

Ymddiriedolaeth Archaeolegol
Dyfed
Neuadd y Sir
Stryd Caerfyrddin
Llandeilo
Sir Gaerfyrddin
SA19 6AF



Ffon 01558 823131
Ffacs 01558 823133
Ebost: info@dyfedarchaeology.org.uk

Dyfed Archaeological Trust
The Shire Hall
Carmarthen Street
Llandeilo
Carmarthenshire
SA19 6AF

Telephone 01558 823131
Fax 01558 823133
Email: info@dyfedarchaeology.org.uk

BETTER WOODLANDS FOR WALES MANAGEMENT PLAN HERITAGE MANAGEMENT INFORMATION (WHE1)

**Prepared for:
Carmel Grasslands Trust**

**BWW Reference No
1686**

**Prepared by
Mike Ings
Project Record No. 63777**

INTRODUCTION AND OBJECTIVES

Historic landscape character & archaeological and historical content

The application area for Carmel Grasslands Trust lies to the north of Crosshands, in the community of Llanfihangel Aberbythych, Carmarthenshire, and is centred on NGR SN58781617. It comprises numerous parcels of land on high ground, between 210-250 metres above sea level, south of Carmel village.

This landscape is depicted on the 1887 1st edition Ordnance Survey map as divided into medium-sized, generally irregular fields under a mixture of brushwood, mixed woodland, heath and pasture. Most of the application boundaries are now covered by deciduous woodland.

There is plenty of archaeological evidence that demonstrates the industrialisation of the landscape during the post-medieval period. Several limestone quarries are located within the application area, including the workings at Garn and Pwll-edrychiad, and numerous lime-kilns, spoil-tips and tramways. The four lime-kilns at Garn quarry (PRNs 27160, 27162, 27165 and 27167) are Grade II listed and full descriptions are provided below. A gazetteer of all the recorded archaeology within the application area appears below.

Historic Environment Objectives

The purpose of the management is to

- Ensure the survival of visible historic features.
- Ensure archaeological deposits beneath the ground surface are not disturbed.
- Prevent progressive degradation of historic environment features by promoting sympathetic woodland management.
- Ensure the long-term preservation of features associated with historic woodland.
- Maintain or restore the historic configuration and visual character of the historic landscape.

GENERAL MANAGEMENT REQUIREMENTS

All historic earthworks, structures, archaeological sites and traditional buildings must be retained and protected against damage. The following list identifies those Historic Environment Features affected by this application and the accompanying mapping shows each of these and identifies a sensitive area surrounding it. These sensitive areas must be actively managed for the life of the woodland management plan in accordance with the following requirements, in line with the Forestry Commission's *Forestry & Archaeology Guidelines, 1995*.

Planning

- Ensure that new planting and re-planting schemes are planned to avoid the sensitive areas surrounding historic environment features. Ideally these sensitive areas should not simply be left as unplanted islands in otherwise continuous woodland. Wherever possible these sensitive areas should be incorporated into larger buffer zones or clearings to facilitate access and ongoing management. Specific planting schemes involving historic environment features should be discussed with the Dyfed Archaeological Trust at the planning stage.
- In areas of grazed woodland, grazing regimes and stocking levels should be approved by the Dyfed Archaeological Trust prior to implementation. Similar approval should also be sought prior to significant changes to agricultural regimes.
- Consideration should be given to lessening the visual impact of new planting on historic environment features and historic landscapes.
- Consideration should be given to allowing / maintaining public access to historic environment features in woodland where this is both safe and practical. Specific access and interpretation schemes involving historic environment features should be discussed with the Dyfed Archaeological Trust at the planning stage.
- Ensure contractors and all other workers are aware of the historic environment features and comply with these requirements. They should take appropriate measures to avoid accidental damage.

Mitigation

- Do not plant or re-plant trees within the defined sensitive areas surrounding historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not carry out any excavation or erect any new building or structure in the vicinity of historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not site new fencing or vehicular tracks within the sensitive areas of historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not remove any material from the sensitive areas of historic environment features or deposit spoil or rubbish on them.
- Do not store timber or machinery within the sensitive areas of historic environment features.
- Do not use heavy machinery in the sensitive areas of historic environment features, especially in wet weather.
- Do not harvest or otherwise fell trees within the sensitive areas of historic environment features without prior discussion with the Dyfed Archaeological Trust.
- No intrusive archaeological investigation (such as excavation, field-walking to collect surface finds or metal detecting) should be allowed without the prior approval of the Dyfed Archaeological Trust, to ensure that such work complies with appropriate guidance - the *Institute of Field Archaeologists Code of Conduct and Standards and Guidance*, and the *Code of Practice for Responsible Metal Detecting in England and Wales, 2006*.

