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Wylfa Newydd Proposed New Nuclear Power Station

Assessment of the Significance of Cestyll (Grade II) Registered Historic Park and Gardens (GD45)

Final Report



Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

HORIZON
NUCLEAR POWER

Assessment of the Significance of Cestyll (Grade II) Registered Historic Park and Gardens (GD45)

Final Report

Project No. G2096

Report No. 1319

Prepared for: Jacobs UK Ltd.

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SUMMARY

Gwynedd Archaeological Trust (GAT) was commissioned by Jacobs UK Ltd on behalf of Horizon Nuclear Power Limited (Horizon) to undertake an assessment of the significance of Cestyll Garden, a Grade II Registered Historic Park and Garden.

The purpose of this report is to present the results of the desk-based assessment, seasonal site inspections, and measured survey of the garden along with an assessment of significance of the garden. This will allow the identification of mitigation measures and facilitate the discussion of these with consultees.

Cestyll Garden is made up of three main elements:

- a former walled kitchen garden dating from the mid to late 19th century;
- a plot of land where Cestyll House formerly stood; and
- the valley garden established by the Rt. Hon. Violet Vivian in the 1920s.

The Essential Setting of the garden and key views are also identified in the Register of Historic Parks and Gardens in Wales.

The valley garden has been provisionally assessed to be of national significance based on its historical associations with the Vivian family and the Royal Family of the Edwardian era, the evidence it provides for development as an early 20th century intimate coastal valley garden, and the varied sensory experience which derives from the combination of planting and the differing landscape types and views along Cafnan valley and out to sea. The kitchen garden has been assessed to be of local importance as it is a poorly preserved example of a relative common type of garden. Cestyll House was demolished in 1991 and its former location is comprises a semi-circle area bounded by a high wall and contributes little to the significance of the asset.

1.0 INTRODUCTION

1.1 Background

Cestyll Garden is located on the north coast of Anglesey to the west of Wylfa Head (Figure 1). The site consists of a valley garden (hereafter the valley garden), an early 20th century garden which exploits the natural beauty of the rocky valley of the Cafnan stream and the nearby walled kitchen garden (hereafter the kitchen garden) and former site of Cestyll House (hereafter the house plot) which was demolished in 1991.

Cestyll Garden is designated as a Grade II Registered Historic Park and Garden on the Register of Parks and Gardens of Special Historic Interest in Wales which was prepared by Cadw and the International Council on Monuments and Sites (ICOMOS). The register was compiled to aid the informed conservation of historic parks and gardens by owners, local planning authorities, developers, and statutory bodies. Grade II is assigned to *parks and gardens which by reason of their historic layout, features and architectural ornaments considered together make them of special interest* (Cadw 1996). The designation includes the valley garden, as well as the kitchen garden, the house plot, the site of the Gardener's cottage and garage, and the wider landscape which forms its Essential Setting (Figure 2). The valley garden is described as an "*unusual, small and intimate 1920s garden informally planted with tender plants, well suited to its rocky seaside site, which is of great natural beauty*" (Cadw 1998). The complete register entry for Cestyll Garden can be found in Appendix I.

Please note that under the Historic Environment Wales Act 2016 there is now a statutory requirement for the Welsh Ministers to compile and maintain a comprehensive register of parks and gardens of historic interest in Wales.

1.2 Purpose of this report

The Appraisal of Sustainability (AoS) for Wylfa identified potential impacts on Cestyll Garden resulting from the Wylfa Newydd Project and the requirement for more detailed assessment of these impacts at project level Environmental Impact Assessment (EIA) stage (Department of Energy and Climate Change, 2011). To inform this assessment, and in response to requirements of the Archaeological Evaluation Strategy (Horizon 2014), Gwynedd Archaeological Trust (GAT) was commissioned by Jacobs UK Ltd on behalf of Horizon Nuclear Power Limited (Horizon) to undertake an assessment of the significance of the garden. The project design for this assessment (Horizon, 2015) was agreed with Gwynedd Archaeological Planning Service (GAPS) on the 21 April 2015.

The purpose of this report is to present the results of the desk-based assessment (DBA), seasonal site inspections, an inventory of the plant and tree species in both gardens and measured survey of the garden along with an assessment of significance of the garden. The purpose of this report is to inform the identification of mitigation measures and facilitate the discussion of these with consultees.

2.0 APPROACH

The study area for this report was defined as the valley garden, the kitchen garden, the site of the Gardener's cottage and garage, and the wider landscape which forms the Essential Setting of the garden as detailed in the register (Cadw 1998) (Figure 2).

The assessment of the significance of Cestyll Garden has been informed by a DBA (please refer to Section 3), site inspections (please refer to Section 4) and soil testing undertaken by Jacobs in 2017.

In the preparation of the DBA the following sources of information have been consulted:

- the Gwynedd Historic Environment Record (HER);
- consultation with the local branch of the Welsh Historic Garden Trust (WHGT);
- information on Listed Buildings consulted via the online index (CARN) of the Royal Commission on the Ancient and Historic Monuments of Wales;
- aerial photographs held by the Royal Commission on Ancient and Historic Monuments of Wales; and
- visitor number obtained from Magnox.

3.0 RESULTS OF THE DESK BASED ASSESSMENT

3.1 Historical Background

3.1.1 The 19th Century

The available cartographic evidence suggests that a house was first built at Cestyll in the mid-to-late 19th century. The 1842 tithe map (Figure 3) shows that the site was originally part of Cafnan farm, owned by the Carreglwyd estate, though no building is marked at this date. A substantial L-shaped house with a large walled garden to the north and an associated small outbuilding, most likely a stable or coach house had been built on the site by 1889. This is shown on the First Edition 1" to 25 mile County Series Ordnance Survey Map (Figure 4).

The development of railways networks during the later Victorian period attracted new interest in the countryside of Gwynedd and Anglesey as wealthy industrialists, amongst others, established coastal retreats and second homes. The later 19th century witnessed both a rebuilding of a number of the larger established farmhouses of the area and an influx of wealthy newcomers who either rebuilt existing farmhouses (such as Wylfa) or built on new sites (such as The Firs and Simdda-Wen). This phase of development reflects the fashion for the wealthy classes to own rural homes in addition to their principal homes; and the ruggedly picturesque coastline of north Anglesey offered a perfect setting for this. The houses of this period were typically constructed to a large square plan-form with walled gardens, sometimes a lodge, and extensive grounds around the house. Cestyll appears to have been typical of this category.

The land on which Cestyll House and Garden are located has historically been part of the nearby Cafnan Farm. Cafnan Farm was part of the larger Carreglwyd Estate owned by the Griffiths, a prominent local land-owning family. The Griffiths established a family seat near Llanfaethlu in 1634 when Carreglwyd House was built. Cafnan Farm was part of the family's land holdings at this time as William Griffith, rector of Llanfaethlu, had purchased the farm in the mid-16th century (GAT 2009, 6). Cafnan Farm is also mentioned in the estate records in 1631, and was owned by Richard Trygarn Griffith of Carreglwyd Estate in 1840.

When the last direct Griffith heir, Lady Maria Reade (nee. Maria Emma Elizabeth Conway Griffith), passed away in 1917 widowed and childless Carreglwyd Estate was inherited by her cousin Major Frederick Carpenter. The Carreglwyd Estate was broken up for sale in 1918, and Cafnan and Cestyll are among the many assets listed for sale (Estates Sales Catalogue, 1918). These circumstances enabled William Walter Vivian to purchase Cestyll House in 1918.

The valley of the Afon Cafnan is depicted on the First Edition Ordnance Survey Map of 1889. Cestyll House is shown surrounded by a sub-oval enclosure. The walled garden is shown to the immediate north of the house and linked to the rear of the property (Figure 4). This garden is likely to be contemporary with the house and was a standard feature of country establishments of this period (Campbell 1987). At just under half an acre (1640m²) the garden was of fairly modest size, presumably reflecting the size and status of the household it was designed to support. The cartographic evidence offers no information as to the layout

of the garden, though a broad selection of fruit, vegetables as well as perhaps some ornamental planting would be expected.

Two small structures are depicted on the First Edition Ordnance Survey Map, built into the walls of the kitchen garden. The larger one in the south corner is believed to have been a coach house (Cadw 1998), whilst the smaller structure in the west corner was most likely a tool store and/or potting shed. There is no evidence of a glass house, a common feature of the bigger walled gardens of the period (Campbell 1987). By the end of the 19th century two further small structures had been constructed and were attached to the exterior of the east corner of the garden, as shown on the Second Edition 1" to 25 mile County Series Ordnance Survey Map of 1900 (Figure 5). This map shows no other significant alterations to the property, though a line is shown dividing the walled kitchen garden in two, this is not shown on subsequent maps and its significance is unclear.

3.1.2 The 20th Century

In 1918 Cestyll was bought by Walter Warrick Vivian (1856-1943). He was son of the second Lord Vivian of Plas Gwyn, Pentraeth and worked as manager of the Dinorwic slate quarries for the Assheton Smiths of Vaynol. He retired in 1902, bought Gorphwysfa, a property on the banks of the Menai Strait in Bangor, and renamed it Y Glyn (PRN: 24806).

Cestyll appears to have been bought by Walter Warrick Vivian as a present for his niece, the honourable Violet Mary Vivian (1879 – 1962), daughter of Hussey Crespiigny Vivian, 3rd Baron Vivian. As a consequence of her father's role in the Foreign Office, Violet had become a ward of her uncle and stay at his Bangor house. As a young women Violet and her twin sister Dorothea were engaged in the services of Queen Victoria, and following her death, they were transferred onto the staff of Queen Alexandra and Edward VII (1901 – 1925), to be companions (Maids of Honour) to their daughters Princess Victoria and Princess Alice. The Vivian sisters were popular at Court. Talented and vivacious, Violet is said to have been an excellent musician and linguist and has been described as an 'amateur Diva actress'. Violet remained as a Maid of Honour to Queen Alexandra until the Queen's death in 1925.

Whilst still at court Violet used Cestyll for holidays, but from 1925 she made it her home. From 1922 she began to construct a garden in the valley of the Afon Cafnan, situated to the west of the house. While Violet designed the garden herself Princess Victoria (a frequent visitor to the garden) was reportedly responsible for the design of one small section (Cadw 1998). While no plans of the garden from this period have been identified the Third Edition 1" to 25 mile County Series Ordnance Survey Map of 1924 (Figure 6) shows the early development of the site. A single footbridge is depicted crossing the stream and a scattering of trees have been planted on the western bank and enclosed by a new boundary. Two small structures are located at the south end of the site and set within a small enclosure. The larger circular structure lies on the site of a later square pump house with its associated well and water storage tanks (Travers Morgan Planners 1986) and it is probable that this was a precursor to that later structure and would have enabled watering throughout the year.

The kitchen garden also shows signs of development during this first quarter of the 20th century. The small outbuilding first located on the south-eastern edge of the walled garden and noted on the First Edition 1" to 25 mile County Series Ordnance Survey Map is shown on the Third Edition 1" to 25 mile County Series Ordnance Survey Map of 1924 to have been extended into a continuous range of buildings, the Gardener's cottage and garage (Figure 6). A survey of this structure undertaken by GAT in 2013 noted evidence of structural phasing. The earliest building within the range was single-storey and rubble-built with a wide arched doorway in the south-western elevation, indicating it was used as a coach house. The later phase incorporated the original kitchen garden wall in its construction and included an extension to the coach house at the north-western gable and the addition of a small two-storey cottage with an attached single-storey shed (Plate 1) (GAT Report 2013). It is likely that this expansion was undertaken at the time when Violet was developing the valley garden and required full time gardening staff.

The Gardener's cottage was a dwelling house which was entirely separate from the main house, and is likely to have become a family home. By facing the cottage away from the walled garden, it retained privacy. Later in the 20th century, the coach house was converted to a garage, as evidenced by the vehicle inspection pit set into the floor (GAT Report 2013).

The Third Edition 1" to 25 mile County Series Ordnance Survey Map of 1924 (Figure 6) also shows several new structures to the immediate north of the kitchen garden. It has been suggested that one of these may have been a boat house although no evidence of a slipway to the beach has been found (Cadw 1998). The northern most structure is circular and is a possible pump house, as it resembles the probable pump house shown to the south of the valley garden.

After 1925 Cestyll appears to have been a venue for social gatherings. One documented account tells of dinner parties held at Cestyll where the visiting Princess Victoria would mix with the local aristocracy, including the Marquis of Anglesey, the Bulkeleys of Baron Hill, the Duff Assheton Smiths of Vaynol and the Douglas Pennants of Penrhyn as well as the local doctor, solicitor and parish priest (Roberts, 2004). Another account describes picnics and concerts held on the lawn (Cadw 1998). In her design for the valley garden Violet gave consideration to creating spaces suitable for entertaining. The elevated lawned areas, with their views across the garden and out to sea, would have been well suited for this purpose. The valley garden at Cestyll was clearly more than just a tasteful backdrop for social occasions as it provided an enduring pastime for Violet. Gardening was a useful social device amongst the elite, and there was a rich tradition of gardening in the local area. Gertrude Jekyll, who pioneered the informal cottage style of garden design, is known to have spent time on Anglesey and designed several gardens, such as Plas Llanfawr (NPRN 86553) in 1890, and Presaddfed (NPRN 15843) in 1909 (Tooley 2001). Although there was a competitive element amongst Lady gardeners of this period, there was also a willingness to share surplus plants and advice, it is likely that this generosity accounts for some of the material growing in Cestyll.

In September 1931 Princess Victoria of Wales, took a series of 12 black and white photographs at Cestyll which are now held at the Royal Collection Trust. The photographs include portraits of Violet Vivien and the Grand Duchess Xenia of Russia as well as several views of the kitchen garden and valley garden. These photographs offer an insight into both the appearance of the gardens at this time and the use of the valley garden as a space for entertainment. The valley garden appears well established by this date; with a diverse range of plants, though most are still relatively immature. The photographs show a garden characterised by bare rock contrasting with lush textured foliage, neat lawned areas and rushing water, with picturesque views out to sea (Plate 2).

The design of the valley garden was principally informed by the natural topography of the site. The fast flowing Cafnan stream winds its way northwards through a rocky valley out to a small sea cove; and it is this flow of water that appears to have been central to the design from the beginning. The layout of the Cestyll Garden contains a number of discreet areas and lawns of varying character and planting schemes. These areas are defined by bends in the stream, rocky outcrops and areas of dense planting. Situated on the boundary of the valley garden are the remains of Cafnan Mill (NPRN 24617). This early 19th century two storey water-powered corn mill was formerly part of the Carreglwyd estate. However, the mill was not part of the Carreglwyd Estate at the time of the estate sale of 1918, and there is evidence that this had been the case for quite some time:

The mill, Melin Cafnan, was in separate ownership, owned, by the early 18th century, by Mr Lewis of Cemlyn. This led to access issues with Carreglwyd estate, described

by William Bulkeley of Brynnddu, brother in law of Lewis, in his diary (Owen and Griffith 1931, 67). The mill is clearly shown on Lewis Morris's chart of c. 1737-8 (Anglesey Record Office WM/1905/1). (GAT 2009, 6)

Furthermore the above clearly indicates that the present mill structure is not the first mill on this site, and as a mill is referred to on this site in 1352, it seems Afon Cafnan has been harnessed for its power for many centuries.

