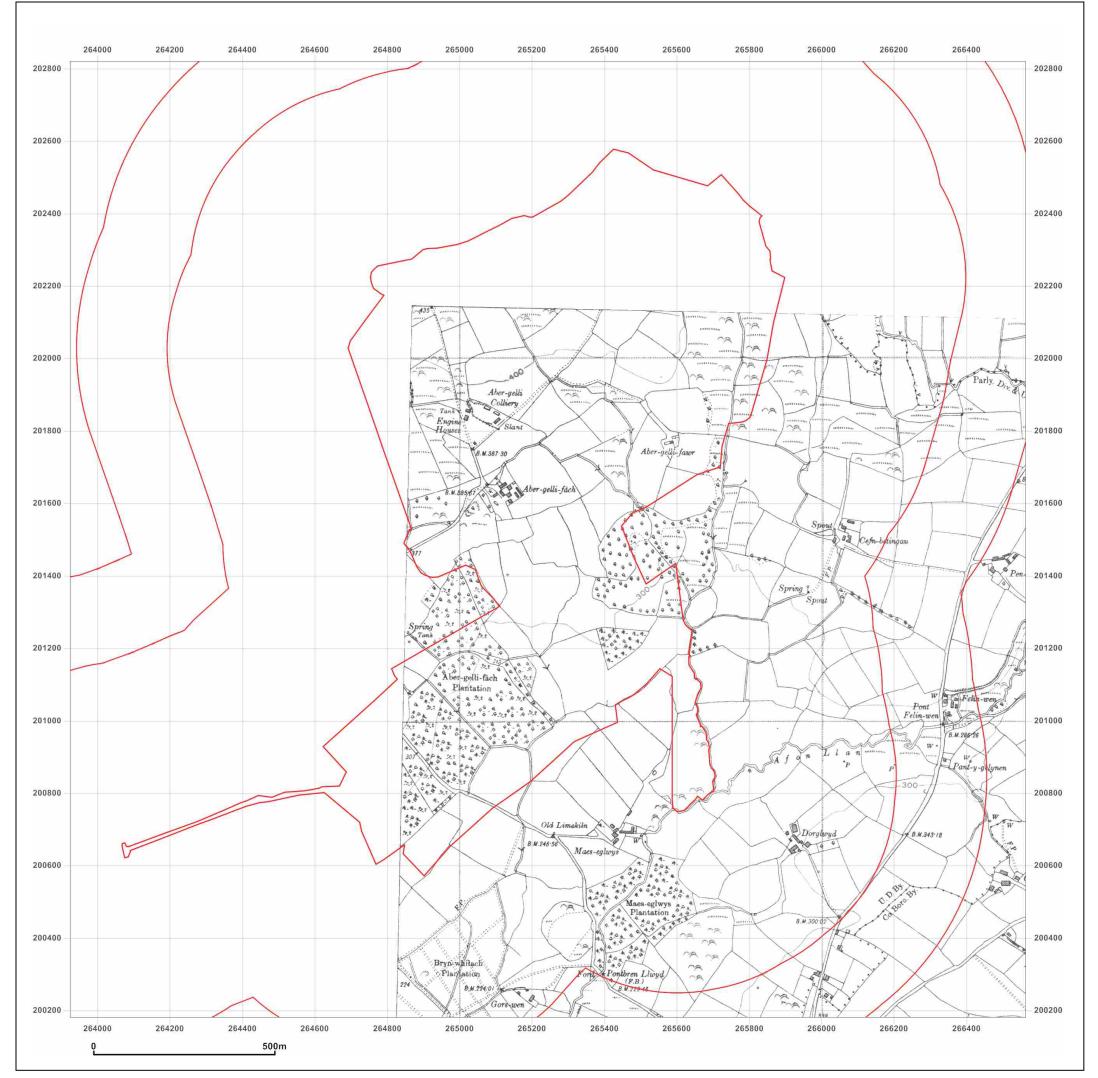
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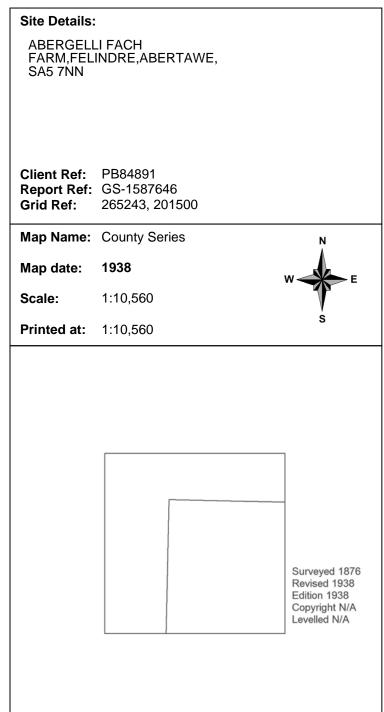
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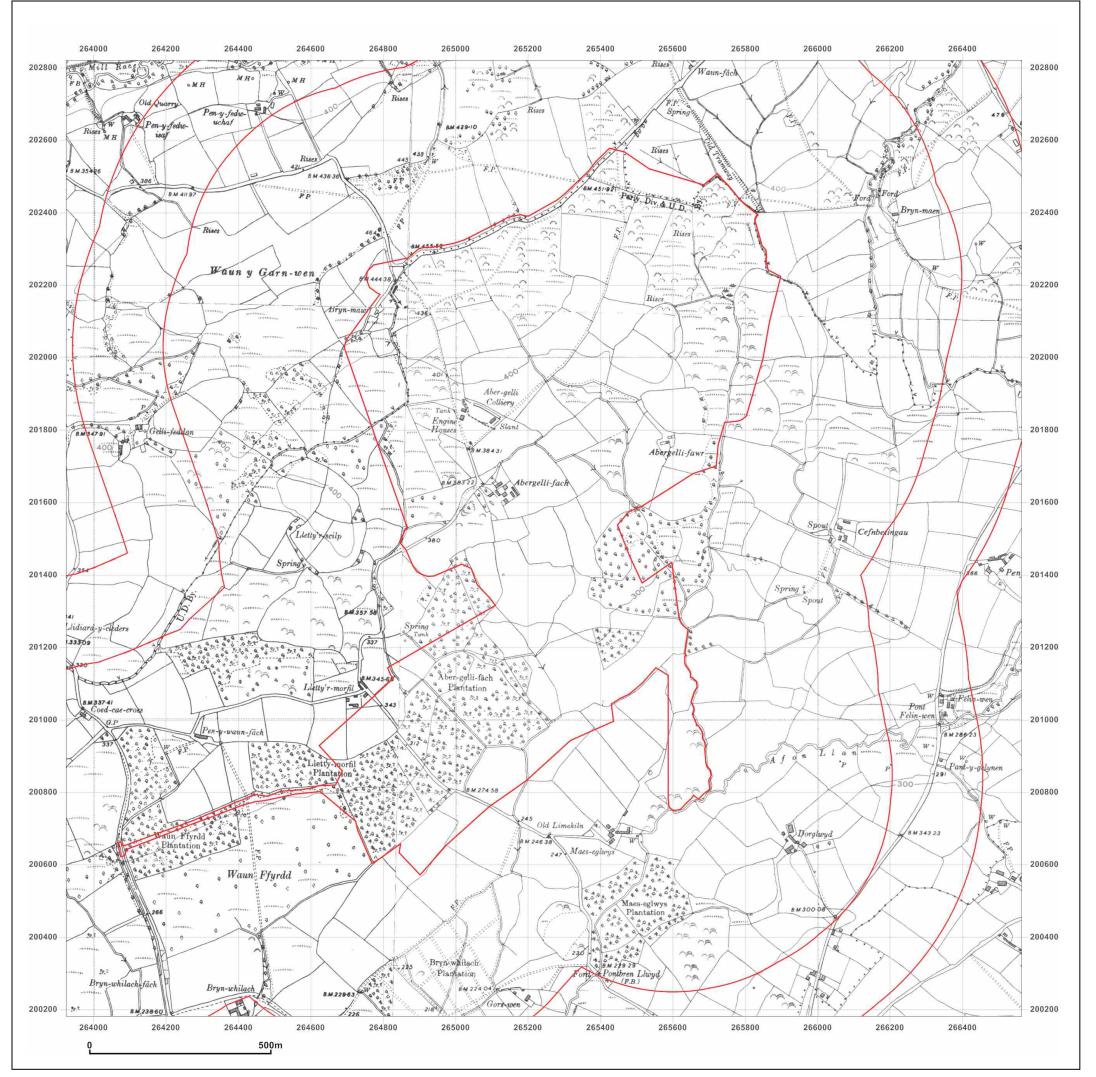
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| Map date:   | 1948                         | W E  |
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| Printed at:   | 1:10,560                     | S  |
| Surveyed 1875<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |                              | Surveyed 1876<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled 1947 |
| Surveyed 1875<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |                              | Surveyed 1876<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A  |



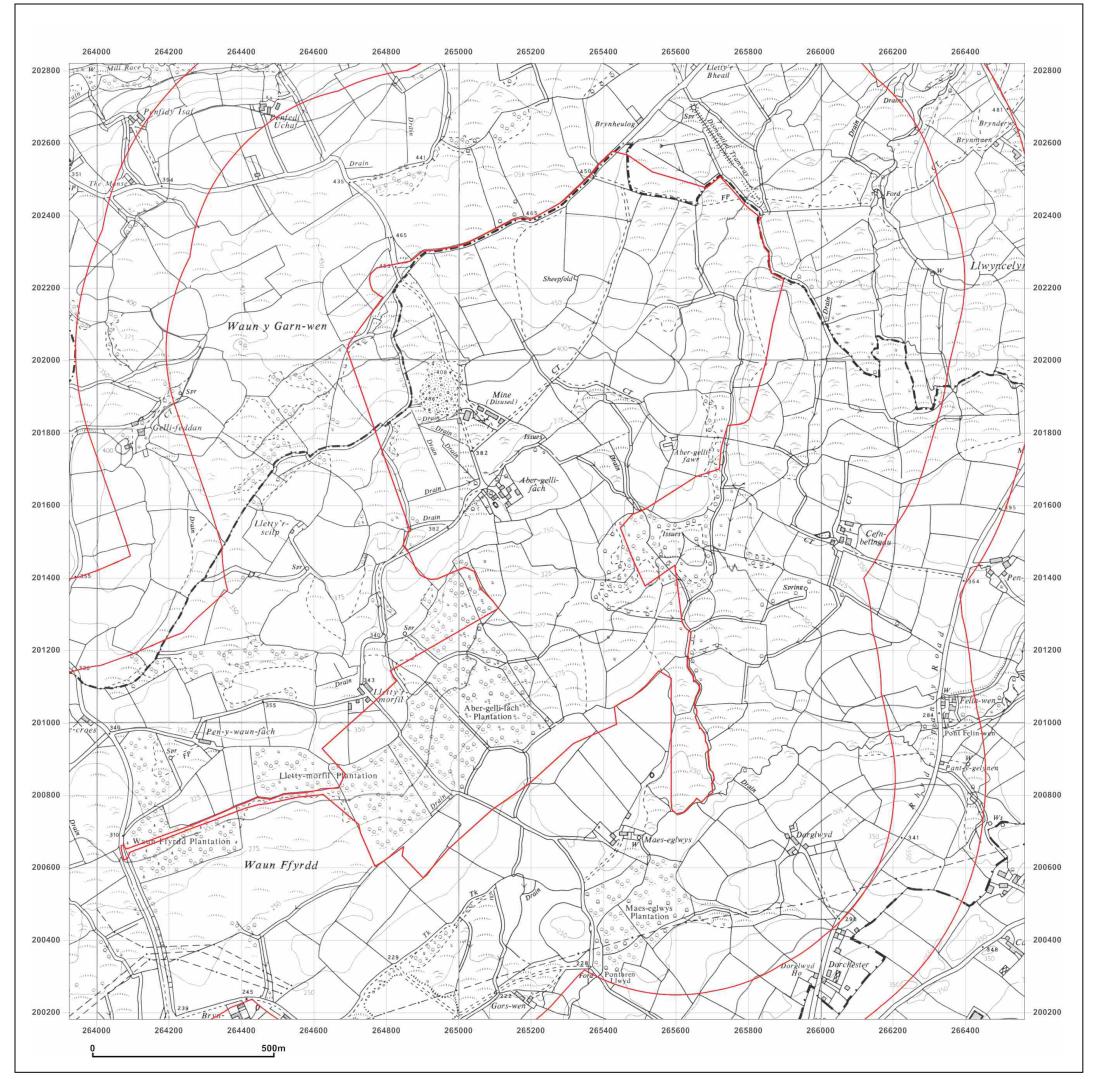
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| ABERGELI<br>FARM,FEL<br>SA5 7NN   |   |   |
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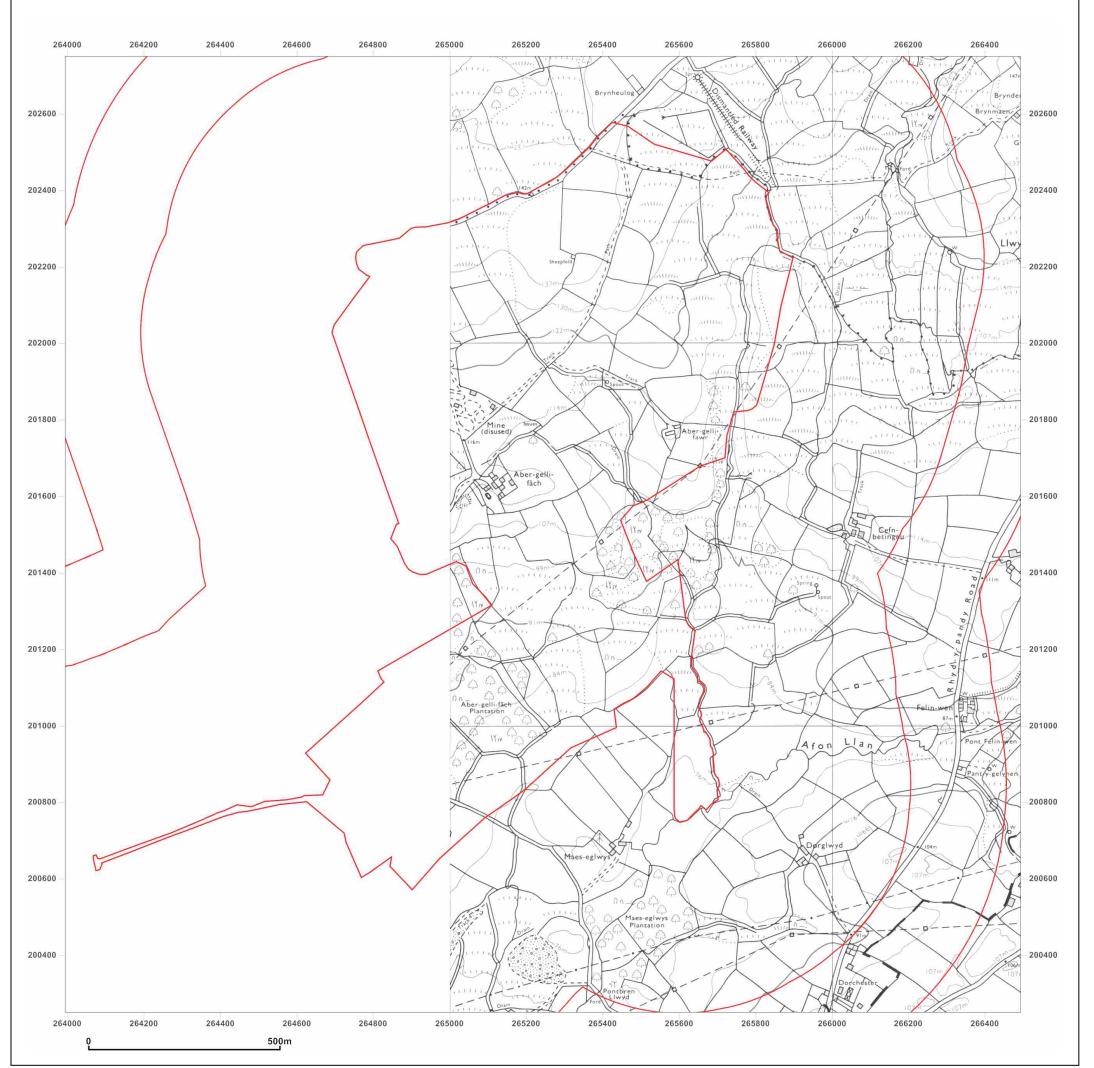


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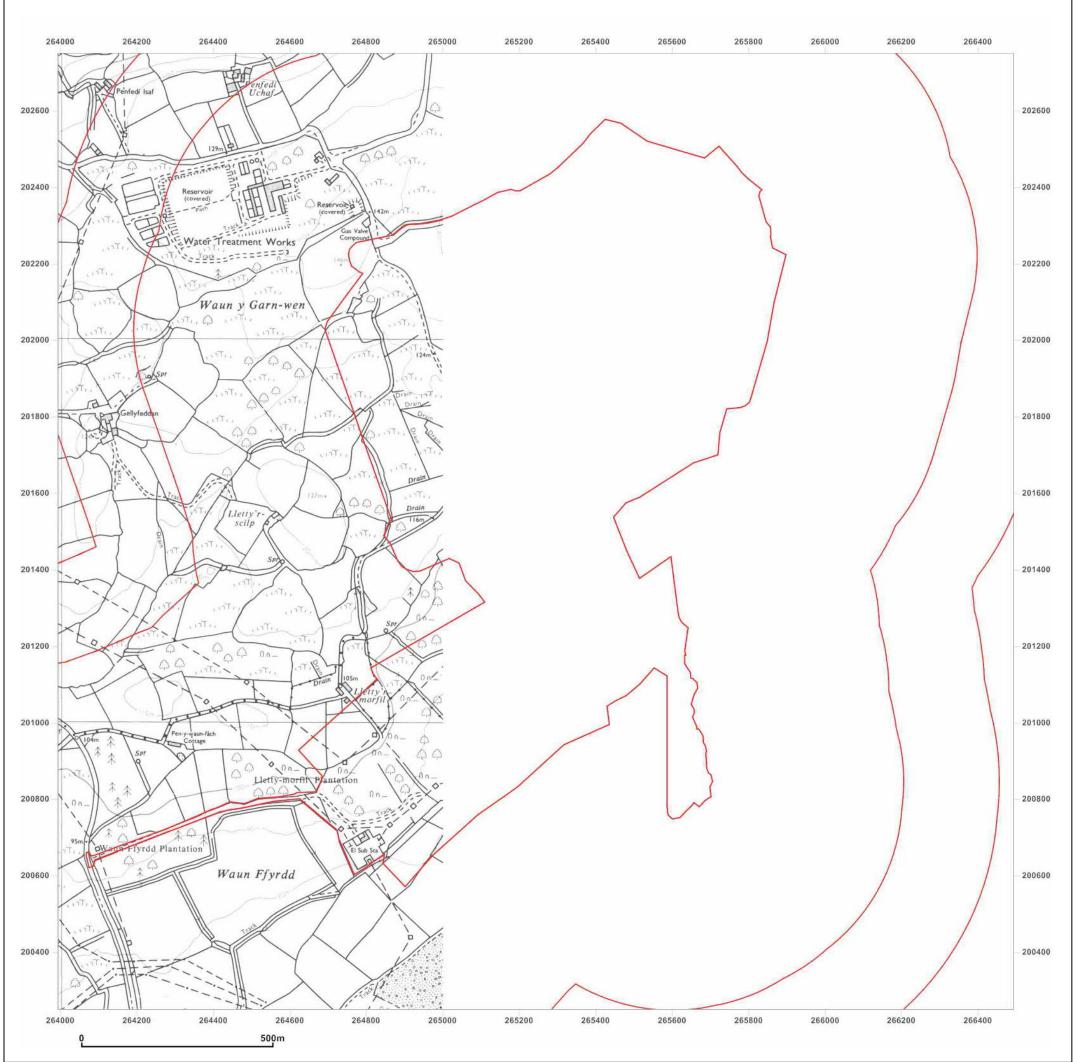


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| ABERGELL<br>FARM,FELI<br>SA5 7NN        | I FACH<br>INDRE,ABERTAWE,               |
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|   |   |
| Surveyed 1990                           |   |
| Revised 1991<br>Edition N/A             |   |
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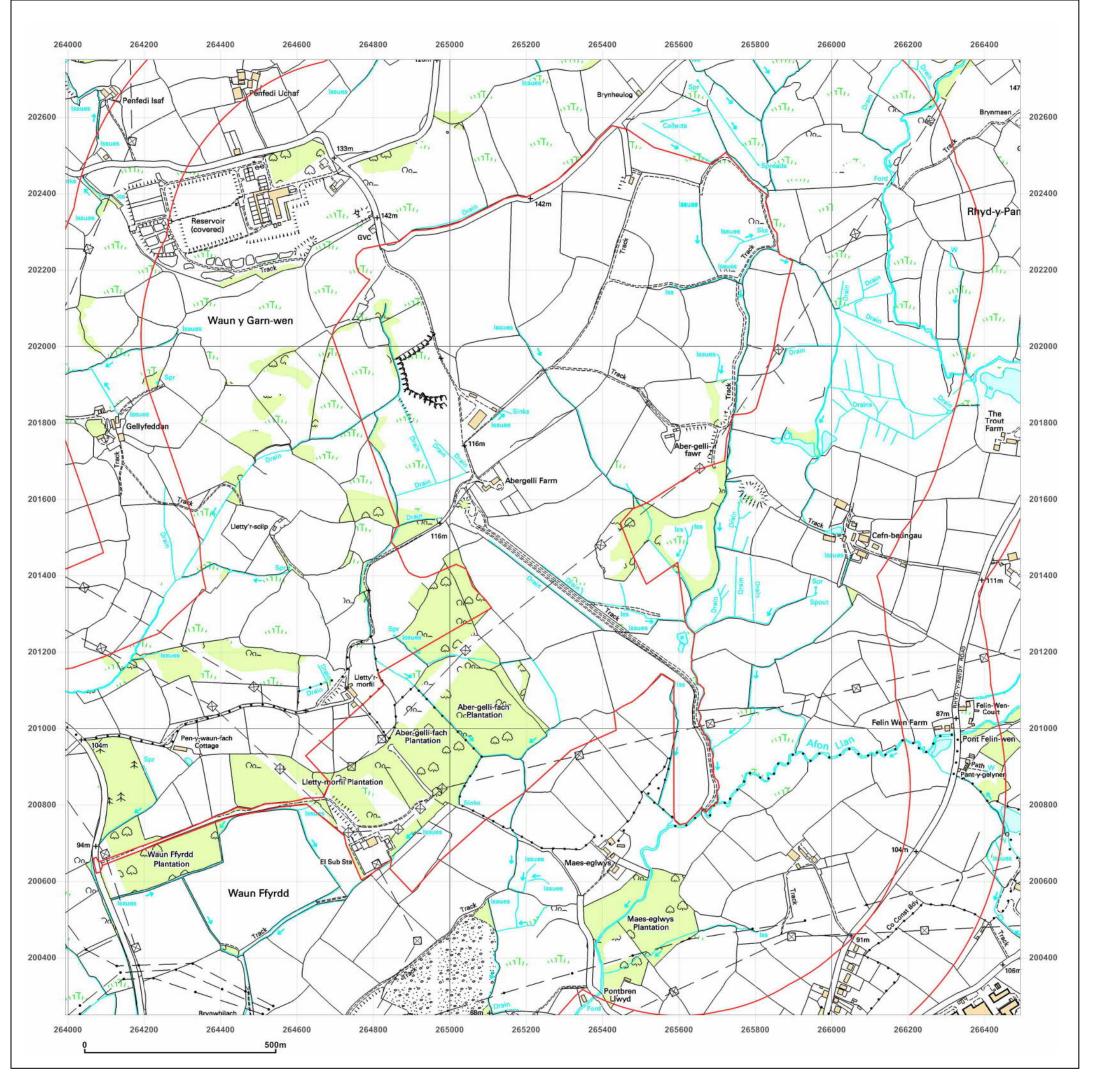
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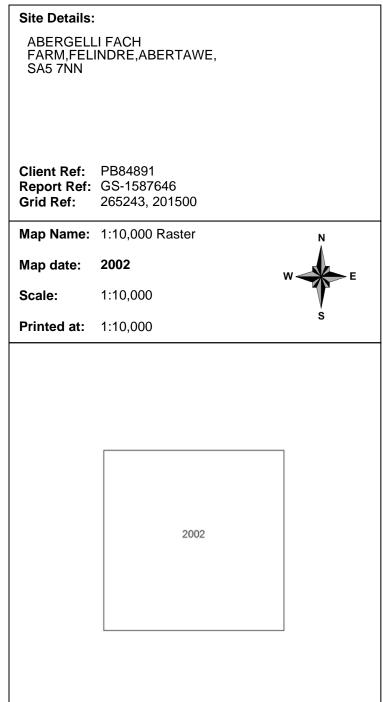
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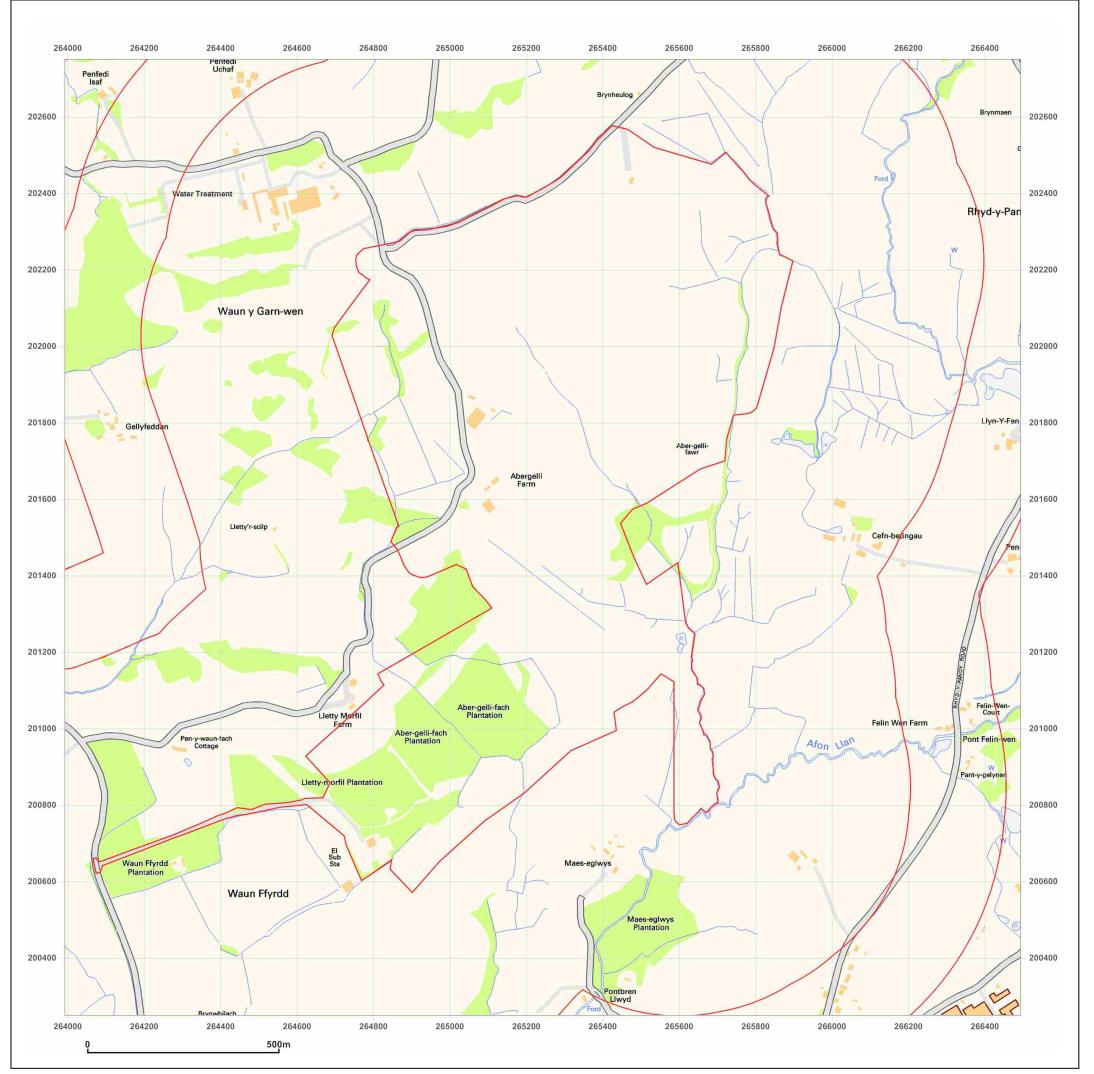
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E: info@groundsure.com