Proactive management

- Control scrub and naturally regenerating trees within the sensitive areas of historic environment features. Such vegetation should be cut off at ground level with its roots being left in the ground rather than pulled up or dug out. Ensure that machinery does not cause further disturbance.
- Remove any dead or unstable trees from the vicinity of historic environment features, leaving roots to rot in situ. Ensure that machinery does not cause further disturbance.
- Where appropriate, undertake regular brashing of trees within the sensitive areas of historic environment features.
- Remove brash or other dead vegetation from the sensitive areas of historic environment features with care. Ensure that machinery does not cause further disturbance.
- Wherever practicable, repair and reuse original historic environment features, such as boundary walls, rather than replace them. Repairs should be unobtrusive and where possible make use of appropriate traditional materials and methods of construction. Schemes of repair should be discussed with the Dyfed Archaeological Trust prior to implementation.

Legislation and Guidance

- **Scheduled Ancient Monuments (SAMs)** have statutory protection and consent from Cadw will be required for works to these monuments.
- **Listed buildings** have statutory protection and permission from the Local Planning Authority will be required for some works. Listed status may also apply to buildings and structures within the curtilage of a listed building.
- Areas of **historic parkland** of national importance are included on the Cadw/ICOMOS *Register of Parks and Gardens of Special Historic Interest in Wales*. There are also many non-registered parks of lesser quality but which, nevertheless, form an important component in the historic environment and require appropriate management.
- A number of **historic landscapes** are registered in the Cadw/ICOMOS/CCW *Registers of Outstanding and Special Landscapes of Historic Interest in Wales*.
- The reporting of **archaeological finds** arising from woodland work must comply with the *Treasure Act, 1996*. Guidance on this and on the reporting of other **portable antiquities** can be found on the Portable Antiquities Scheme website (<http://www.finds.org.uk>).

Scheduled and listed sites and registered areas are identified as such below.

HISTORIC ENVIRONMENT FEATURES

A search of the regional Historic Environment Record (HER) held by the Dyfed Archaeological Trust has identified the following historic environment features. These are listed and described below and are shown on the accompanying map. Each feature

is allocated a unique reference number (a Primary Record Number - PRN) that should be quoted in any correspondence.

Each site listed must be managed in accordance with the General Management Requirements outlined above. Where sites require specific management this is set out below. These Specific Management Requirements are in addition to and (in the case of conflict) take precedence over the General Management Requirements.

PRN 27132 MOUNT PLEASANT Post-Medieval lime kiln SN58911629

A simple kiln surviving as an 'armchair'-shaped earthwork and measuring approximately 4x3metres. It stands to about 1.5metres high. A trackway leads uphill to the east to a small quarry (PRN 27133). The drawhole of the kiln faces northwest and downslope. (K Murphy 2.11.93).

PRN 27133 MOUNT PLEASANT Post-Medieval limestone quarry SN58941629

A small quarry measuring about 10x5metres and only 2metres deep. A track runs down from the quarry to the lime-kiln (PRN 27132). (K Murphy 22.11.93).

PRN 27134 MOUNT PLEASANT Post-Medieval limestone quarry SN58901627

A small quarry 20metres x 10metres and 3-4metres deep. (K Murphy 22.11.93)

PRN 27135 CEFN-MWNG Post-Medieval lime kiln SN59011632

A kiln surviving as an 'armchair'-shaped earthwork measuring approximately 4metres x 3metres and standing to 1.5metres high. Quarries (PRN 27137) lie upslope to the south. The draw-hole of the kiln faces north and downslope. (K Murphy 22.11.93).

PRN 27136 CEFN-MWNG Post-Medieval lime kiln SN59021632

A kiln surviving as an 'armchair'-shaped earthwork measuring approximately 4metres x 3metres and 1.5metres high. Quarries (PRN 27137) lie upslope to the south. The draw-hole of the kiln faces north and downslope. (K Murphy 22.11.93).

PRN 27137 CEFN-MWNG Post-Medieval limestone quarry SN59011631

A series of small quarries on the upslope, south side of the lime kilns (PRN 27135- 6). (K Murphy 22.11.93).

PRN 27138 CEFN-MWNG Post-Medieval lime kiln SN59161636

A kiln surviving as an 'armchair'-shaped earthwork measuring approximately 4metres x 3metres and about 1.5metres high. A quarry lies to the south upslope of the kiln. (K Murphy 22.11.93).

PRN 27139 CEFN-MWNG Post-Medieval limestone quarry SN59161635

A series of small quarries to the south of kiln PRN 27138. (K Murphy 22.11.93).

PRN 27149 CARMEL WOODS Post-Medieval spoil heap SN59201627

A small spoil heap of burnt lime and other waste material from a lime kiln. There is no other evidence for a kiln though quarry PRN 27148 lies upslope of the spoil. (K Murphy 22.11.93)

PRN 27150 CARMEL WOODS Post-Medieval lime kiln SN59151625

A small lime kiln surviving as an `armchair'-shaped earthwork measuring approximately 3.5metres x 3metres and 1.5metres high. The draw-hole faces downslope towards the north-north-east. To the southern upslope side of the kiln is a natural cliff face that may have been quarried for the stone source. (K Murphy 22.11.93).