The current mill building retains the remnants of an unusual overshot waterwheel and internal machinery dating from the 1840s. The mill appears to have fallen out of use by the late 19th century it is marked as disused on the First Edition Ordnance Survey Map of 1889. At some point during the development of the garden the mill race was diverted to flow down through the western lawn of the valley garden, this may be clearly seen in one of Princess Victoria's photographs from 1931 (Plate 3). As well as the azaleas and rhododendrons the planting of the valley garden also incorporated a wide variety of waterside plants and ornamental trees. Plants were reportedly sourced from the Royal Botanical Gardens at Kew. In addition to the hardy planting Violet also imported large quantities of colourful bedding plants during the summer months which she used to cover a large sloping rock face on the western side of the garden (Cadw 1998). The footprint of the valley garden increased in size between what is depicted on the Third Edition 1" to 25 mile County Series Ordnance Survey Map of 1924 (Figure 6) and the 1948 aerial photograph (Plate 4). The aerial photograph taken by the RAF shows that by 1948 the garden had reached the size it is today (c.50m x 110m). This included the establishment of a shelter belt of conifers added to the north-western side of the garden, just visible in one of the photographs taken in 1931 as an area of immature trees (Plate 5). It also shows a wide shelter belt of conifers bordering the eastern side of the garden. These additions would have greatly increased the growing potential of the site, and once matured created a much more intimate and enclosed feel to the garden.

While the aerial photograph of 1948 does not offer great detail it does provide some information regarding the development of the Cestyll estate as a whole. In addition to the expansion of the valley garden, a new wing is shown extending out from the south-west elevation of the Cestyll House. Paths lead directly from the entrance to the yard in front of the house, south-west to the middle of the valley garden (the present day entrance point to the garden), and to the northern-most point of the valley garden, where it meets the coast. The structural components of the kitchen garden do not appear to have altered, but there is the impression that the whole space is in use.

Violet continued to develop the garden up until the 1950s and remained at Cestyll until her death in 1962 (Cadw 1998). An aerial photograph taken in c.1960 (Plate 6) shows the main house and kitchen garden at this period. Cestyll House is shown to be of two-storeys, with a symmetrical façade facing south-east and gabled chimneys. Two substantial ranges extended out to the rear, whilst a shorter cross range extends out centrally from the south-west elevation. A triangular paved garden is laid out in front of the house with a small dovecot at its eastern end. A central circular feature may be the millwheel¹ observed on the southern side of the house site during the survey of the Gardener's Cottage in 2013 (unpublished GAT report). The large curved area to the rear of the property is left as simple

¹ This has now been returned to Cafnan Mill.

lawn, but small areas of planting may be seen around the edges of the house and yard, and a large stand of what appears to be pink hydrangeas may be seen in the field to the south-west.

The walled garden to the north-east appears to have a wide informally planted herbaceous border running along the northern and eastern edges, whilst crops set out in rows at various stages of development fill the centre of the western half. The eastern portion of the garden does not appear to be in use, this may reflect the size of the household; it is probable that Violet entertained less in her final years. This also conforms however to a nationwide abandonment of kitchen gardening in this period brought about by the 'ever rising costs of fuel and labour, and the increasing availability of imported garden produce' which followed the Second World War (Campbell 1987). However, fruit trees recorded as part of the fieldwork for this project are not visible, indicating that the garden continued to be developed past this date.

On the death of Lady Violet Vivian in 1962, Cestyll was inherited by her niece Baroness Astor of Hever. Following Violet's death the garden was not opened to the public and was generally neglected up until its sale in 1983 to the Central Electricity Generating Board, when it was incorporated into the grounds of Wylfa Power Station. A condition of the sale was that the valley garden should be maintained as a memorial to the Vivian's. Following the acquisition of the garden by the Central Electricity Generating Board maintenance of the valley garden was resumed, and in 1985 it was reopened to the public (Cadw 1998). A *Management Report* was commissioned by the Central Electricity Generating Board for the Valley garden and produced by *Travers Morgan Planning* in 1986. This report offers a detailed description of the garden at this date, including site plans, the results of a comprehensive tree survey, a summary of the significance the site and a proposed restoration and management scheme. The reports summary of significance concluded that the 'rock garden' (i.e. the valley garden) is of considerable value based on its visual and atmospheric character, the horticultural diversity, as well as views within and outside the garden and its historical association. In addition, due to the lack of comparable gardens in North Wales and there being no apparent significant alterations to the original design makes the valley garden particularly valuable (Travers Morgan Planning 1986).

Cestyll House was not occupied following the sale in 1983 and the walled kitchen garden and associated Gardner's Cottage also appear to have been abandoned at this point. The main house was demolished in 1991, having become unsafe.

In 1998 Cestyll was designated as a Grade II Garden on the Register of Parks and Gardens of Special Historic Interest in Wales prepared by Cadw and the International Council on Monuments and Sites (ICOMOS) (Cadw 1998). The designation included the principal garden within the valley of the Afon Cafnan, as well as the walled kitchen garden, the Gardener's cottage and garage, and the wider landscape which forms its Essential Setting. The principal garden was described as an "*unusual, small and intimate 1920s garden informally planted with tender plants, well suited to its rocky seaside site, which is of great natural beauty*" (Cadw 1998). Cadw's assessment in 1998 found a 'good survival of original planting' within the valley garden, and it was generally deemed to be 'much as it was in Violet's lifetime'. The kitchen garden was found to be completely overgrown, though some fruit trees were observed to survive.

3.1.3 The 21st Century

Between 2005 and 2006 Phillip Brown (Horticultural and Botanical Advisor and Consultant) oversaw the management of the valley garden and undertook a plant inventory (unpublished) as well as making adjustments, trimming and fine-tuning for Open Days, in particular an open day with Lord and Lady Anglesey which occurred during this period.

In May 2006 an updated *Outline Management Plan for Cestyll Garden, Cemaes Bay* was commissioned by Magnox (formally the Central Electricity Generating Board). This brief document restated the importance of the site and outlined a renovation programme which focused on the need to reduce the quantity of the invasive *Ponticum Rhododendron* and to replenish the organic content of the soil, as well as providing a more general maintenance plan for the infrastructure of the garden (paths, fences, bridges, etc.). An aerial photograph taken the same year (Plate 7) shows how densely planted the valley garden was by this date. This photograph also shows the state of the walled garden. It appears overgrown, with the walls almost obscured by vegetation, however an 'I' shaped feature, possibly a former path is just visible.

The valley garden incorporates a number of memorials, commemorating the lives of individuals. The earliest is a simple slate memorial plaque to Violet Vivian and her uncle Walter Warwick Vivian which is set onto the vertical southwest facing elevation of a rocky outcrop on the east side of the garden (Plate 8). Nearby are several small dog graves now somewhat obscured by vegetation. The interment of pets in graves close to memorials of Lady owners was increasingly common throughout the British Isles during the late Victorian and early-mid 20th century, reflecting wider changes in attitudes to dogs and perceptions of an after-life.

In recent years a number of additional memorials have been incorporated into the garden (Figure 10). At the southern end of the garden a cast-iron memorial bench to Alexandra Bridgett Mason (1978-1999) is set looking out onto a lawned area enclosed by trees (Plate 9). A slate plaque has been inserted into what appears to be an original decorative cast iron gate in memory of Patricia Wright (1936-2010) (Plate 10). Finally a limestone bench erected in memory of Minnie Pat Livingstone (1915–2010) is set on east-facing lawn at the northern end of the garden (Plate 11).

In 2013 GAT recorded the Gardener's Cottage at Cestyll (NGR SH34679337), as part of a wider programme of archaeological recording as part of the Wylfa Newydd Project (GAT, forthcoming). The cottage was subsequently partially demolished as it had become unsafe; however walls remain to a height of 2m.

Most recently a history of the garden was written by Eirlys Mason on behalf of the *Friends of Cestyll Garden*, prior to its appearance on the Channel 4, 2014 programme *Hidden Gardens with Penelope Keith*.

4.0 SURVEY RESULTS

Cestyll is accessed via a single lane track which leads north-east off the minor road linking Tregele and Cemlyn. The track leads through several fields up to the site of the former Cestyll House (Plate 12), demolished in 1991. A modern gate provides access to an overgrown yard area associated with the former house. Beyond this lies the remains of the 19th century walled kitchen garden, with the footprint of the recently demolished Gardener's cottage clearly visible in the south corner. The kitchen garden walls for the most part survive to full height, though several sections were lost during the demolition of the Gardener's cottage (Plate 13). The interior of the kitchen garden is heavily overgrown (Plate 14), although 12 fruit trees survive, with a further five identified in the valley garden (for details see sections 4.3 and 4.4). The early 20th century valley garden to the south-west is surrounded by a dense shelter belt of trees. The valley garden has been maintained and survives in good condition.

4.1 Methodology

Six site inspections were undertaken by GAT; four seasonal site visits during 2015 and 2016 along with a measured survey. An additional site inspection of the plot of land where Cestyll House formerly stood was undertaken in May 2017 to establish if ground conditions were suitable for a site survey.

The summer inspection was made on the 20th July 2015 by J. Davidson of GAT and I. Stokes, the project horticulturalist. This work focused on documenting the key elements of the site; including its setting, aspects, design, structures and horticultural planting schemes. Plants were identified to 'Cultivar' (cultivated variety), sp (species) or hybrid, and where possible to either species or variety level. Planting areas were designated (A-U, see Figure 7) and the plants within each were listed.

The autumn inspection was undertaken on the 12th October 2015 by J. Davidson of GAT, who was accompanied by staff from DU Construction and a Magnox member of staff in line with land access requirements. While this inspection focused primarily on the kitchen garden and its setting, design, planting and structure (this was refined further in the winter visit) an inspection of the valley garden was also undertaken. Fruit samples were also taken from the fruit bearing trees present in both gardens and this was sampled and stored as outlined in the Fruit Sampling Strategy (see Appendix II). The samples were examined by Ian Sturrock on the 6th November 2015.

The winter inspection was undertaken on the 27th January 2016 by J. Davidson and S. Reilly of GAT. This inspection expanded on and refined the results of the autumn visit, with the focus being on the kitchen garden's setting, design, planting and structure. Scaled photographs were taken of the newly identified and known garden structures, with details documented in GAT Pro-forma sheets. The newly identified garden features were also surveyed in with a survey grade GPS with <10cm accuracy (model: *Trimble GNSS/R6/5800*).

The spring inspection was undertaken on the 24th May 2016 by J. Davidson of GAT and J Davidson, the project horticulturalist (I. Stokes was unable to participate due to ill health). This inspection expanded on and refined the results of the summer visit to enable the

identification of notable plants and to produce a complete inventory of the plants and trees that currently reside within Cestyll.

A measured survey was conducted of the valley garden on the 31st May by J. Davidson and N. McGuinness of GAT. This was undertaken primarily through the use of a survey grade GPS with <10cm accuracy (model: *Trimble GNSS/R6/5800*) and Leica TCR805. The survey was conducted in order to create a scale plan showing the location of notable plant and tree species, as well as all surviving garden features including structures, paths, and the limits of planting areas.

The additional site inspection undertaken by GAT on the 25th May 2017 established that the plot of land where Cestyll House formerly stood is heavily overgrown with dense vegetation (predominantly gorse and bramble) and it appears that the material from the demolished Gardner's Cottage had been spread over the eastern part of the site. Due to ecological constraints it was not possible to undertake the level of vegetation clearance required to allow a survey of any surviving remains of Cestyll House. The survey was therefore not undertaken and the significance of the plot of land where Cestyll House formerly stood has been established based on desk-based sources and the results of site inspection only.

4.2 The Valley Garden

4.2.1 Setting

The valley garden at Cestyll is separated from the house site by an open pasture field (Plate 15). There is no evidence of any formal link between the two sites, for example through the construction of a paved path or avenue, and as such highlights the isolation and seclusion inherent in the design of the valley garden. The shelter belt of trees which borders much of the garden effectively shields it from view, thus enhancing the privacy of the site.

The Essential Setting of Cestyll Garden encompasses the extents of the valley garden, kitchen garden and house plot, as well a larger area of agricultural and coastal ground predominately to the west and north of the gardens. Within the Essential Setting two Significant Views have been identified; one from the valley garden and one from the location of the house plot. Both Significant Views look north-west out over the coast towards the sea. The Essential Setting provides a context for the valley garden and kitchen garden, by spatially and historically tying these two discrete garden spaces together. In addition, the open agricultural landscape of the Essential Setting provides a contrast between these enclosed garden spaces (the walled kitchen garden and the isolated wooded valley setting of the valley garden).

4.2.2 Design

The valley garden is of a naturalistic style, designed to take advantage of the geography of the site and enhance the natural typography (Plate 16). Within Wales, the development of naturalistic gardens at The Del at Bodnant (PRN4402), developed in the late 19th century by Henry Duncan McLaren, Plas Cadnant (NPRN 265408), and the Rhododendron garden at Plas Newydd (NPRN 265416) were prime examples of this type of horticultural trend. Although a different scale to Cestyll Garden, Bodnant, Plas Newydd and Plas Cadnant gardens were designed to celebrate and enhance the natural splendour of a site. It is plausible that Violet Vivian would have been aware of such gardens and that they provided a

source of inspiration for her own Cestyll Garden.

Cestyll Garden is something of a microcosm, incorporating a number of different habitats within one small area. The planting scheme utilises a wide range of species chosen to suit the various conditions. The various sub-areas of the garden are defined by bends in the stream, rocky outcrops and areas of dense planting. Several areas of lawn have been incorporated into the layout, designed as spaces for entertaining. Each has a different character and aspect, ranging from very enclosed and shady to open and sunny.

Although there are no known surviving garden plans or documentation detailing the original design of the valley garden as established by Violet, it has been argued that the absence of subsequent phases of garden design and the lack of intervention in the years since Violet's death (ensured by the clause in the sale of the valley garden to Central Electricity Board requiring the garden to be maintained and cared for as a memorial to the Vivians' responsible for its creation) the valley garden has not been significantly altered since its initial creation. The garden has naturally matured over the years and in the 1940's Violet would carpet the large sloping outcrop on the western side of the garden with bedding plants (Cadw 1998). This was made possible through the importation of soil and the use of the pump house at the southern end of the garden to water the naturally dry areas. Today, much of the imported soils have long washed away, exposing areas of rock, and due to the lack of regular watering, planting it is sparser than was originally intended. Where depressions and fissures in the underlying rocks are naturally present, shrubs and trees have maintained a root-hold and are thriving.

The garden is approached from the east. Today a modern gate allows access to a wide path which passes through the shelterbelt of conifers down to an original decorative cast iron gate at the western end (Figure 7; Plate 17). This appears to have been the original entrance to the garden, or at least it was by the late 1950s. The pathway is lined by small beech trees which are between 10-15 years old. The surrounding conifers, having been established on shallow soils, have been badly damaged by gales (Plate 18) and so have been replanted at various times over the years. Ring-counts of several stumps that were left after recent storm damage showed a range of planting dates ranging from between 20 to over 60 years ago. Although much of the planting of this section is not original, the arrangement is, and this feature should be considered essential to the garden due both to the practical role it plays in providing shelter and the aesthetic contribution it makes.

Having passed through the dense shelterbelt a visitor to the garden is led down a paved path bordered by dense shrubs to the stream. Sections of the site are known to have been dug out or built up and revetted in order to help create numerous small but interlinked sub sections. From here a modern bridge crosses the stream (Plate 19) to the north whilst a sloping section of lawn leads up to the raised southern portion of the garden. There is no set route through the valley garden and the numerous small sub-areas are linked via a mixture of open lawned areas, narrow paths, and bridges which criss-cross the slopes and stream. There are no directional signs and the visitor is able to wander freely, exploring and discovering the garden for themselves. In addition, this type of garden design was popular in the early 20th century, and deliberate screening and planting was incorporated to prevent the entire garden from being visible from a single vantage point (Cadw 1998, 16 & 49). Lawrence Johnston's garden at Hidcote, Gloucestershire with its sequence of outdoor rooms may be seen as an influence here. The planting, although for the most part non-

native, utilised species suited to the acidic salt prone conditions, such as conifers, rhododendrons and exotic plants, which could flourish due to the mild maritime climate of the county's coastal areas (Cadw 1992). In this respect the influence of William Robinson and Gertrude Jekyll is evident. Their championing of informal design utilising hardy plants appropriate for a location was a movement which in turn was influenced by Arts and Crafts principles, absorbed from John Ruskin and William Morris (Robinson 1870).