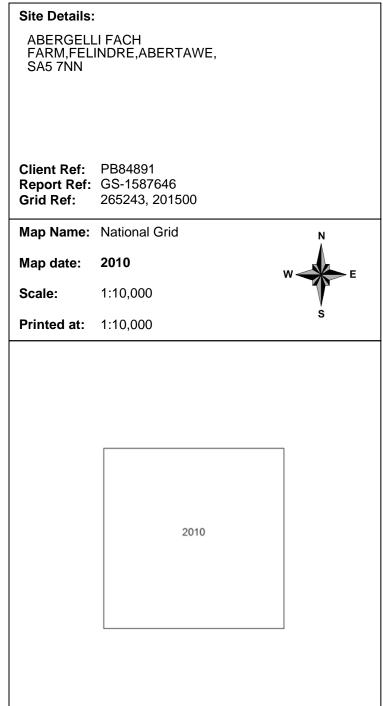
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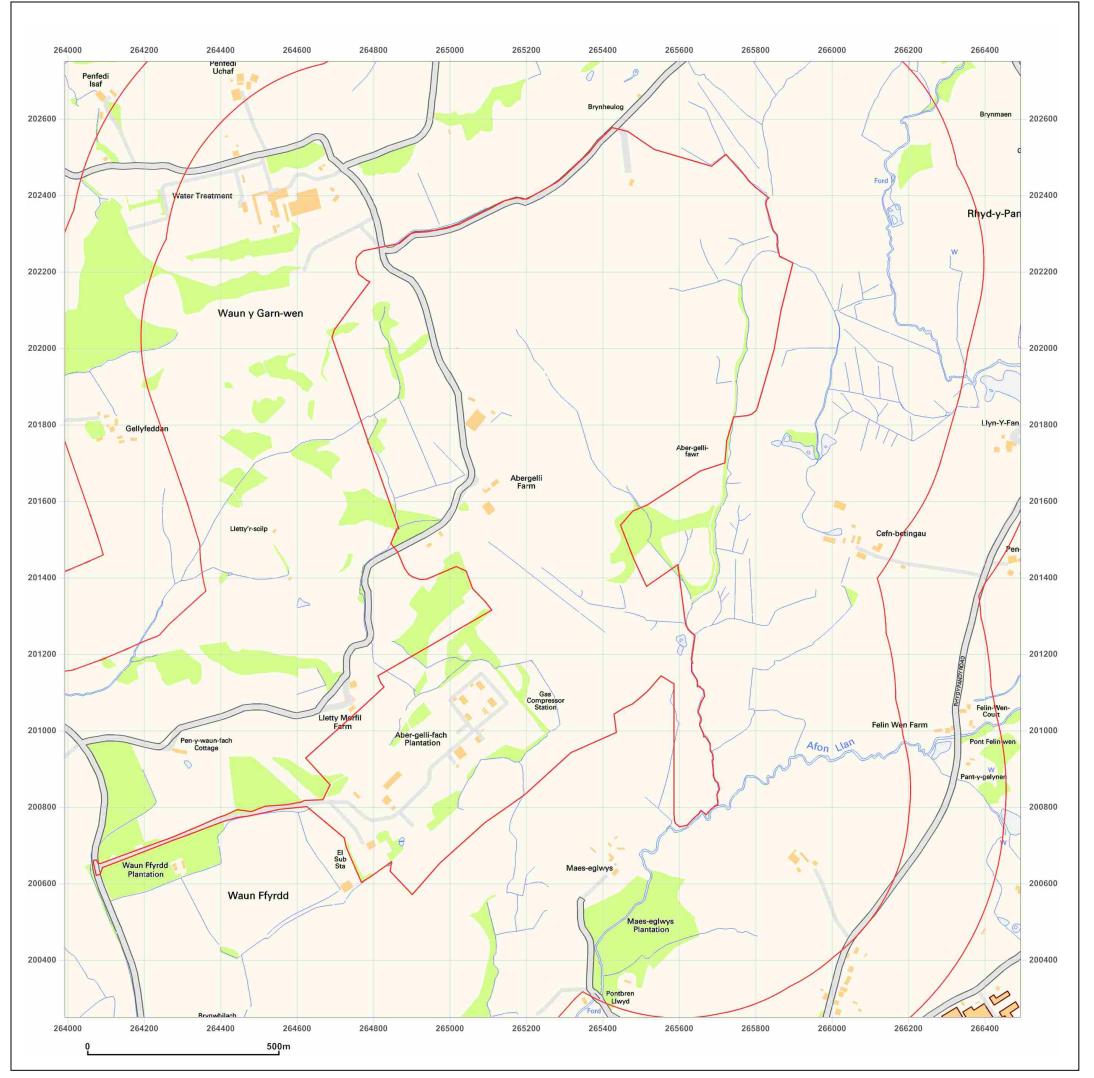
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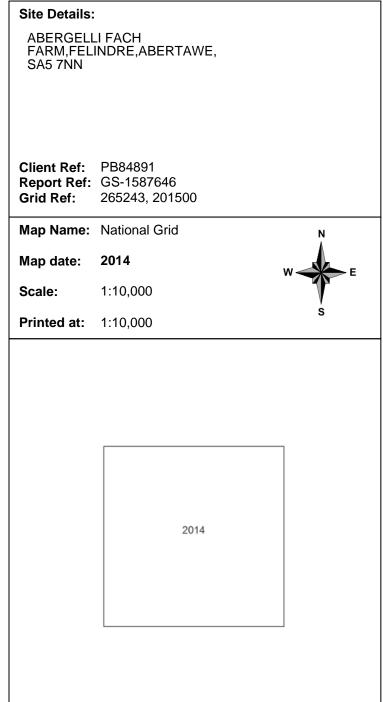
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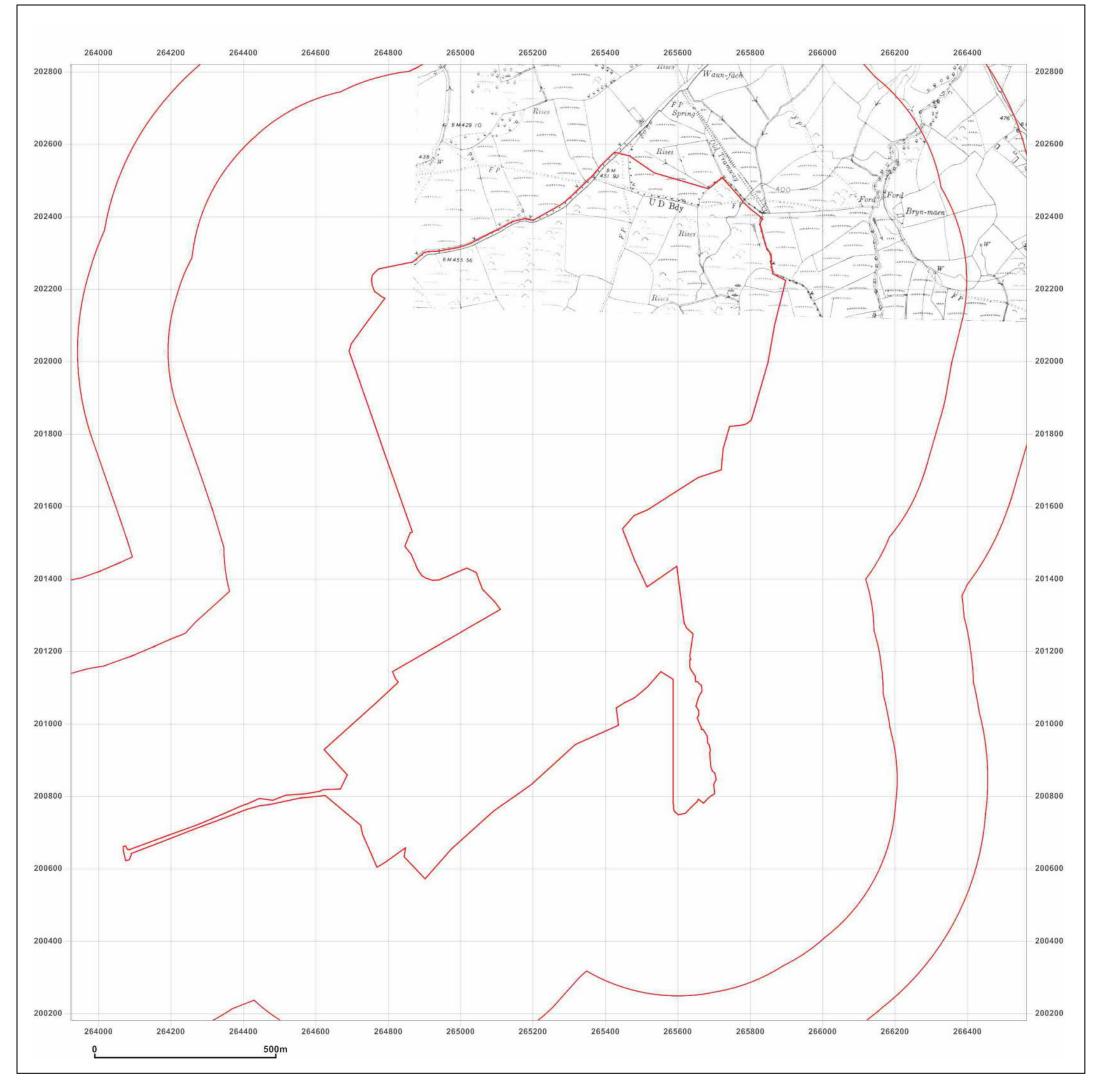
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| Site Details:                   | :                            |   |
|---------------------------------|------------------------------|---|
| ABERGELL<br>FARM,FEL<br>SA5 7NN | LI FACH<br>INDRE,ABERTAWE,   |   |
| Grid Ref:                       | GS-1587646<br>265243, 201500 |   |
| Map Name:                       | County Series                | N<br>A  |
| Map date:                       | 9152                         | E   |
| Scale:                          | 1:10,560                     |   |
| Printed at:                     | 1:10,560                     | S   |
|                                 | R<br>Ei<br>C                 | urveyed 1875<br>evised 1952<br>dition N/A<br>opyright N/A<br>evelled 1947 |

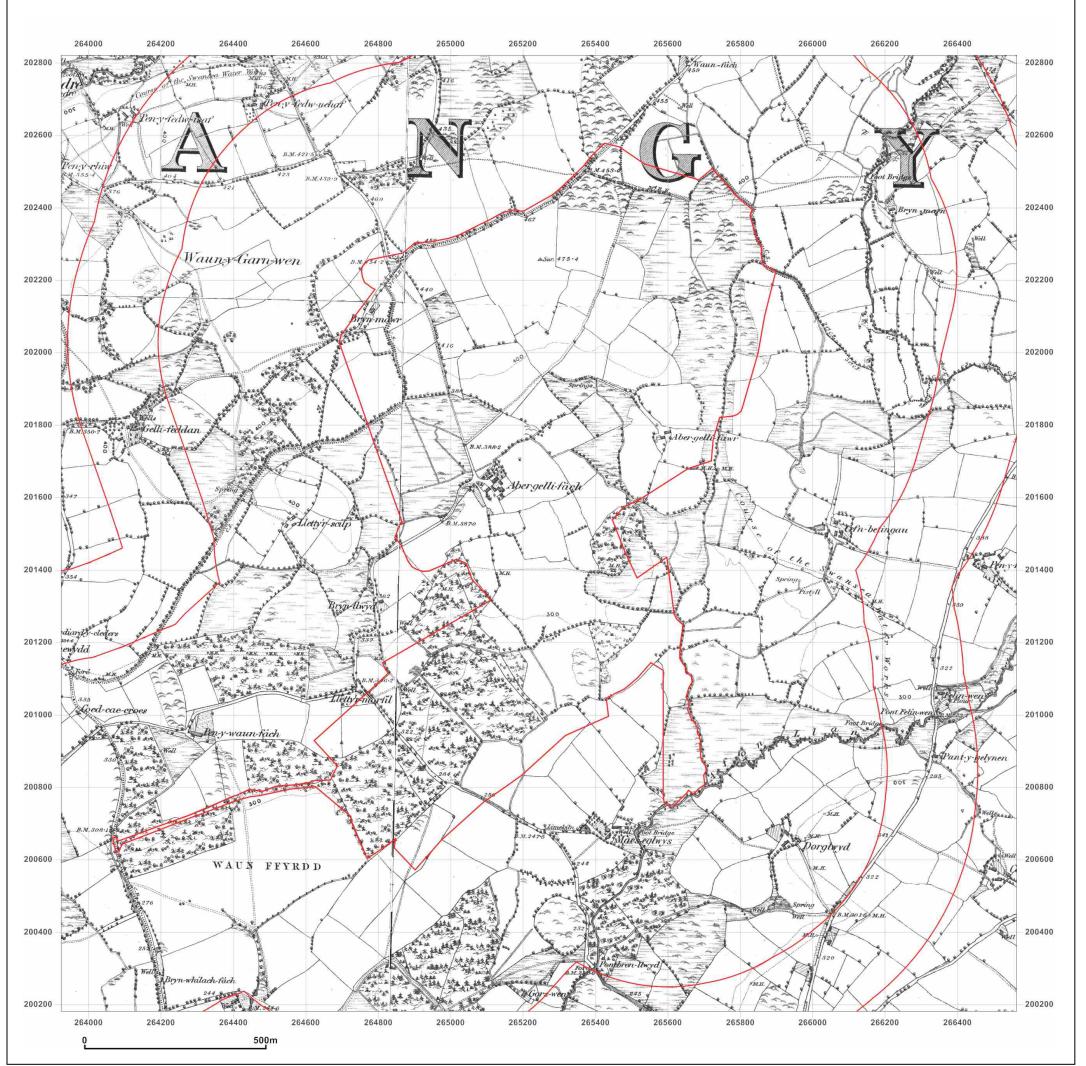


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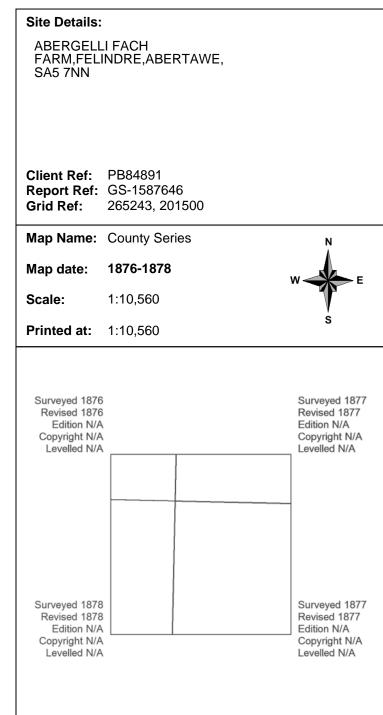
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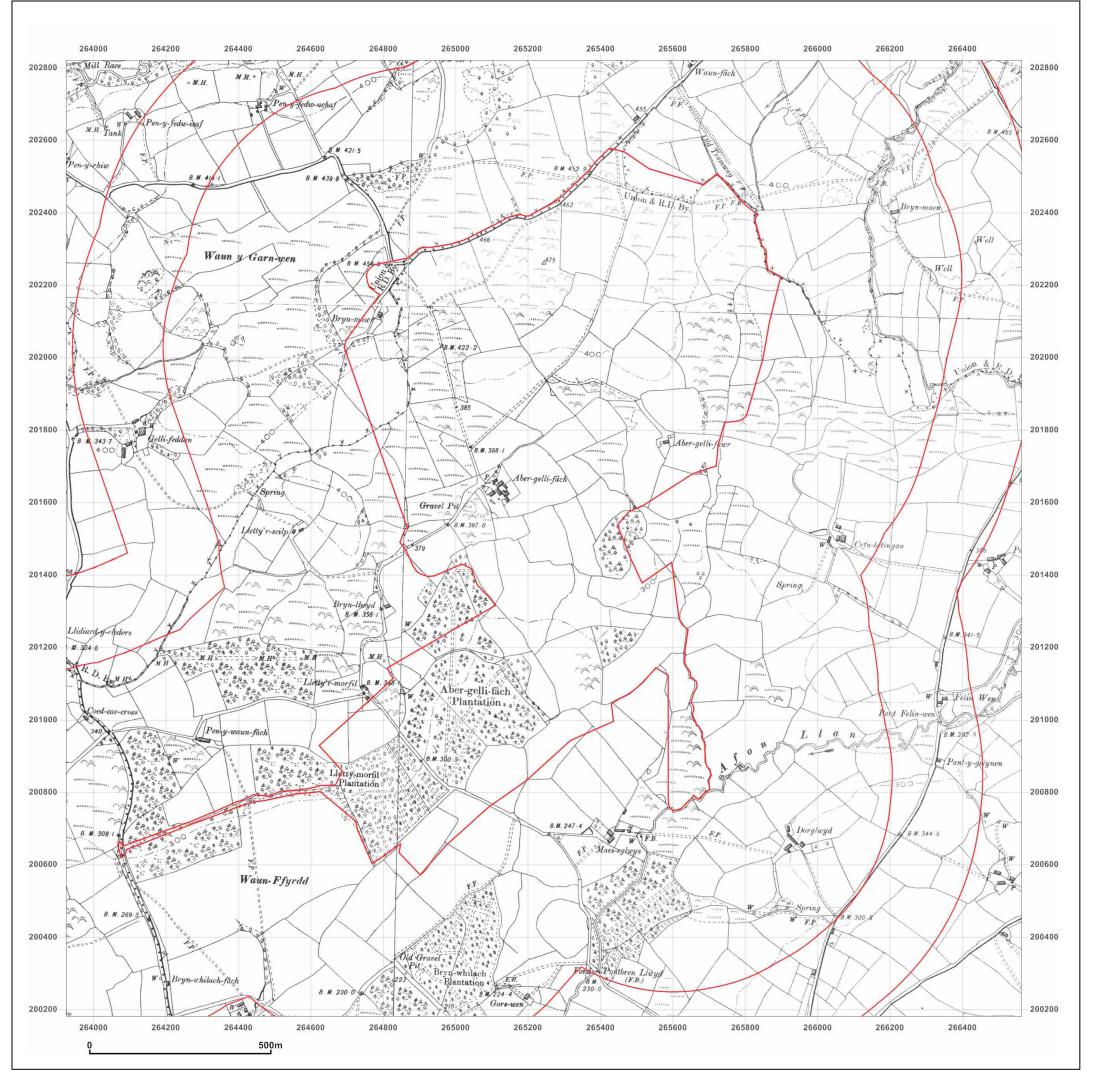
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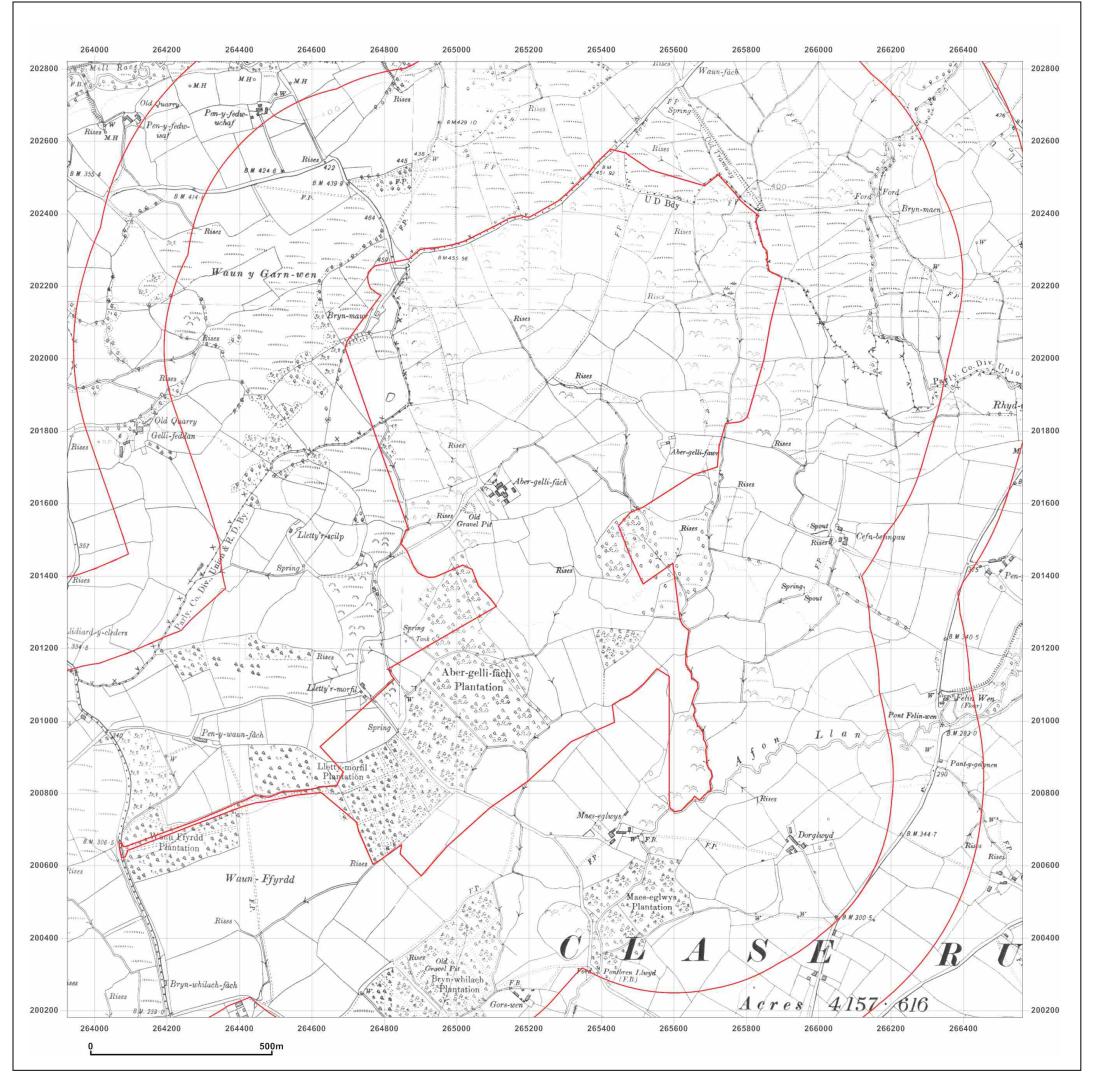
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| Site Details:   |   |   |
|---|---|---|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | I FACH<br>NDRE,ABERTAWE,                |   |
|   |   |   |
|   | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:   | County Series                           | N   |
| Map date:   | 1913-1914                               | W E   |
| Scale:  | 1:10,560                                |   |
| Printed at:   | 1:10,560                                | S   |
| Surveyed 1875<br>Revised 1913<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |   | Surveyed 1875<br>Revised 1913<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |
| Surveyed 1875<br>Revised 1914<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |   | Surveyed 1876<br>Revised 1913<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



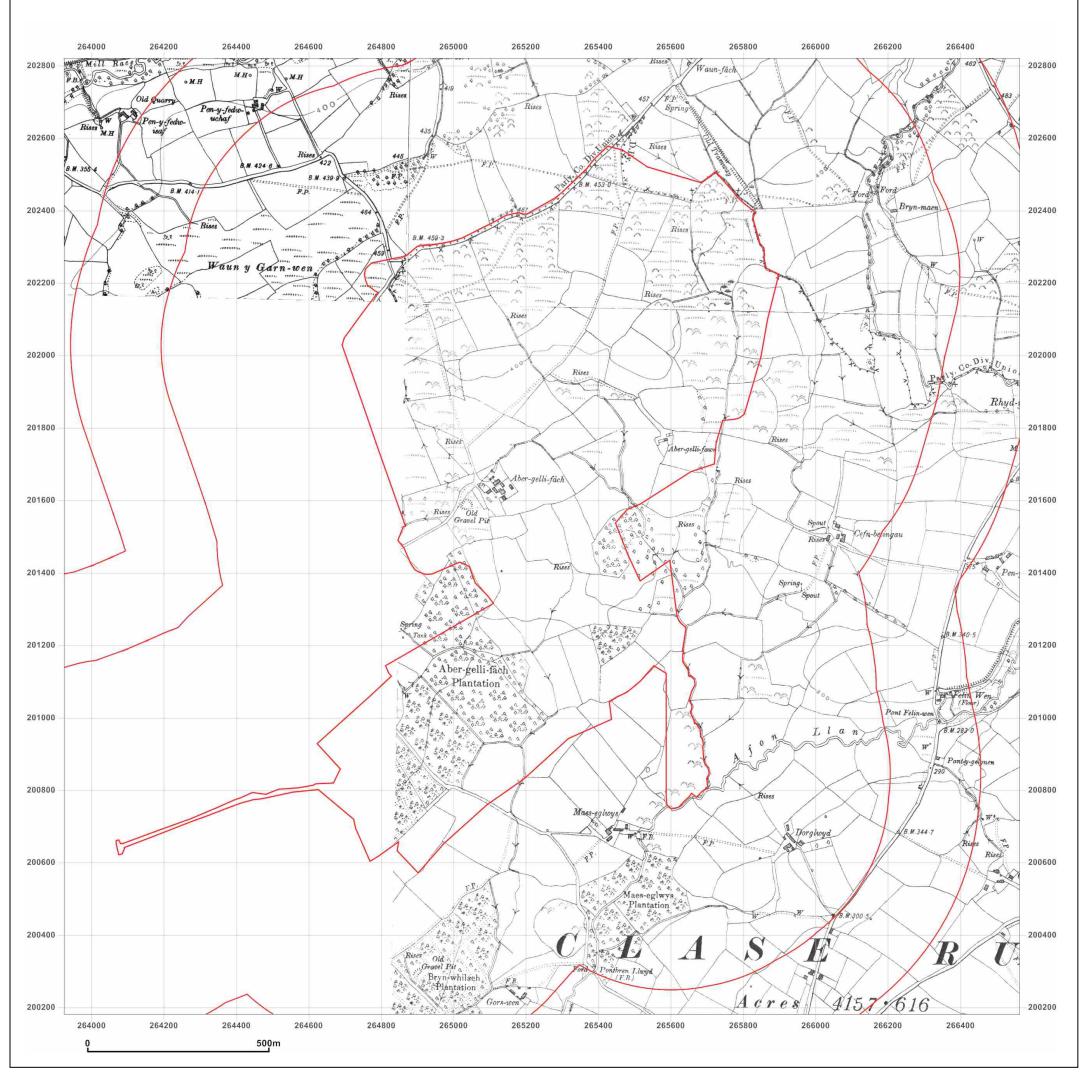
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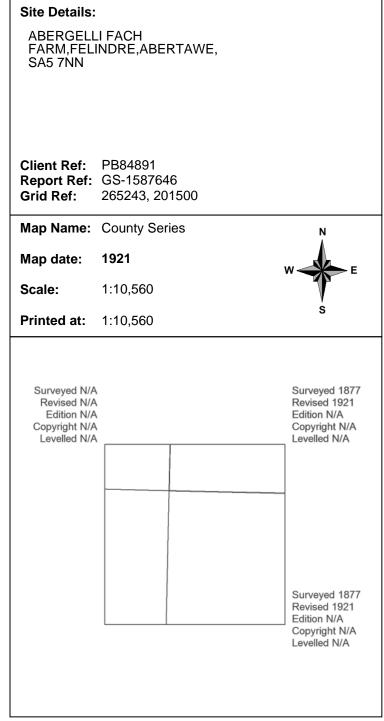
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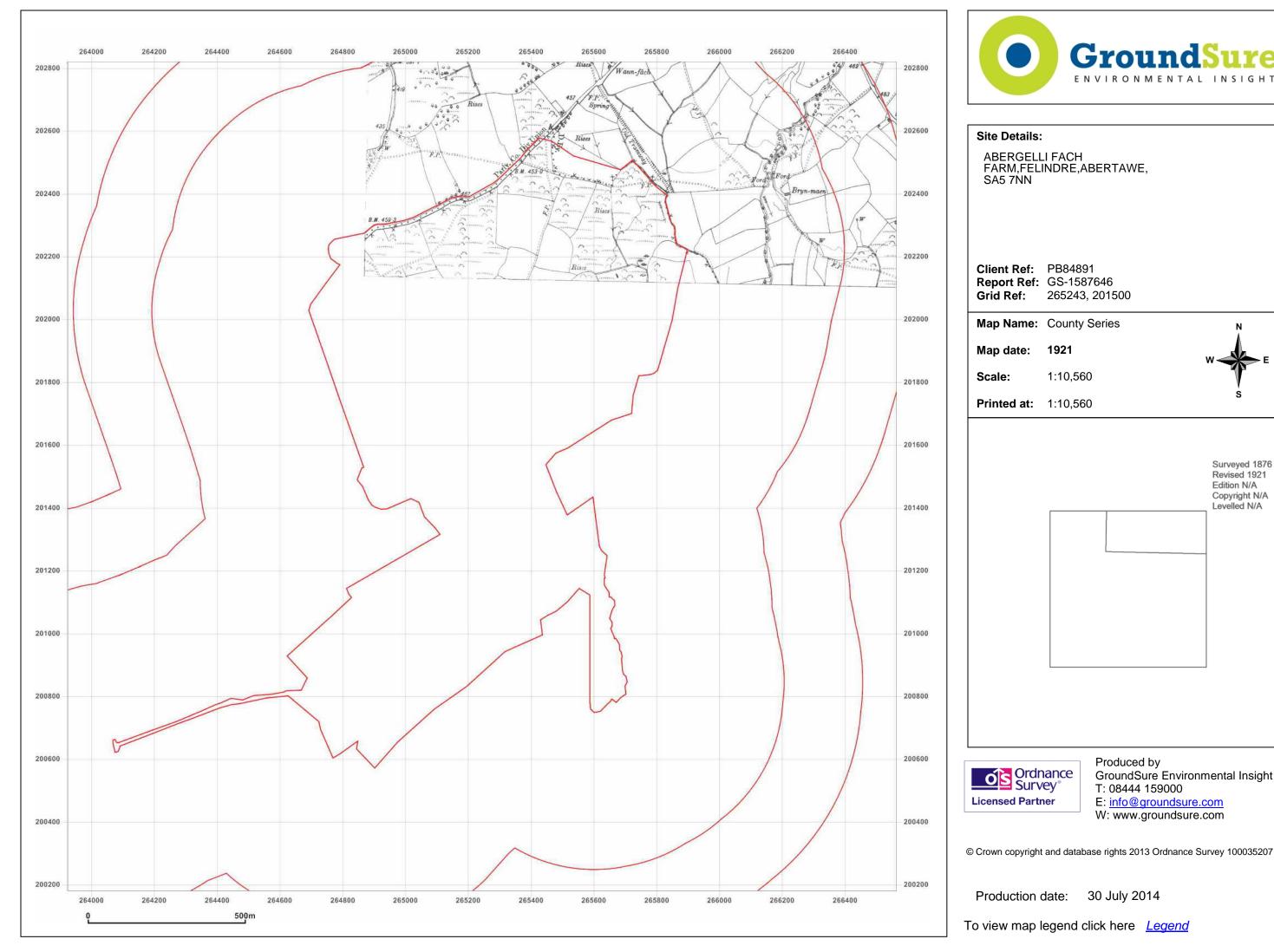
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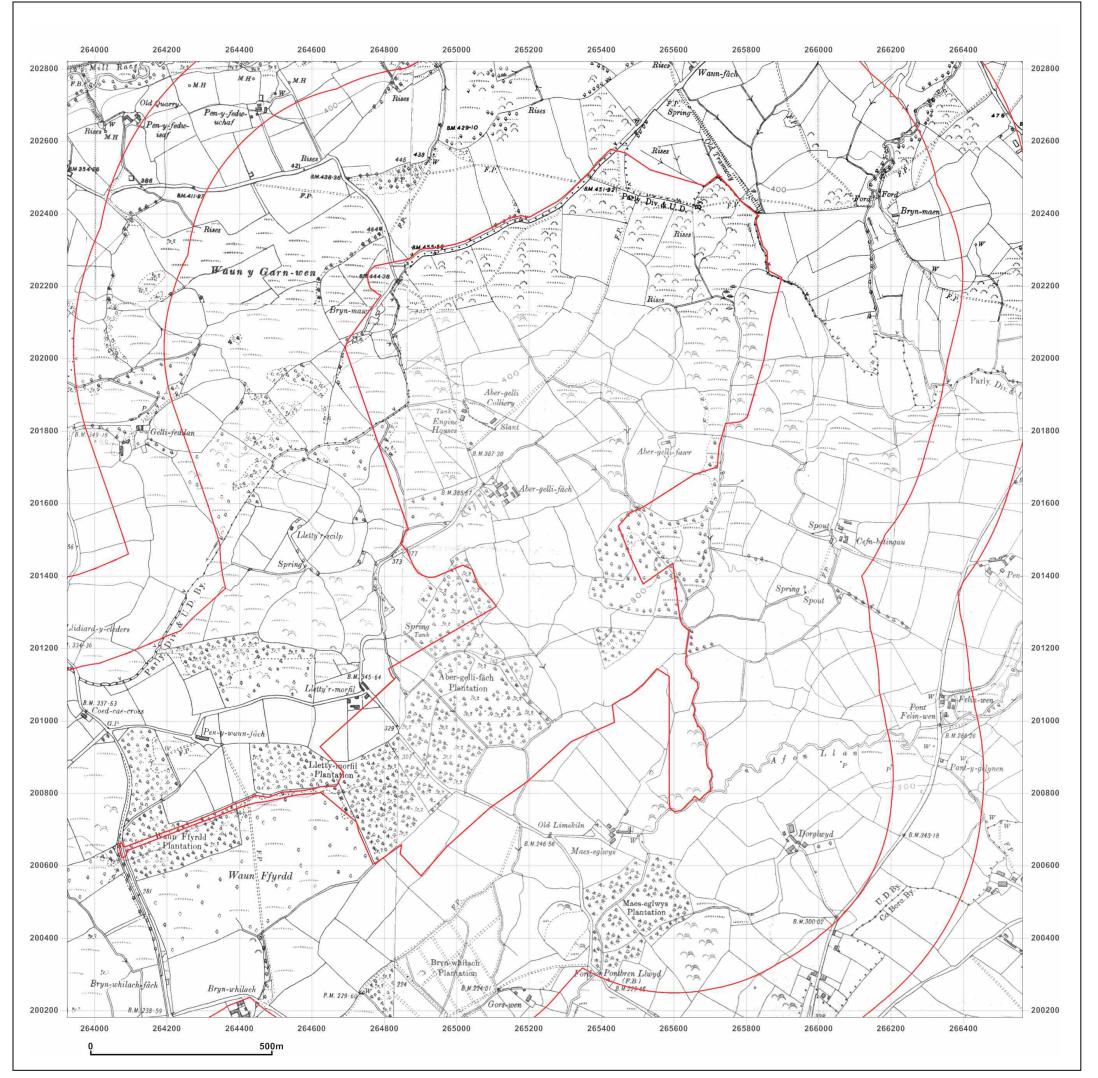
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|                                  | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:                        | County Series                           | N   |
| Map date:                        | 1921                                    | W E   |
| Scale:                           | 1:10,560                                | Y   |
| Printed at:                      | 1:10,560                                | S   |
|                                  |   | Surveyed 1876<br>Revised 1921<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