PRN 27151 CARMEL WOODS Post-Medieval lime kiln SN59141624

A small lime kiln surviving as an `armchair'-shaped earthwork measuring approximately 3metres x 3metres and 1metre high. The draw-hole faces downslope towards the north-north-east. To the southern upslope side of the kiln is a natural cliff face that may have been quarried for the stone source. (K Murphy 22.11.93).

PRN 27152 CARMEL WOODS Post-Medieval limestone quarry SN59151620

Two quarry pits. (K Murphy 22.11.93).

PRN 27153 CARMEL WOODS Post-Medieval spoil heap SN59221620

A spoil heap some 6metres x 5metres and 2metres high of burnt lime. Probably waste from a lime kiln though no kiln was found in the area. (K.Murphy 1993).

PRN 27154 CARMEL WOODS Post-Medieval limestone quarry SN59251617

A small quarry pit. (K Murphy 22.11.93).

PRN 27155 CARMEL WOODS Post-Medieval lime kiln SN59201616

A small kiln surviving as an `armchair'-shaped earthwork and measuring approximately 3metres x 3metres and 1metre high. The draw-hole faces downslope to the north. A quarry (PRN 27156) is located on the upslope, southern side of the kiln. (K Murphy 22.11.93).

PRN 27157 CARMEL WOODS Post-Medieval spoil heap SN59181611

A small spoil heap of burnt lime - waste from a lime kiln. No trace of a kiln was found. (K Murphy 22.11.93).

PRN 27159 GARN Post-Medieval lime kiln SN59031612

In use by 1887 and disused in 1906. This kiln has now partly collapsed. It would originally have stood about 3metres high. It is roughly circular in plan with an external diameter of about 8metres. It is well-built of mortared stone. Free standing but backing into a natural hill-slope. Some 70 - 100metres to the

east on the upslope side are quarries (PRN 27158) that may have supplied this kiln. On the downslope, western side of the kiln are two linear spoil heaps of kiln waste. The access track to the kiln's draw-hole runs up between these spoil heaps. The draw-hole would have faced east, downslope but the whole western side front of the kiln has collapsed. (K Murphy 22.11.93).

PRN 27160 GARN

Post-Medieval lime kiln SN58991606

Marked on the 1887 map as working? Disused by 1906. It is a well-preserved example of a mid-19th century type kiln. It is well-built of stone set into a bank with the charging-hole at ground level. It is about 5.0metres high and the partly infilled pot is 4.0metres in diameter. There are two kiln eyes set at the rear of a drawing hole tunnel. This tunnel has a two-centred arch. This drawing hole arch is some 2.2metres high and 3.2metres wide. The drawing hole tunnel is 2.2metres deep. A series of quarry pits (PRN 27161) lie immediately to the south of the kiln. (K Murphy 22.11.93).

PRN 27161 GARN

Post-Medieval limestone quarry SN59001603

A series of shallow quarry pits used to serve the kiln PRN 27160. Abandoned by 1906 in use in 1887. (K Murphy 22.11.93).

PRN 27162 GARN

Post-Medieval lime kiln SN58991614

In use in 1887 and abandoned by 1906. Stone-built kiln. Built into a natural bank so that the top of the charging-hole is flush with the ground surface. The charging-hole is now infilled and there has been much dumping of rubbish and soil in the front of the kiln. It seems that beneath the rubbish there are two drawing hole arches. The southern most is completely obscured and the northern one mostly obscured and beginning to collapse. The estimated height of the kiln is 5.3metres it is 13metres wide. The kiln faces west. The kiln was charged by a tramway (PRN 27163) which led from a quarry (PRN 27164).

PRN 27163 GARN

Post-Medieval tramway SN59051615

This tramway led from the quarry PRN 27164 to the top of the lime kiln PRN 27162. It was in use in 1887 but had disappeared by the time of the 2nd edition Ordnance Survey 1:2500 in 1906. (K. Murphy 22.11.93).

PRN 27164 GARN

Post-Medieval limestone quarry SN590162

A large quarry or rather several quarries joined into one covering an area 100metres by 100metres and about 10metres deep. These quarries supplied the kilns PRN 27162 and PRN 27165. The quarries had gone out of use by 1906. (K Murphy 22.11.93).

PRN 27165 GARN

Post-Medieval lime kiln SN58971618

In use in 1887 but abandoned by 1906. Stone-built. Built into but protruding from a natural slope with the charging-hole at the quarry floor level to the east. The charging hole is partly in-filled and 6.0metres in diameter. The kiln is 6.0metres high and 10.5metres wide. There are two southwest facing draw-holes each with a round-headed arch 2.7metres high and 3.1metres wide. The tunnels to the drawing hole arches are 1.9metres deep. There is a single eye set in the rear of each tunnel. The kiln was supplied by the quarry PRN 27164 via the tramway PRN 27166. (K Murphy 22.11.93).

PRN 27167 GARN

Post-Medieval lime kiln SN58921623

PRN 27508 PWLL-EDRYCHIAD Post-Medieval lime kiln SN58371610

Site inaccessible due to thick undergrowth. The kiln consists of a pennanular bank diameter some.2.5metres. The drawing hole faces east with spoil to east. (P.Sambrook 1994).