The valley garden has three principal lawned areas, which in Violet's day most likely functioned as a focal point for social gatherings. The first is a small irregular, fairly level area at the southern end of the garden broken up by areas of planting (Plate 20). In summer it is enclosed by foliage which offers much dappled shade. The second is an intimate low lying shady area lying in the crook of the stream between Bridges 1 and 3 (Plate 21); and it is this section that is believed to have been designed by Princess Victoria (Cadw 1998). The final area is a broad east facing slope, which is very dry in summer. This area commands rare views of much of the garden (Plate 22) as well as glimpses of the sea. These lawns were integral to Violet's design of the garden and may be seen in the photographs taken by Princess Victoria in 1931.

4.2.3 Aspect

The principal coastal views are those from the top of the western rocky outcrops, and from the top of the slope at the northeast portion of the garden, these views are framed to the west by Cafnan mill and to the east by a tall Pine (Plate 23). In Violet's time, particularly in the early days, it is probable that the views of the coast were more numerous, however now that the garden has become well established it is much more enclosed. There would always however have been a marked contrast between the very sheltered low lying stream sections and the more open elevated areas.

4.2.4 Planting

(The notable plants discussed in this section are marked on Figure 8)

The wide variety of conditions within the garden, ranging from moist, shady gullies to exposed sun-scorched stone slabs enabled the cultivation of a diverse collection of plants. This diversity in planting scheme is one of the most remarkable aspects of the garden. As well as the azaleas and rhododendrons the planting of the valley garden also incorporated a wide variety of waterside plants and ornamental trees. Plants were reportedly sourced from the Royal Botanical Gardens at Kew. In addition to the hardy planting Violet also included large quantities of colourful bedding plants during the summer months which she used to cover a large sloping rock face on the western side of the garden (Cadw 1998). A total of 21 separate planting areas have been identified within the garden (named A-V, see Figure 7 and Appendix III), these ranged from wide borders and small beds set into lawns to areas of streamside planting.

The lack of planting inventory by Violet or document sources makes it difficult to ascertain to what degree the original planting of the garden survives. Based on the size of some of the trees and shrubs we may say with confidence that these are original, however herbaceous plants, naturalised bulbs and smaller shrubs can't be dated (pers com. J Davidson, Welsh Historic Gardens Trust). It is probable that during the period of abandonment following the death of Violet Vivian some of the more tender plants were lost, whilst hardier varieties grew

unchecked. In more recent years lost plants have sometimes been replaced with matching or similar species. However this has not always been achieved; one notable example of this was *Rhododendron sinogrande*, supposedly a gift to Violet from Princess Victoria but lost in 2010 (pers. com Dylan Hughes, a former gardener).

Along several sections of the stream banks, there would appear to be a greater depth of soil than elsewhere in the garden and it is in these areas that some of the original ornamental trees are still growing. These include a Persian Iron wood (*Parrotia persica*) (Plate 24), flowering cherries and a golden birch *Betula pubescens* (Figure 8). A number of apple trees including various ornamental crab-apples were also identified (see Table 1). A windbreak formed of a mixture of conifer variates borders the western side of the garden. These mature specimens, which must be original plantings, give a sense of rugged grandeur when viewed from the opposite side of the valley, contrasting with the more detailed dense plantings surrounding the stream (Plate 25). Although well-spaced, these trees help to filter the wind from that direction.

Rhododendrons feature throughout the garden these include wild species such as *Rhododendron augustinii*, along with evergreen and deciduous azaleas and more modern hybrids such as Cunningham's White. It is known that these formed part of the original planting scheme and some of those in the garden today are likely to be original specimens. *Rhododendron ponticum* has formed extensive clumps and is regenerating freely, particularly on the eastern side of the garden (Figure 8). This may have been planted intentionally, but equally could be the result of the grafted rootstocks of old hardy hybrids growing unchecked. Grafting ornamental but more delicate varieties onto hardy rootstock was common practice, but the danger was that the 'scion', or graft would die, leaving only the potentially invasive rootstock; this can give a somewhat misleading impression of the original planting scheme.

In a couple of areas, moisture-loving plants, such as *Gunnera manicata* (Plate 26) and *Darmera peltata*, are growing in large drifts on constantly wet rocks. Another clump forming plant, *Bergenia cordifolia*, bearing attractive pink flowers, has completely colonised the dry millstream to the south of the old mill (Figure 8). It seems probable that these were originally planted, but have been allowed to expand significantly, crowding out lesser species.

In the dryer areas of the garden a variety of low lying and cascading shrubs have been planted. One of these, *Muehlenbeckia complexa*, a most unusual twining plant hailing from New Zealand, lines one of the upper paths on the terraces in the north-eastern section. The mildness of the site, occasioned by its proximity to the sea, allows this and a number of plants that are normally determined as 'tender', to thrive. Specimens of various cultivars of New Zealand Flax are also growing well along with *Olearia*, *Brachyglottis*, *Escallonia*, *Griselinia*, *Cordyline* and various *Cistus* cultivars, shrubs which are considered only reliably hardy in coastal plantings. Several varieties of roses are also notable within the garden, in particular *Rosa 'Lady Grey'*, growing on the bank of the stream in planting area T (Plate 27 and Figure 8). It is not possible to determine if these shrubs are original plantings, however they do offer an indication of the potential of the site. For a complete inventory of the plants identified in the Valley Garden during the seasonal inspections refer to Appendix IV.

4.2.5 Structure

Given the issues described above with planting, it is the built structures and landform which

are most significant when assessing the historical value of a garden (Parks and Gardens UK 2009). However, in a naturalistic style of garden such as Cestyll it is in fact the omission rather than inclusion of structure that is significant in its design. It is the stream and associated natural topography which principally gives this garden its shape; although this has been enhanced and modified through the revetment of the stream banks, the addition of bridges and the creation of planting areas. The man-made components are all notably unobtrusive; the original bridges are of simple slab style whilst the narrow paths which cross the sloping sides of the valley are often barely visible. The areas of revetment are barely perceptible to the casual observer and the garden contains no original sculpture or ornament, with the exception of several dog graves and a decorative gate.

The original layout of the garden appears to have featured four small bridges crossing the Cafnan stream at strategic points throughout the garden. Today there are nine bridges in total, with a tenth crossing the predominantly dry mill race (Figure 9). Bridges 2, 3, 5 and 8 appear to be original, they are very simple and unobtrusive in style, and comprise rectangular slate slabs set onto minimal footings (Plate 28) (note Bridge 5 is no longer *in situ*, though the slab remains just visible within planting area N on the southern bank). These bridges should be considered essential to the design of the garden. In more recent years these have been supplemented by several modern wooden bridges (Bridges 1, 4, 6, 7, 9 and 10), which are of a different character to the earlier bridges (Plate 29).

The banks of the Cafnan stream have been revetted at various points along their course, though due to the heavily overgrown nature of much of the banks it was not possible to ascertain the full extent of this. The revetments are of drystone construction and appear to utilise locally sourced stone. It is likely that the majority of this masonry is original, though given its location repairs have no doubt been required over the years. The paths are of a mixture of laid stone, gravel and turf; it is unclear to what extent these are original.

Remnants of a small corrugated iron structure of unknown date, possibly once a tool shed, are just visible in the southwest corner of the valley garden (Figure 10). A small brick built pump house with a hipped slate roof is also just visible within the conifer plantation to the south of the valley garden (Plate 30). This structure is well built and would have been integral to the upkeep of the garden during Violet's day; however it is positioned outside of the main garden, within the shelterbelt and thus was not designed to be seen.

Although the disused early 19th century Cafnan Mill (NPRN 24617) is not part of the garden as it lies just beyond the northern boundary (Figure 10), it forms an essential part of the character of the garden. Its spatial relationship with the valley garden draws on Arts and Craft principles and in particular the promotion of buildings associated with pre-industrialisation as a show of the honest labour associated with traditional work and rural husbandry. Visually it provides a focal point of interest as well as height and texture, and also frames the principal view from the garden which looks north-east out to sea. The structure also offers a degree of shelter to the garden from the seaward side. The Historic Park and Garden Register Entry for Cestyll Garden describes the relationship between the Garden and the Mill in the following way:

At the top, south-west, side of this area is the large outcropping slab which used at one time to be covered with bedding plants every summer. There is one small,

curved terrace near the edge of this, retained by a tiny bit of dry-stone walling, which suggests that there may have been other similar terraces used to retain the soil for the bedding plants. To the east and north of the outcrop is an area of lawn, and beyond, to the north, is the watermill, Felin Cafnan. A culvert associated with the mill, dry at present, runs down the slope from the west across this lawn, to join the stream. This culvert has been treated as part of the garden and its edges planted, and there are also beds in the lawn containing large, architectural plants. There are minor rocky outcrops and smaller beds with shrubs. Beside the stream, along the east edge of the lawn, are many wet-loving plants. The mill leat, also dry, which runs parallel with the culvert, to the north, forms the boundary of the garden here. (Cadw 1998)

The Garden and the Cafnan Mill are two functional yet aesthetically pleasing assets that are mutually complementary to each other's setting. The existing geography provides a framework where slight manipulation of an existing water course has made possible both an important industrial process in the grinding of corn and later the establishment of a secluded garden containing horticulture that can only thrive with the aid of such additional resource.

The vernacular character of the mill building with the use of local stone as its construction material intimately ties the structure to its landscape. This connection is at present heightened by the overgrown ivy and other plants that surround part of the mill building. Visually and physically this adds to the impression that the Mill and the Garden are connected even though in terms of ownership and management this connection does not exist.

The incorporation of authentic vernacular architecture as a component in the setting of the garden is a unifying theme between Cestyll Garden and the Dell gardens at Bodnant. In 1938 Henry Duncan McLaren, grandson of Pochin, undertook an improvement scheme to Bodnant gardens and incorporated the remains of a 18th century tannery building from a site in Gloucestershire. The building, Pin Mill, acted as a focal point to the newly created Canal Terrace and has parallels with the use of Cafnan Mill (NPRN 24617) at Cestyll Garden. At some point during the development of the valley garden at Cestyll the mill race was diverted to flow down through the western lawn of the valley garden, this is clearly seen in one of Princess Victoria's photographs from 1931 (see Plate 3).

The garden features a number of memorials, these include several small dog graves on the eastern side of the garden, now somewhat obscured by vegetation. Three were recorded in 1998 (Cadw 1998), although only one was observed during the site inspections (Plate 31). These are likely to be original to the garden and Violet is holding a dog in several of the photographs taken in 1931. On their death the ashes of Violet and her uncle were also scattered in the valley garden, and subsequently a simple slate memorial plaque was set onto the vertical south-west facing elevation of the nearby rocky outcrop.

In recent years additional memorials have been added to the garden (Figure 10). At the southern end a cast iron memorial bench to Alexandra Bridgett Mason (1978-1999) is set looking out onto a lawned area enclosed by trees (see plate 9). A decorative cast iron gate set within the garden bares a slate plaque in memory of Patricia Wright (1936-2010) (see plate 10). Finally a limestone bench erected in memory of Minnie Pat Livingstone (1915-2010) is set on east facing lawn at the northern end of the garden (see plate 11). These

memorials are not original to the garden and are not essential to its design however do reflect the very significant, emotive role the garden plays within the local community.

4.3 The Kitchen Garden

4.3.1 Setting

The large rectangular 19th century kitchen garden lies to the immediate north-east of the site of the main house at Cestyll (Figure 11). A gate seen on the early maps (Figures 5, 6 and 7) is shown adjacent to the rear of the property, likely to be where the kitchen was housed, highlighting the domestic role of the garden.

The coastal setting of Cestyll House necessitated the construction of high walls to the kitchen garden, to provide ample shelter against the strong wind and salt spray. The use of walled gardens was has local parallels along Cemaes and Cemlyn Bay. A nearby example is provided in the former estate at Wylfa (NPRN 86522), where the house was set within mature gardens which included a large number of outbuildings and a walled garden, as depicted on the Second Edition 1" to 25 mile County Series Ordnance Survey Map of 1900 (Figure 12). Further west, on the outskirts of Holyhead the estate of Plas Llanfawr (NPRN 86553), was similar to that of Cestyll in so far that the house backed onto the walled garden. The garden at Plas Llanfawr is depicted on the First Edition 1" to 25 mile County Series Ordnance Survey Map of 1889 with a series of paths and orchard trees (Figure 13). To the south-west, outside the town of Boderdern are the remains of a Grade II listed wall for a kitchen garden at Presaddfed (NPRN 15843). Comparable to Cestyll, this walled garden is immediately adjacent to the house and similarly to Plas Llanfawr the garden was divided by paths, with orchard trees at the southern half of the garden, as shown on the First Edition 1" to 25 mile County Series Ordnance Survey Map of 1889 (Figure 14).

4.3.2 Design

Little is known about the original internal layout of the kitchen garden; during the 20th century crop rotation would have been standard practice, thus the layout of much of the space likely shifted regularly. The photographic evidence, though very limited, indicates traditional rows of crops which would have changed with each season (see plate 6). A wide border running along the northeast and northwest walls may also be seen in this photograph; with a path running along its inside edge. A similar, border and path may also be seen on a photograph taken in 1931 at the southeastern boundary, running in front of the Gardener's Cottage (Plate 32).

Remnants of these borders survive as slate edging along the interior of the north eastern and north western edge of the kitchen garden (Plate 33). The slate edging is typically 2.20m from the inner edge of the garden wall and marks the edge of the outer border. At the approximate centre of the north east side an area of staging measuring 1.82m x 1.58m was identified within the border. This comprised a single course of bricks laid directly onto the earth forming a rectangle, with a concrete slabs bordering the south east and south west sides; the centre was left open (Plate 34). Remnants of cement on the bricks indicate the structure once stood higher than this, though the absence of foundations do not suggest a substantial structure. It is likely this represents a sub area within the planting area, though may be the footing of a cold frame or some other temporary structure. Remnants of the path seen on the 1960s aerial photograph (see Plate 6) were identified on the inside of the border at the north east side. This path was 1.10m wide, and formed of a gravel surface with slate

edging (Plate 35 and Figure 11).

4.3.3 Planting

Unlike the valley garden, the kitchen garden has not been maintained for many years and has become colonised by a variety of woody and herbaceous perennial weed species. As most plants normally grown in a kitchen garden are of the annual variety, once the active use of a garden of this kind ceases, and annual replanting, or routine weeding, no longer occurs, invasive native plants and weeds have opportunity to take hold. Nevertheless some original planting survives in Cestyll Kitchen Garden in the form of shrubs and trees, with the occasional naturalised bulb visible in spring.

A fruit tree survey was undertaken as part of the site inspections, and the results of this survey are presented below in Table 1. A row of apple trees runs north-east/south-west down the approximate centre of the kitchen garden (Trees 1 - 8, see Figure 11). These appear to be of several different varieties. With the exception of a cluster of three crab apple trees at the south-western end, none appear to fruit and all are severely overgrown and in poor condition (Table 1). Further apple trees line the north-eastern wall, some of which continue to fruit well (Table 1). There are also a couple of *Prunus* cultivars and possibly a *Cydonia*, quince, or a variety of pear, *Pyrus*, still surviving, although these do not appear to fruit. These trees are not visible on the aerial photograph of c. 1960 (see Plate 6), indicating that they may be a late addition to the garden. Metal pins (Plate 36) set into the mortar of the northeast facing wall suggest that further fruit trees were once grown here, although none survive.