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|--|------------------------------|---|
| ABERGELL<br>FARM,FELI<br>SA5 7NN   | I FACH<br>NDRE,ABERTAWE,     |   |
| Client Ref:  | PR84891                      |   |
|  | GS-1587646<br>265243, 201500 |   |
| Map Name:  | County Series                | N   |
| Map date:  | 1935-1938                    | W E   |
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| Printed at:  | 1:10,560                     | S   |
| Surveyed 1875<br>Revised 1938<br>Edition 1938<br>Copyright N/A<br>Levelled N/A |                              | Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A               |
| Surveyed 1875<br>Revised 1935<br>Edition N/A<br>Copyright N/A<br>Levelled N/A  |                              | Surveyed 1876<br>Revised 1936<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |



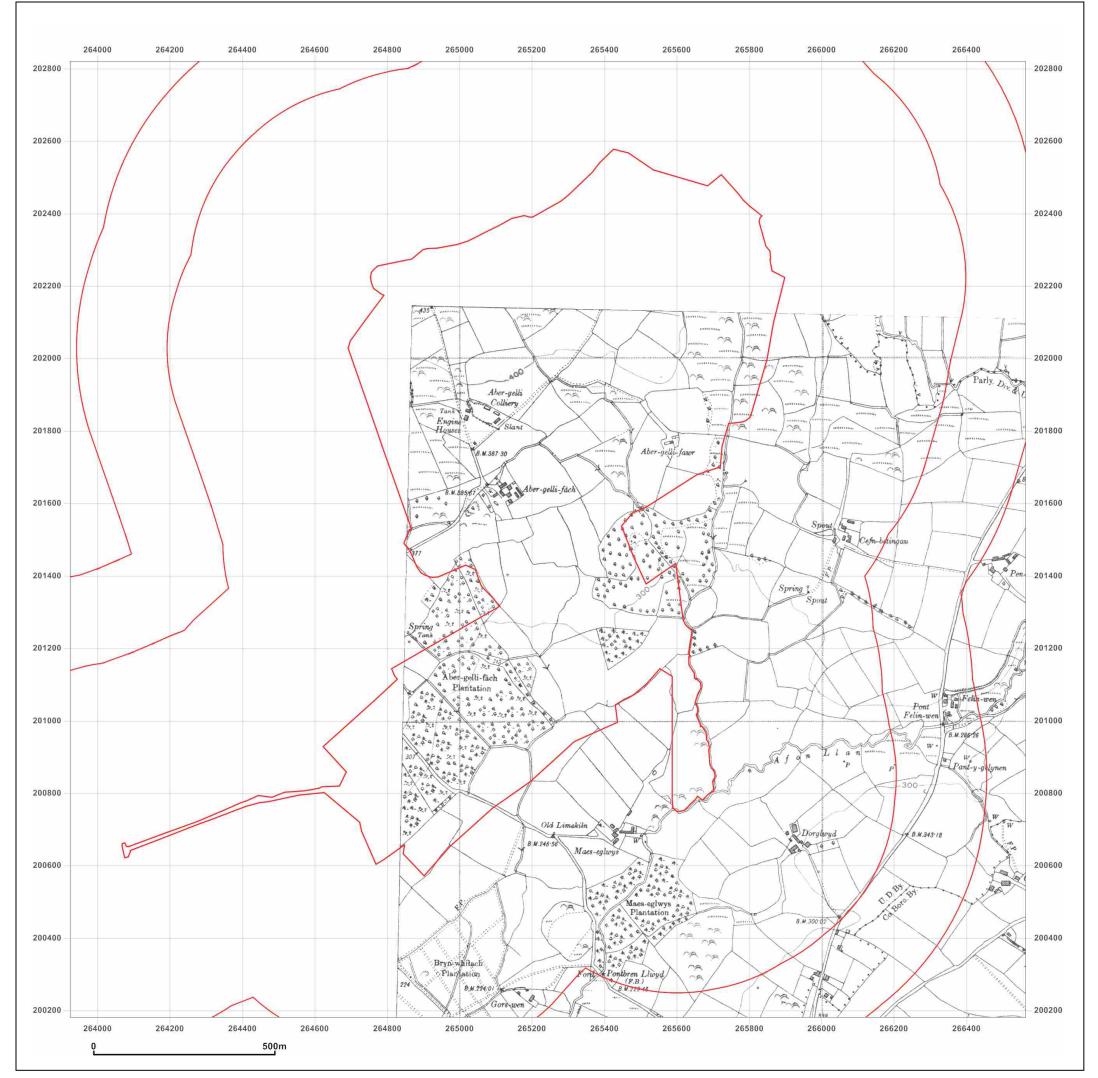
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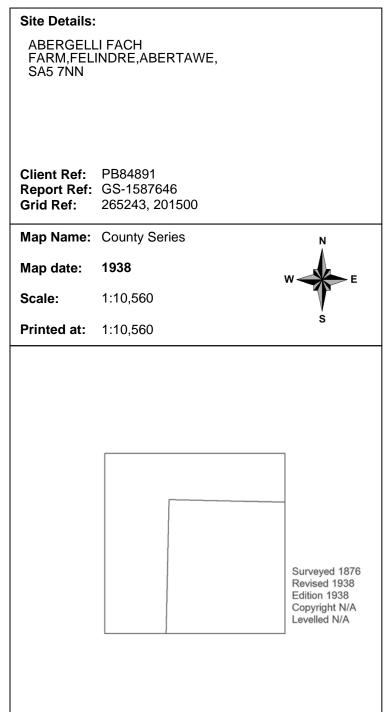
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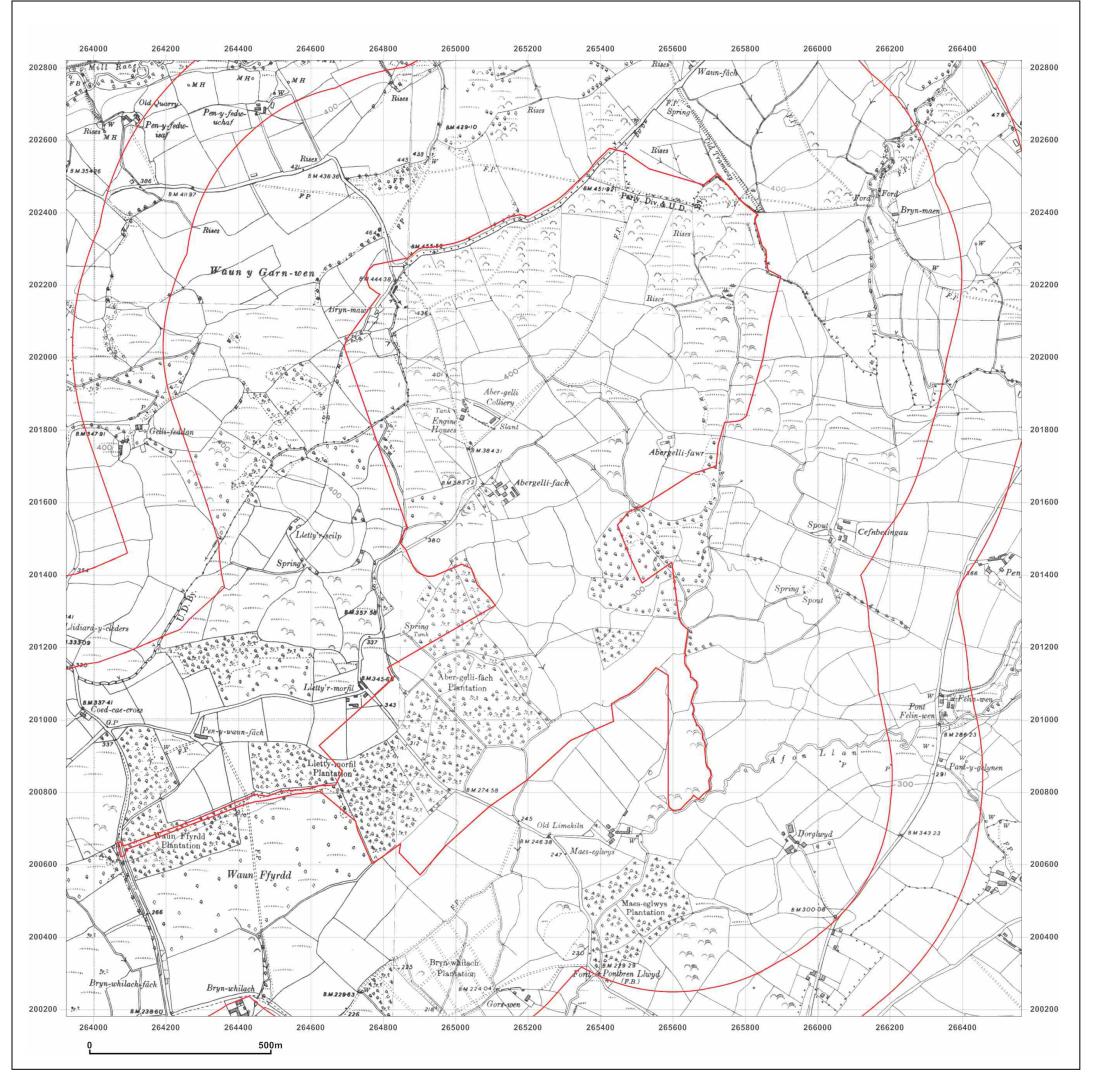
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| Site Details:   |                              |  |
|---|------------------------------|--|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | I FACH<br>NDRE,ABERTAWE,     |  |
| Client Ref:   | PB84891                      |  |
|   | GS-1587646<br>265243, 201500 |  |
| Map Name:   | County Series                | N  |
| Map date:   | 1948                         | W  |
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| Printed at:   | 1:10,560                     | S  |
| Surveyed 1875<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |                              | Surveyed 1876<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled 1947 |
| Surveyed 1875<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |                              | Surveyed 1876<br>Revised 1948<br>Edition N/A<br>Copyright N/A<br>Levelled N/A  |



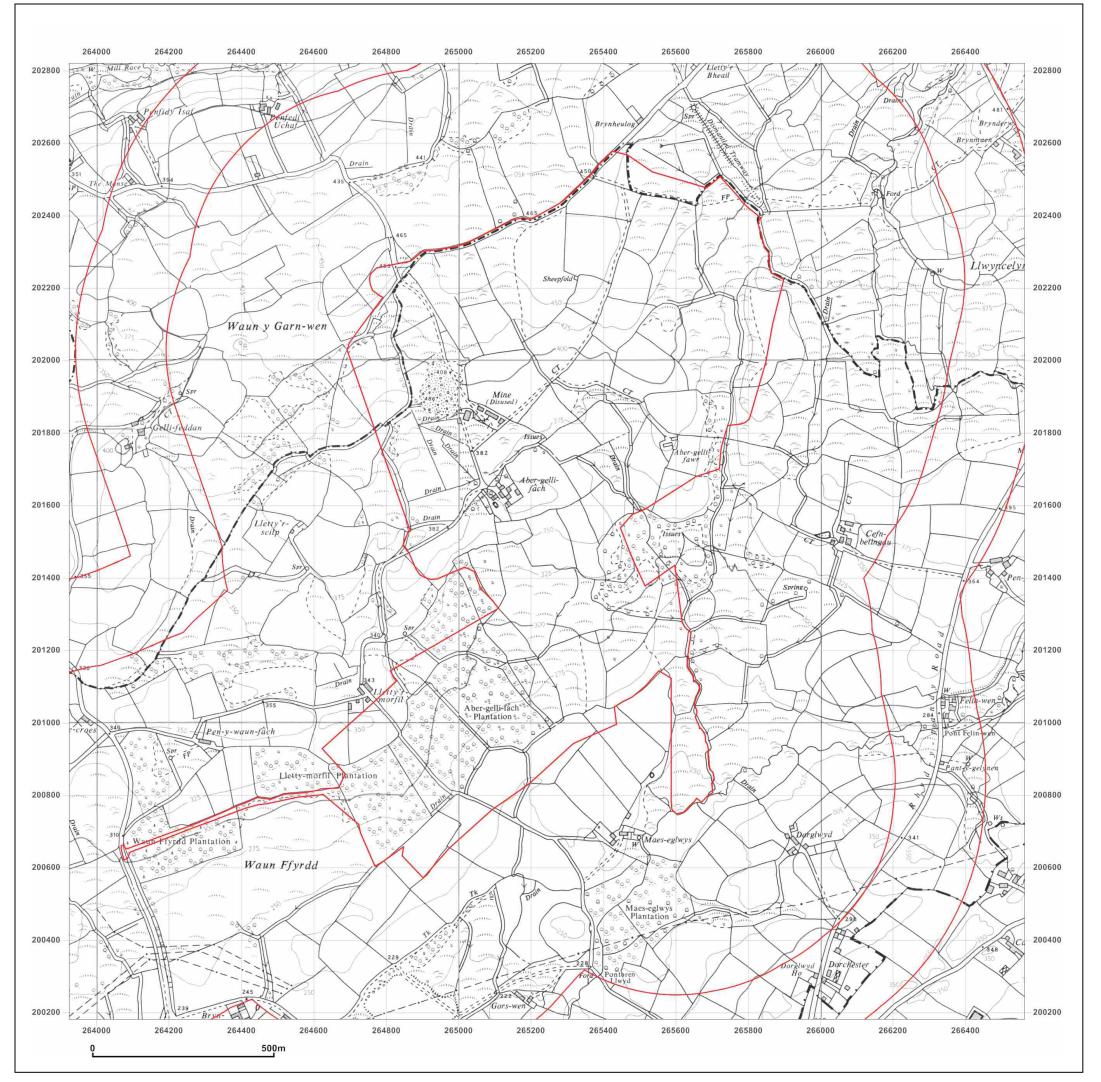
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|---|---|---|
|   | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:   | Provisional                             | N<br>Å  |
| Map date:   | 1964                                    | W E   |
| Scale:  | 1:10,560                                |   |
| Printed at:   | 1:10,560                                | S   |
| Surveyed 1964<br>Revised 1964<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | 4<br>\                                  | Surveyed 1964 Revised 1964 Edition N/A Copyright N/A Levelled N/A |
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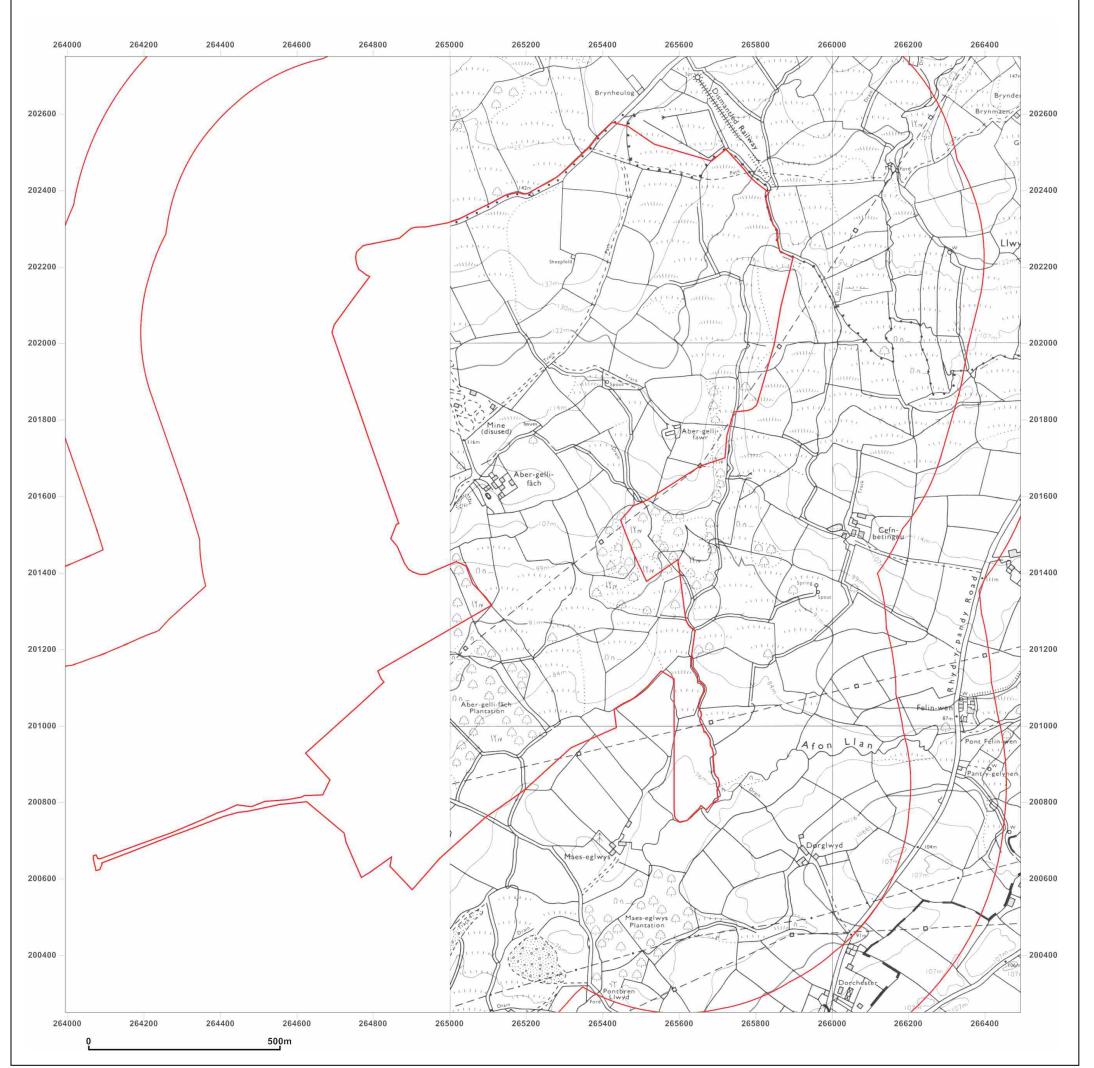


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| Site Details:                   | :                                       |   |
|---------------------------------|---|---|
| ABERGELI<br>FARM,FEL<br>SA5 7NN | LI FACH<br>INDRE,ABERTAWE,              |   |
|                                 | PB84891<br>GS-1587646<br>265243, 201500 |   |
| Map Name:                       | National Grid                           | N<br>A  |
| Map date:                       | 1975                                    | W E   |
| Scale:                          | 1:10,000                                |   |
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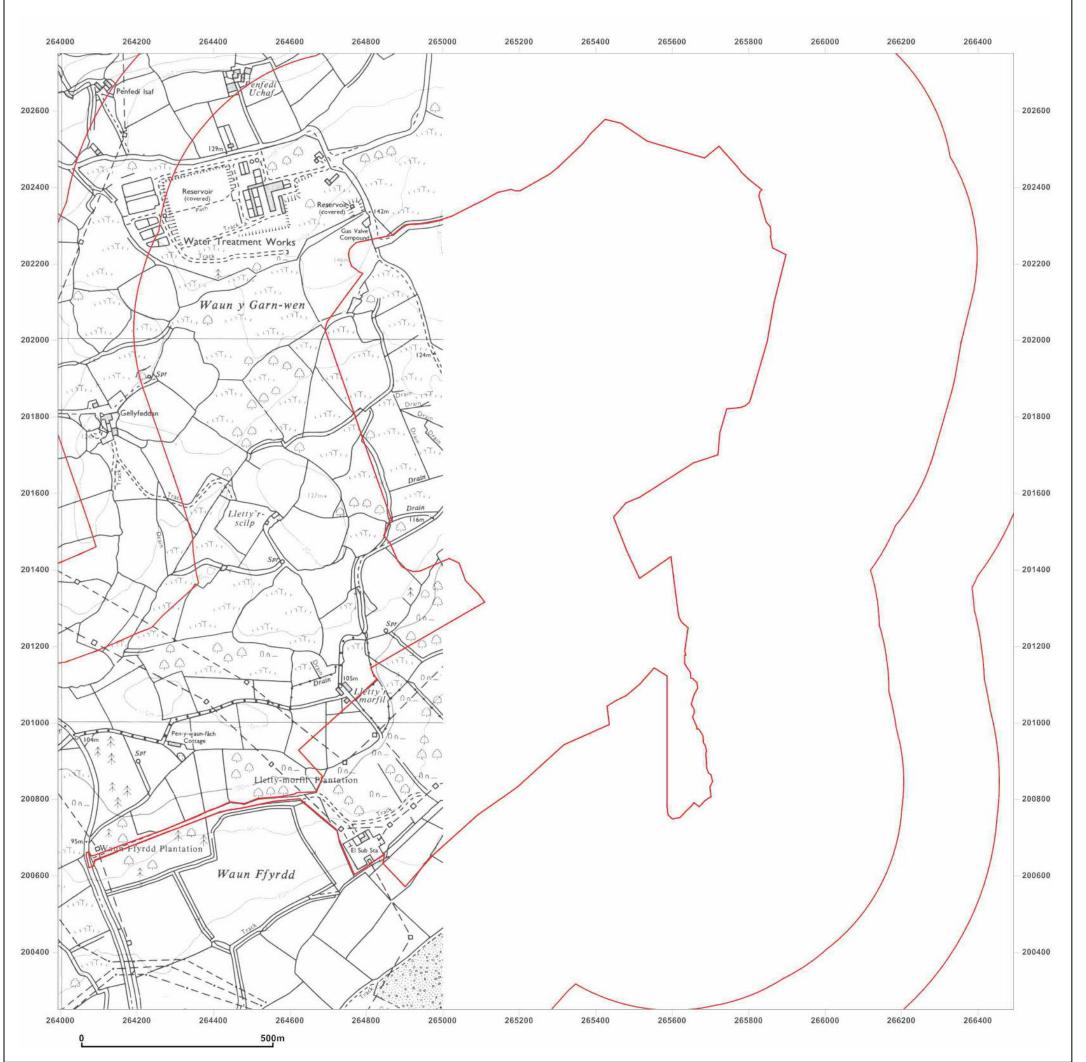