PRN 27549 PWLL EDRYCHIAD Post-Medieval lime kiln SN58401616

A horseshoe-shaped kiln pot with a diameter of 2.7metres and a depth of 1.0metre. The drawing hole faces north with spoil downslope in same direction. (P.Sambrook 1994)

PRN 27550 PWLL EDRYCHIAD Post-Medieval lime kiln SN58271612

A horseshoe-shaped kiln pot with a diameter of 2.5metres and a depth of 1.0metre. The drawing hole faces south-west with spoil downslope in same direction. (P.Sambrook 1994)

PRN 27551 PWLL EDRYCHIAD Post-Medieval lime kiln SN58301612

Well preserved. Stone lined pot ,diameter 3.4metres and depth 2.0metres, with deep effect of burning evident on lining. Faces west with spoil to west. Depression below drawing hole may have been a working area for limeburners. (P.Sambrook 1994)

PRN 27552 PWLL EDRYCHIAD Post-Medieval lime kiln SN58531617

Horseshoe-shaped kiln pot diameter 3.8metres and 1.0metre deep. Faces southwest. Situated at quarry edge. Spoil to south. (P.Sambrook 1994).

PRN 27554 PWLL EDRYCHIAD Post-Medieval lime kiln SN58541620

Kiln. Overgrown depression. Spoil downslope to south-west. No measurement possible. (P.Sambrook 1994)

PRN 27556 PWLL EDRYCHIAD Post-Medieval lime kiln? SN58561626

Large spoil tip at edge of dense thicket which probably masks kiln site. (P.Sambrook 1994).

PRN 27558 PWLL EDRYCHIAD Post-Medieval lime kiln SN58451615

Horseshoe-shaped kiln pot with a diameter of 2.6metres and 1.0metre deep. Drawing hole faces west, with spoil to south-west. Short length of drystone walling runs from south side of drawing hole. (P.Sambrook 1994).

PRN 27559 PWLL EDRYCHIAD Post-Medieval lime kiln SN58581623

Horseshoe-shaped kiln. Very overgrown. Faces northwest, with spoil to northwest overlying a drystone field boundary. Kiln pot diameter 3.5metres and 1.5metres deep. (P.Sambrook 1994).

PRN 27561 PWLL EDRYCHIAD Post-Medieval lime kiln SN58541624

Horseshoe-shaped kiln drawing hole facing west. Kiln pot diameter 2.6metres and 0.5metres deep. (P.Sambrook 1994)

PRN 27562 PWLL EDRYCHIAD Post-Medieval lime kiln? SN58781619

Large mound of clinker which may well be the kiln site. Quarried limestone blocks are heaped on top of the mound - possibly unburnt charge. More spoil downslope to north. (P.Sambrook 1994)

PRN 27564 PWLL EDRYCHIAD Post-Medieval lime kiln SN58671620

Horseshoe-shaped kiln pot with a diameter of 2.9metres and a depth of 1.5metres. The drawing hole faces southwest, with spoil downslope to southwest. (P.Sambrook 1994).

PRN 27565 PWLL EDRYCHIAD Post-Medieval quarry SN58681621

Small quarry in limestone. (P.Sambrook 1994)

PRN 27566 PWLL EDRYCHIAD Post-Medieval lime kiln SN58721630

Poorly preserved horseshoe-shaped kiln. Pot diameter 2.5metres and 1.0metre deep. Drawing hole faces north-east small amount of spoil to north-east. (P.Sambrook 1994)

PRN 27567 PWLL EDRYCHIAD Post-Medieval quarry SN58841601

Small quarry in limestone.(P.Sambrook 1994)

PRN 27568 PWLL EDRYCHIAD Post-Medieval spoil tip SN58871601

Spoil tip with no kiln evident.(P.Sambrook 1994)

PRN 27569 PWLL EDRYCHIAD Post-Medieval quarry SN58851606

Limestone quarry

PRN 27570 PWLL EDRYCHIAD Post-Medieval spoil tip SN58881607

Horseshoe-shaped spoil tip. Pot diameter 4.0m 1.0m deep. Drawing hole faces east. P.Sambrook 1994

PRN 94621 PWLL EDRYCHIAD Post-Medieval well SN58251613

Well recorded on the 1887 1st edition Ordnance Survey map, serving the Pwll-edrychiad farmstead .

PRN 94622 Post-Medieval quarry SN58351612

Quarry recorded on the 1887 1st edition Ordnance Survey map. Not shown on modern mapping.