The examination of the sampled fruit by I. Sturrock determined that the majority of the samples were crab apples while three were domestic apples. The crab apples were likely to be ornamental (Trees 1, 2, 13 and 17; Figure 8, Plates 37 & 38) or wild-seeded (Trees 14, 15 and 16; Figure 8, Plates 39 & 40). The ornamental apples were grown for display, given their predominantly colourful red skins, rather than for consumption. The remaining crab apples were most likely wild-seeded. Trees 13 - 17 originate from the valley garden (Figure 15). The three domestic apples identified were:

- **Tree 9 - Kidd's Orange Red** (Plate 41) is named after James Hutton Kidd, an orchard owner living in New Zealand in the early 20th century. He experimented with crossing Cox's Orange Pippin, the temperamental but definitive English apple variety. The skin colour is yellow but with an extensive orange-red flush. The irregular light patches of russet give it a strongly marbled appearance. The shape is slightly flattened and can be somewhat lumpy. Kidd's Orange Red is a late season variety, ripening around mid-October in the northern hemisphere;
- **Tree 10 – Sunset** (Plate 42) is a popular Cox-style apple and was raised at Ightham in Kent in 1918. The parentage is not known but it is almost certainly a seedling of Cox. It is also self-fertile, which is fairly unusual in apples and means it can be grown without the usual requirement for a pollination partner. The flesh is firm rather than crisp but juicy and with a very rich flavour. Fruit is small to medium sized, heavily flushed with red and orange and ripe in September;
- **Tree 12 – Lady's Finger of Lancaster** (Plate 43) is a culinary apple known since 1824, though probably much older, and commonly grown in Lancashire and the

Midlands in the 1920's. A full-flavoured, firm apple which keeps its shape when cooked. The shape is variable from long to flattened conic and the skin is green/yellow with bright stripes and ripe in mid-October.

The Kidd's Orange Red and the Sunset remain quite common, widely available types of apple. The Lady's Finger of Lancaster is much rarer and as such of greater significance as a much older variety compared to the other identified domestic varieties. In addition, the tree variety and the fruit are disease resistant and in good condition. The domestic varieties identified in the kitchen garden also underline the mix of fruit varieties of local origin (Wilson 2010) and more exotic types, such as the Kidd's Orange Red, that would be grown in a garden of this date.

No Bardsey Island Apple trees are present in the garden.

A number of hardy ornamental shrubs survive in the western corner of the kitchen garden, closest to the site of the former house. These include laburnum, lilac, forsythia and several climbing roses. Along most of the length of the south-east facing wall there is extensive growth of *Buddleja*. This may have been an early deliberate ornamental planting but could equally be the result of wind-blown seed. Around the base of a couple of these trees, clumps of bulbs, mainly *Chionodoxa forbesii*, *Narcissus* cultivars and Spanish bluebells, *Hyacinthoides hispanica*, are still growing.

To the north-east of the former Gardener's cottage is a group of fastigate Irish yews, screening the site of a probable privy. These grow in a regular arrangement at an usually close distance considering the ultimate size this variety can attain. Several more of these plants were partially removed during the removal of the Gardener's cottage and surviving plants have not fared well and are devoid of foliage over most of their height. For a complete inventory of the surviving plants within the kitchen garden refer to Appendix V.

Photo metadata for the site survey is presented in Appendix VI, and the results of the soil survey undertaken by Jacobs in 2017 are shown in Appendix VII.

Table 1 – Fruit Tree Survey Results

Tree no.	Location	General Description	Fruit
1	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature crab apple, the largest of a tight cluster of three. The main trunk divides into 4 main boughs which all lean to the south. The tree is in fair condition though crowded by young self-seeded sycamore trees and further fruit trees. It has a significant quantity of ivy growing through it.	The majority of the fruit had fallen, but a few remained on the tree. These were small, oval yellow/red crab apples approx. 20 x 30mm in size.
2	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature crab apple. Similar to Tree 1 and located approx. 1m to the north, this may have self-seeded. Slighter and more upright than Tree 1, it appears somewhat younger.	The majority of the fruit had fallen, but a few remained on the tree. These were small, oval yellow/red crab apples approx. 25 x 35mm in size. Some fruit had numerous black spots on them.
3	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature fruity tree. Similar to Tree 1 and located approx. 1m to the west, this may have self-seeded. Slighter and more upright than Tree 1, it appears somewhat younger.	No fruit
4	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
5	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
6	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
7 & 8	Kitchen Garden, part of the central row of fruit trees.	Possibly several fruit trees clustered together, severely overgrown by brambles. Poor condition.	No fruit
9	Kitchen Garden, right in the eastern corner, against the wall.	A small apple tree – Kidd's Orange Red. The tree is severely overgrown by brambles etc. and consequently very leggy, fruit and leaves only really evident above the height of the wall.	A few good sized fruit remained on the tree, though most showed wasp damage. Round green/yellow/gold (russet) approx. 70mm diameter.
10	Kitchen Garden, planted against the southwest facing wall, some 1m northwest of no. 9.	A small apple tree - Sunset. The tree is severely overgrown by brambles etc. and consequently very leggy, fruit and leaves only really evident above the height of the wall.	A good number of fruit at the top. Round green/red approx. 80mm -50mm diameter.
11	Kitchen Garden, planted some 1.5m away from the southwest facing wall, close to trees no. 9 and 10.	A small apple tree. The tree is severely overgrown by brambles and honey suckle etc. and consequently very leggy, poor condition	No fruit
12	Kitchen Garden, planted some 3m away from the southwest facing	Lady's Finger of Lancaster. A large mature apple tree growing freely and upright. The under branches are rotted but otherwise the condition is	Abundant fruit; red/pale green, elongated shape.

Tree no.	Location	General Description	Fruit
	wall, in the approximate centre. Located just south of a slate bed division (SH 4467093417).	good.	
13	Valley garden. Growing on the northwest bank of the stream, immediately adjacent to bridge no. 4 in a sheltered position.	Mature ornamental crab apple tree. Good condition. Possibly an original planting	Abundant small round red/yellow fruit growing in clusters 15mm diameter.
14	Valley garden. Growing on the northern bank of the stream, immediately opposite bridge no. 3 in a sheltered position, but growing from between rocks at the base of the south facing cliff.	Rather stunted & growing at an angle presumably due to its unsuitable location. Possibly self-seeded from Tree 15.	Fairly abundant small round green apples, approx. 40mm diameter.
15	Valley garden. Growing from the base of the boundary bank to the west of the stream, immediately opposite bridge no. 1 in a sheltered shady, damp position.	A very tall mature apple tree, likely to be an original planting.	Fairly abundant small round green apples, approx. 40mm diameter, all dropped (sample taken from floor).
16	Valley garden. Growing on the west facing side of the garden, immediately adjacent to the path which leads up the slope past the Vivian's memorial (SH3451893337). A rocky fairly dry location.	A small but mature apple tree, heavily pruned, healthy, possibly an original planting.	Fairly abundant small round pale green/red apples, approx. 40mm diameter.
17	Valley garden. Growing on the west facing side of the garden, immediately adjacent to the path which leads up the slope past the Vivian's memorial, some 2m north of tree no 16. A rocky fairly dry location.	A small crab apple tree, poorly positioned and thus not growing well, indeterminate age, though probably not original.	Fairly infrequent small oval red fruit 30 x 40mm

4.3.4 Structure

The kitchen garden is orientated on a north-east/south-west axis and is enclosed by rubble built, lime mortared walls which stand 2.50m high. An outbuilding, later expanded into a range of cottage and outbuildings, is built into the south-eastern wall, though this was for the most part demolished in 2014, along with sections of the surrounding garden wall. Three small outbuildings (numbered 1-3, see Figure 11) remain upstanding within and along the outer edge of the kitchen garden. All remain in fair condition though are severely overgrown.

In the eastern corner of the garden is a small, single storey, rubble built structure featuring red brick quoins, bonded using lime mortar (structure 1) (Plate 44). The garden wall has been incorporated into the south western side – indicating this structure is stratigraphically later. The structure is rectangular in plan and is orientated on a northwest/southeast axis. It measures 3.28m x 2.70m and stands to a maximum height of 2.50m and a minimum height of 1.80m. The single pitch roof slopes down from the garden wall and is clad in corrugated asbestos panels with wooden weatherboarding below. The interior is lit by a single window (0.75m x 0.90m) set centrally in the northeast elevation with brick quoins and a concrete sill. The window casement appears to be of cast cement and features a single horizontal light set over three lights, the glass is absent. The building is accessed by a single doorway (0.88m x 1.85m) set northeast of centre in the northwest elevation. This opening features a machined slate lintel and red brick quoins; the simple plywood door does not appear to be original. A number of iron nails and hooks set at various heights around the doorway indicate that plants were once trained up this structure. The interior was not accessed but appeared to comprise a single room, open to the roof with a stone/tile floor and shelving on the walls.

This structure does not appear on the first or second edition OS maps (see Figures 4 and 5) but is visible on the third edition map of 1924 (see Figure 6) indicating an early 20th century date. It closely matches the construction style of the Gardner's Cottage, indicating it is contemporary with that phase of development.

A small, severely overgrown structure to the north of the cottage, screened by a stand of Irish yews is likely a former privy, though more recently it has been used as a tool store (structure 2) (Plate 45). This single storey, rubble built structure features red brick quoins, bonded using lime mortar. The garden wall has been extended in height by some 0.6m and incorporated into the northwestern elevation – indicating this structure is stratigraphically later. The structure is rectangular in plan and is orientated on a northeast/southwest axis. It measures 1.25m x 2.15m and stands to a maximum height of 1.45 and a minimum height of 1.80m. The single pitch roof slopes down from the garden wall and is clad in slates. The building is accessed by a single doorway (0.75m x 1.70m) set northwest of centre in the southwest elevation. This opening features a machined slate lintel and red brick quoins; the simple plywood door does not appear to be original. A number of iron nails and hooks set at various heights to the southeast of the doorway indicate that plants were once trained up this structure. The interior comprised a single unlit room, open to the roof with a quarry tiled floor and white-washed walls.

This second structure also does not appear on the first or second edition OS maps (see Figures 4 and 5) either but is visible on the third edition map of 1924 (see Figure 6) indicating an early 20th century date. The style of construction closely matches that of the

Gardner's Cottage and structure 1 as discussed above, suggesting a similar date of development.

A third small, single storey structure was recorded at the northern corner of the garden, attached to the exterior of the garden wall (structure 3) (Plate 46). This structure is built of grey bricks, bonded using cement and features a single pitched slate clad roof which slopes down to the northeast. It measures 4.30m x 3.23m and stands to a maximum height of 2.55 and a minimum height of 1.80m. The structure is accessed via a rusting iron door (0.9m x 2.04m) set southwest of centre in the southeast elevation. A small, low, curved, brick built trough is attached to the southeast elevation, to the northwest of the doorway; this is filled with soil and may have been used for planting. The interior is lit by two rectangular windows (0.90m x 0.70m) set centrally in the northeast and northwest elevations; no casements remain within the openings and the window to the northeast has been boarded up. The openings have concrete sills and rusting iron lintels. The interior comprises a single room, open to the roof, with a concrete floor and un-rendered walls. The northeast side of the room has been partitioned off using a mixture of bricks and iron bars, forming small pens.

This structure does not appear on the third edition map of 1924, but is clearly visible on the aerial photograph of the site dated c.1960 (Plate 6). The style and materials used are consistent with a date somewhat later than the other structures on site. Given its location outside the walled garden, away from any access points, it may be assumed that this structure was not directly associated with the garden, and was more likely associated with agriculture, possibly the housing of livestock.

4.4 The house plot

4.4.1 Setting

The house plot is situated to the south-west of the kitchen garden. The two areas were once separated by a wall with access from the kitchen garden to the kitchen of the house.

4.4.2 Design

The western extent of the house plot is bounded by a high semi-circular wall which looks out towards the sea, although it is worth noting that the principal façade of the house faced away from the sea.

4.4.3 Planting

The house plot has not been maintained for many years, and has become colonised by a variety of woody and herbaceous perennial weed species. However some surviving ornamental planting survives and is consistent with wider later Victorian and early 20th century trends for planting immediate around the setting of a house.

4.4.4 Structure

The house plot is orientated on an approximate east-west axis and is enclosed by a semi-circular rubble-built, lime mortar wall along the western boundary. There is a small line of put-logs running along the section of the wall which may indicate the former position of a lean-to structure.

5.0 ASSESSMENT OF SIGNIFICANCE

5.1 Definition of Heritage

Cadw defines the understanding of heritage values and assessing significance as:

The objective of understanding the heritage values of an historic asset and assessing its significance is to enable an authoritative statement of significance to be made, and allow for the effects of proposed changes to be evaluated. This demands the application of a systematic and consistent process, which is appropriate and proportionate in scope and depth to the decision to be made, or the purpose of the assessment (Cadw 2011).

In addition, based on the Conservation Principles, Policies and Guidance issued by English Heritage 2008 and the Conservation Principles for the sustainable management of the historic environment in Wales (Cadw, 2011), the significance of a historic asset may be judged in terms of its:

- **evidential value:** the potential of a place to yield evidence about past human activity.
- **historical value:** the ways in which past people, events and aspects of life can be connected through a place to the present - it tends to be illustrative or associative.
- **aesthetic value:** the ways in which people draw sensory and intellectual stimulation from a place.
- **communal value:** the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.

5.2 Heritage Values for Cestyll Garden

5.2.1 Valley Garden

The **evidential value** of the valley garden at Cestyll is based on the survival of the original layout as well as plant material and structures. The core layout and form of the valley garden has in all probability changed little since the death of Violet Vivian, with the plants therein simply growing and maturing with time (Cadw 1998). There is limited potential for the survival of hitherto unseen features. This might include revisions to the layout of the existing garden as well as evidence of earlier use of the site, in particular in relation to the functional use of Cafnan Mill, which shares a boundary with and predates the valley garden.

The limited cartographic and photographic evidence associated with the valley garden reveals the expansion of the boundary of the garden to its current limits and how it has matured. Due to these limitations and the lack of written documentation, such as a garden diary or planting scheme, it is difficult to determine the earlier phases and development of the valley garden.

Despite this, the evidential value of the valley garden is centred on the preservation of the vision of Violet Vivian to create a self-contained and intimate garden. The Essential Setting as an area adjacent to the valley garden forms an essential part in retaining the legibility of

the isolated character of the valley garden as the openness of the agricultural fields contrasts with the steep-sided slopes of the valley. On this basis the evidential value of the valley garden has been assessed to be medium.

The valley garden has been assessed to have a high **historical value**, due to its association with the Vivian Family who were major innovators of garden design and the drive to introduce exotic plants such as rhododendrons in the late 19th and early 20th century. The valley garden was predominantly the creation of Violet Vivian and reflects garden design, gentry interests in the early 20th century and her family connections. A notable familial connection would be the broad similarities between the valley garden and Bosahan Garden in Cornwall, the established gardens of which were embellished by the work of Arthur Pendarves Vivian who took over the estate in 1885. Like the valley garden, Bosahan is centred on a meandering stream through the centre, is located adjacent to the coast and has a wide variety of rhododendrons, azaleas and other southern hemisphere plants. This reflected the wider social trend of the landed gentry to fashion their estates through the inclusion of exotic plants and in-vogue garden landscaping techniques. In addition, Princess Victoria is thought to have designed the lawned area between Bridges 1 and 3.

The contrasts between the openness of the pasture that characterises the Essential Setting, the unexpected transition from craggy clifftop, through the dense pine shelter belt and down into the lush hidden valley provides a varied sensory experience.