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| Site Details:                           |   |
|---|---|
| ABERGELL<br>FARM,FELI<br>SA5 7NN        | I FACH<br>INDRE,ABERTAWE,               |
|   |   |
|   |   |
|   |   |
| Client Ref:<br>Report Ref:<br>Grid Ref: | PB84891<br>GS-1587646<br>265243, 201500 |
| Map Name:                               | National Grid N                         |
| Map date:                               | 1991 W E                                |
| Scale:                                  | 1:10,000                                |
| Printed at:                             | 1:10,000 s                              |
|   |   |
|   |   |
| Surveyed 1990                           |   |
| Revised 1991<br>Edition N/A             |   |
| Copyright N/A<br>Levelled N/A           |   |
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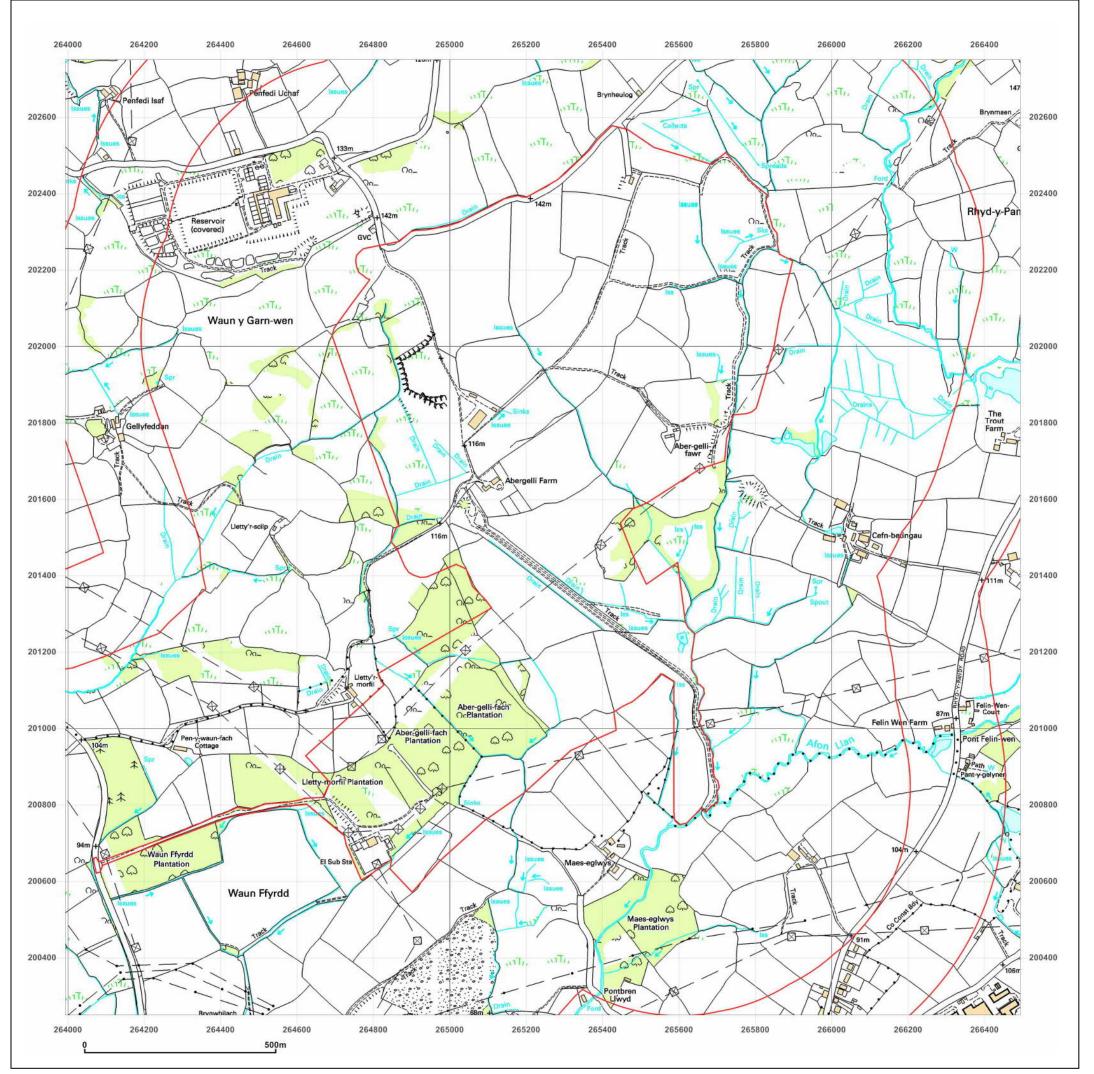
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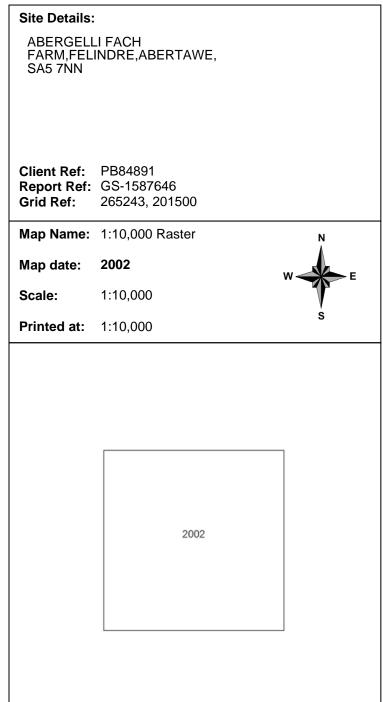
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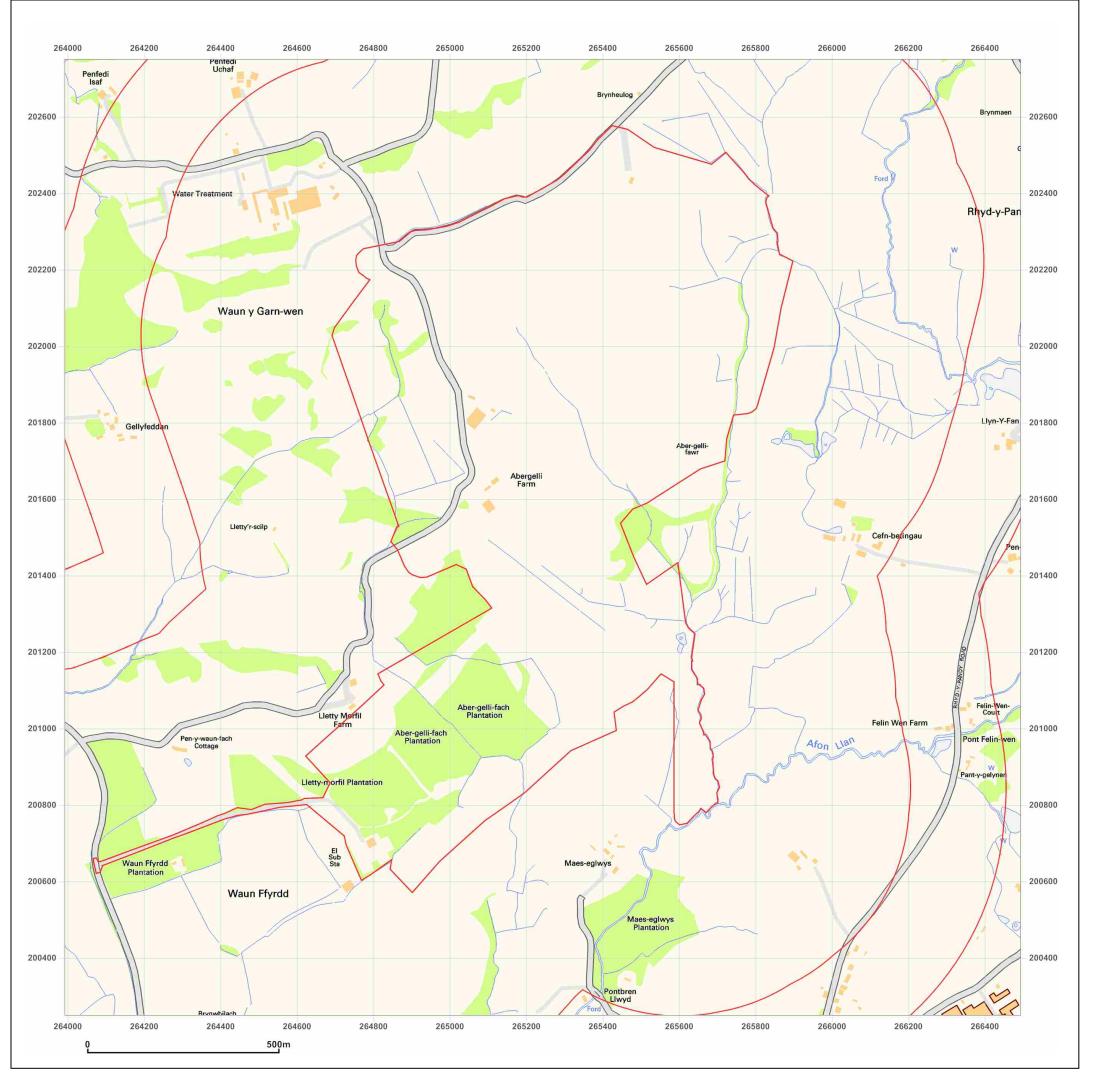
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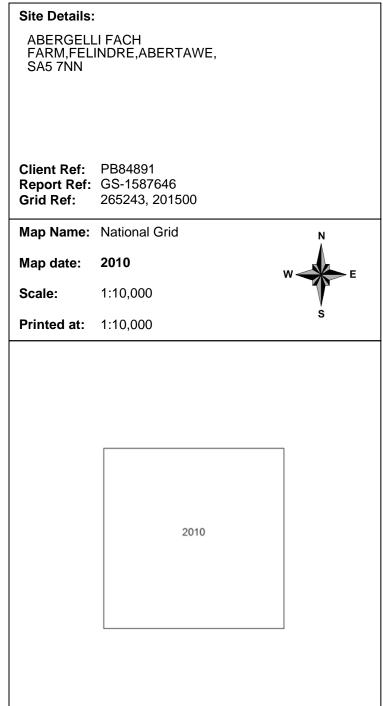
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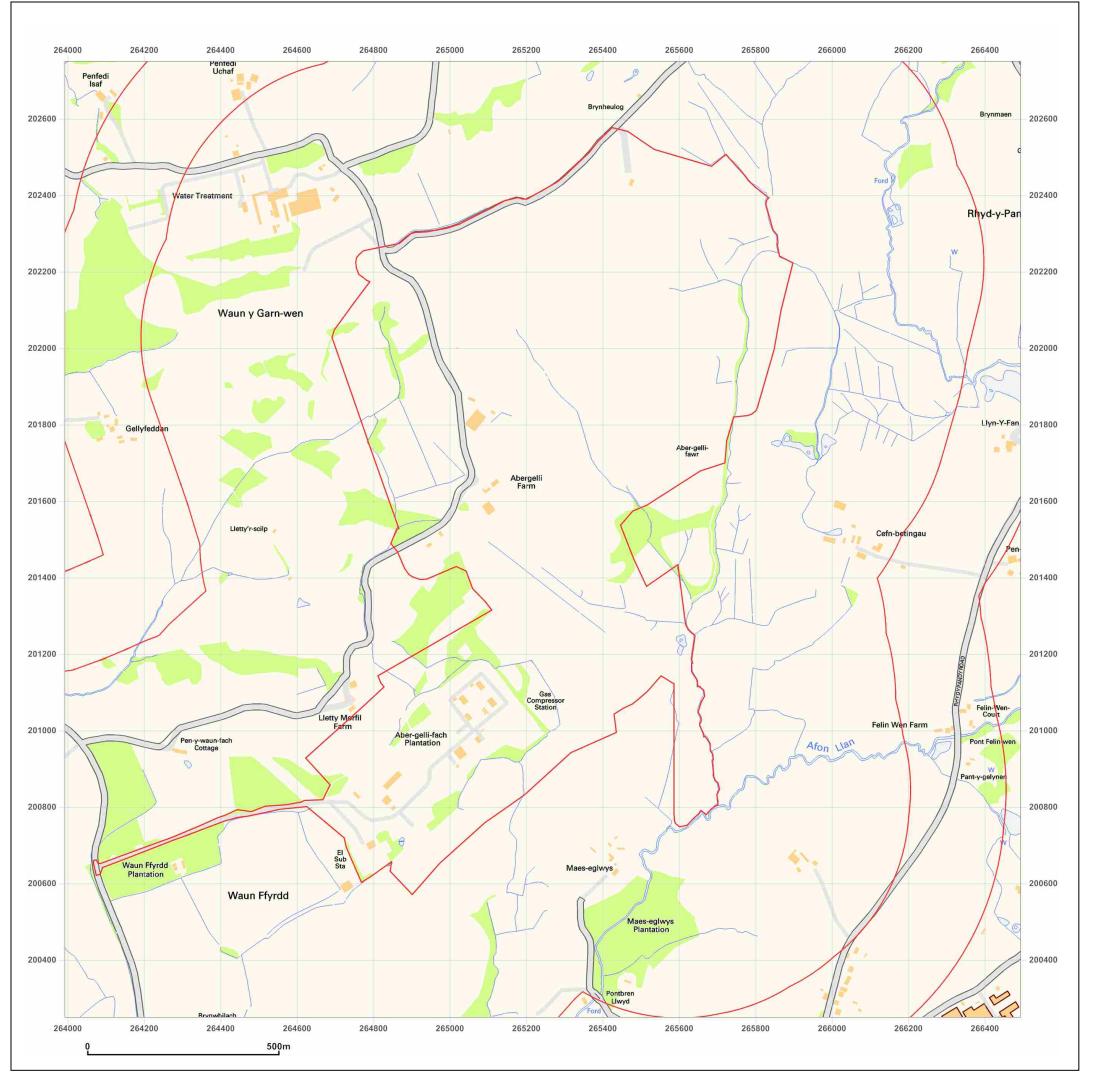
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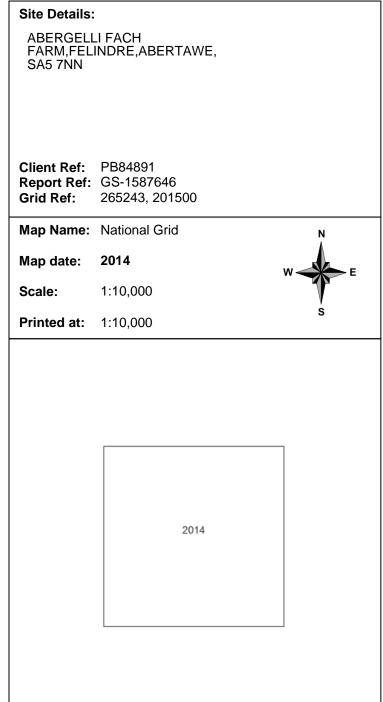
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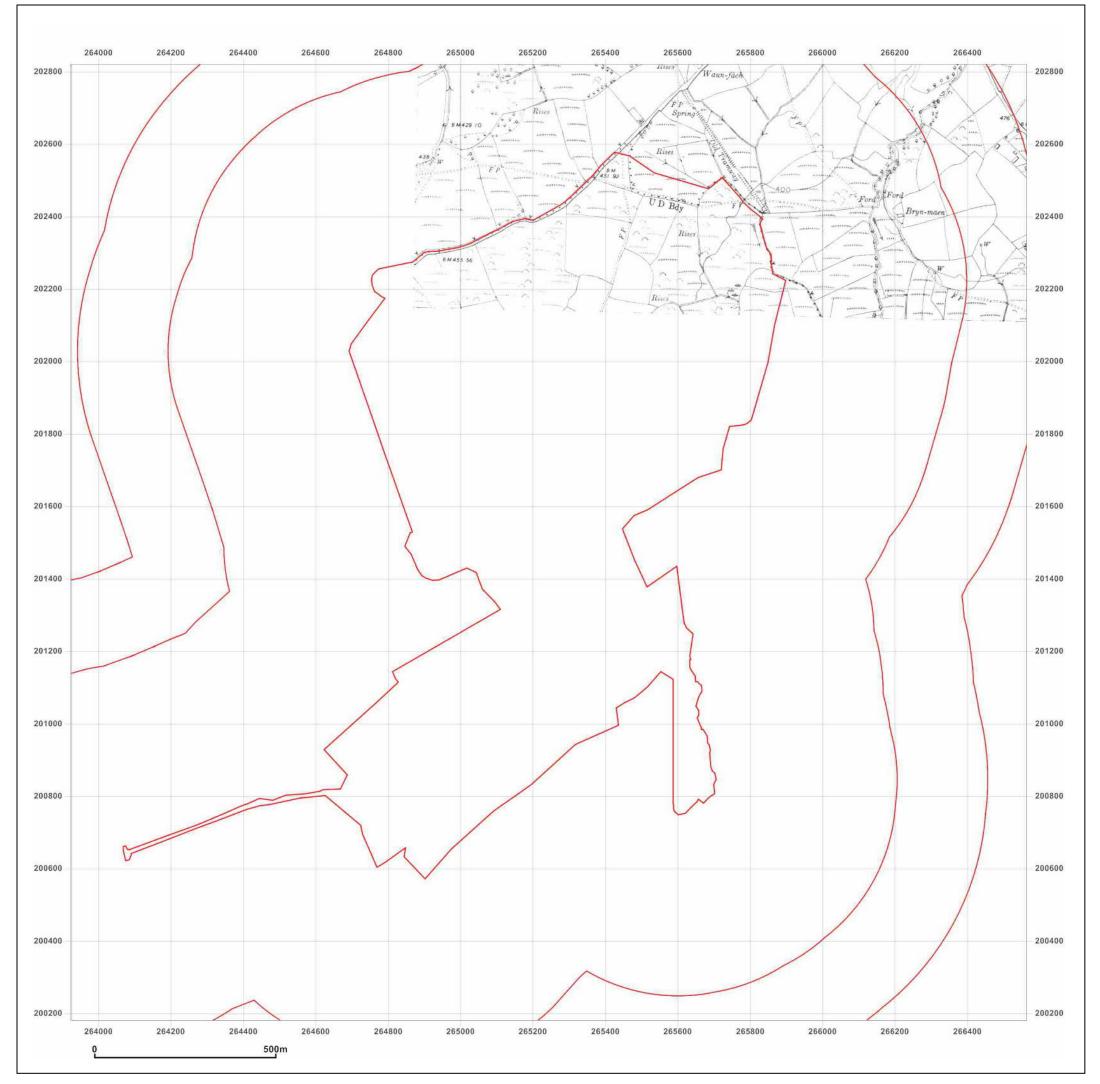
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| Site Details:                   |                              |   |  |  |  |  |
|---------------------------------|------------------------------|---|--|--|--|--|
| ABERGELL<br>FARM,FEL<br>SA5 7NN | LI FACH<br>INDRE,ABERTAWE,   |   |  |  |  |  |
| Grid Ref:                       | GS-1587646<br>265243, 201500 |   |  |  |  |  |
| Map Name:                       | County Series                | N<br>A  |  |  |  |  |
| Map date:                       | 9152                         | E   |  |  |  |  |
| Scale:                          | 1:10,560                     |   |  |  |  |  |
| Printed at:                     | 1:10,560                     | S   |  |  |  |  |
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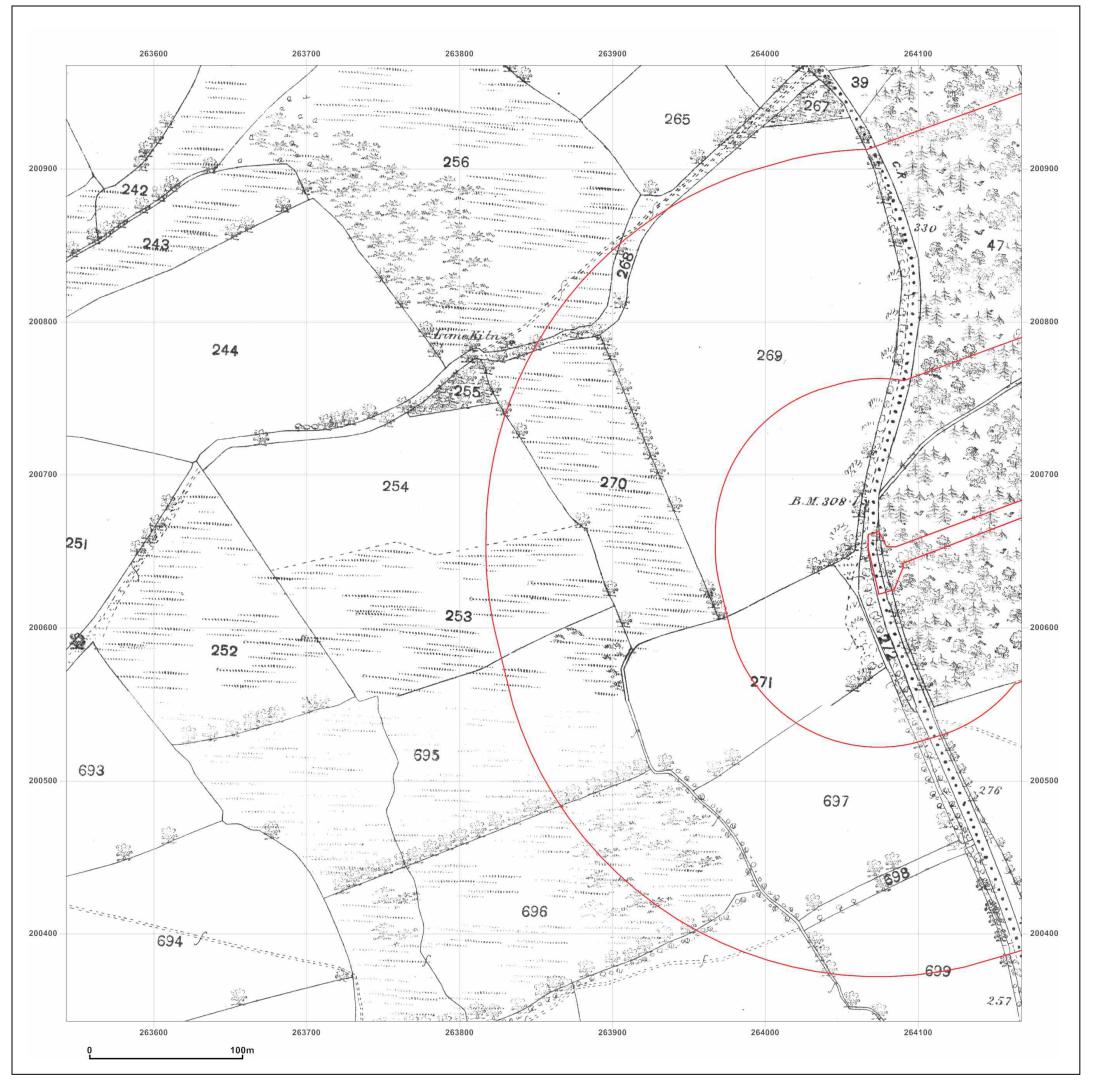


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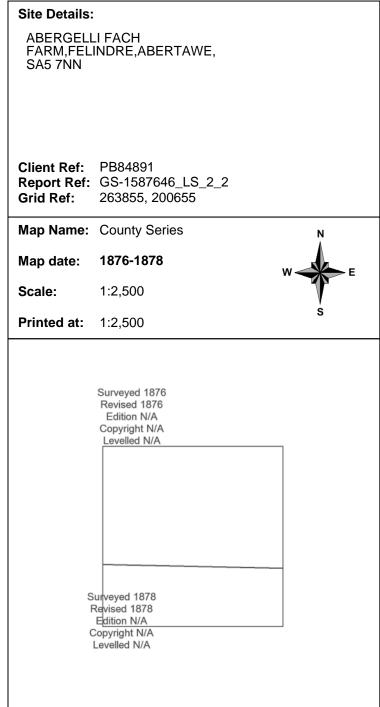
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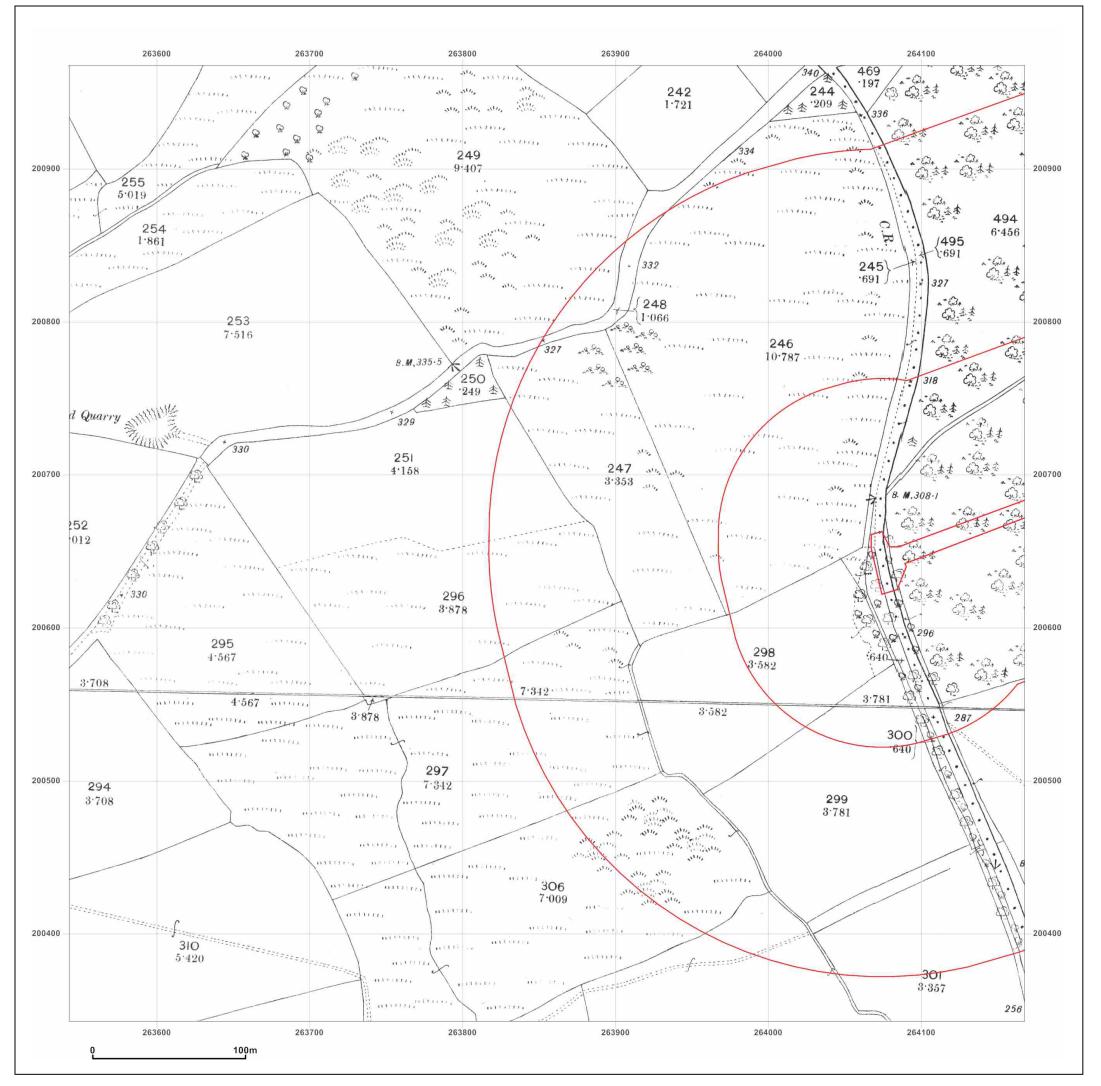