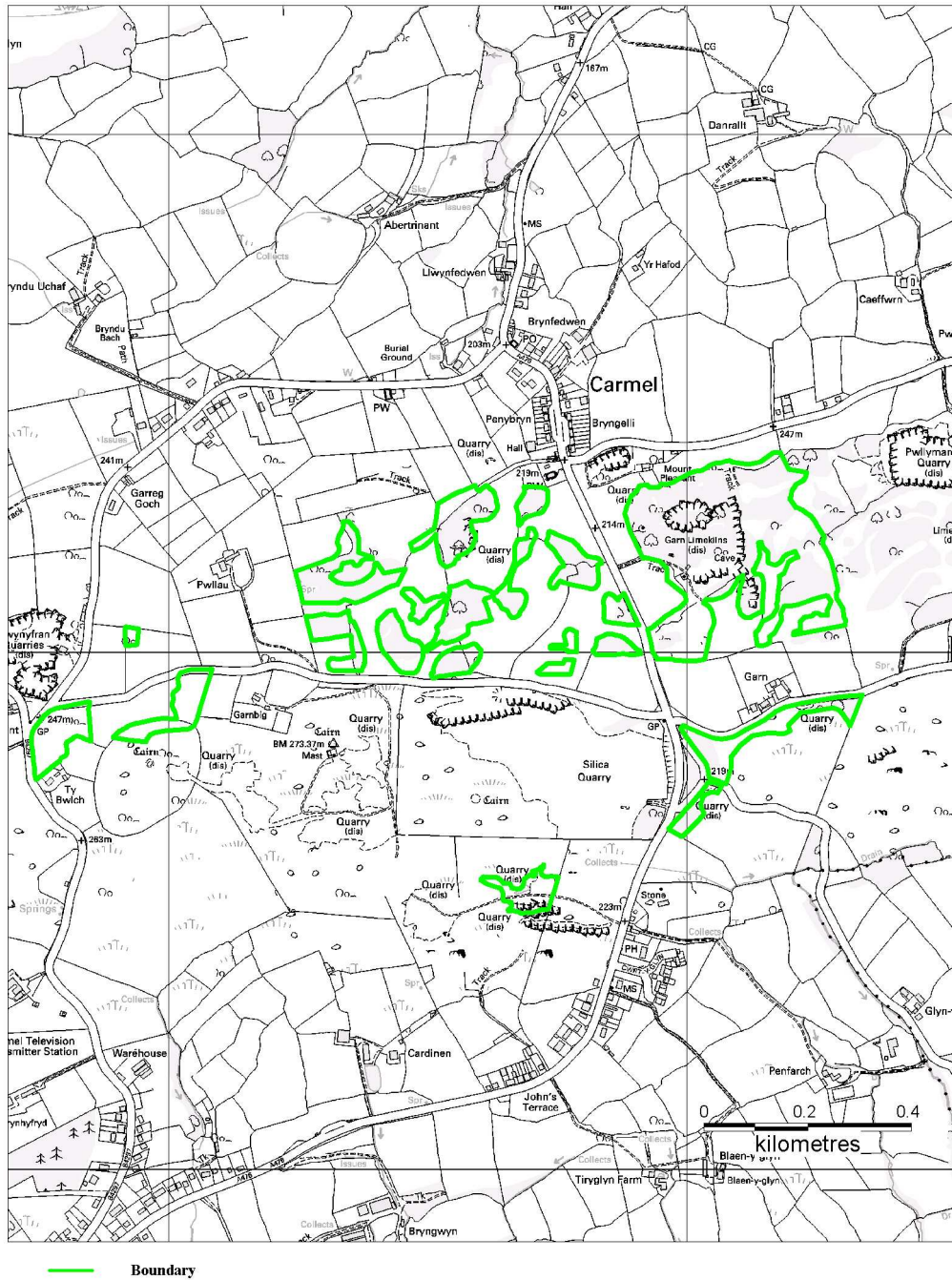
Sources consulted:

Historic Environment Record for Carmarthenshire, Ceredigion and Pembrokeshire

Ordnance Survey 1st edition 1887 Carmarthenshire Sheet 41.14, 25"