Cafnan Valley makes a positive contribution to the aesthetic value of the valley garden as it provides the garden with its shape. The sheltered exclusivity of the valley has been augmented through the shelter provided by the belt of conifer trees which, while a practical measure to help protect the planting, also aids its seclusion. These are key elements of the valley garden. The natural elements of the valley garden have been refined and extenuated by the planting areas and the original features designed by Violet, such as, the original stone bridges, as they blend in with the garden and the valley. In contrast the more modern, wooden bridges do not blend in with the unobtrusive style of the stone bridges and detract from the character of the garden. As such these can be considered to be of a negligible value, detracting from the aesthetic value of the valley garden.

The incorporation of the earlier structure of Cafnan Mill to frame the northern-limit of the garden, alongside a tall Scott's Pine to the southern-limit of the garden, provides the most significant view of the garden. This view of the coast contrasts the enclosed private nature of the majority of the garden with its sheltered lawns and plant covered valley sides. It is this unexpected vista of the rugged coastline which forms an essential part of the character of the garden.

The **aesthetic value** has therefore been assessed to be high.

While public access is limited the valley garden is not unknown. Channel 4's television programme *Penelope Keith's Hidden Gardens* recently featured the valley garden and has increased the awareness of its existence to a wider audience. The Friends of Cestyll Garden are also an active institution championing the valley garden. The continued annual tradition of opening the garden to the general public, first started by Violet Vivian as a fund raising exercise for the Red Cross continued to the time of her death and was subsequently

recommended by the staff of Wylfa in 1983 as a benefit for the R.N.L.I and has continued ever since. The endurance of this event demonstrates a continued public interest in the site.

The valley garden in recent years has also become a garden of remembrance; the ashes of Violet Vivian and her uncle were both scattered here, with a slate plaque erected on the rock face to their memory. Subsequently, six requests for ashes to be scattered in the valley garden have granted, including those of Alan Kirkpatrick, the second Station Manager at Wylfa Power Station. In addition, the use of the garden for pet burials and increasingly for memorial plaques adds to the communal value of the valley garden.

Based on visitor numbers information obtained from Magox, for the period from 2006 to 2014, during the annual three day opening of the valley garden over the Whitsun Bank Holiday, approximately 828 people visited the garden. In addition, and despite the lack of regular access, the valley garden is also identified by some websites, for example Anglesey Today², as a visitor attraction. Thus while the valley garden remains largely unknown and inaccessible, given its importance at a local level the **communal value** of the valley garden has been assessed to be low.

5.2.2 Kitchen Garden

In contrast with the valley garden, the kitchen garden has changed significantly since Violet Vivian's death, as it has not been maintained. In recent years the Gardener's Cottage has been partially demolished and sections of the garden wall have been breached as part of these groundworks. The kitchen garden is currently heavily overgrown with limited evidence for the survival of original features and structures. The present condition of the garden and the current limited evidence of original garden features reduce the **evidential value** of the kitchen garden.

The site inspections provided evidence for the survival of hardier plants and in particular 12 fruit trees which were sampled during the autumn inspection. The presence of these fruit trees is typical of 19th century walled gardens, as they would have been planted with apple, pear and plum trees for example that were often fairly local in origin (Wilson 2010). The examination of the fruit samples retrieved from Cestyll kitchen garden revealed that most were either ornamental or wild-seeded crab apples and three domestic varieties survive within the kitchen garden. Of the three domestic varieties, the rarest is the Lady's Finger of Lancaster. While no longer fruit bearing, there are also a couple of *Prunus* cultivars and possibly a *Cydonia*, quince, or a variety of pear that survive within the kitchen garden. This range and type of fruits is quite typical of walled gardens but the significance is raised by the presence of such a rare and relatively well-preserved variety as the Lady's Finger of Lancaster.

The surviving plant material within the kitchen garden indicates it performed the functions of a productive fruit and vegetable plot as well as containing a variety of ornamental trees, shrubs and other plants for the enjoyment of the household. English Heritage (2014) has identified fruit trees as specific heritage assets which relate to the history of a site and its cultivation.

² <http://www.anglesey-today.com/cestyll-garden.html> accessed on 30/05/17.

The **evidential value** of the kitchen garden has been reduced due to the partial removal of structures integral to the function of the garden and its current condition. There is though limited yet important evidential value associated with the kitchen garden based on the surviving domestic varieties of apple, especially the Lady's Finger of Lancaster and the potential for earlier phases of garden arrangement and layout to survive below the topsoil. The evidential value of the kitchen garden has therefore been assessed to be low.

The **historical value** of the kitchen garden is of less significance than the valley garden. While the kitchen garden is linked with Violet Vivian, it existed prior to her ownership of the Cestyll estate and unlike the valley garden was not created by her. The assessment of the kitchen garden revealed that the small outbuilding located on the south-eastern edge of the kitchen garden and noted on the First and Second Edition 1" to 25 mile County Series Ordnance Survey Maps had been extended by the Third Edition 1" to 25 mile County Series Ordnance Survey Map of 1924. It is highly likely that Violet Vivian was responsible for the extension of this building and its role changed from simply being a single-storey coach house to a small two-storey cottage with an attached single-storey shed. It is likely that this expansion was undertaken at the time when Violet was developing the valley garden and required full time gardening staff. The extended range of buildings is the most tangible surviving physical link between the kitchen garden and Violet Vivian, as well as, between the valley garden and kitchen garden.

The increasing dilapidation of the kitchen garden in the later 20th century reflects a wider trend noted at other walled garden sites as changes in garden fashions, garden requirements and the increasingly untenable costs to maintain such gardens have led to their decline. The kitchen garden at Cestyll is one of the last surviving examples of a 19th century walled kitchen garden between Cemaes and Cemlyn Bay. Once there had been at least three other estates with associated walled kitchen gardens: Wylfa (NPRN 86522), Pen-yr-Orsedd (NPRN 86526) and Simdda Wen (NPRN 86521). The estate and house at Wylfa no longer exists, the walled garden at Smidda Wen is not extant, and small sections of the wall at Pen-yr-Orsedd remain through to the present day. As a rare survivor in the local area of what was once a common feature the kitchen garden at Cestyll holds some historical interest; however, it is in poor condition with little surviving structure or, aside from the identified domestic varieties of apple trees, planting of note. The historical value of the kitchen garden has therefore been assessed to be low.

The **aesthetic value** of the kitchen garden, even when it was in active use to provide produce for the Cestyll household, would have been fairly limited given the practical and functional nature of the garden. This has reduced further given the current condition of the garden.

The kitchen garden was built for a specific purpose and was directly associated with Cestyll House, both being built in the late 19th century. Although added to by Violet Vivian through the extension of existing outbuildings (see above) the design of the kitchen garden cannot be attributed to a known designer or gardener.

The autumn survey revealed three domestic varieties of apple trees and at least two ornamental crab apples. Fruit trees may be seen to have an aesthetic value (English Heritage 2014), in particular when in fruit and/or in blossom, the latter can be confirmed during the spring site inspection. While presence of these apple trees would contribute to the aesthetic value of the kitchen garden, overall this has been assessed to be low.

The **communal value** of the kitchen garden is assessed to be low based on the lack of public access and awareness of the garden, apart from the members of The Friends of Cestyll Garden and the Welsh Historic Gardens Trust.

5.2.3 The house plot

Cestyll House was demolished in 1991 as it was unsafe. While some remains survive above ground, including some surviving ornamental planting and remains of the house may survive below ground, due to the poor state of preservation the **evidential value** has been assessed to be low.

While it is associated with the Vivian family, the lack of visible remains of Cestyll House significantly reduces the legibility of these historical associations. As such the **historical value** of the house plot has been assessed to be low.

While some surviving ornamental planting survives the house plot has not been maintained for many years, and has become colonised by a variety of woody and herbaceous perennial weed species. The **aesthetic value** of the house plot site has therefore been assessed to be negligible.

Due to the lack of access, public awareness the **communal value** of the house plot site has been assessed to be negligible.

6.0 STATEMENT OF SIGNIFICANCE

Cestyll Garden is made up of three main elements:

- a former walled kitchen garden dating from the mid-late 19th century;
- the house plot of the former Cestyll House; and,
- the valley garden which was established by Violet Vivian in the 1920s.

The gardens reflect prevailing attitudes to gardening from the late Victorian and Edwardian periods, and in particular the supplying fresh food to the household, Lady's leisure pursuits, and the use of gardens as a tool to embellish country and coastal estates.

While the valley garden is a good surviving example of an intimate garden established and maintained by a Lady gardener during the early 20th century and the idiosyncratic topography of the valley has resulted in the creation of a garden with unusual features, there are many typical elements, such as planting style, which are characteristic of other coastal valley gardens commissioned by the gentry-elite.

Cestyll Garden also has broad parallels with other naturalistic valley gardens, such as those at Bodnant, Conway; and, Plas Newydd, Anglesey. For example, the incorporation of authentic vernacular architecture is a unifying theme between Bodnant and the valley garden, with both features being a nod to the picturesque tradition (Cadw 1998). In addition, as identified in section 4.2.2, there are parallels in the planting schemes between valley gardens of Cestyll, Bodnant and Plas Newydd and the use of non-native plants such as rhododendrons. The influences of Gertrude Jekyll and the Arts and Crafts principles are also evident at valley garden through the sub-division of the garden into smaller areas, enhancement of natural topography and creation of unexpected views and pictorial surprises. These demonstrate that Violet's exposure of garden design and manipulation of valley garden followed fashionable developments in garden design.

The valley garden has been assessed to be of National significance based on:

- its historical associations with Violet Vivian and by association the Vivian Family who were major innovators of garden design and the drive to introduce exotic plants in the late 19th and early 20th century;
- its historical associations with the Royal Family of the Edwardian era, in particular Princess Victoria of Wales, who designed a portion of the garden;
- the survival of naturalistic planting schemes as envisaged by Violet Vivian which were designed to celebrate and enhance the natural form of an unusual landscape;
- contrasting land forms over a small area providing a varied sensory experience, especially the secluded nature of the valley garden contrasting with the surrounding (more open) landscape and the seascape.

In contrast the kitchen garden is a poorly preserved example of a relatively common type of garden. It has however been assessed to be of Local significance on the basis of:

- its restricted association with Violet Vivian, who essentially re-modelled an existing garden;
- the survival of 12 fruit trees of which there are three recognised domestic varieties of apple tree, the most notable and rarest being the Lady's Finger of Lancaster; and
- it being one of the last surviving examples of a 19th century walled kitchen garden between Cemaes and Cemlyn Bay.

While the Essential Setting encapsulates the transition between working pasture and the ornamental garden its contribution to the significance of Cestyll Garden is limited. This element has been assessed to be of Local significance.

The house plot provides context and understanding both the valley and kitchen garden. While some remains survive above ground, and other may survive below ground, the lack of legibility means that the contribution that the house plot makes to the significance of Cestyll Garden is limited. This element has been assessed to be of Less than Local significance.

7.0 Conclusions

Cestyll Garden is a good example of the use of garden spaces connected to lesser gentry household during the later 19th and early 20th centuries. The kitchen garden provides evidence for the provision of fresh food and flowers for the Vivian household (including the presence of a relatively rare apple variety in Lady's Finger of Lancaster). Its subsequent dilapidation in the 20th century reflects a wider pattern of changes in the use of walled gardens throughout Wales and the British Isles. The valley garden is a good surviving example of an intimate garden established and maintained by a Lady gardener during the early 20th century and is associated with leisure and gentry hobbyist gardening. Although the idiosyncratic topography of the valley has resulted in the creation of a notable garden with unusual features, there are many typical elements, such as planting style, which are characteristic of coastal valley gardens commissioned by the gentry-elite.

The valley garden of Cestyll is considered to be of national significance on the basis of its historical association with the Vivian family and their royal connections, the survival of planting schemes largely as envisaged by Violet Vivian in the 1920s and, its naturalistic design. In contrast, the kitchen garden is considered to be of local significance on the basis of a more restricted association with Violet Vivian, the survival of fruit trees including the notable and rarest apple variety, the Lady's Finger of Lancaster and, its survival as a walled kitchen garden between Cemaes and Cemlyn Bay.

This report presents the results of the assessment of the significance of Cestyll Garden only. Additional stages that may be required include:

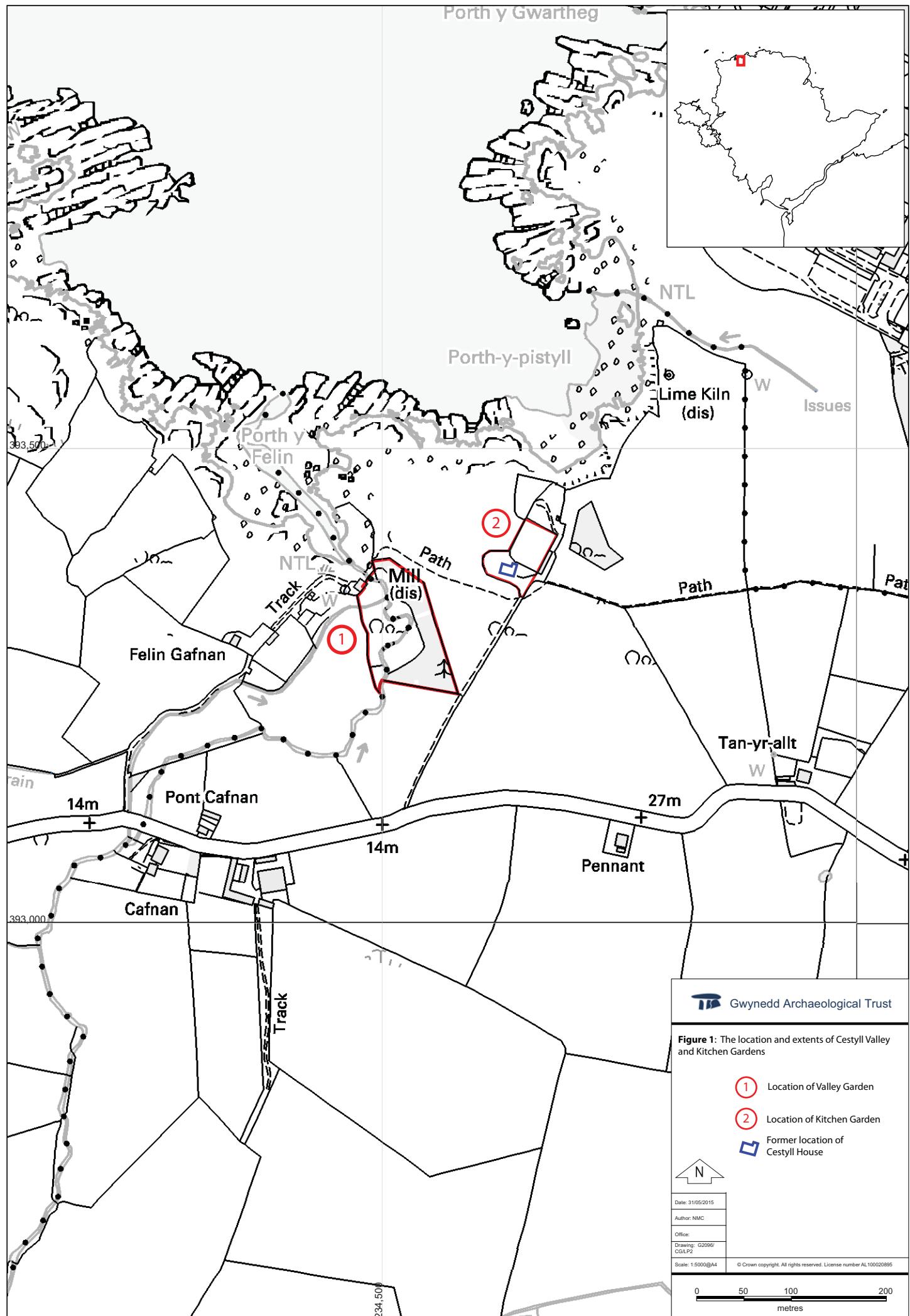
- an assessment of the physical impacts and impacts on the setting of the proposed scheme on Cestyll Registered Historic Park and Garden;
- where feasible, the design of appropriate measures to avoid, reduce, mitigate, offset or compensate for the impact;
- the design and implementation of measures for the long term management and maintenance of the heritage asset; and
- the identification of opportunities to enhance our understanding and interpretation of the heritage asset.