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| Site Details:  | :  |        |  |  |  |  |  |  |
|--|--|--------|--|--|--|--|--|--|
| ABERGELLI FACH<br>FARM,FELINDRE,ABERTAWE,<br>SA5 7NN |  |        |  |  |  |  |  |  |
|  |  |        |  |  |  |  |  |  |
|  | PB84891<br>GS-1587646_LS_2_2<br>263855, 200655   |        |  |  |  |  |  |  |
| Map Name:  | County Series  | N<br>Å |  |  |  |  |  |  |
| Map date:  | 1898   | W E    |  |  |  |  |  |  |
| Scale:   | 1:2,500  | *      |  |  |  |  |  |  |
| Printed at:  | 1:2,500  | S      |  |  |  |  |  |  |
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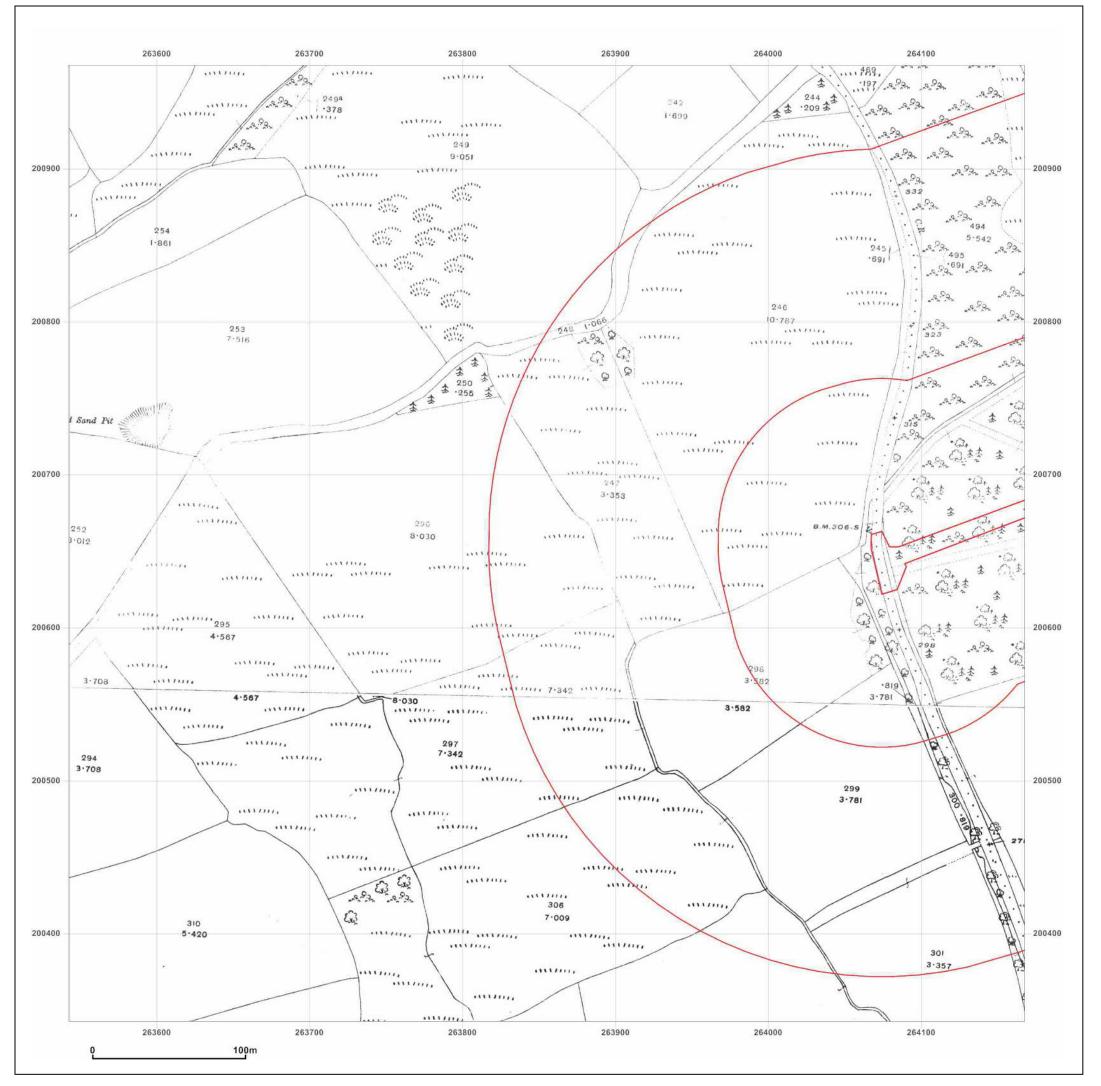
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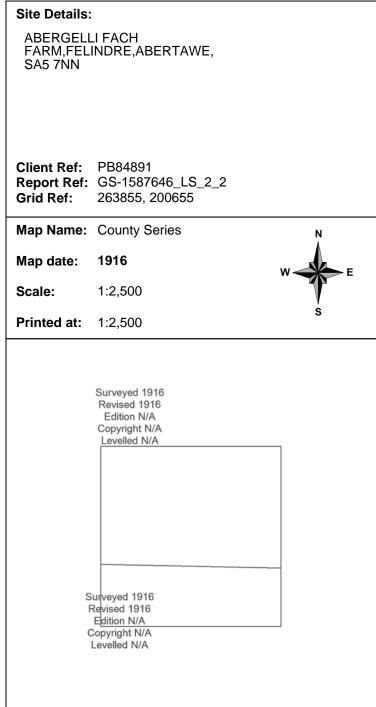
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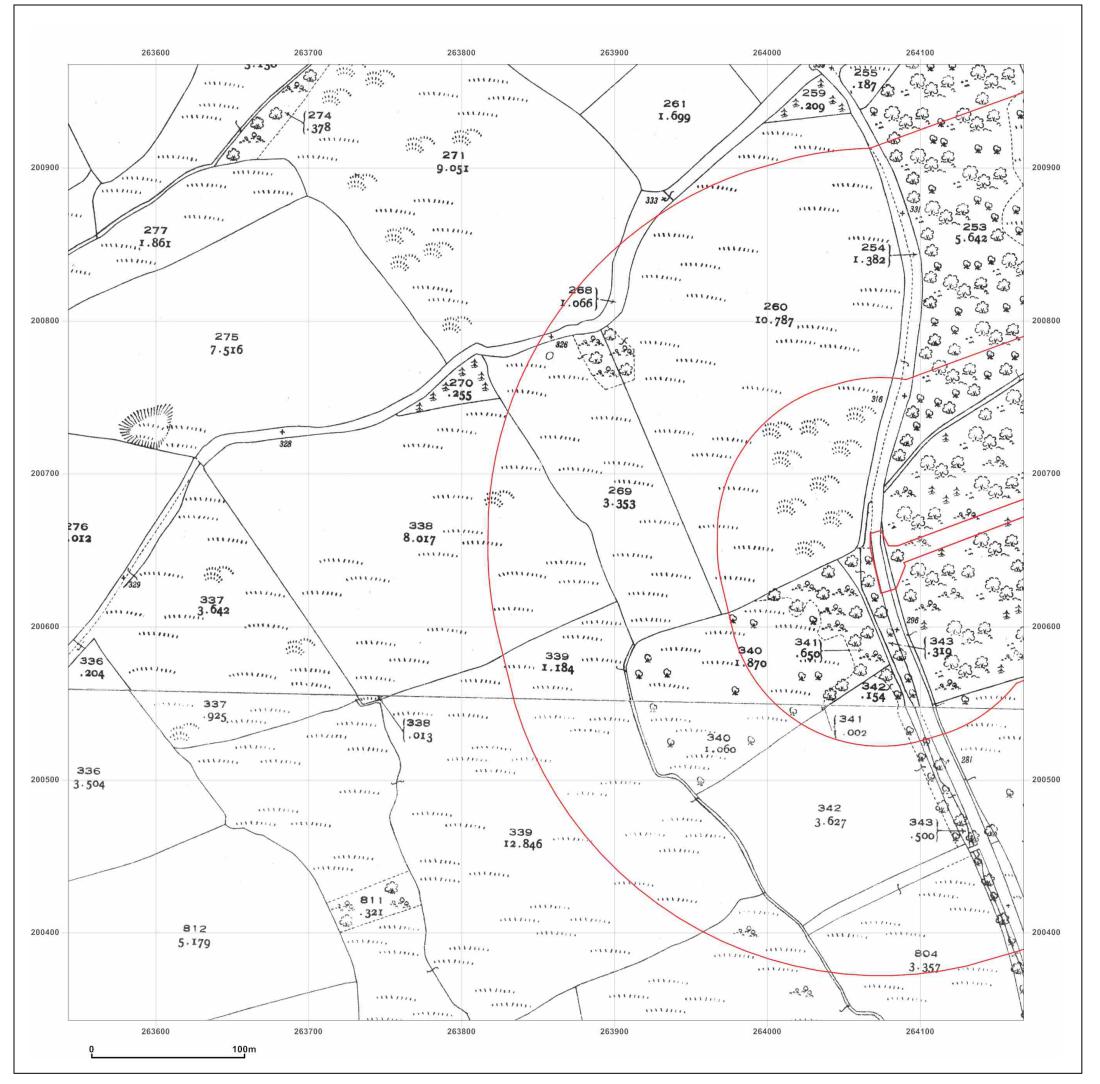
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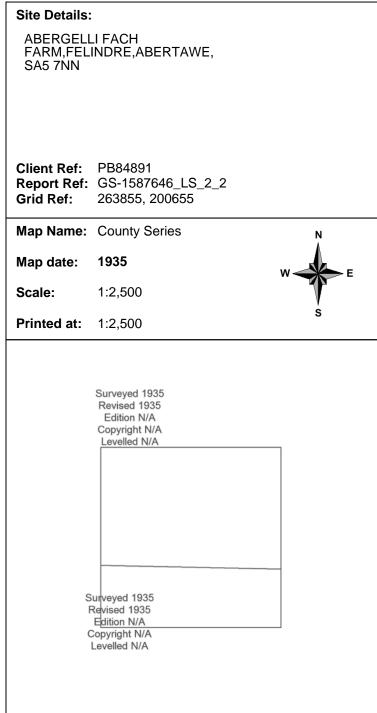
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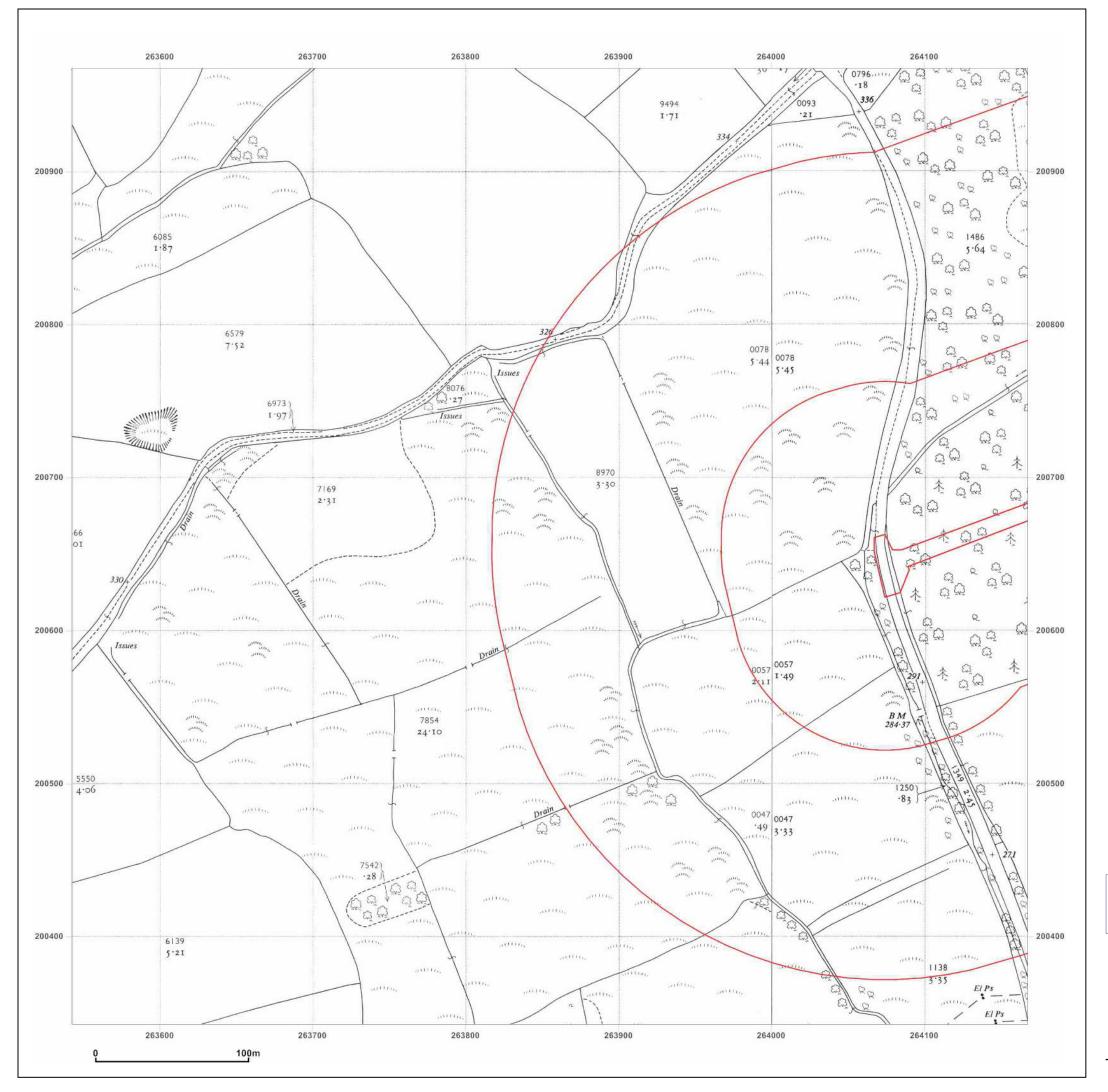


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Site Details: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN Client Ref: PB84891 Report Ref: GS-1587646\_LS\_2\_2 Grid Ref: 263855, 200655 Map Name: National Grid 1958 Map date: 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed 1958 Revised 1958 Surveyed 1958 Revised 1958 Edition N/A Edition N/A Copyright 1959 Copyright 1959 Levelled 1956 Levelled 1956



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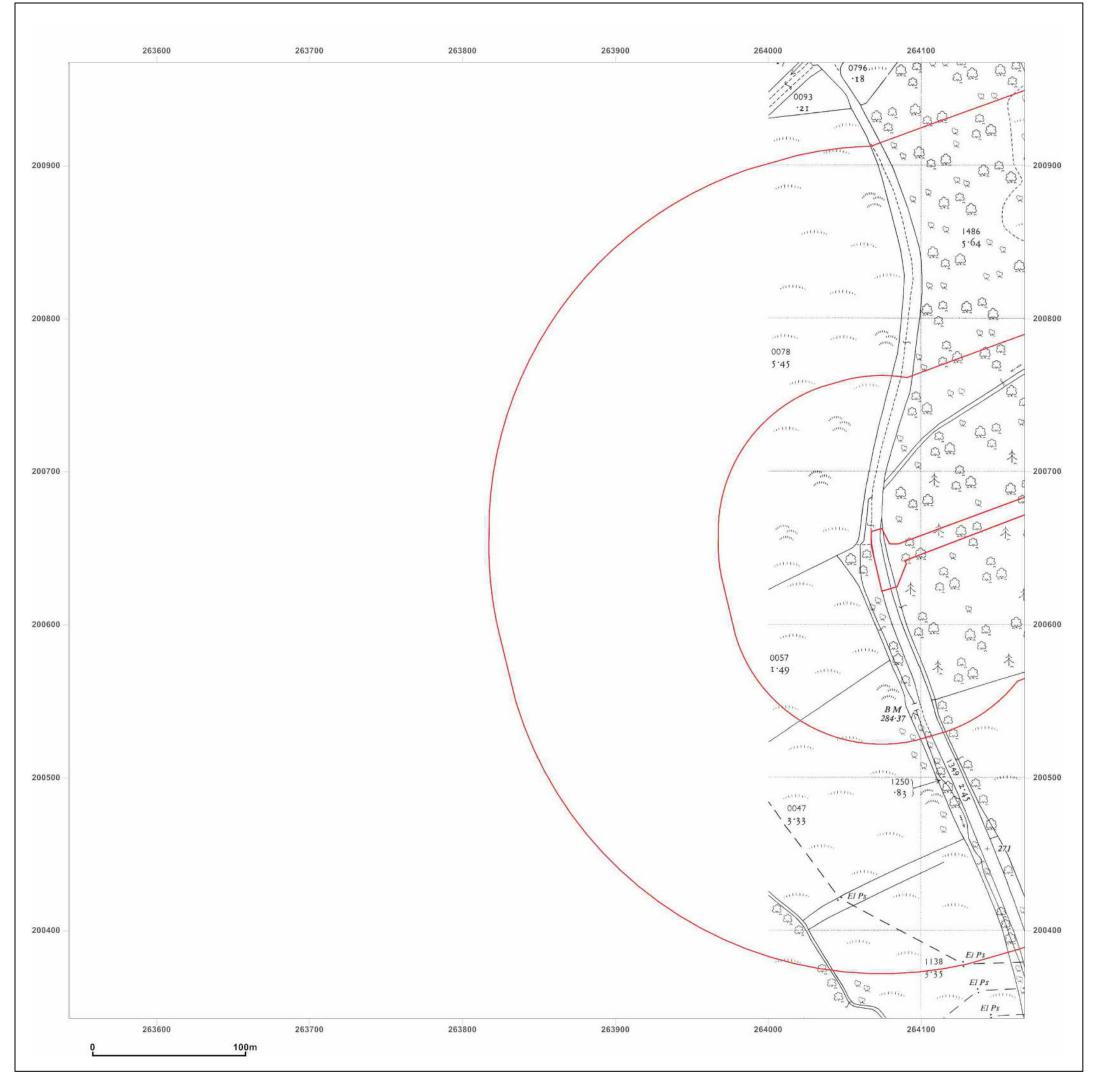
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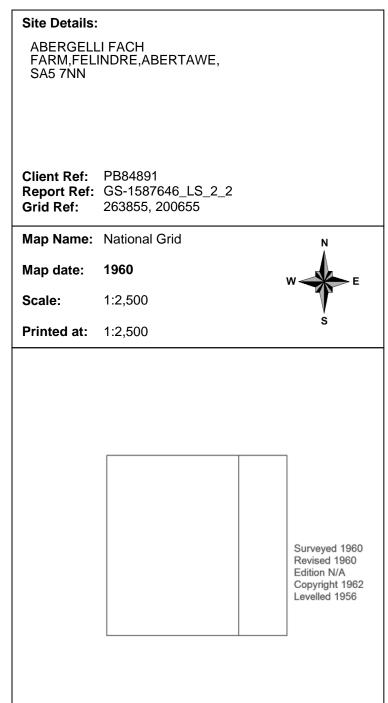
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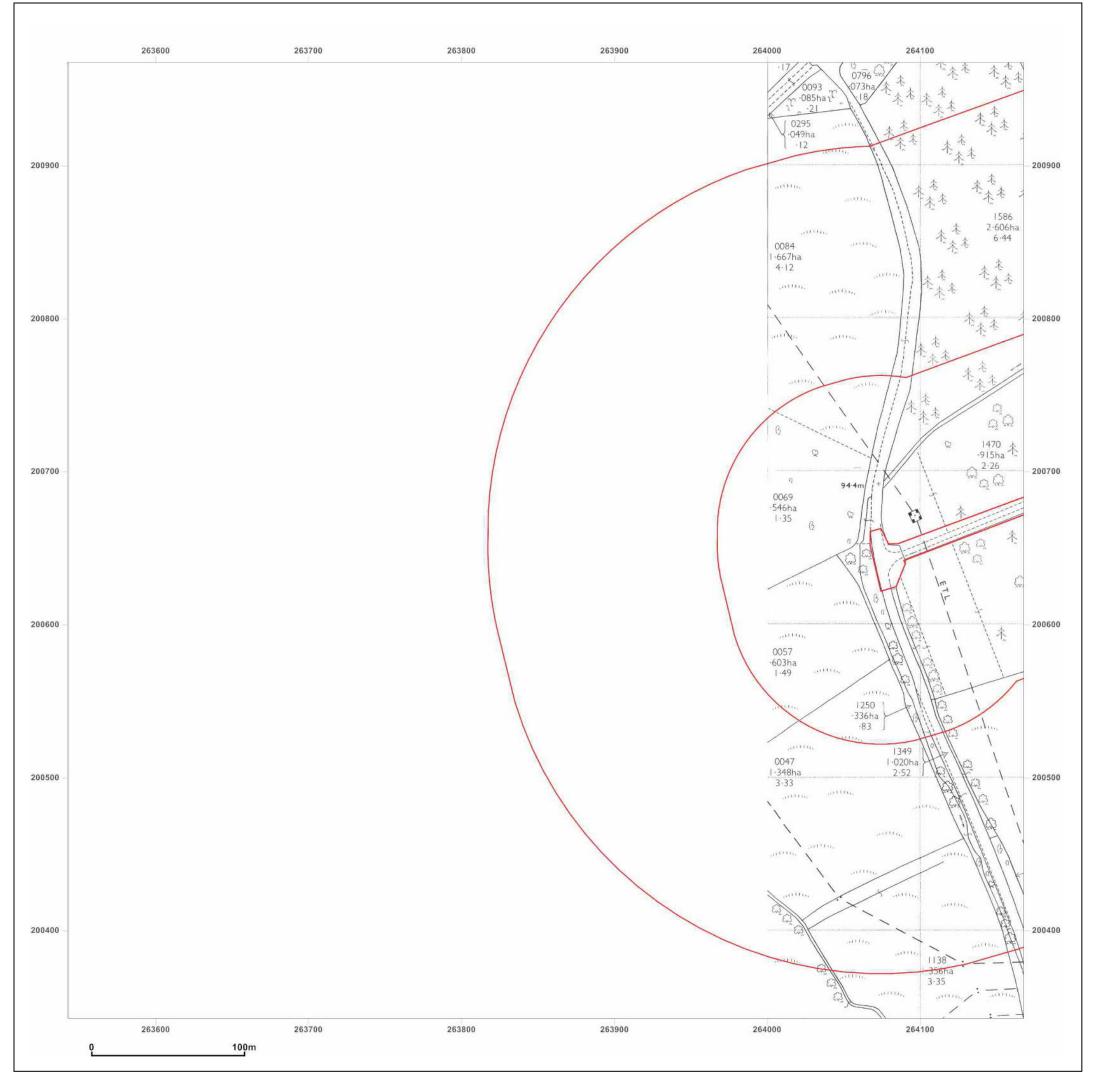


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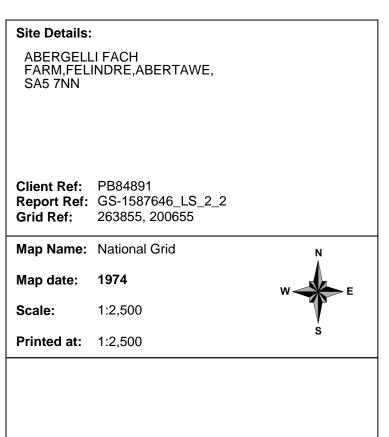
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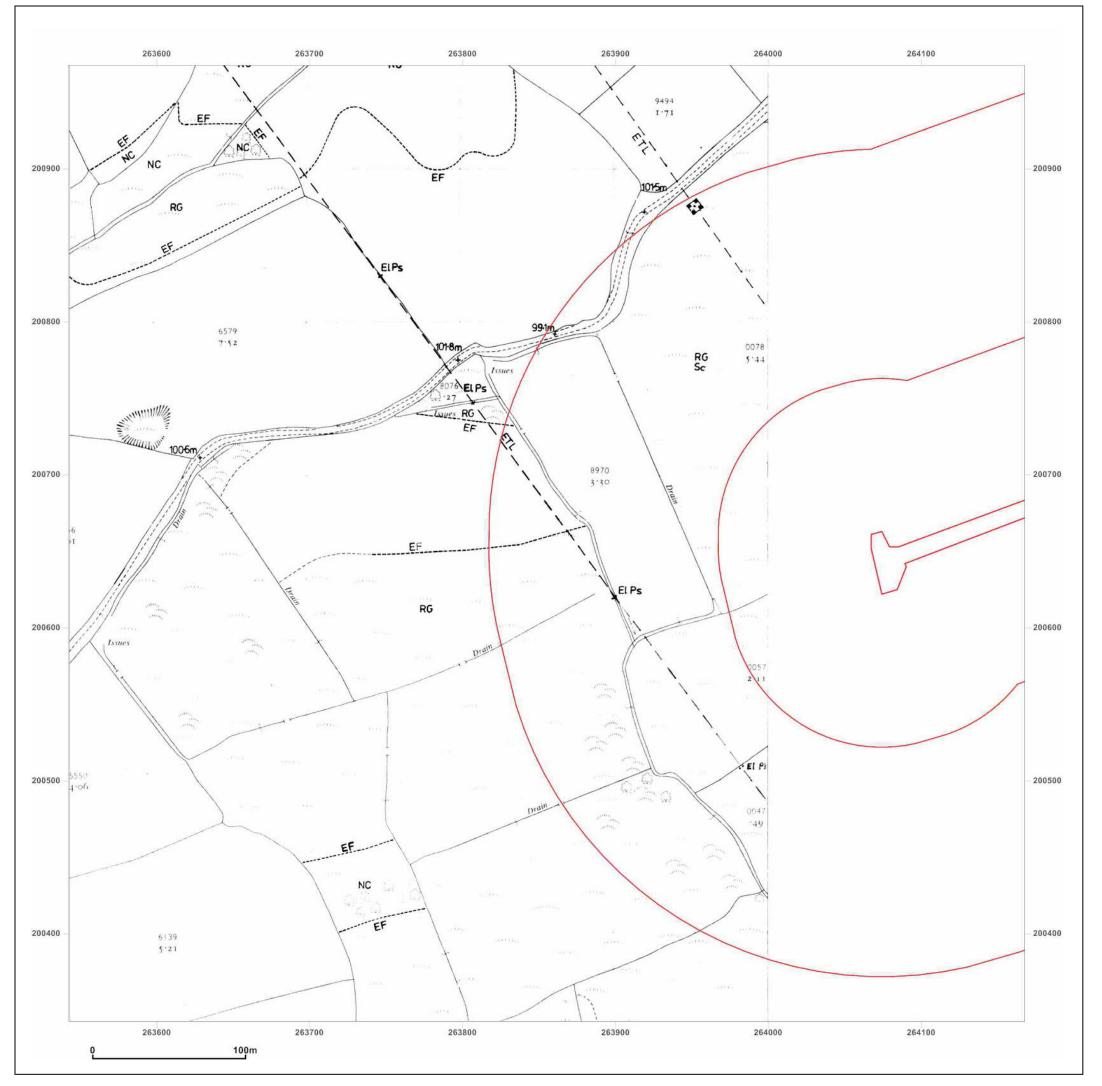
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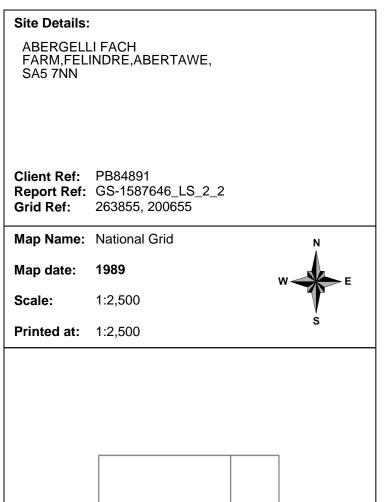
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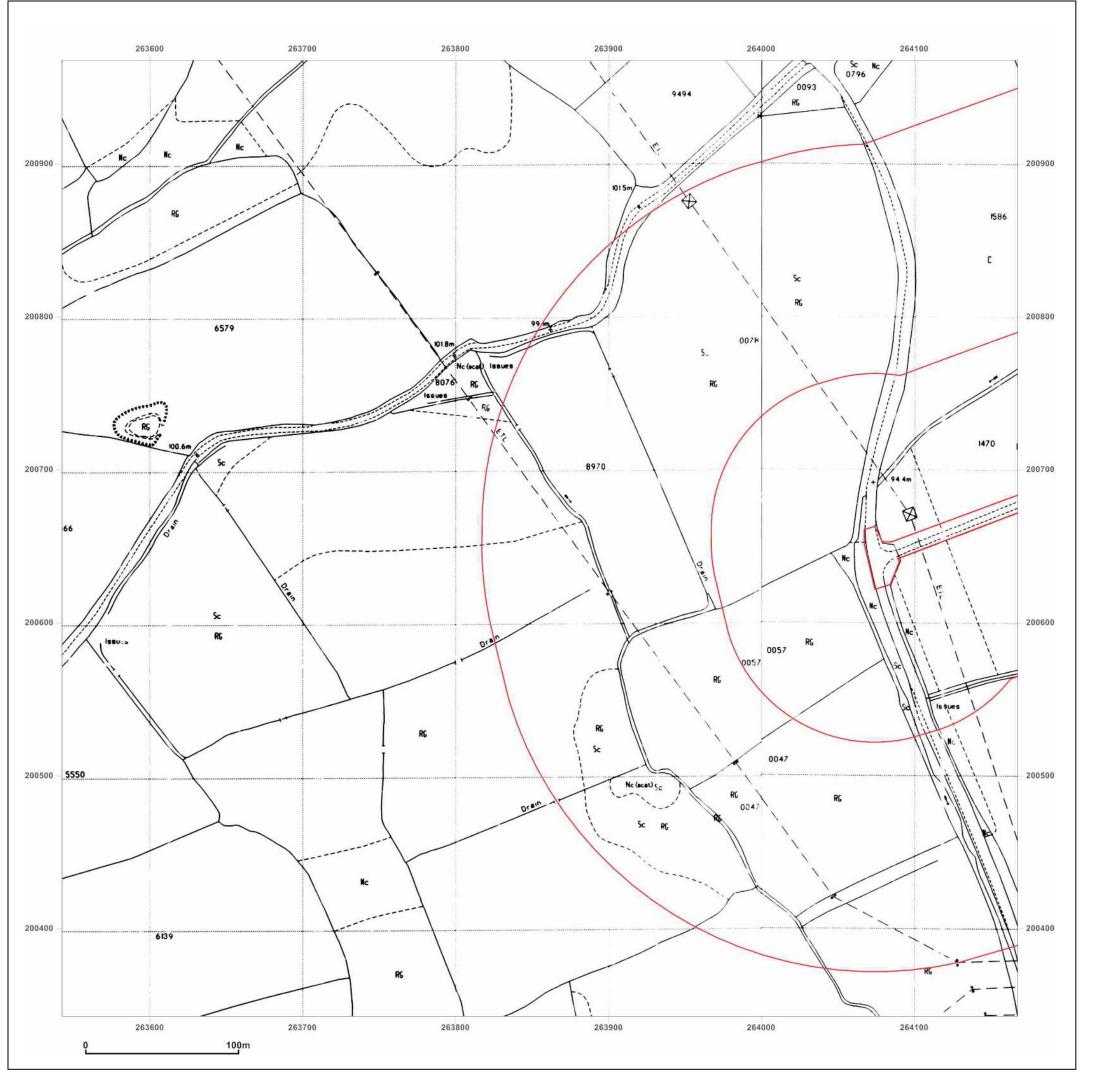
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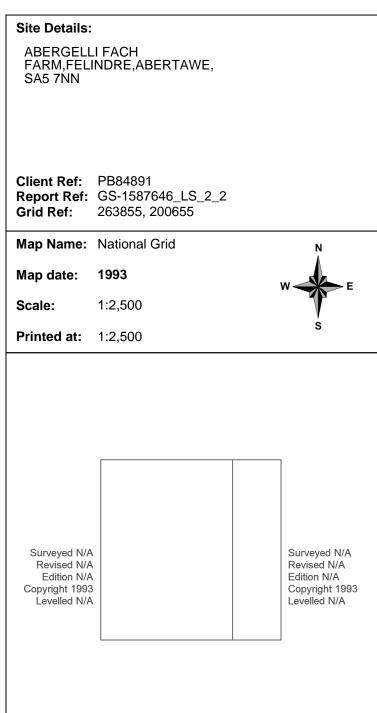
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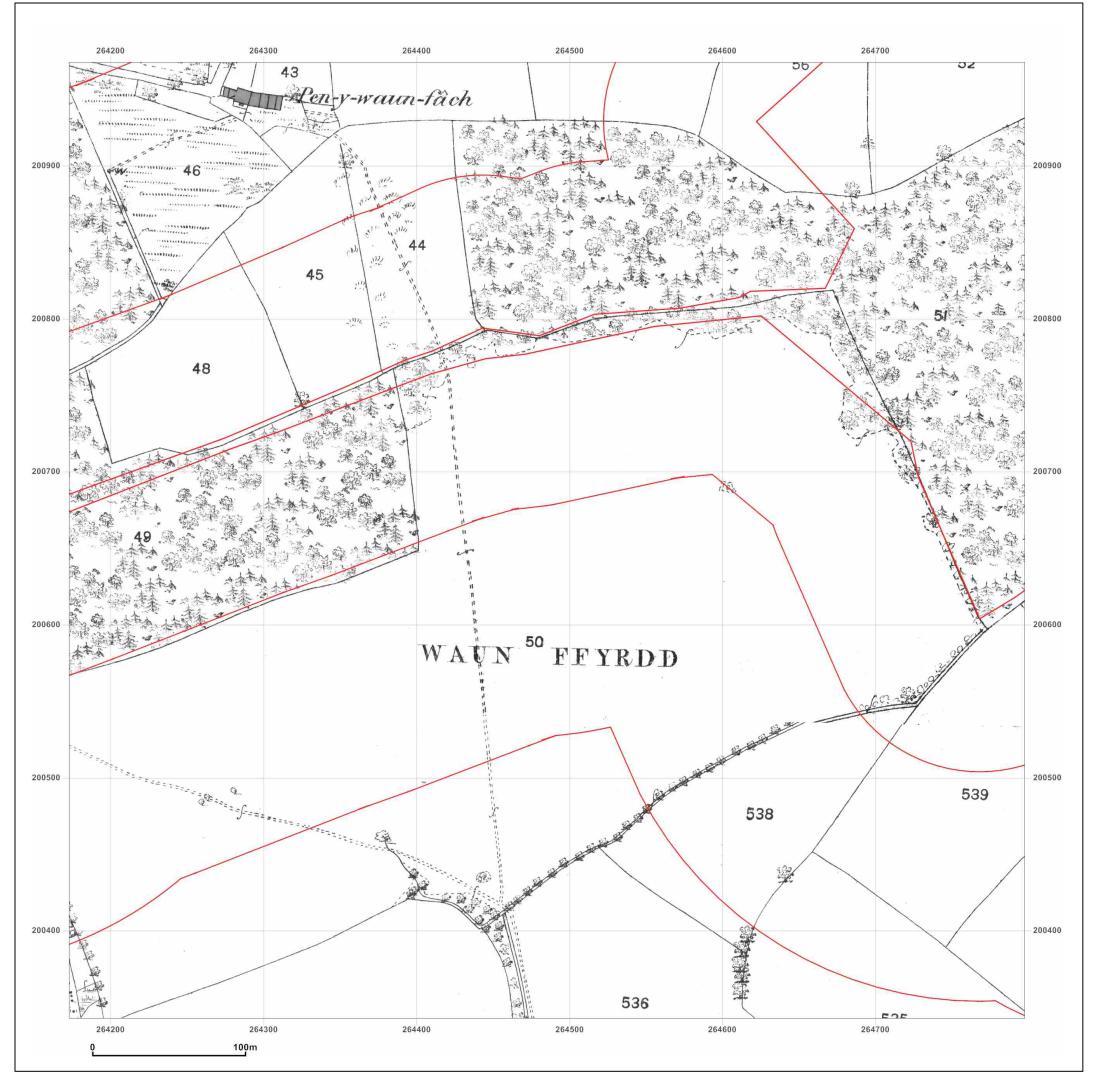