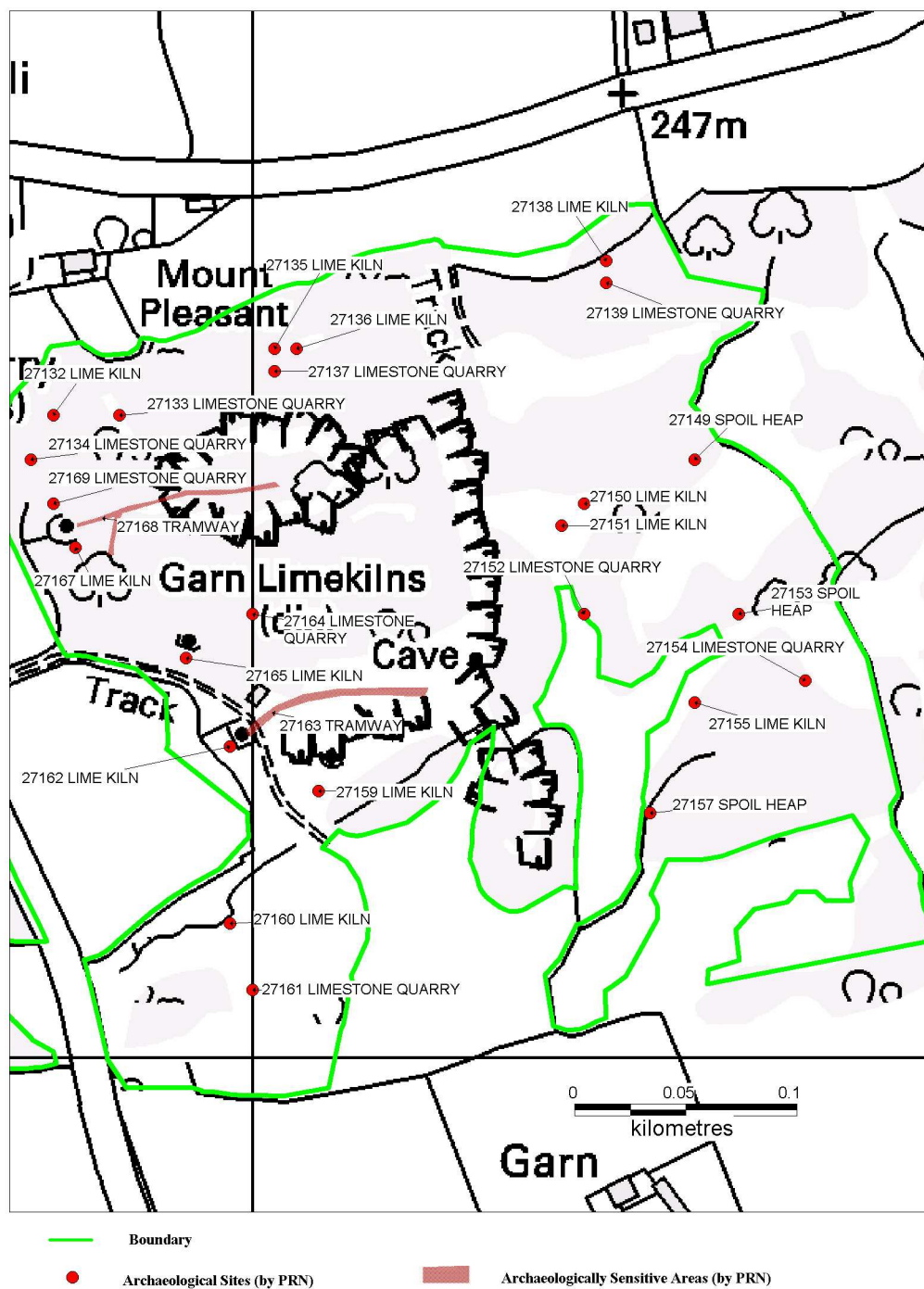
Ordnance Survey 2nd edition 1906 Carmarthenshire Sheet 41.14, 25"

Other sites may be known to the landowner and these should be made known to the Dyfed Archaeological Trust in order to update the Regional Historic Environment Record and where necessary amend management advice.



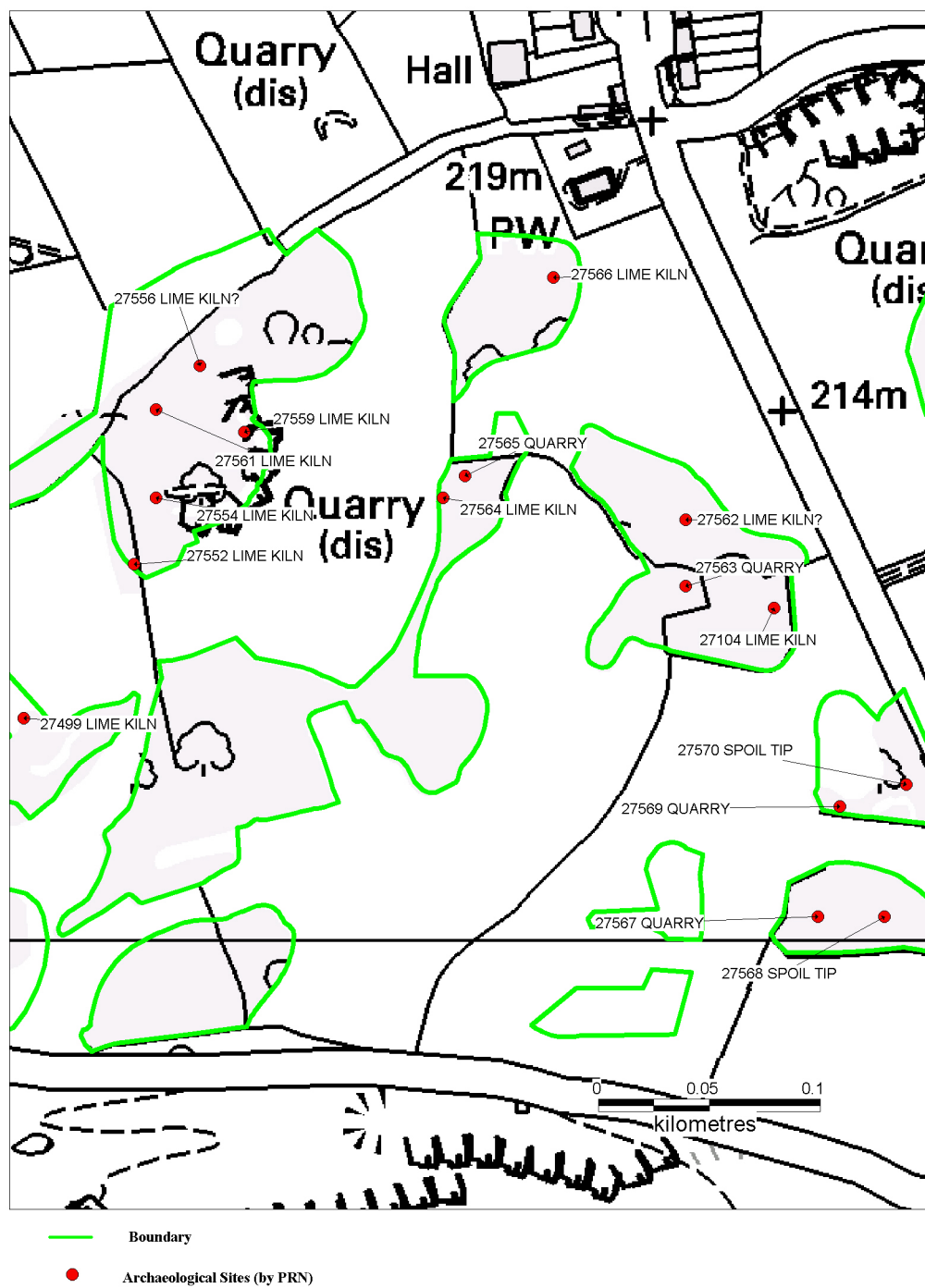
Based upon the Ordnance Survey map with permission of the Controller of HMSO. © Crown Copyright Reserved.
Ordnance Survey license number GD272388. 12/02/2009 10:13