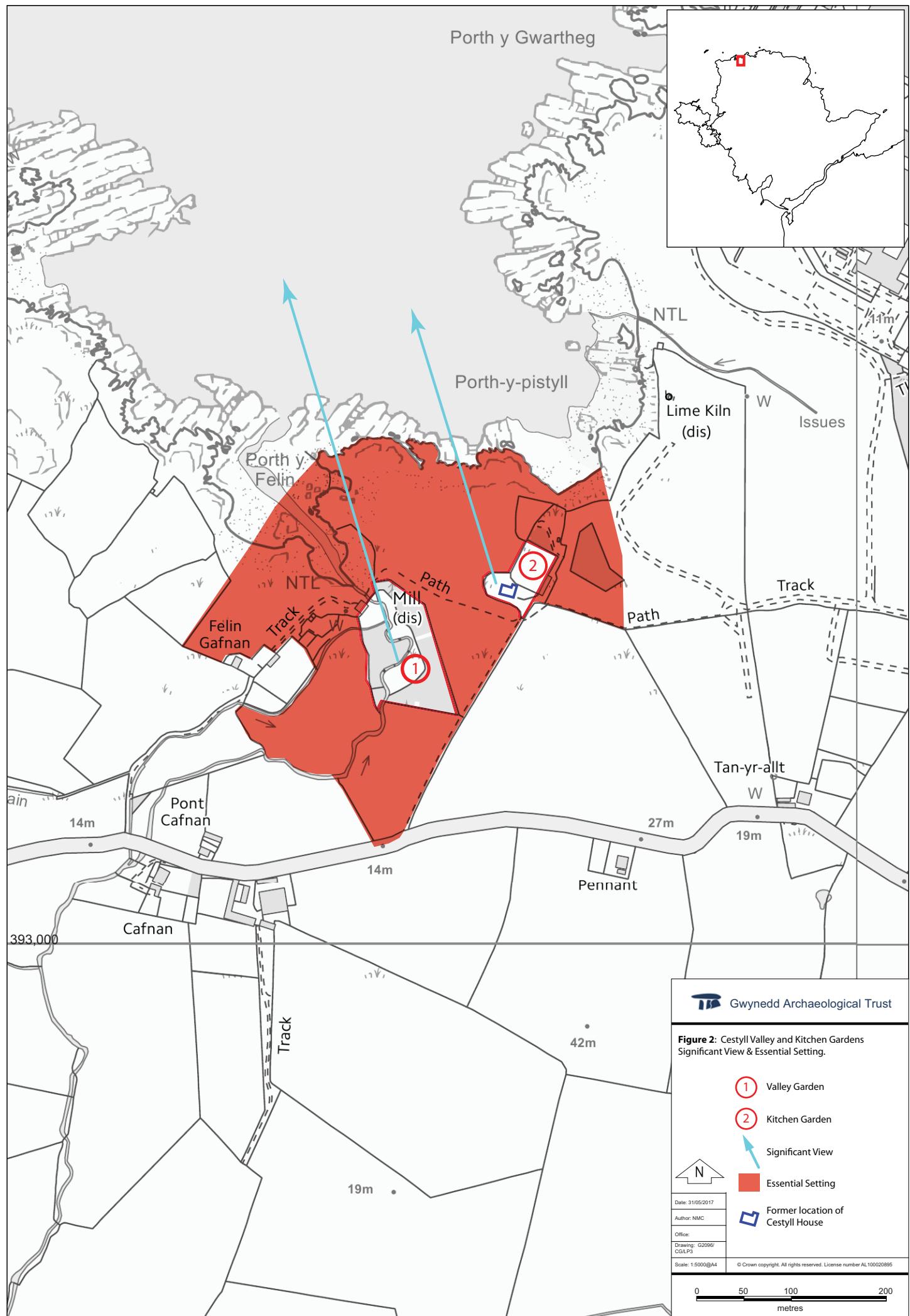
Consultation with Cadw, Isle of Anglesey County Council, GAPS and the Welsh Historic Gardens Trust will be undertaken as required to inform these stages.

Table 1 – Fruit Tree Survey Results

Tree no.	Location	General Description	Fruit
1	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature crab apple, the largest of a tight cluster of three. The main trunk divides into 4 main boughs which all lean to the south. The tree is in fair condition though crowded by young self-seeded sycamore trees and further fruit trees. It has a significant quantity of ivy growing through it.	The majority of the fruit had fallen, but a few remained on the tree. These were small, oval yellow/red crab apples approx. 20 x 30mm in size.
2	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature crab apple. Similar to Tree 1 and located approx. 1m to the north, this may have self-seeded. Slighter and more upright than Tree 1, it appears somewhat younger.	The majority of the fruit had fallen, but a few remained on the tree. These were small, oval yellow/red crab apples approx. 25 x 35mm in size. Some fruit had numerous black spots on them.
3	Kitchen Garden, at the SW end of the central row (SH34655 93384)	A mature fruity tree. Similar to Tree 1 and located approx. 1m to the west, this may have self-seeded. Slighter and more upright than Tree 1, it appears somewhat younger.	No fruit
4	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
5	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
6	Kitchen Garden, part of the central row of fruit trees.	One of three small fruit trees, well-spaced but severely overgrown by brambles. Poor condition	No fruit
7 & 8	Kitchen Garden, part of the central row of fruit trees.	Possibly several fruit trees clustered together, severely overgrown by brambles. Poor condition.	No fruit
9	Kitchen Garden, right in the eastern corner, against the wall.	A small apple tree – Kidd's Orange Red. The tree is severely overgrown by brambles etc. and consequently very leggy, fruit and leaves only really evident above the height of the wall.	A few good sized fruit remained on the tree, though most showed wasp damage. Round green/yellow/gold (russet) approx. 70mm diameter.
10	Kitchen Garden, planted against the southwest facing wall, some 1m northwest of no. 9.	A small apple tree - Sunset. The tree is severely overgrown by brambles etc. and consequently very leggy, fruit and leaves only really evident above the height of the wall.	A good number of fruit at the top. Round green/red approx. 80mm -50mm diameter.
11	Kitchen Garden, planted some 1.5m away from the southwest facing wall, close to trees no. 9 and 10.	A small apple tree. The tree is severely overgrown by brambles and honey suckle etc. and consequently very leggy, poor condition	No fruit
12	Kitchen Garden, planted some 3m away from the southwest facing	Lady's Finger of Lancaster. A large mature apple tree growing freely and upright. The under branches are rotted but otherwise the condition is	Abundant fruit; red/pale green, elongated shape.

Tree no.	Location	General Description	Fruit
	wall, in the approximate centre. Located just south of a slate bed division (SH 4467093417).	good.	
13	Valley garden. Growing on the northwest bank of the stream, immediately adjacent to bridge no. 4 in a sheltered position.	Mature ornamental crab apple tree. Good condition. Possibly an original planting	Abundant small round red/yellow fruit growing in clusters 15mm diameter.
14	Valley garden. Growing on the northern bank of the stream, immediately opposite bridge no. 3 in a sheltered position, but growing from between rocks at the base of the south facing cliff.	Rather stunted & growing at an angle presumably due to its unsuitable location. Possibly self-seeded from Tree 15.	Fairly abundant small round green apples, approx. 40mm diameter.
15	Valley garden. Growing from the base of the boundary bank to the west of the stream, immediately opposite bridge no. 1 in a sheltered shady, damp position.	A very tall mature apple tree, likely to be an original planting.	Fairly abundant small round green apples, approx. 40mm diameter, all dropped (sample taken from floor).
16	Valley garden. Growing on the west facing side of the garden, immediately adjacent to the path which leads up the slope past the Vivian's memorial (SH3451893337). A rocky fairly dry location.	A small but mature apple tree, heavily pruned, healthy, possibly an original planting.	Fairly abundant small round pale green/red apples, approx. 40mm diameter.
17	Valley garden. Growing on the west facing side of the garden, immediately adjacent to the path which leads up the slope past the Vivian's memorial, some 2m north of tree no 16. A rocky fairly dry location.	A small crab apple tree, poorly positioned and thus not growing well, indeterminate age, though probably not original.	Fairly infrequent small oval red fruit 30 x 40mm