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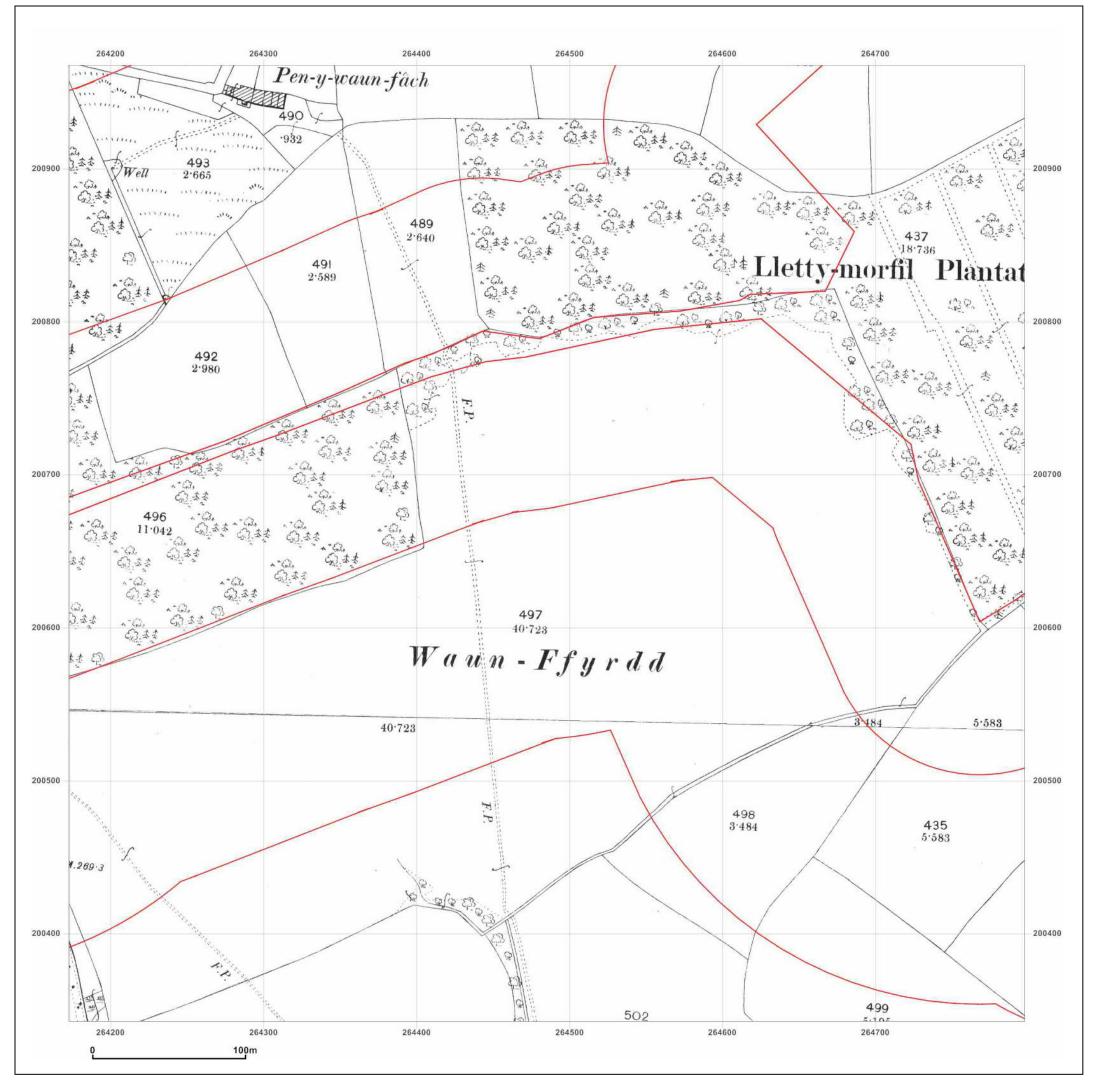
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|---|--|--------|--|--|--|--|--|--|--|--|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | ABERGELLI FACH<br>FARM,FELINDRE,ABERTAWE,<br>SA5 7NN |        |  |  |  |  |  |  |  |  |
| Client Ref:<br>Report Ref:<br>Grid Ref:                                       | PB84891<br>GS-1587646_LS_3_2<br>264485, 200655       |        |  |  |  |  |  |  |  |  |
| Map Name:   | County Series  | N<br>Å |  |  |  |  |  |  |  |  |
| Map date:   | 1876-1878  | W E    |  |  |  |  |  |  |  |  |
| Scale:  | 1:2,500  |        |  |  |  |  |  |  |  |  |
| Printed at:   | 1:2,500  | S      |  |  |  |  |  |  |  |  |
| Surveyed 1876<br>Revised 1876<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | )<br>\   |        |  |  |  |  |  |  |  |  |
| Surveyed 1878<br>Revised 1878<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | 3 L  |        |  |  |  |  |  |  |  |  |



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W: www.groundsure.com

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Production date: 30 July 2014





| Site Details:   |  |     |  |  |  |  |  |  |  |  |
|---|--|-----|--|--|--|--|--|--|--|--|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | GELLI FACH<br>1,FELINDRE,ABERTAWE,<br>'NN      |     |  |  |  |  |  |  |  |  |
|   |  |     |  |  |  |  |  |  |  |  |
| Client Ref:<br>Report Ref:<br>Grid Ref:                                       | PB84891<br>GS-1587646_LS_3_2<br>264485, 200655 |     |  |  |  |  |  |  |  |  |
| Map Name:   | County Series                                  | N   |  |  |  |  |  |  |  |  |
| Map date:   | 1898   | W E |  |  |  |  |  |  |  |  |
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| Printed at:   | 1:2,500  | S   |  |  |  |  |  |  |  |  |
| Surveyed 1898<br>Revised 1898<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |     |  |  |  |  |  |  |  |  |
| Surveyed 1898<br>Revised 1898<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |     |  |  |  |  |  |  |  |  |

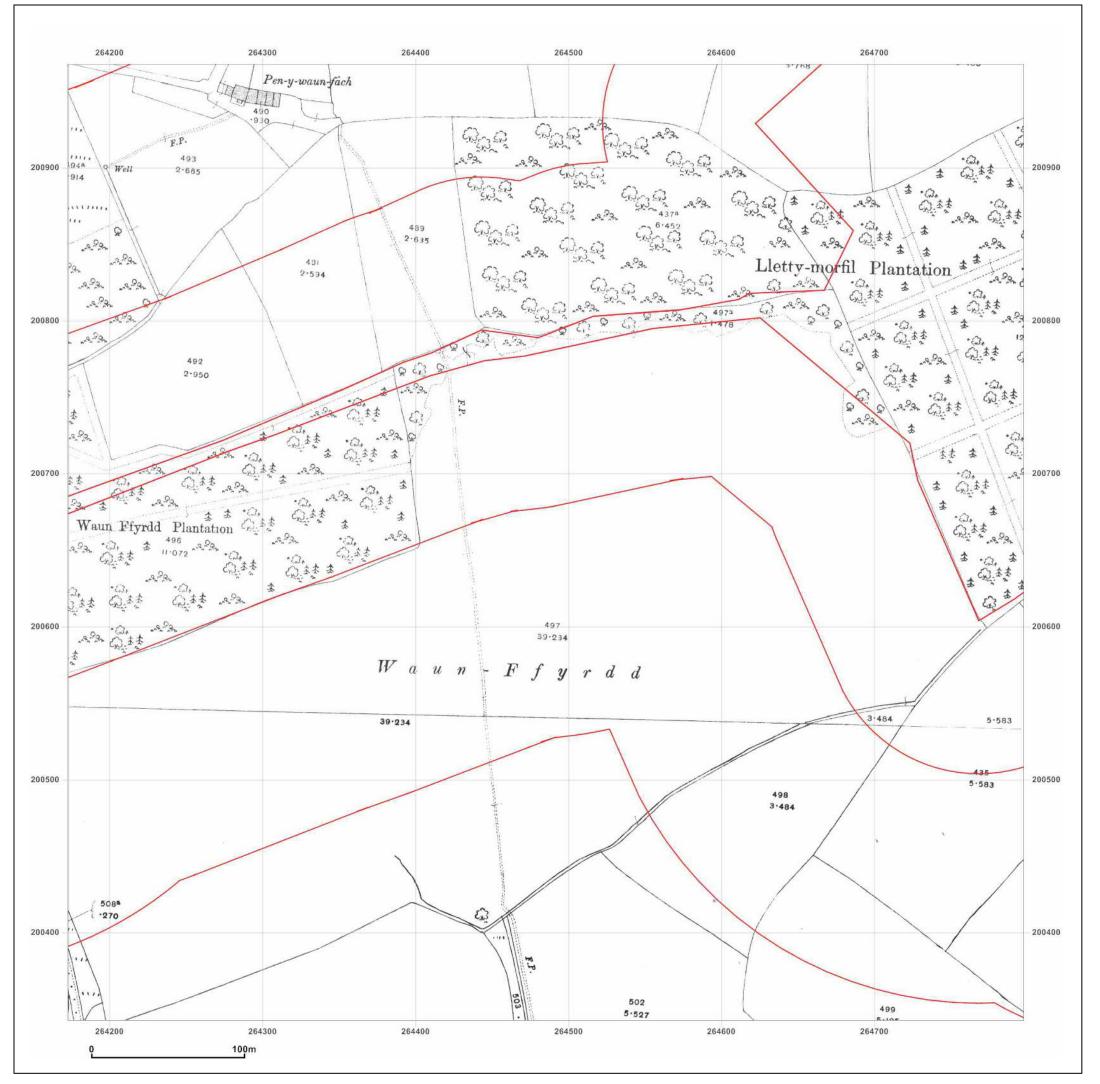


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Production date: 30 July 2014





| Site Details:   |  |     |  |  |  |  |  |  |  |
|---|--|-----|--|--|--|--|--|--|--|
| ABERGELLI FACH<br>FARM,FELINDRE,ABERTAWE,<br>SA5 7NN                          |  |     |  |  |  |  |  |  |  |
| Client Ref:<br>Report Ref:<br>Grid Ref:                                       | PB84891<br>GS-1587646_LS_3_2<br>264485, 200655 |     |  |  |  |  |  |  |  |
| Map Name:   | County Series                                  | Ņ   |  |  |  |  |  |  |  |
| Map date:   | 1916   | W E |  |  |  |  |  |  |  |
| Scale:  | 1:2,500  |     |  |  |  |  |  |  |  |
| Printed at:   | 1:2,500  | S   |  |  |  |  |  |  |  |
| Surveyed 1916<br>Revised 1916<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |     |  |  |  |  |  |  |  |
| Surveyed 1916<br>Revised 1916<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |  |     |  |  |  |  |  |  |  |

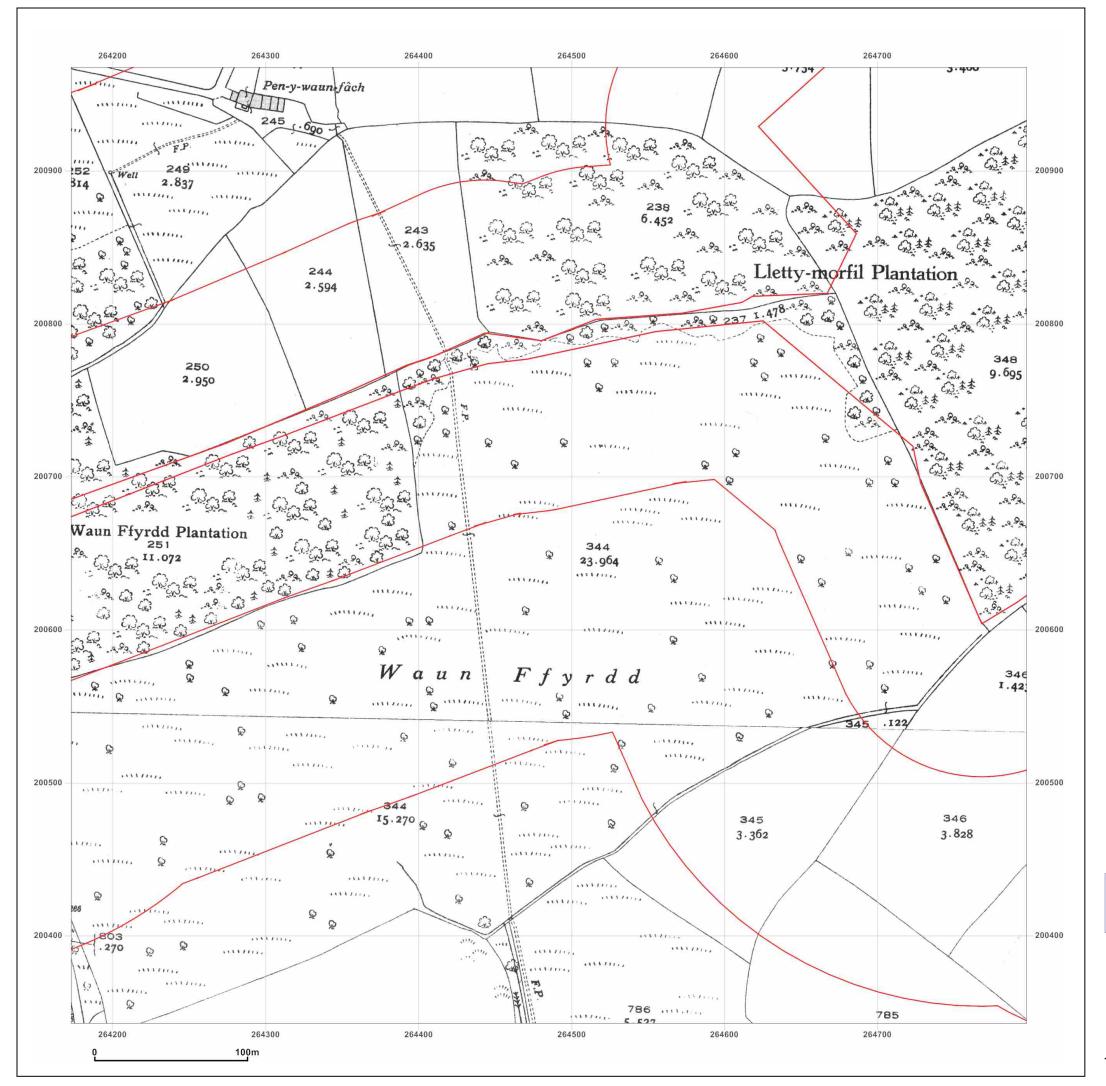


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| Site Details:   |                           |        |
|---|---------------------------|--------|
| ABERGELL<br>FARM,FELI<br>SA5 7NN  | I FACH<br>INDRE,ABERTAWE, |        |
| Client Ref:<br>Report Ref:<br>Grid Ref:                                       | GS-1587646_LS_3_2         |        |
| Map Name:   | County Series             | N<br>A |
| Map date:   | 1935                      | W E    |
| Scale:  | 1:2,500                   | *      |
| Printed at:   | 1:2,500                   | S      |
| Surveyed 1935<br>Revised 1935<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | ;                         |        |
| Surveyed 1935<br>Revised 1935<br>Edition N/A<br>Copyright N/A<br>Levelled N/A |                           |        |



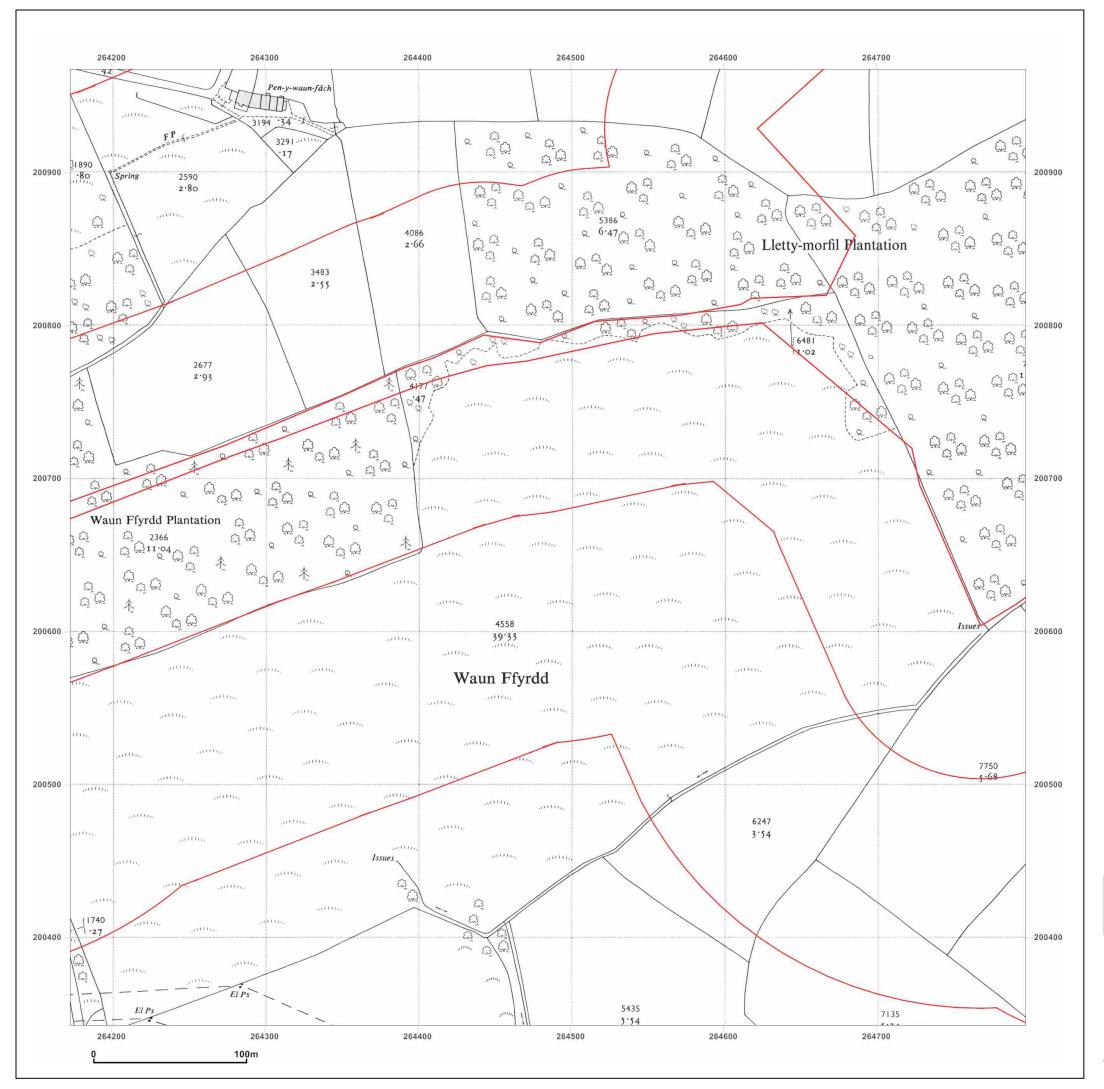
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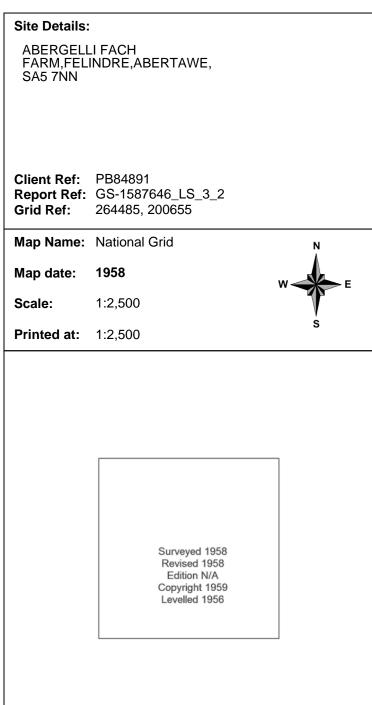
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Production date: 30 July 2014









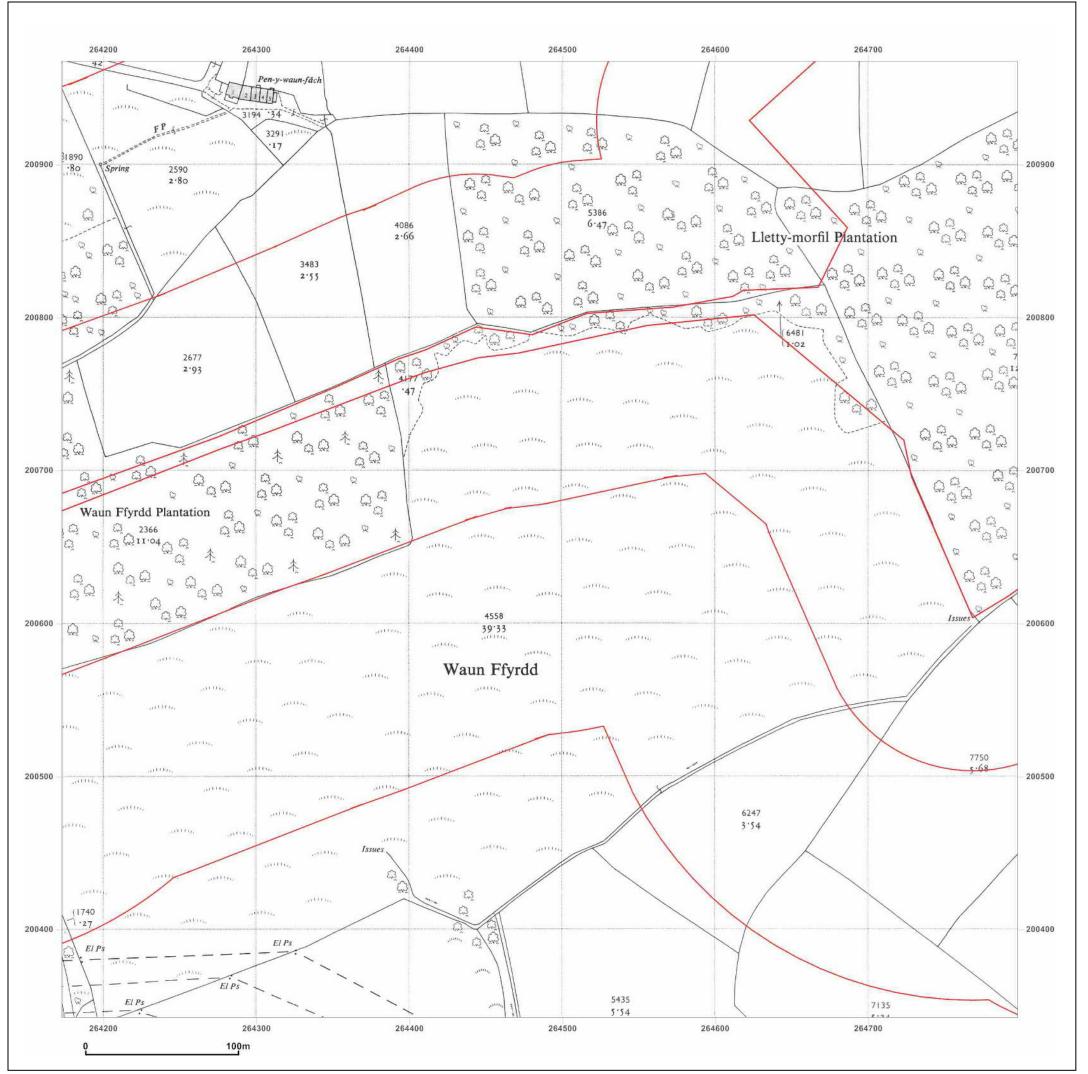
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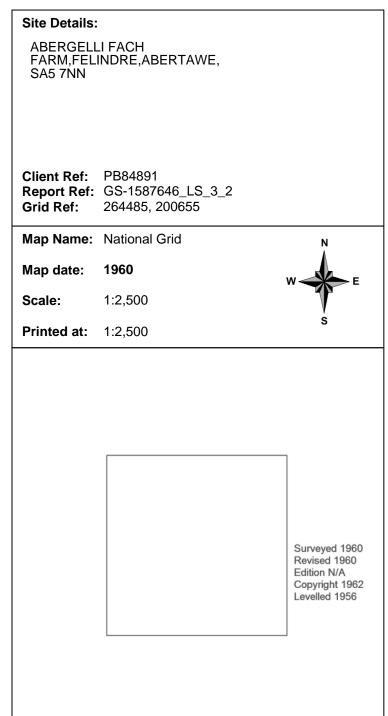
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Production date: 30 July 2014









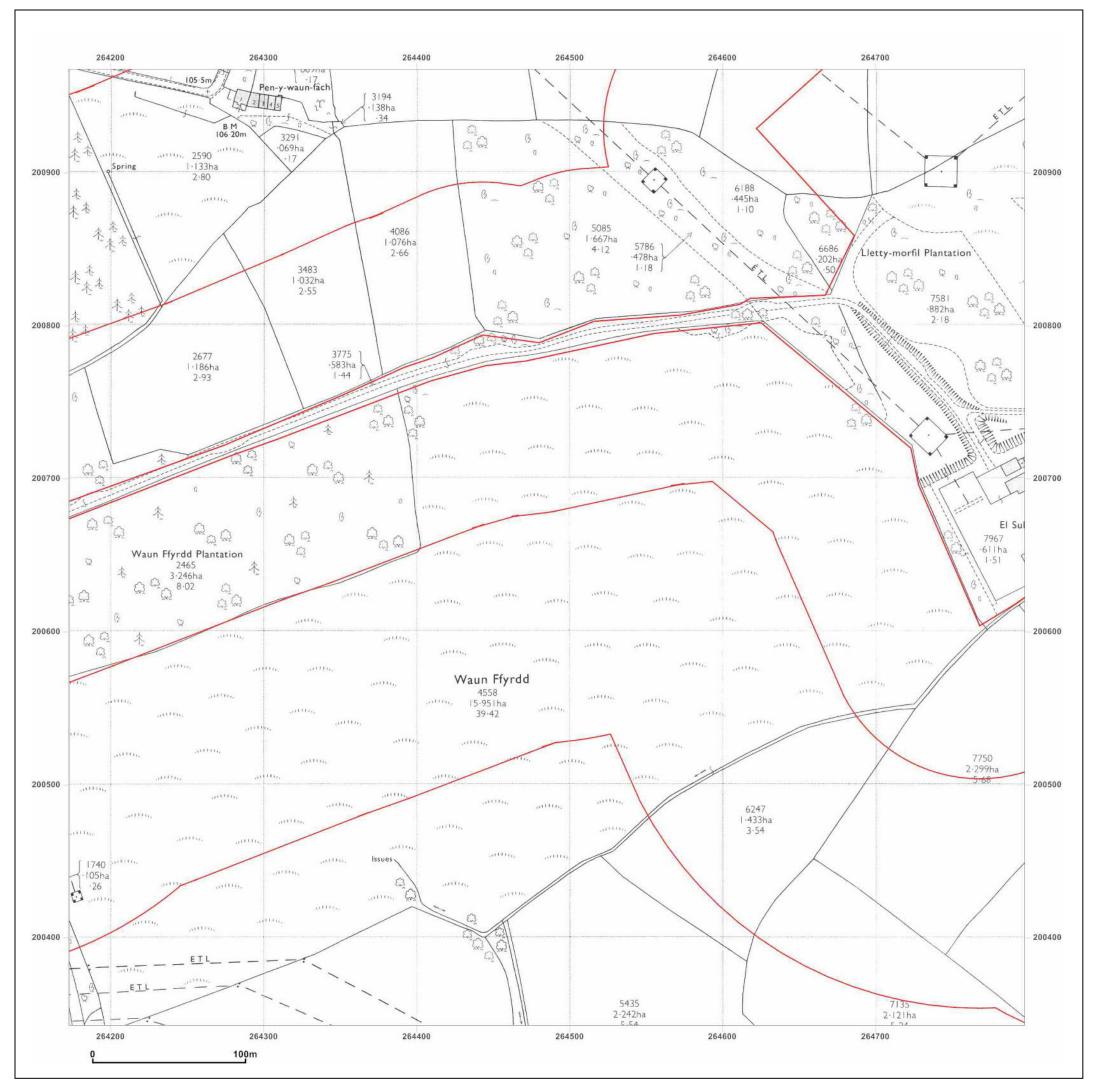
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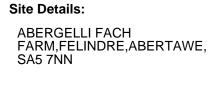
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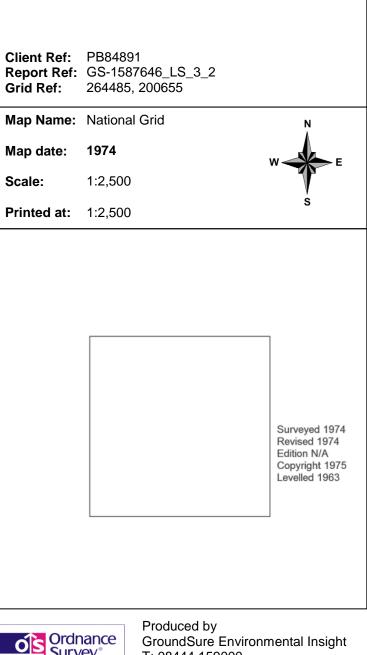
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Production date: 30 July 2014