Fig 1: Map showing the application area



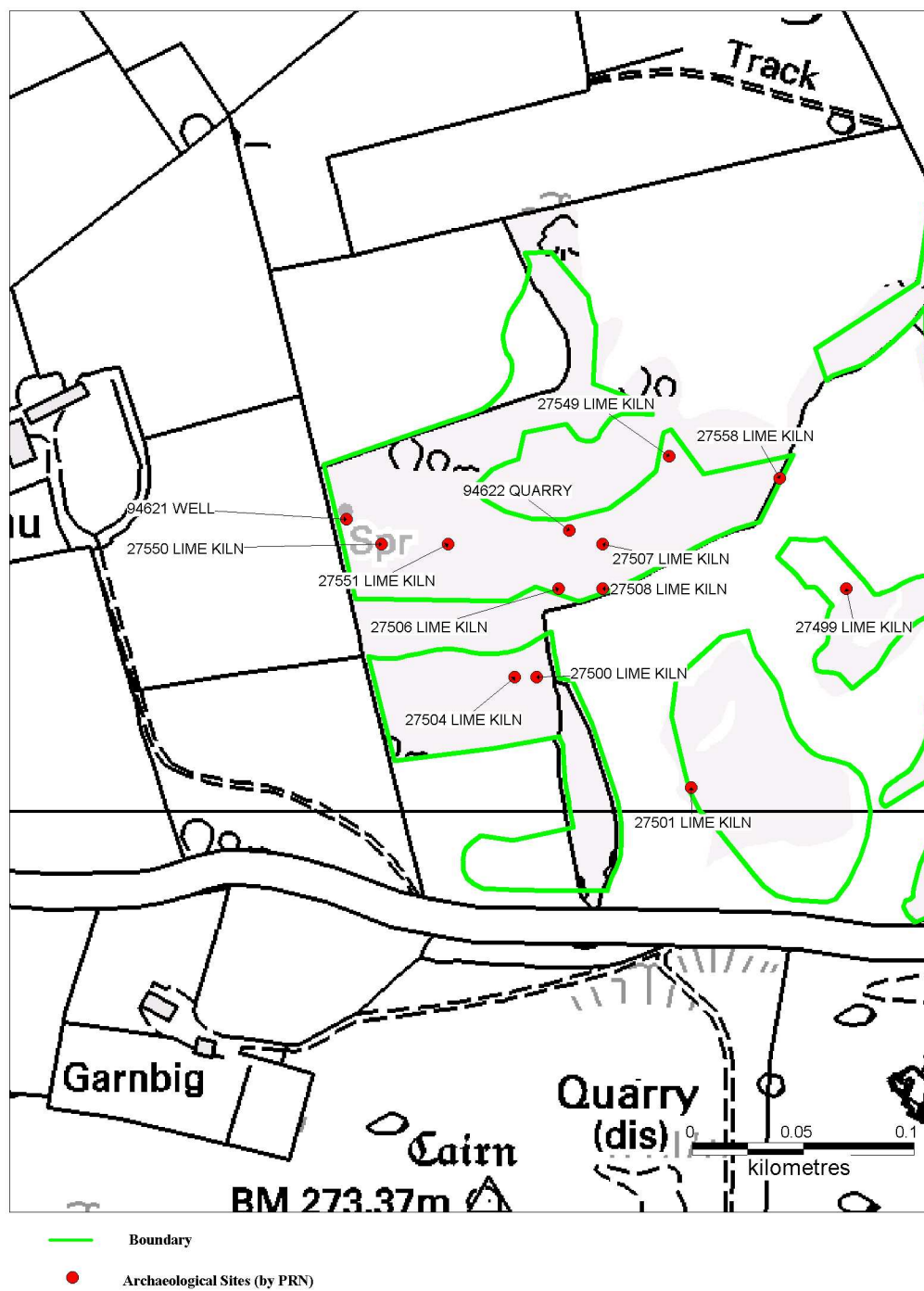
Based upon the Ordnance Survey map with permission of the Controller of HMSO. © Crown Copyright Reserved.
Ordnance Survey license number GD272388. 12/02/2009 10:13