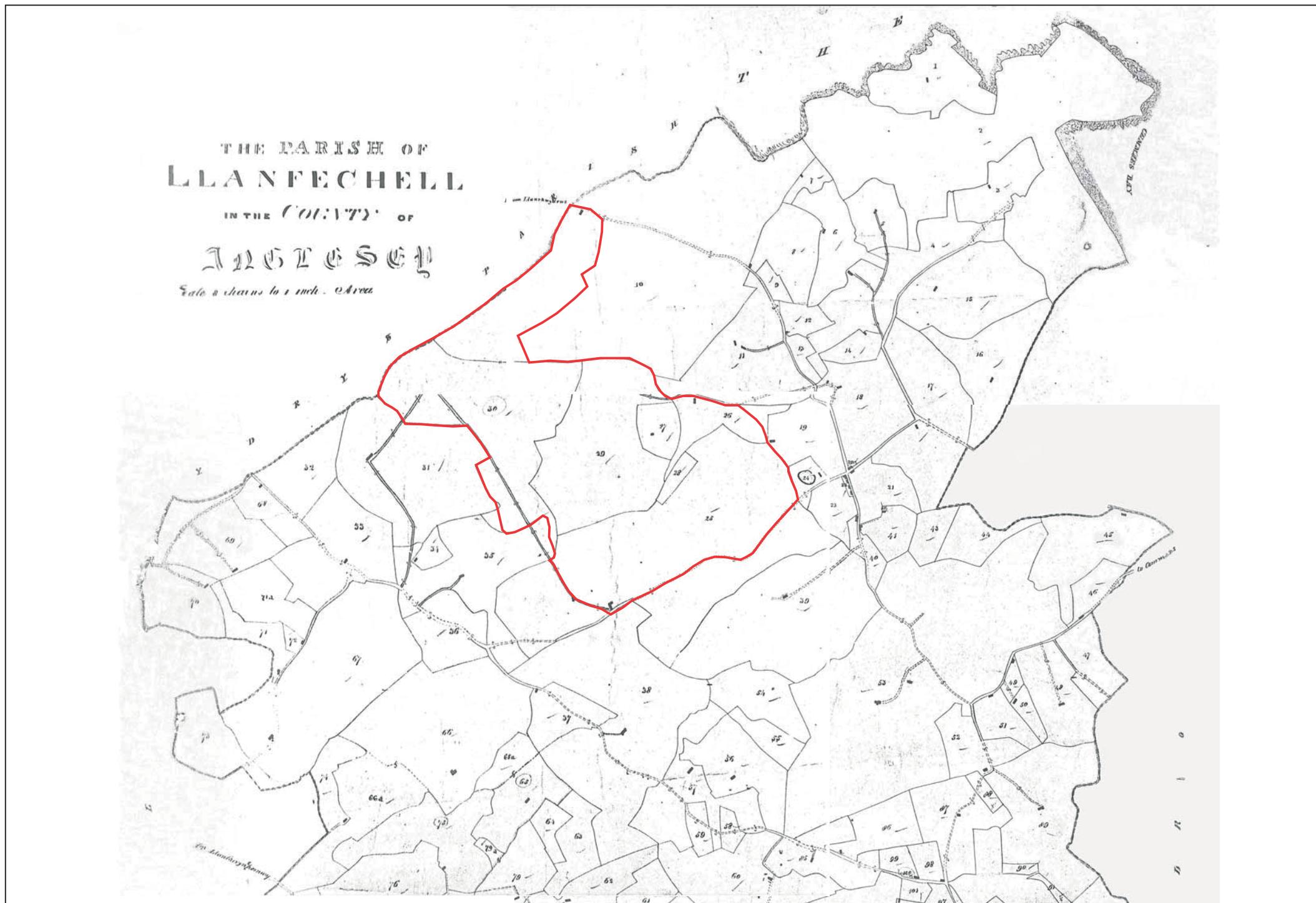
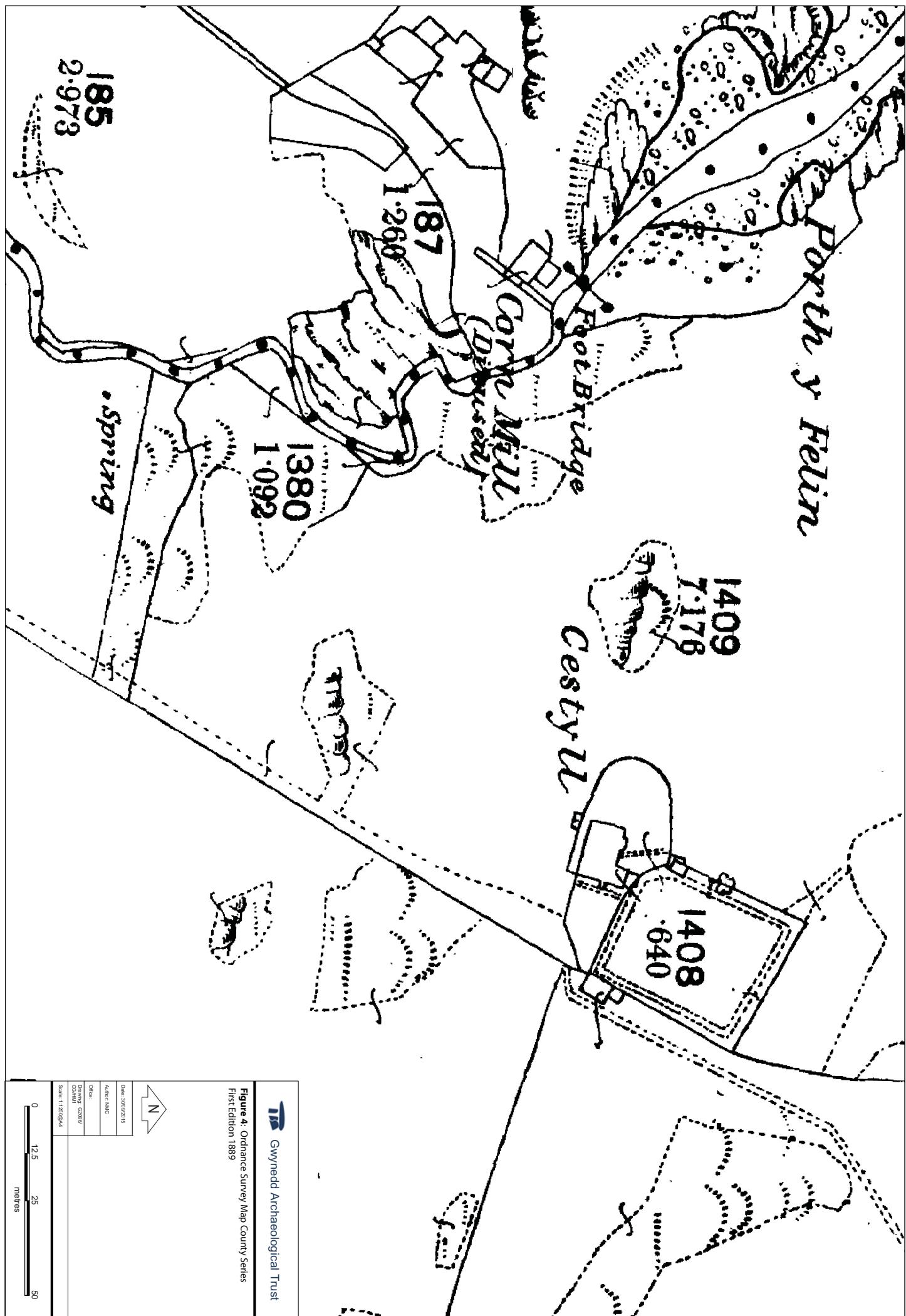
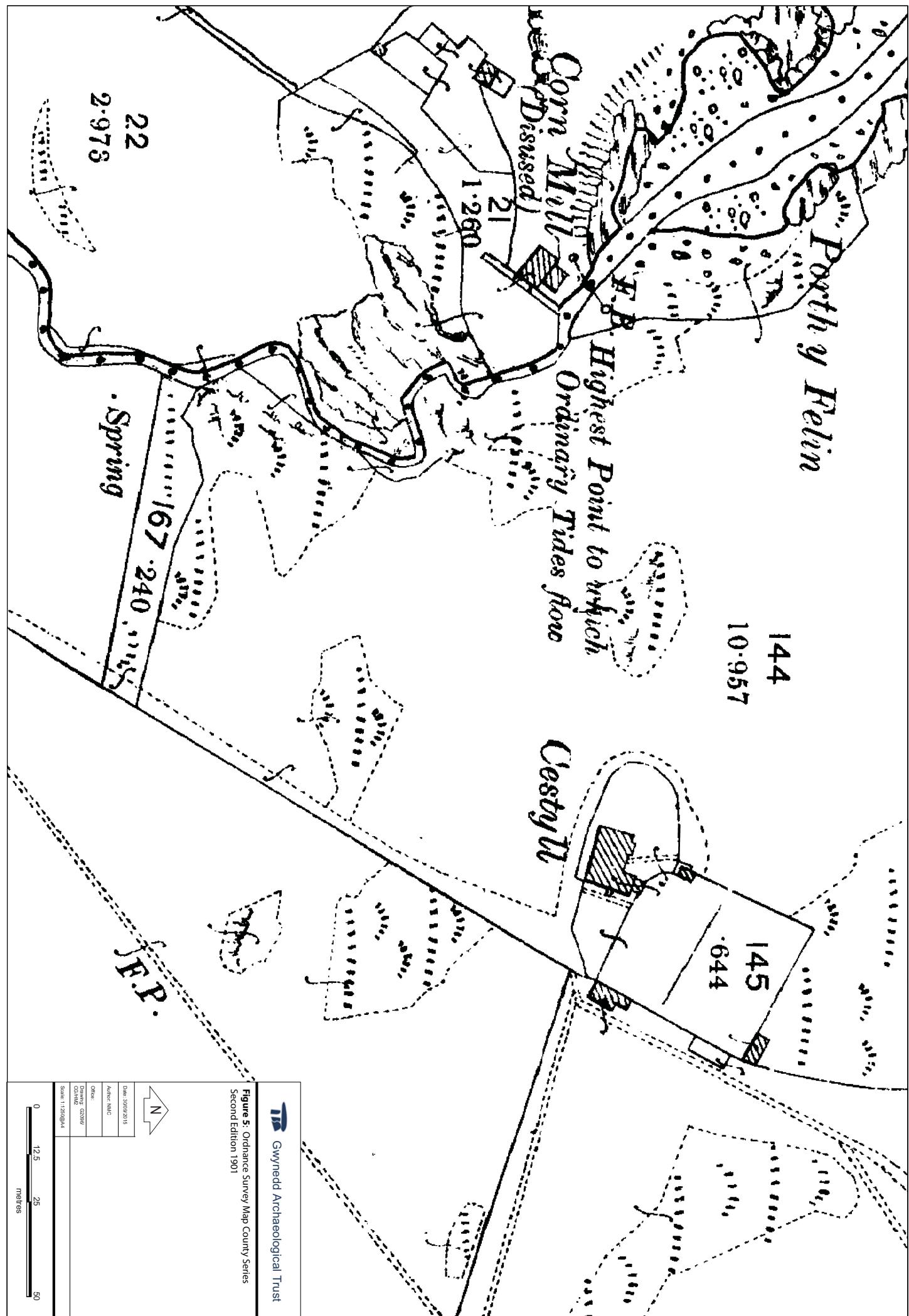
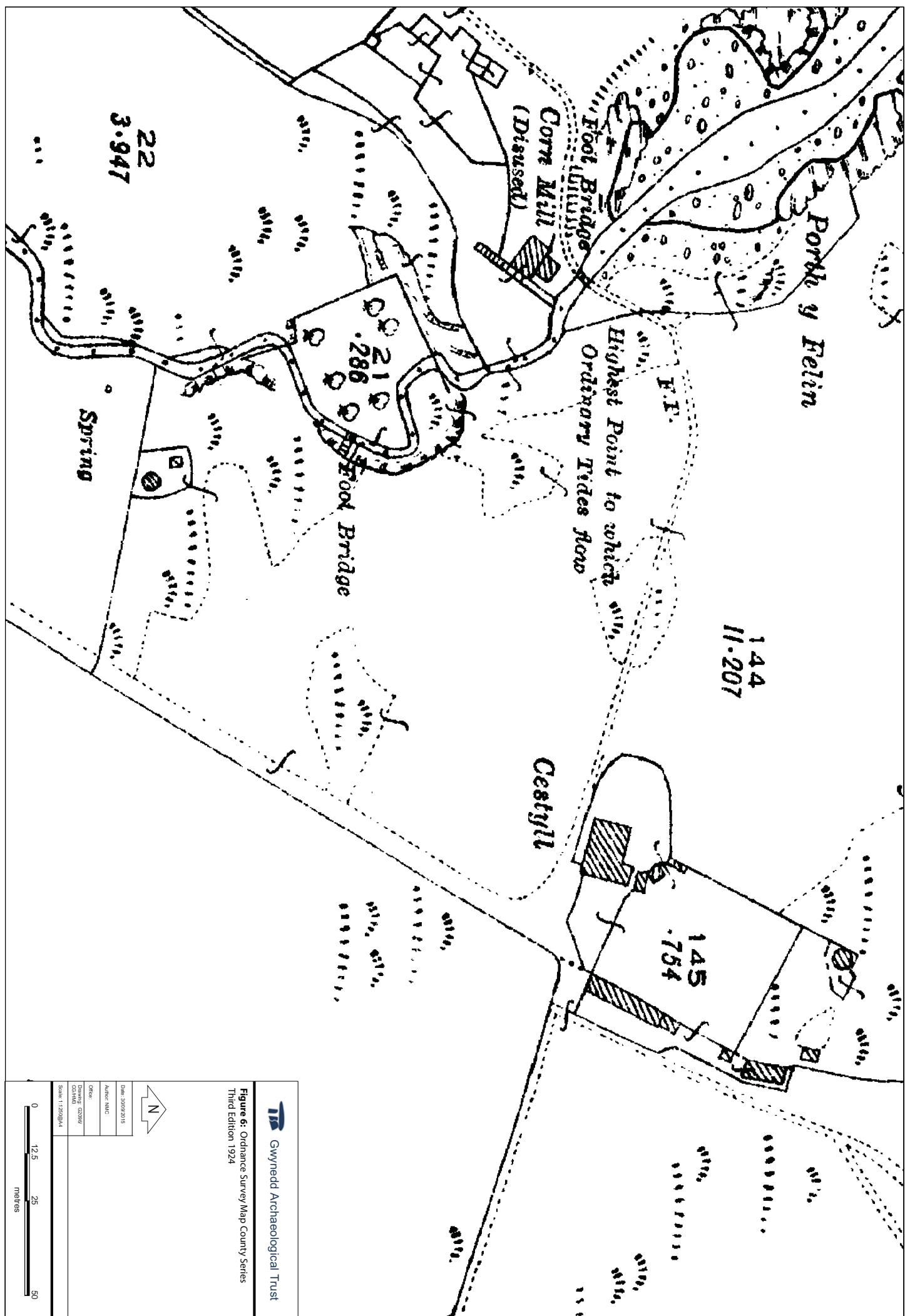


Figure 3: Tithe Map of Llanfechell 1842 (NLW) with the additional study area outlined in red.