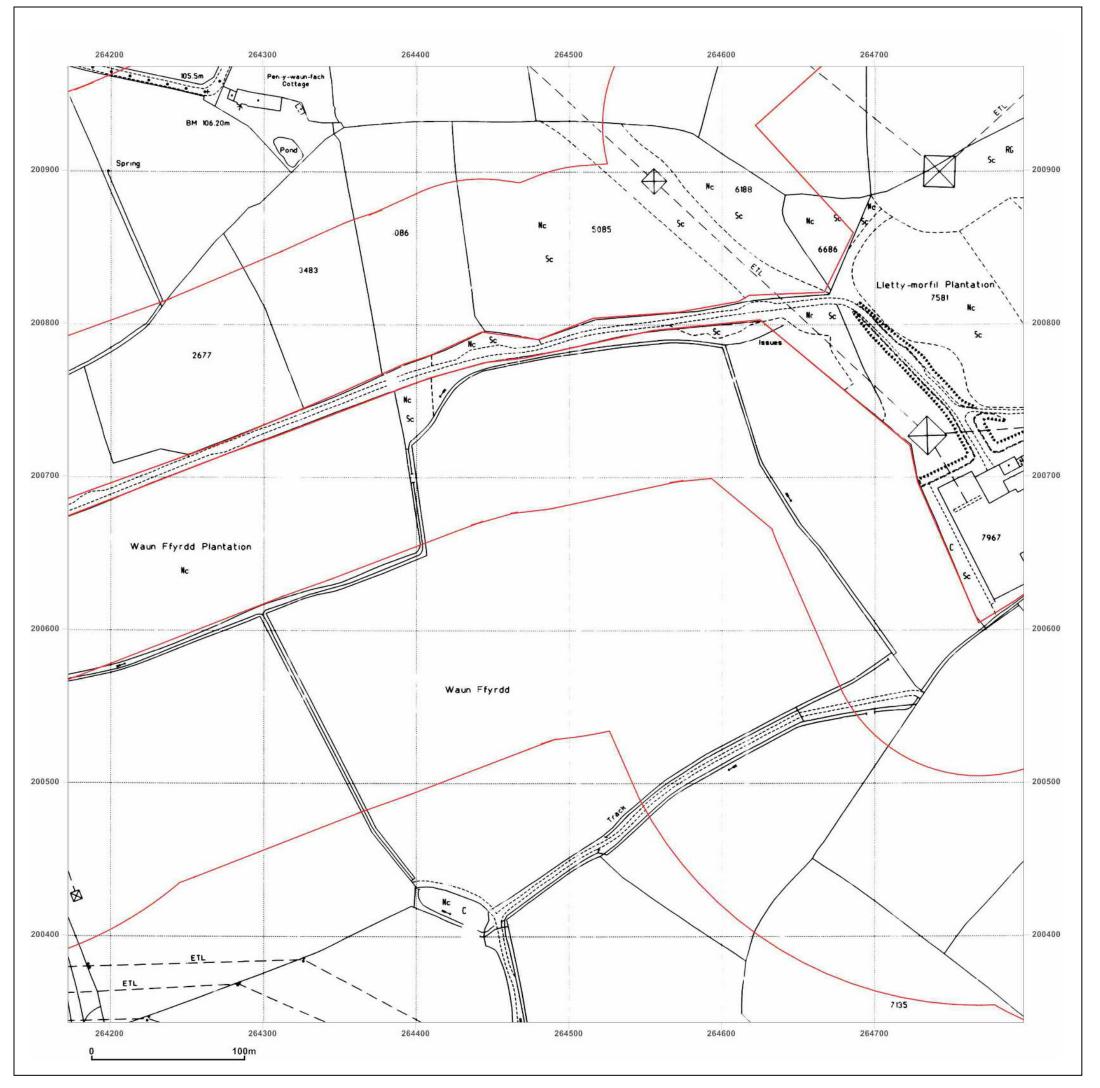


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Production date: 30 July 2014







ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

Report Ref: GS-1587646\_LS\_3\_2 Grid Ref: 264485, 200655

Map Name: National Grid

Map date: 1993

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed N/A Revised N/A Edition N/A Copyright 1993 Levelled N/A

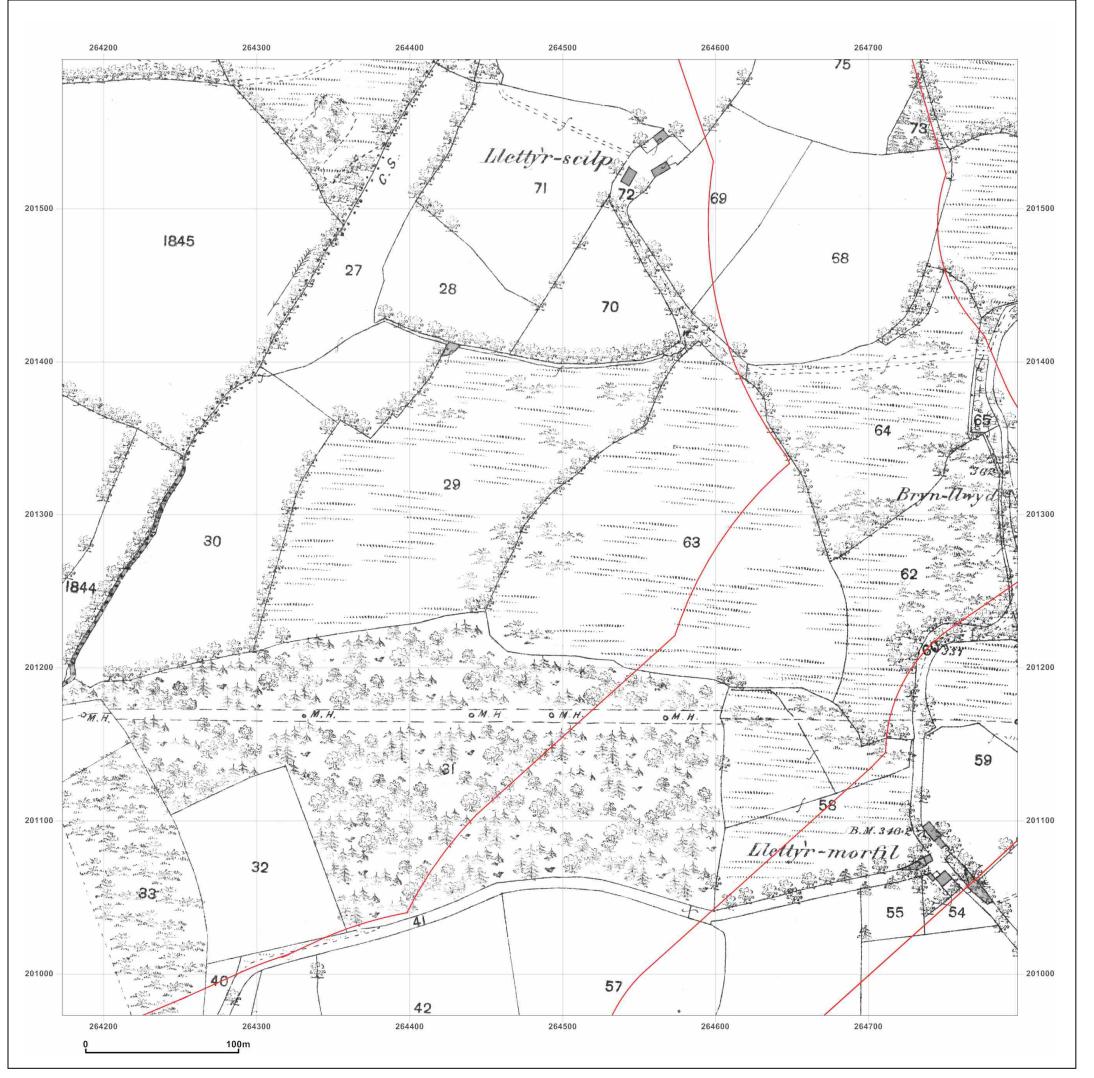


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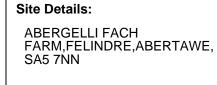
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Production date: 30 July 2014







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Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A

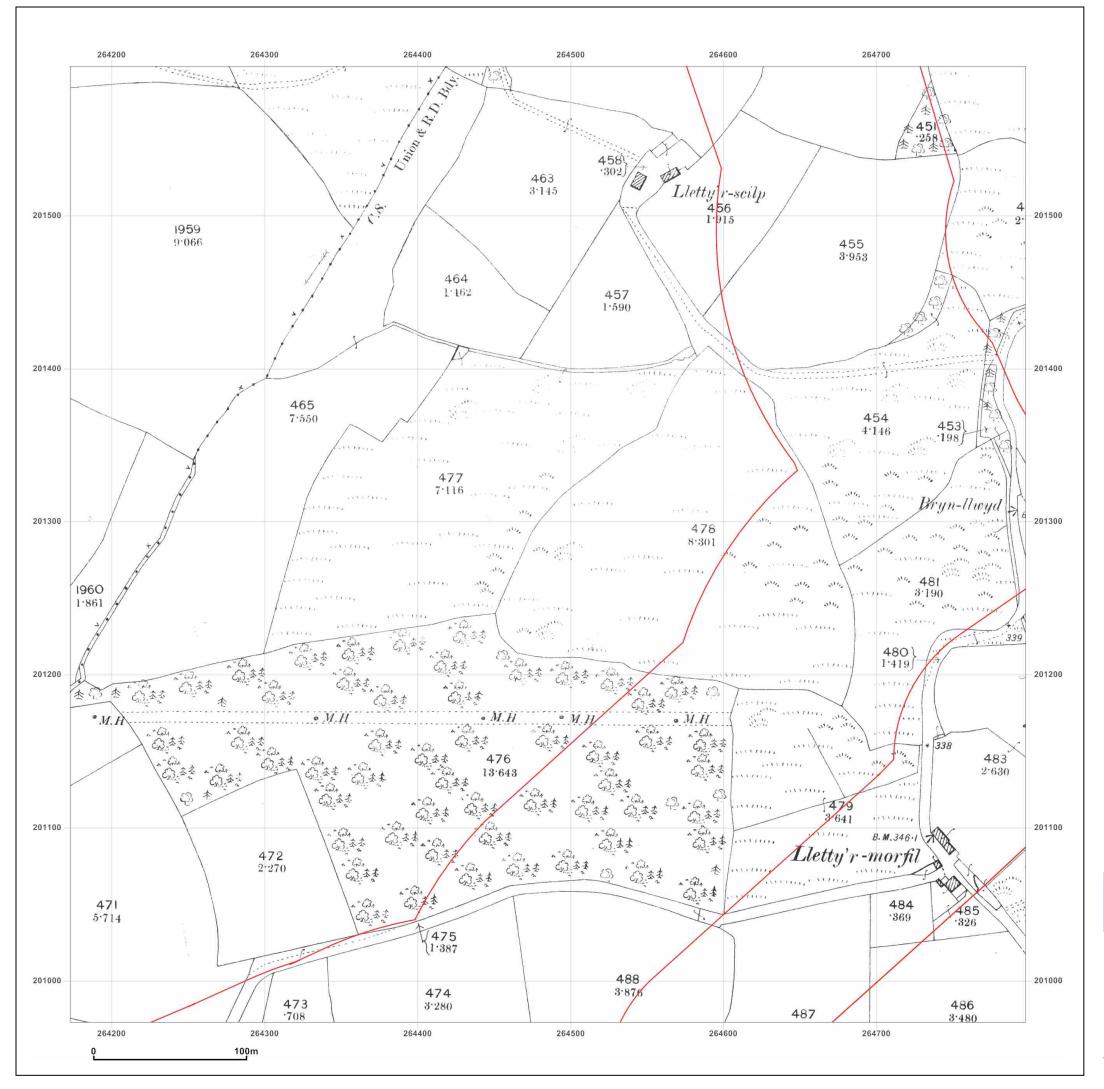


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Production date: 30 July 2014





Site Details: ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN Client Ref: PB84891 **Report Ref:** GS-1587646\_LS\_3\_3 Grid Ref: 264485, 201285 Map Name: County Series Map date: 1898 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed 1898 Revised 1898 Edition N/A Copyright N/A Levelled N/A



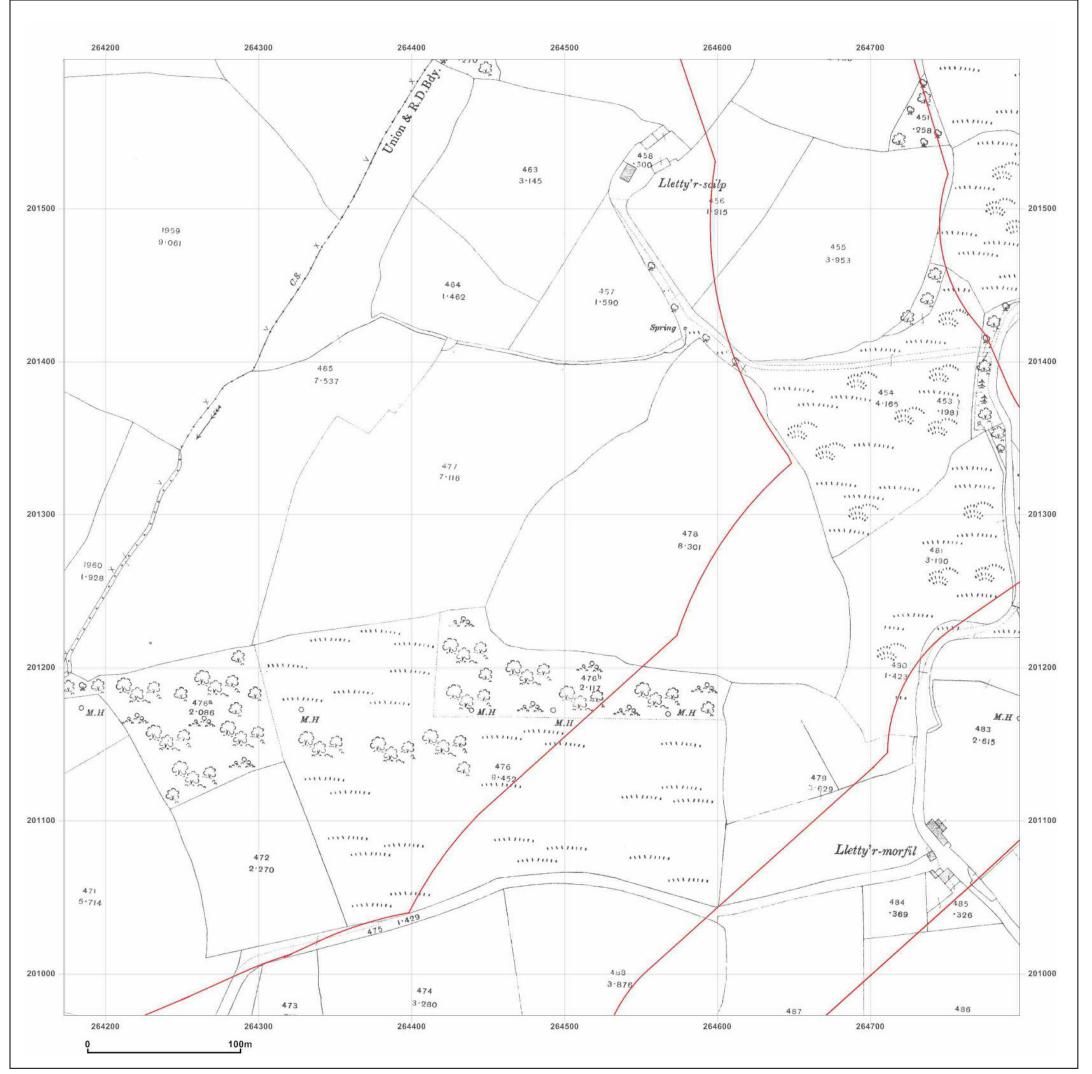
Produced by GroundSure Environmental Insight

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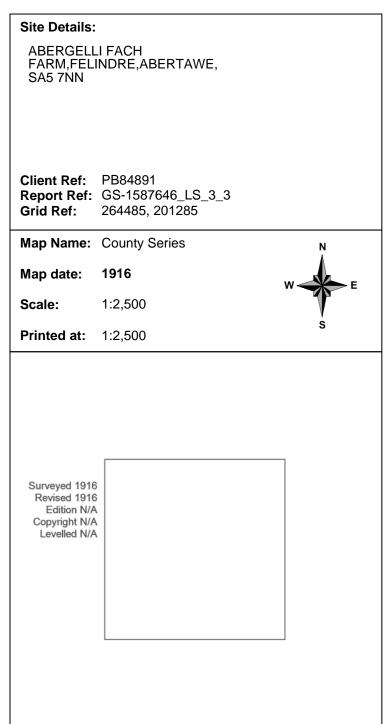
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Production date: 30 July 2014







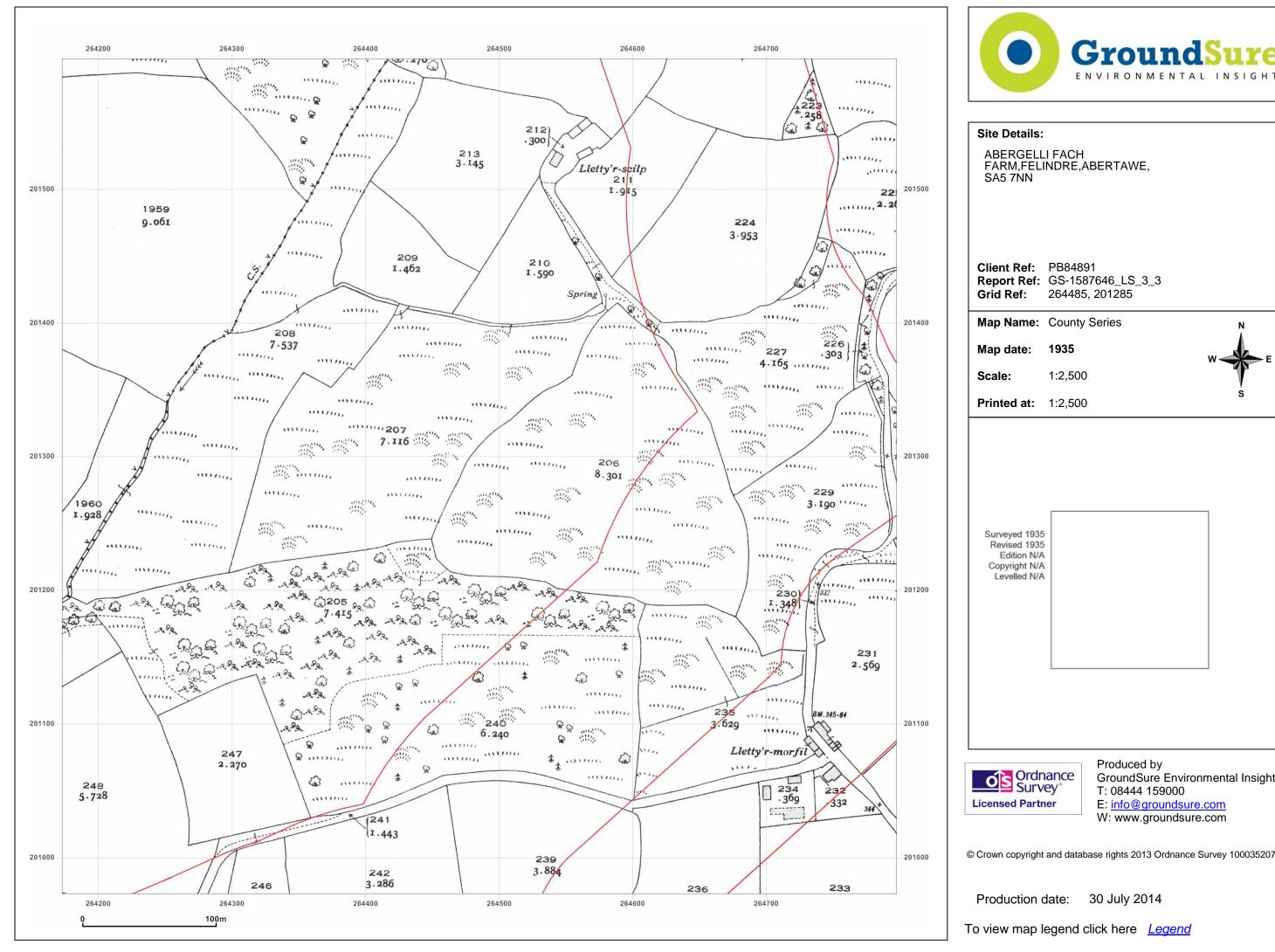


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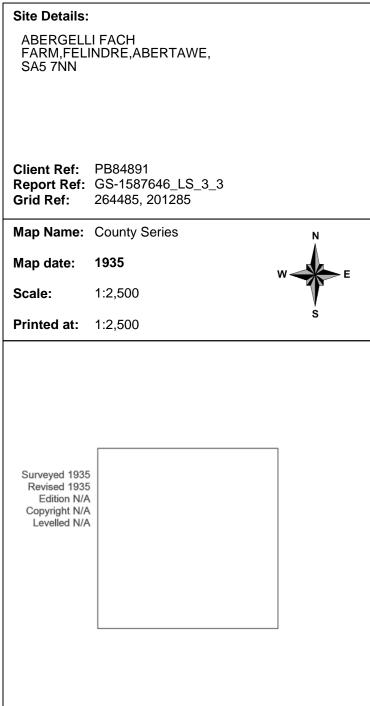
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Production date: 30 July 2014





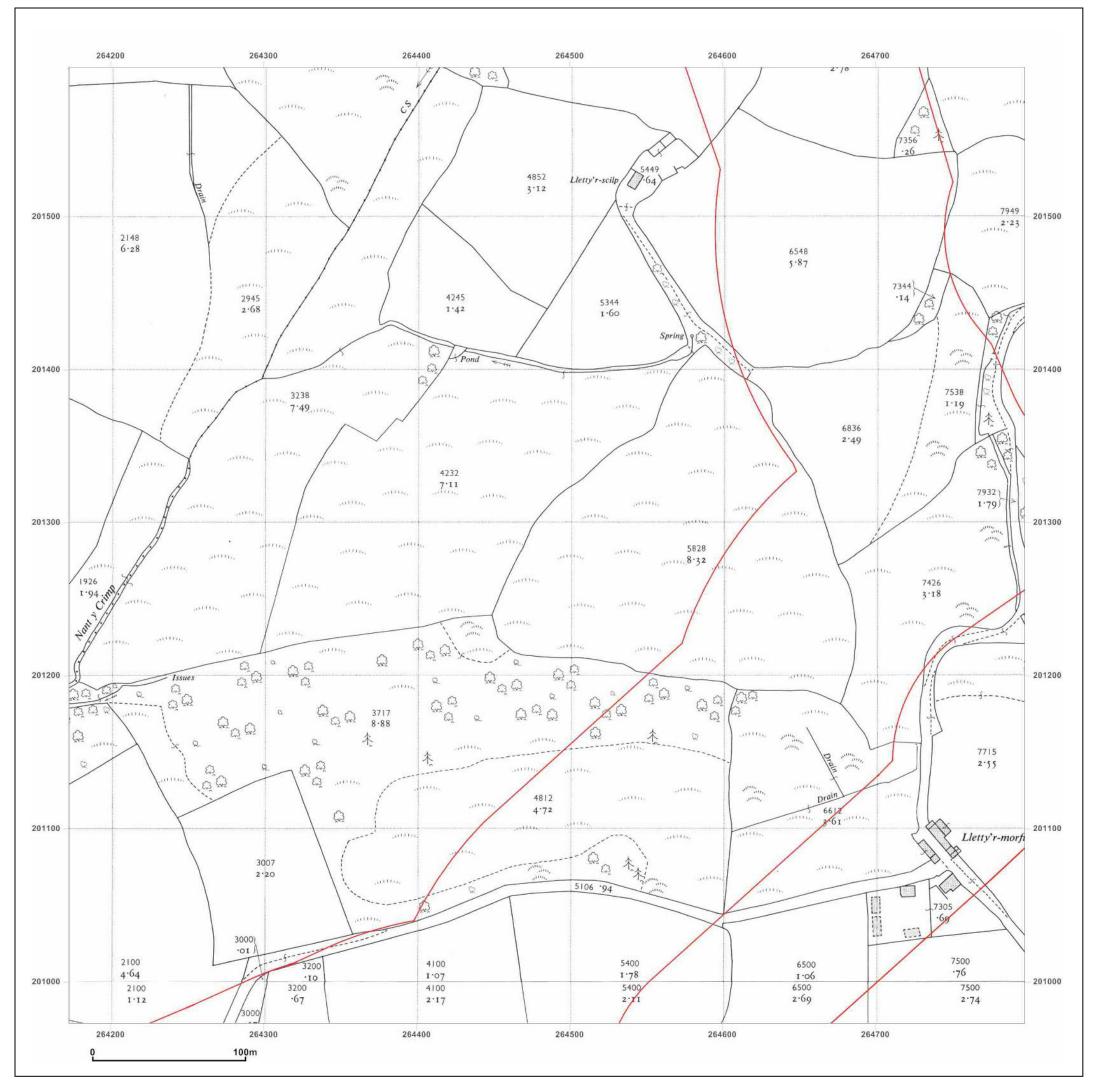




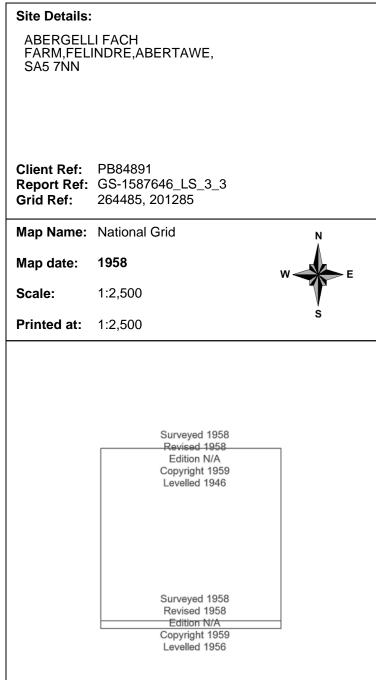
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Production date: 30 July 2014









Produced by

GroundSure Environmental Insight

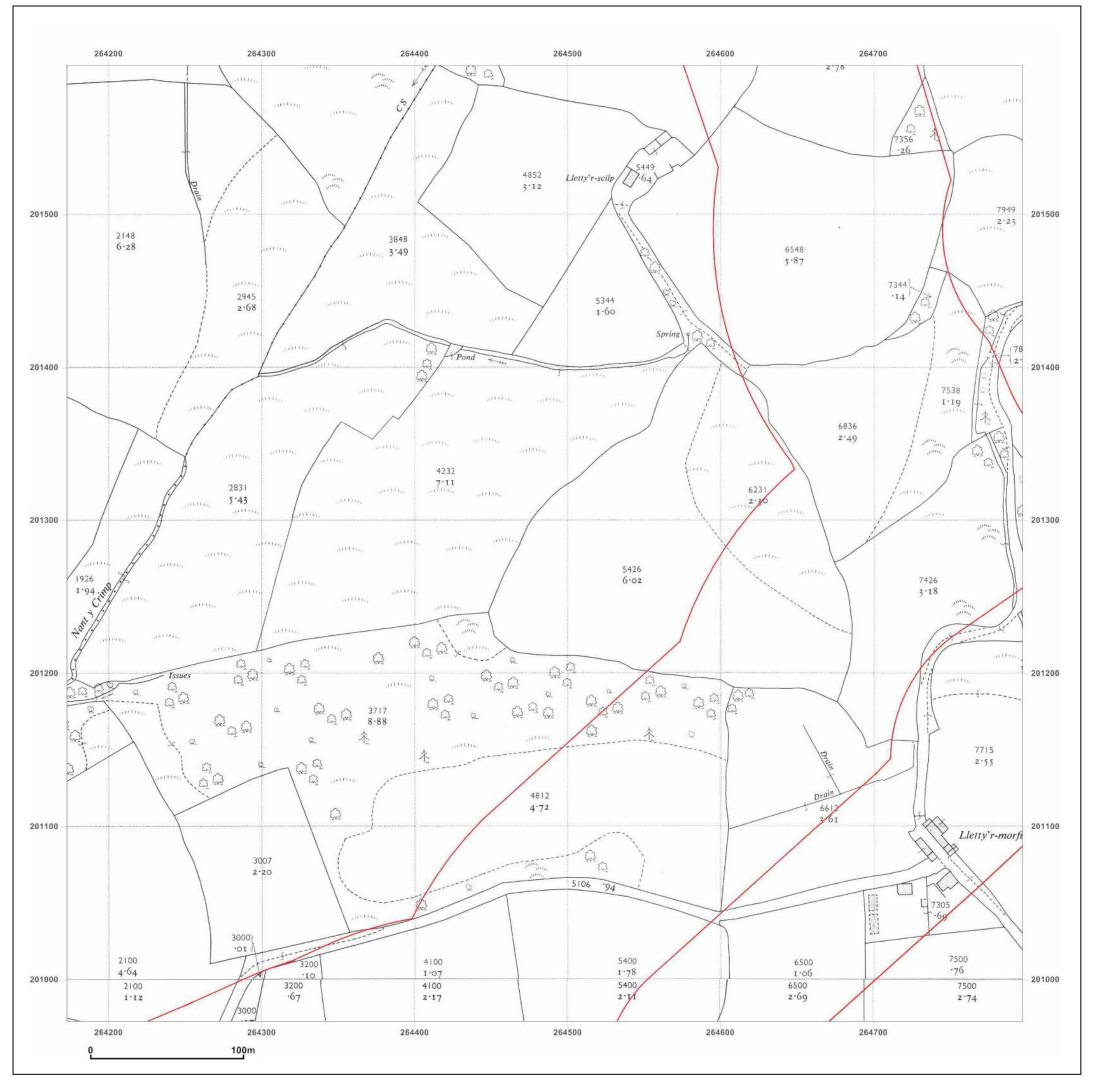
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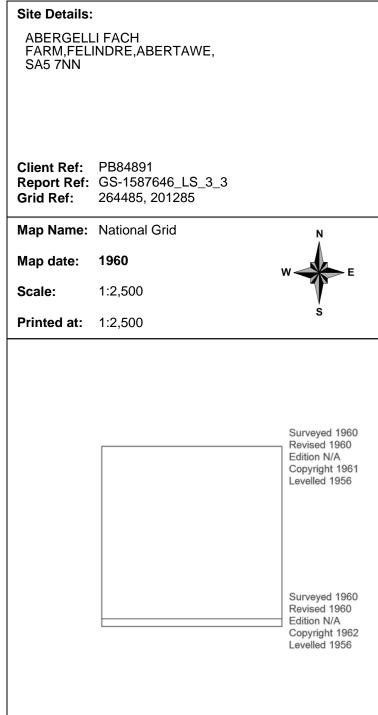
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Production date: 30 July 2014