Fig 2: Map of area around Garn Quarries



Based upon the Ordnance Survey map with permission of the Controller of HMSO. © Crown Copyright Reserved.
Ordnance Survey license number GD272388. 12/02/2009 10:13

Fig 3: Map of area to west of Garn Quarries



Based upon the Ordnance Survey map with permission of the Controller of HMSO. © Crown Copyright Reserved.
Ordnance Survey license number GD272388. 12/02/2009 10:13

Fig 4: Map of area around Pwll-edrychiad Quarry

APPENDIX:

Listed Building descriptions: LB 22187, 22188, 22189 and 22190 - Garn Limekilns

Garn Limekiln No. I (northernmost in group)

One of several limekilns at this location in use in c1876-85. At this time it had a tramway connecting it to the quarry. Disused by 1906.

The landholding was a part of the Cawdor estate named Tir-y-garn (based on Garn farmhouse, 300m south-east).

One of the better-surviving limekilns in an area of intensive C19 and C20 quarrying and lime-burning industry; one of an important surviving contemporary group.

A fine single limekiln in roughly squared but uncoursed limestone masonry. About 12m in width, about 7m high. Straight front wall with canted sides. Semicircular main arch over the working area. Two kiln working holes with inner semicircular arches, separated by a very thin pier of masonry.

The top has collapsed and the interior diameter is not apparent.

Small sunken forecourt with revetted wall around.

Garn Limekiln No. II (2nd from north in group)

One of several limekilns at this location in c1876-85. It may then have been disused or under construction, as, unlike its two neighbours, no mineral tramway is indicated on the OS plan as connected to it. It was disused by 1906.

The landholding was a part of the Cawdor estate named Tir-y-garn (based on Garn farmhouse, 300m south-east).

One of the better-surviving limekilns in an area of intensive C19 and C20 quarrying and lime-burning industry; one of an important surviving contemporary group.

A fine single limekiln in roughly squared but uncoursed limestone masonry. About 12m in width, about 7m high. Straight front wall with canted sides. Semicircular main arch over the working area. Two kiln working holes with inner semicircular arches, separated by a very thin pier of masonry.

A fine single limekiln in neatly squared and coursed limestone masonry. About 9m in width, about 6m high. Straight front wall with sides returning at nearly 90°. Two working areas each with a semicircular outer arch, separated by a tapering projecting pier of masonry, and extending about 4m in from the front. Semicircular inner arches over the two kiln working holes.

The top is eroded and the interior diameter is not apparent.

Garn Limekiln No. III (3rd from north in group)

One of several limekilns at this location in use in c1876-85. At this time it had a tramway from the quarry. Disused by 1906.

The landholding was a part of the Cawdor estate named Tir-y-garn (based on Garn farmhouse, 300m south-east).

One of the better-surviving limekilns in an area of intensive C19 and C20 quarrying and lime-burning industry; one of an important surviving contemporary group. A poorly accessible limekiln in limestone masonry. Straight front wall. Two working areas, each with a large semicircular outer arch. The left working holes only are accessible, with difficulty.

A road now runs over the top and the interior diameter is not ascertainable.

Garn Limekiln No. IV (southernmost in group)

One of several limekilns at this location in c1876-85. It was disused by 1906.

The landholding was a part of the Cawdor estate named Tir-y-garn (based on Garn farmhouse, 300m south-east).

One of the better-surviving limekilns in an area of intensive C19 and C20 quarrying and lime-burning industry; one of an important surviving contemporary group.

A fine single limekiln in rubble limestone masonry. About 8m in width, about 5m high. Straight front wall with a slight curve at left. Segmental main arch over the working area. Two kiln working holes with rough arch to the left, lintel to the right, separated by a thin pier of masonry.

The top has collapsed but the interior diameter was about 4m.

Remnant of a stone hut, 2m by 3m, 50m to the north, on the opposite side of the path.