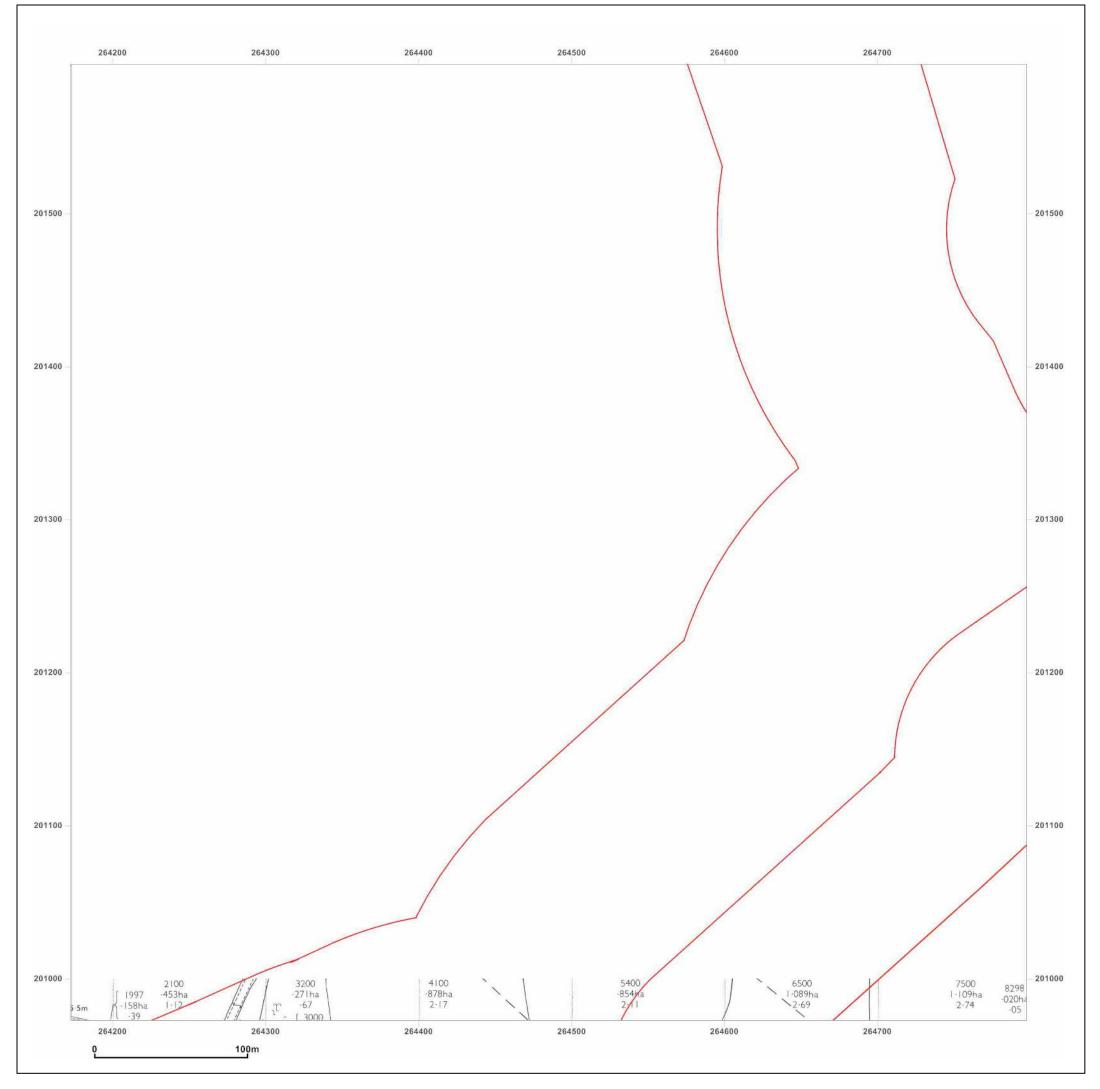
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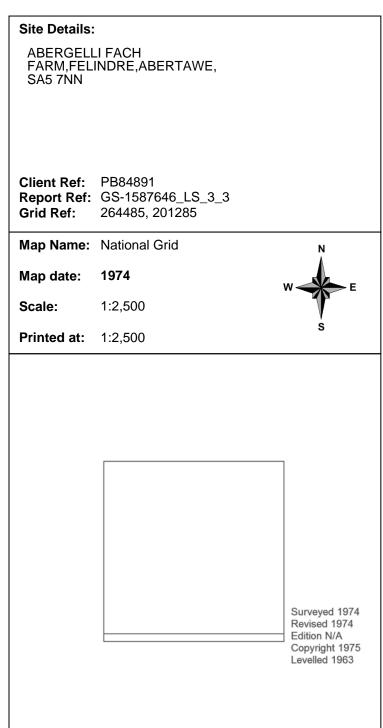
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Production date: 30 July 2014







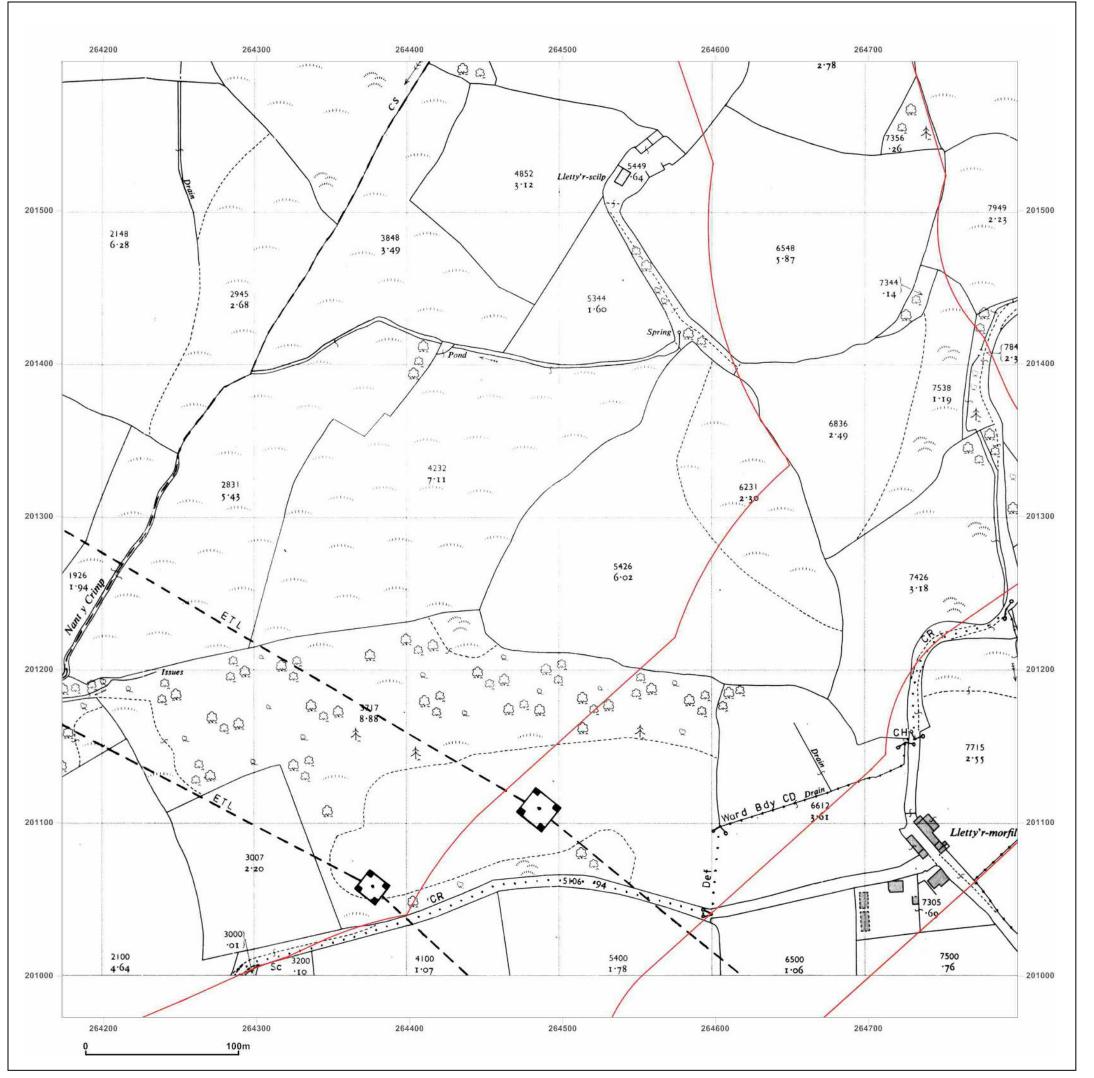


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Production date: 30 July 2014





Site Details: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646\_LS\_3\_3 Grid Ref: 264485, 201285

Map Name: National Grid

1989 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1956 Revised 1989 Edition N/A Copyright 1989 Levelled 1956



Produced by GroundSure Environmental Insight

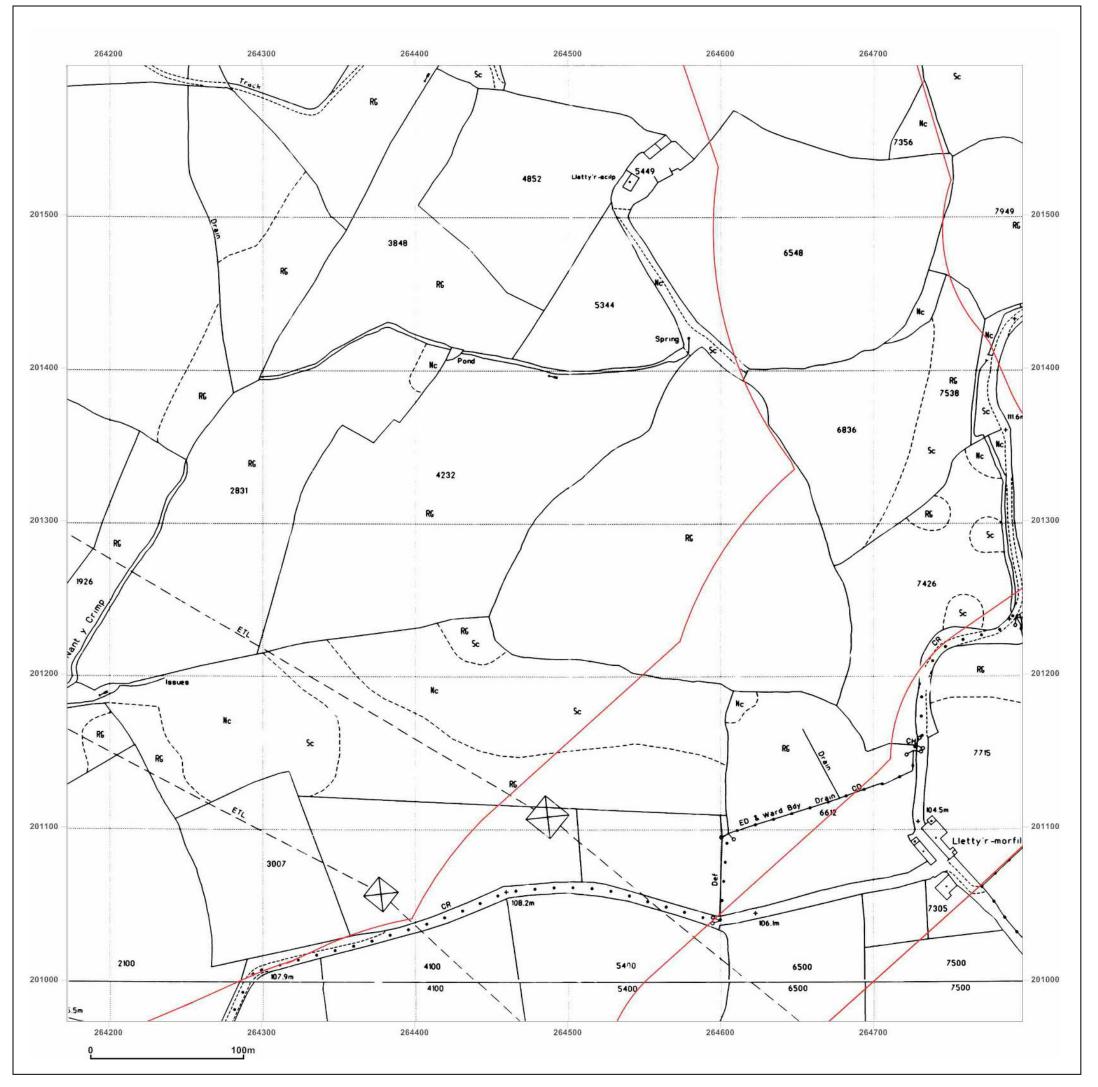
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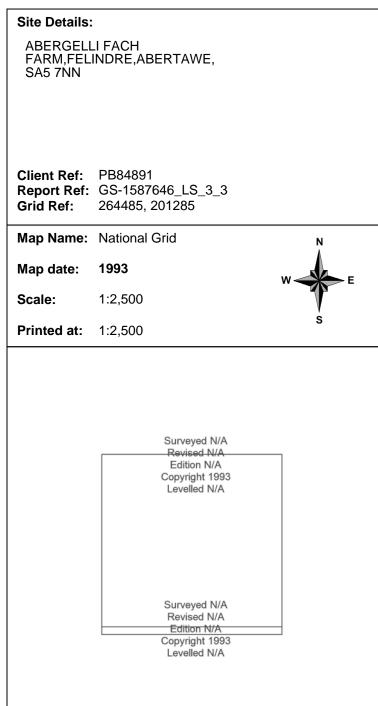
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Appendix 8.3

British Geological Survey Borehole Log SN65200160 Abergelli-fach Farm Engineering Geology Unit Department of Earth Sciences British Geology Liverpool

# BOREHOLE RECORD

British Geological Survey

Sheet 1 of 2

BOREHOLE NUMBER P4
British Geological

Contract: S Wales Sand and Gravel Assessment Locality: Aber-gelli-fach Farm Client: Welsh Office and Dept of Environment Grid Ref: SN 65200160

Drilling Contractor: Exploration Associates

Ground Level: 113 m

Drilling Method: Shell and Auger 200 mm Date Commenced 07:10:91 SN 605€ 24

|               | GL                    | WATER<br>LEVEL | DEPTH<br>(M)      | THICKNESS<br>(M)    | SAM<br>FROM | PLES<br>TO | REF NO         | DESCRIPTION  | LEGEND             |
|---------------|-----------------------|----------------|-------------------|---------------------|-------------|------------|----------------|--|--------------------|
|               |                       | British Ge     | o <b>0 ₀3</b> :al | surve <b>Q.3</b>    |             |            |                | Brown sandy clayay: TORSOIL Brit                                     | XXXXX              |
|               | 1                     |                |                   |                     |             |            |                | Firm yellow brown sandy very gravelly CLAY with occasional cobbles   |                    |
| British Geold | <b>2</b><br>gital Sur | tey            |                   |                     |             |            | British G      | ological Survey British Geological Survey                            |                    |
| •             | <u>3</u>              | British Ge     | ological S        | <b>6.1</b><br>urvey |             |            |                | British Geological Survey Brit                                       | I S Polonical Surv |
| British Geold | 5<br>ical Sun         | , sv           |                   |                     |             |            | British Ge     | ological Survey British Geological Survey                            |                    |
|               | 7                     |                | 6.4               | 1.5                 | 6.5         | 6.5<br>7.4 | P4/01<br>P4/02 | Grey brown very clavey SAND  Grey brown very clayey pebbly fine SAND |                    |
|               | 8                     | Fritish Ge     | 8.0               | Sirvey              | 7.4         | 8.4        | P4/03          | Grey brown very clayey fine SAND  British Geological Survey          | is deniogral Sin   |
|               | 9                     |                |                   | 1.7                 | 8.4         | 9.7        | P4/04          | Grey brown clayey gravelly SAND                                      |                    |
| British Geolo | ogical Sun            | vey            | 9.7               |                     |             |            | British Ge     | Grey brown clayey SAND   |                    |
|               |                       |                | V wA              | TER ST              | RIKE        |            | <b>▼</b> WA    | TER LEVEL ENGINEER NCH   |                    |

# **BOREHOLE RECORD**

Sheet 2 of 2 BOREHOLE NUMBER P4

Contract: S Wales Sand and Gravel Assessment Locality: Aber-gelli-fach Farm

Client: Welsh Office and Dept of Environment Grid Ref: SN 65200160
Drilling Contractor: Exploration Associates Ground Level 113 m

Drilling Contractor: Exploration Associates

Drilling Method: Shell and Auger 200 mm

Ground Level 113 m

Date Commenced 07:10:91

| _              | GL                      | WATER<br>LEVEL | DEPTH<br>(M)      | THICKNESS<br>(M) | SAM  | PLES<br>TO | REF NO      | DESCRIPTION   | LEGEND                                 |
|----------------|-------------------------|----------------|-------------------|------------------|------|------------|-------------|---|--|
|                |                         | British Geo    | logical S<br>10.7 | urvey <b>1.0</b> |      |            |             | British Geological Survey Britis  | i Geological Surve                     |
| ,              | _11                     |                |                   |                  | 10.7 | 11.7       | P4/05       | Grey brown very clayey fine SAND. Trace of coal                             |  |
| British Geolog | <b>12</b><br>ical Survi | у              |                   |                  | 12.0 | 13.0       | P4/06       | Grey brown very clayey fine SAND  British Geological Survey                 |  |
| •              | <u>1</u> 3              |                |                   | 3.3              | 13.0 | 14.0       | P4/07       | grading into Grey brown sandy CLAY  |  |
|                | _14                     | ritish Geo     | 14.0              |                  | 14.0 | 15.0       | P4/08       | British Geological Survey  Grey brown clayey fine SAND                      | e S.L. as de projektaj kaj de je je je |
|                | <u>1</u> 5              |                | 15.1              | '.'              |      |            |             |   |  |
| British Geolog | ical Surve              | <b>.</b>       | 15.8              | 0.7              |      |            | British Ged | Grey brown sandy CLAY   | ******                                 |
|                |                         |                | 16.8              | 1.0              |      |            |             | Firm yellow CLAY becoming stiff grey gravelly CLAY ( possible BOULDER CLAY) |  |
|                | 17                      |                |                   |                  |      |            |             | End of hole   |  |
|                | 18                      | itish Geo      | logical Si        | utvey            |      |            |             | British Geological Survey British   | Geological Surve                       |
|                | 19                      |                |                   |                  |      |            |             |   |  |
| British Geolog | 1                       | 3              |                   |                  |      |            | British Geo | ogical Survey British Geological Survey                                     |  |
|                | <u>2</u> 0              | 7              | <b>V</b> wa       | TER STR          | IKE  | I          | ₩ WA        | TER LEVEL ENGINEER NCH  |  |

Appendix 8.4

Coal Authority Mining Report



APPENDIX C

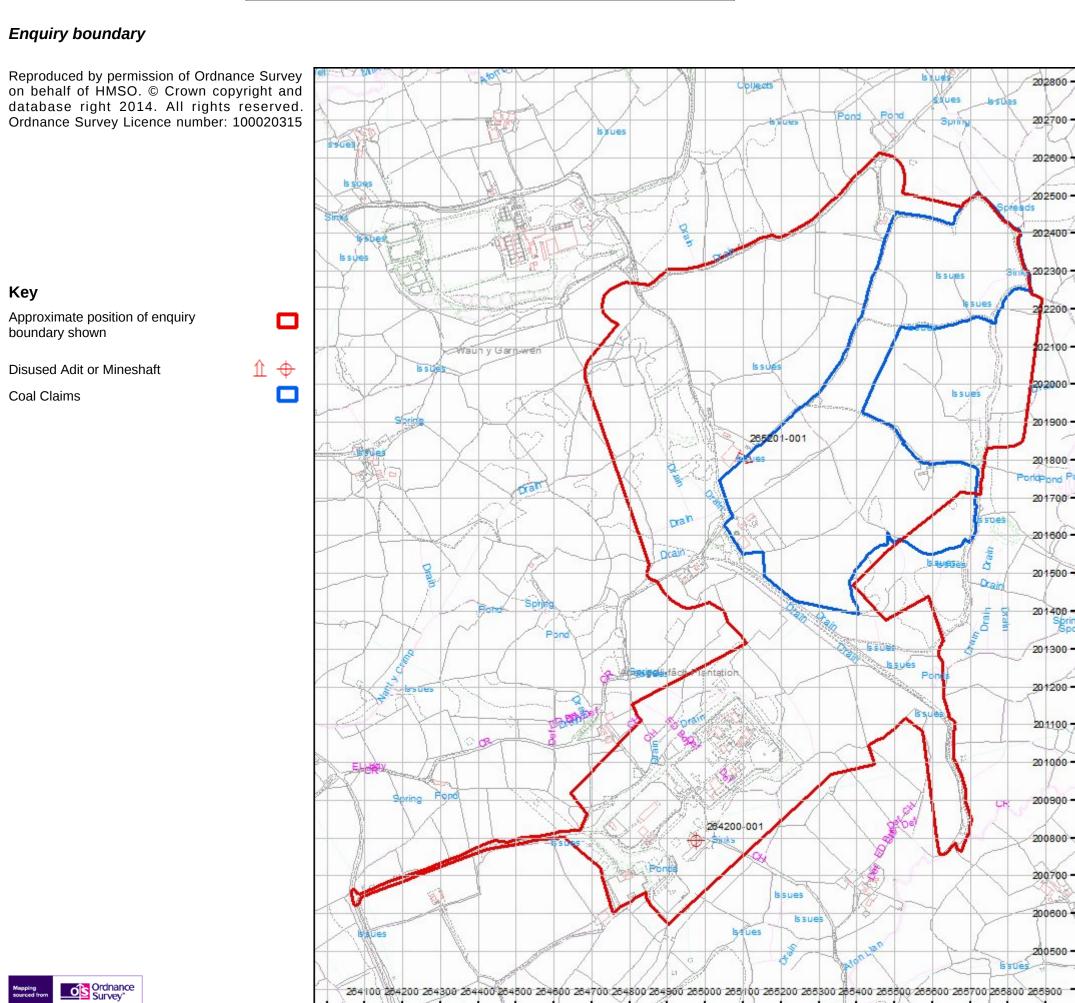
**COAL AUTHORITY MINING REPORT** 

# Location map



Approximate position of property







Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

PARSONS BRINCKERHOFF 27-29 CATHEDRAL ROAD CARDIFF CF11 9HA Our reference: 51000592880001
Your reference: QUOTE ONLY
Date of your enquiry: 30 July 2014
Date we received your enquiry: 30 July 2014

Date of issue: **01 August 2014** 

This report is for the property described in the address below and the attached plan.

# **Non-Residential Coal Authority Mining Report**

## ABERGELLI FACH FARM, FELINDRE, SWANSEA, SA5 7NN

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

| Coal mining                 | See comments below |  |  |
|-----------------------------|--------------------|--|--|
| Brine Compensation District | No                 |  |  |

# Information from the Coal Authority

#### **Underground coal mining**

## **Past**

The property is in the likely zone of influence from workings in 3 seams of coal at shallow to 380m depth, and last worked in 1986.

#### **Present**

The property is not in the likely zone of influence of any present underground coal workings.

#### Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

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

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

# Mine entries

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Within, or within 20 metres of, the boundary of the property there are 2 mine entries, the approximate positions of which are shown on the attached plan.

There is no record of what steps, if any, have been taken to treat the mine entries.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

For an additional fee, the Coal Authority will provide a supplementary Mine Entry Interpretive Report. The report will provide a separate assessment for the mine entry (entries) referred to in this report. It will give details based on information in the Coal Authority's possession, together with an opinion on the likelihood of mining subsidence damage arising from ground movement as a consequence of the existence of the mine entry/entries. It will also give details of the remedies available for subsidence damage where the mine entry was sunk in connection with coal mining. Please note that it may not be possible to produce a report if the main building to the property cannot be identified from Coal Authority plans (ie. for development sites and new build).

For further advice on how to order this additional information visit www.groundstability.com or telephone 0845 7626 848.

## Coal mining geology

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

# **Opencast coal mining**

#### **Past**

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

#### Present

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

#### **Future**

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

#### Coal mining subsidence

A damage notice or claim for alleged subsidence damage was made in November 1996 for ABERGELLI FARM, FELINDRE, SWANSEA, SA5 7NN. However, the claim was rejected. There is no current Stop Notice delaying the start of remedial works or repairs to the property. A damage notice or claim for alleged subsidence damage was made in June 1995 for ABERGELLI FARM, FELINDRE, SWANSEA, WEST GLAMORGAN, SA5 7NN. However, the claim was rejected.

There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required in addition to that provided in this report, the Authority need to manually search their records. For further advice on how to order this additional information visit www.groundstability.com or telephone 0845 7626 848.

#### Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

#### Hazards related to coal mining

The property has been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

.**-**

#### Withdrawal of support

The property is in an area for which notices of entitlement to withdraw support were published in 1943, 1945, 1976, 1977.

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

# Working facilities orders

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

## Payments to owners of former copyhold land

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

## **Comments on Coal Authority information**

The attached plan shows the approximate location of the disused mine entry/entries referred to in this report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence act 1991\*). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and the obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0845 762 6848 or online at www.coal.decc.gov.uk/en/coal/cms/services/claims.

If you wish to discuss the relevance of any of the information contained in this report you should seek the advice of a qualified mining engineer or surveyor. If you or your adviser wish to examine the source plans from which the information has been taken these are normally available at our Mansfield office, free of charge, by prior appointment, telephone 01623 637235. Should you or your adviser wish to carry out any physical investigations that may enter, disturb or interfere with any disused mine entry the prior permission of the owner must be sought. For coal mine entries the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). Our emergency telephone number at all times is 01623 646333.

\*Note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

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## Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

#### **Additional Remarks**

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Issued by: The Coal Authority, 200 Lichfield Lane,

Mansfield, Nottinghamshire, NG18 4RG

Tax Point Date: 30 July 2014

Issued to: PARSONS BRINCKERHOFF

27-29 CATHEDRAL ROAD

CARDIFF CF11 9HA

Property Search for: ABERGELLI FACH FARM, FELINDRE,

SWANSEA, SA5 7NN

Reference Number: 51000592880001

Date of Issue: 01 August 2014

Cost: £414.00

VAT @ 20%: £82.80

Total Received: £496.80

VAT Registration 598 5850 68

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Map images are being sent under separate cover

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#### Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

CHARLES ADEGITEOur reference:51000588204001OXFORD HOUSEYour reference:Mine entryOXFORD ROADDate of your enquiry:17 July 2014MANCHESTERDate we received your enquiry:17 July 2014M1 7EDDate of issue:21 July 2014

This report is for the property described in the address below and the attached plan.

#### **Shaft Plan and Data Sheets**

#### ABERGELLI FACH FARM, FELINDRE, SWANSEA, SA5 7NN

I refer to the enquiry dated 17 July 2014, received 17 July 2014, in connection with the above.

As requested I enclose the mine entry data sheet(s) held for the mine entry/entries referred to.

-

# Mine Entry Data

Shaft/adit: Adit

Reference: 265201-001

Source: 1/2500 O.S Sheet Glam 15:1 1935 Ed Ab plans SW154 SW514

SWR666 SWA1795. Other: AG1 PD110 Abergelli No.1

Geological Sheet SN60SE N.G Ed 1/10560 O.S Sheet SN60SE

N.G Ed - site of

Colliery name: Unknown

Entry name: Aber Gelli Colliery

Date abandoned: Unknown
Depth of superficial deposits (m): Unknown
Depth of shaft (m): Unknown

Diameter of shaft (m): Unknown

Probable adit azimuth: 115

Treatment details: Unknown

Conveyance: Not Applicable

Easting: 265091
Northing: 201811
Other information: None

Issued by: The Coal Authority, 200 Lichfield Lane,

Mansfield, Nottinghamshire, NG18 4RG

Tax Point Date: 17 July 2014

Issued to: CHARLES ADEGITE

OXFORD HOUSE OXFORD ROAD MANCHESTER

M1 7ED

Property Search for: ABERGELLI FACH FARM, FELINDRE,

SWANSEA, SA5 7NN

Reference Number: 51000588204001

Date of Issue: 21 July 2014

Cost: £35.00

VAT @ 20%: £7.00

Total Received: £42.00

VAT Registration 598 5850 68

## Location map

Approximate position of enquiry





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This plan shows the approximate location of the disused mine entry / entries referred to in the attached mining report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A DTI leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0845 762 6848.

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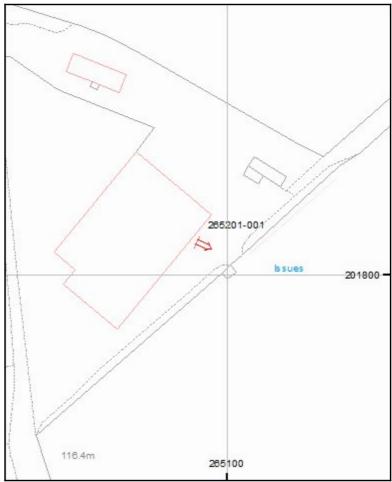
#### Key

Disused Adit or Mineshaft









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