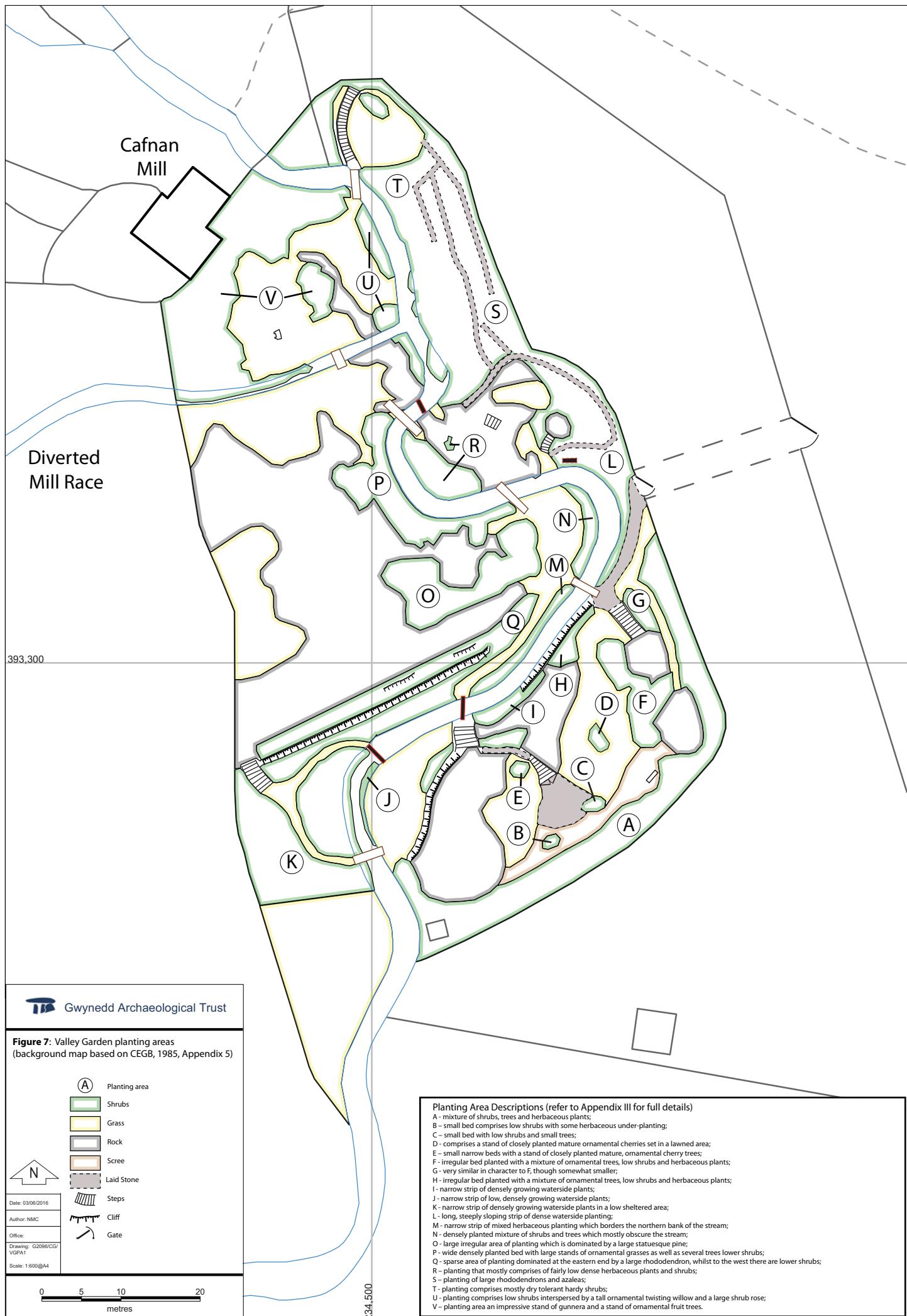


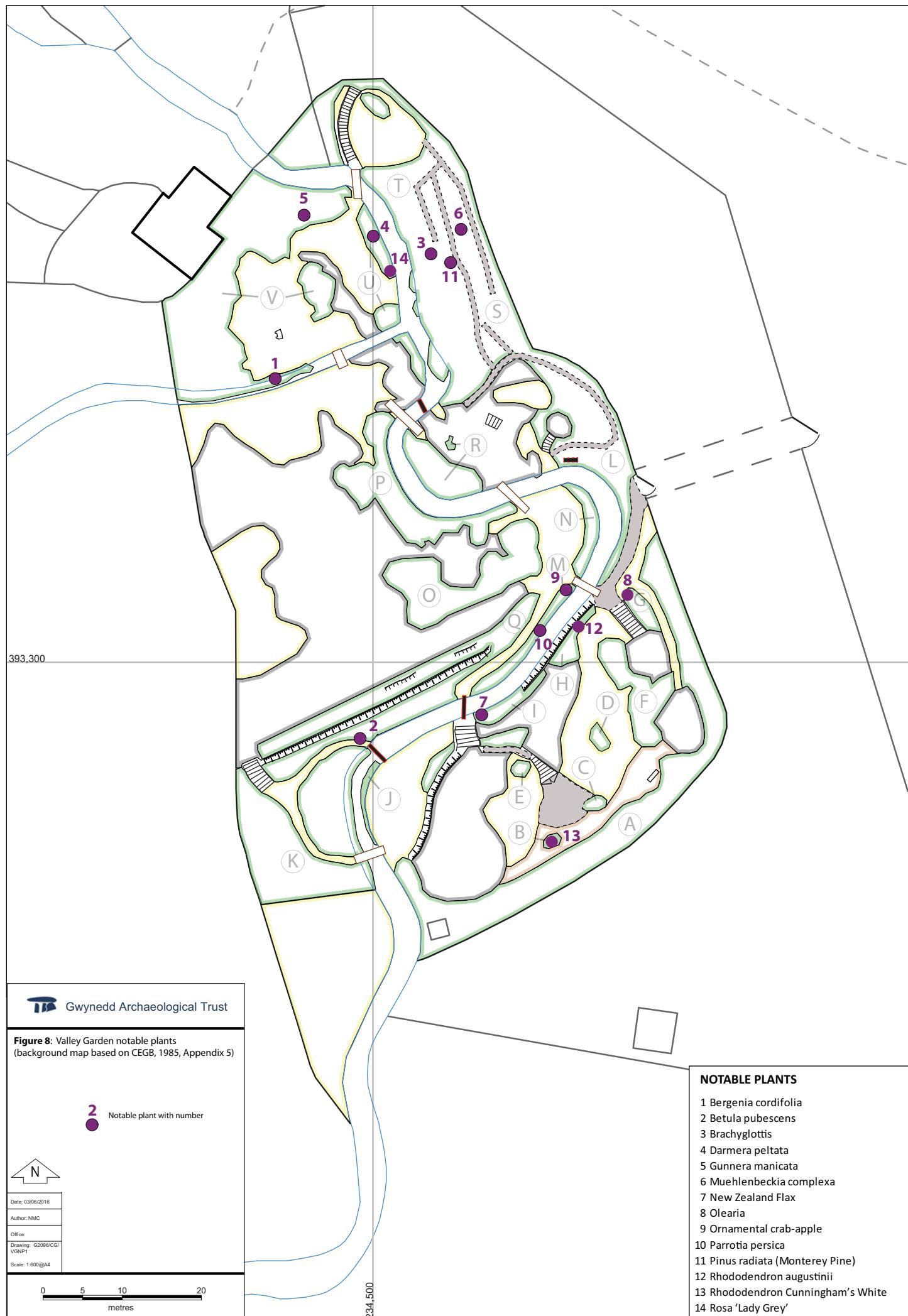




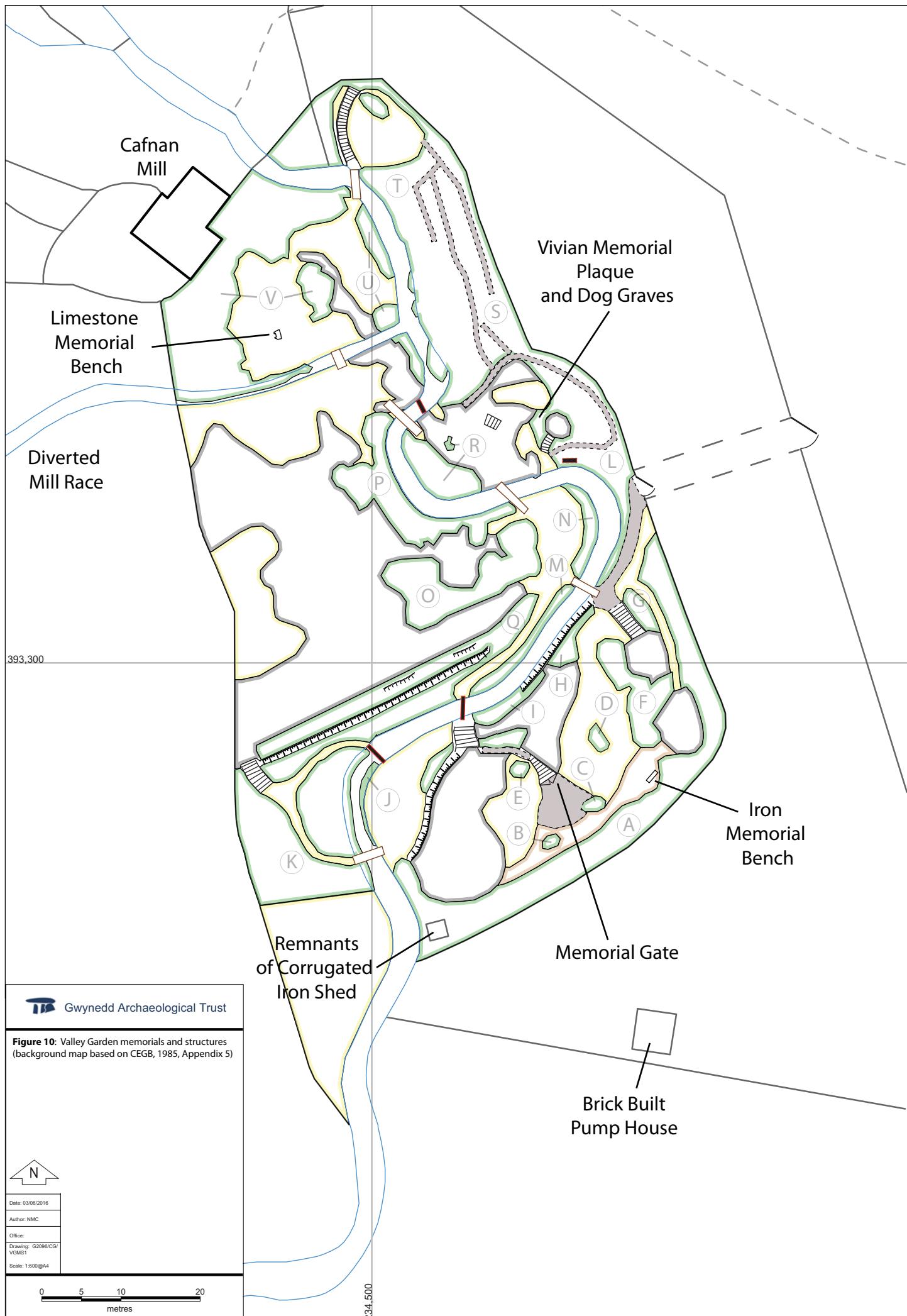
 Gwynedd Archaeological Trust

Figure 6: Ordnance Survey Map County Series
Third Edition 1924











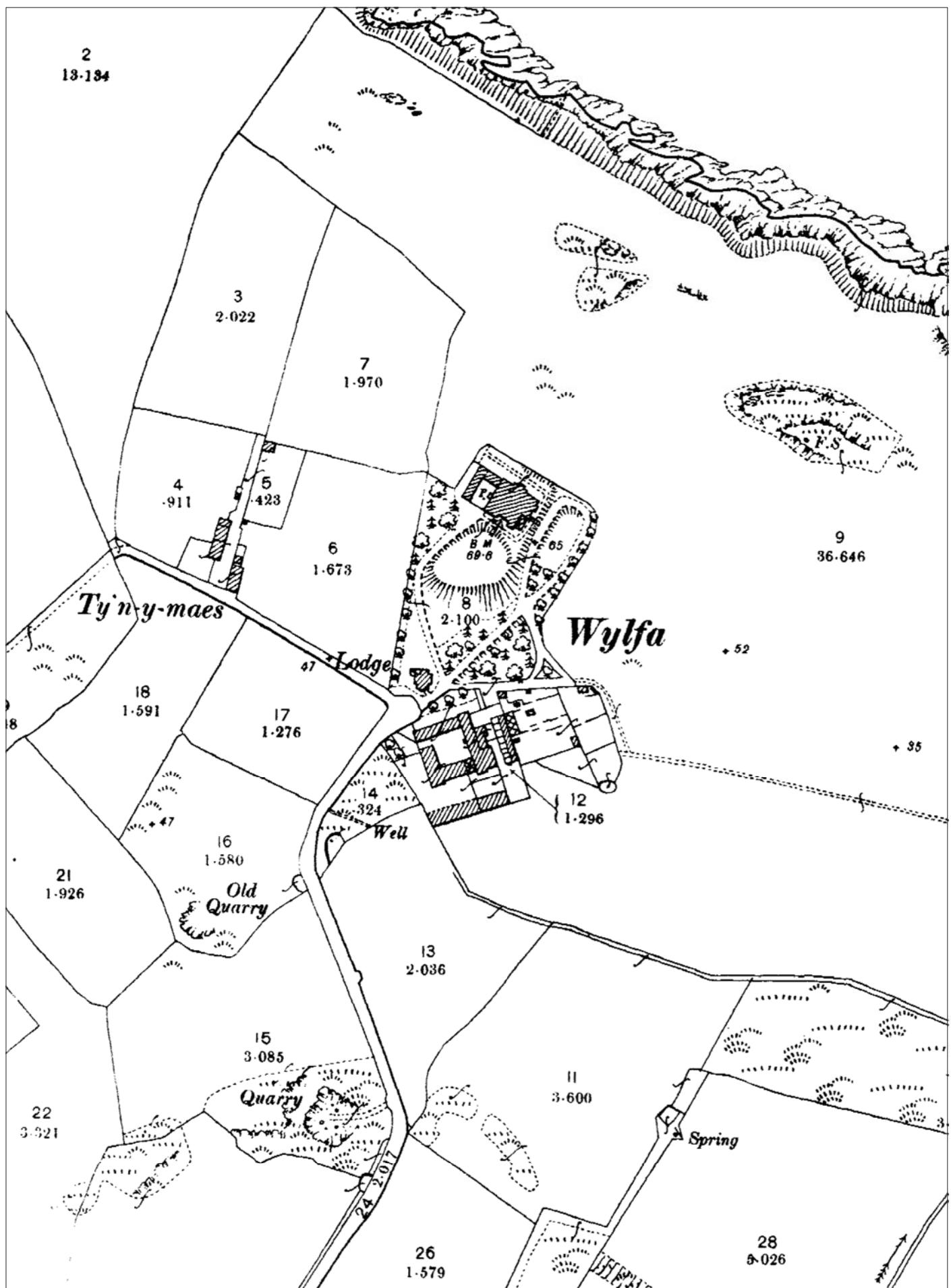


Figure 12: Wylfa Estate as depicted on the Second Edition 25" to the mile County Series Ordnance Survey Map of 1900.

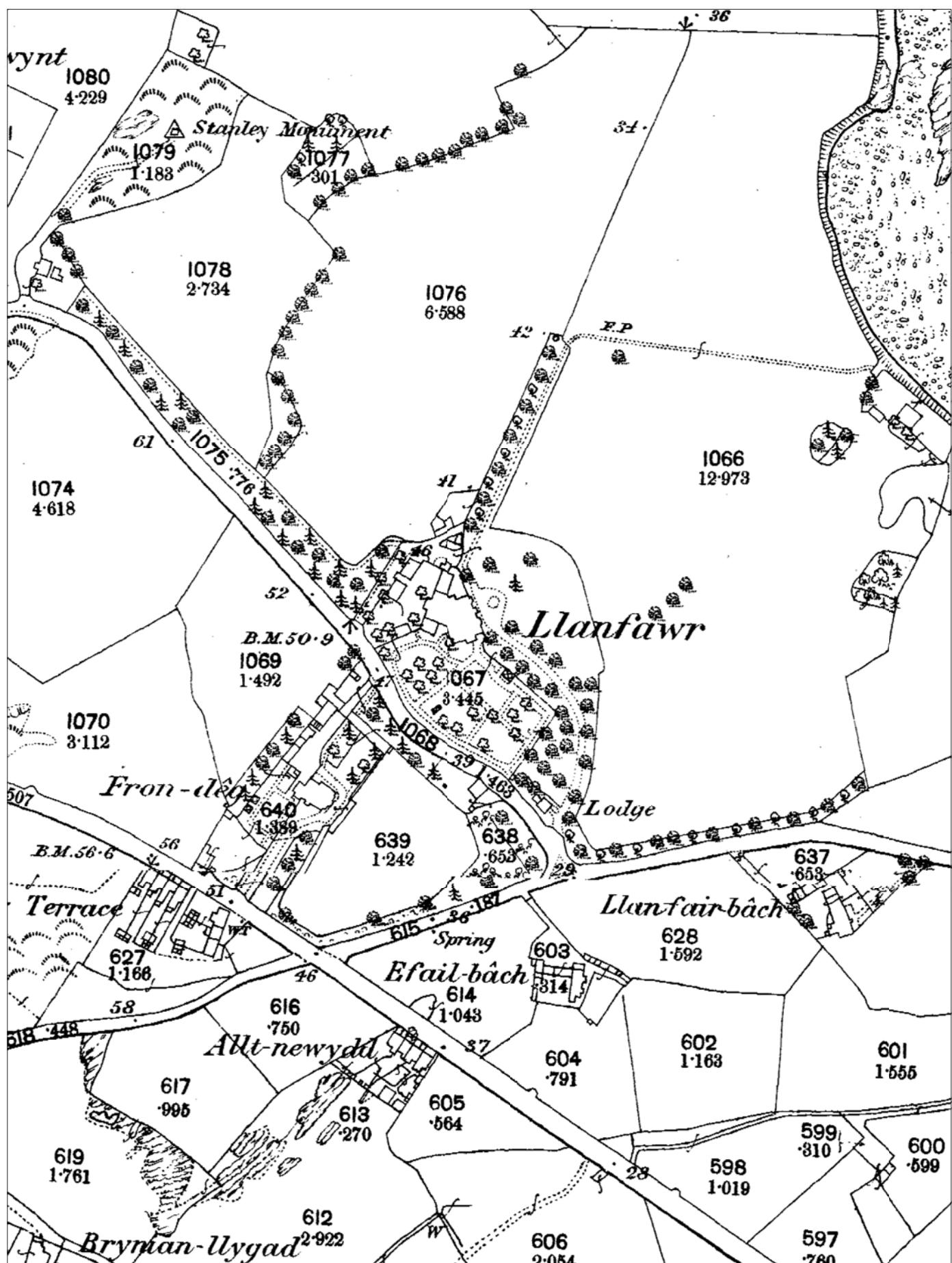


Figure 13: The Plas Llanfawr Estate as depicted on the First Edition 25" to the mile County Series Ordnance Survey Map of 1889.

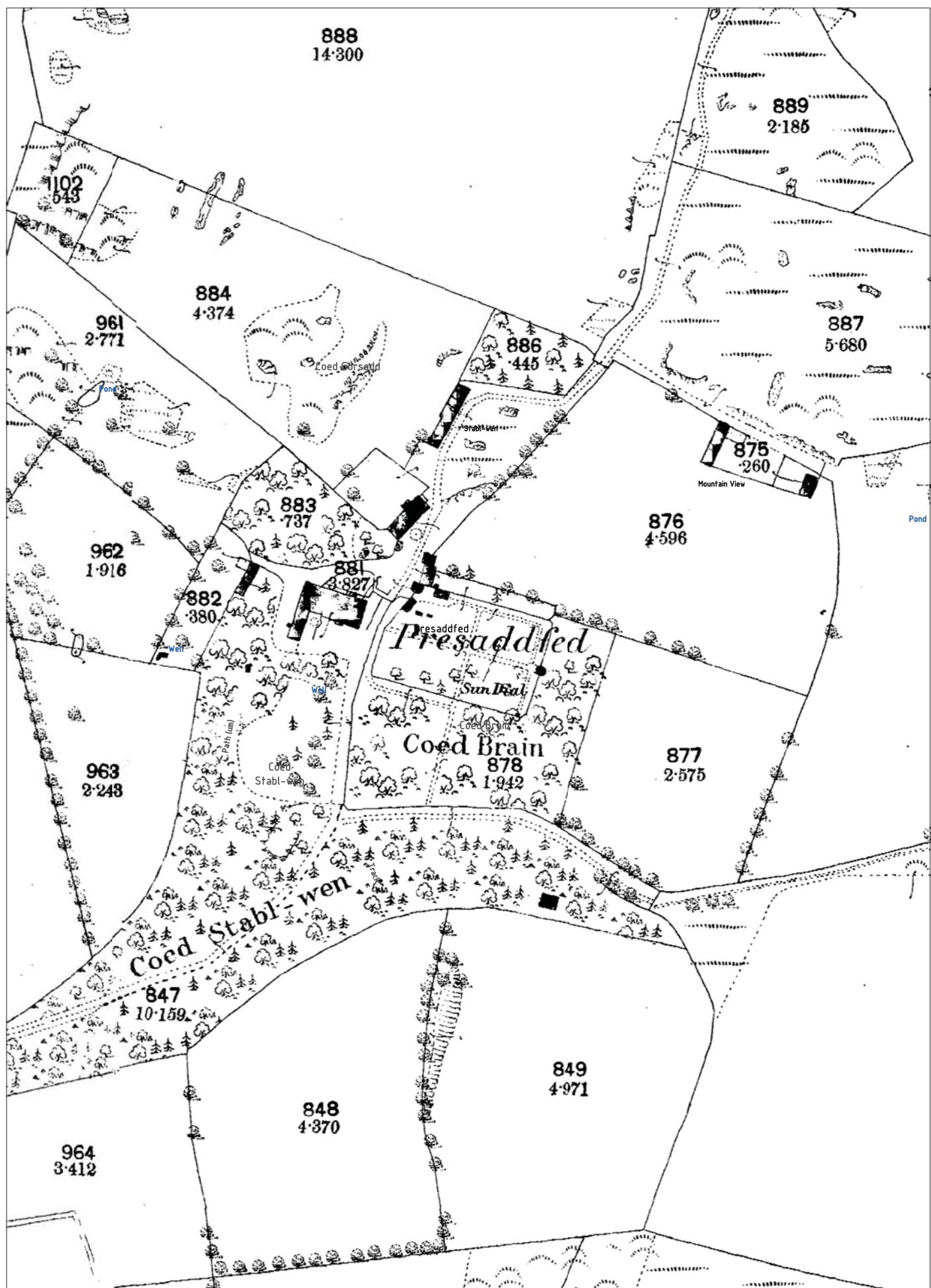


Figure 14: The Presaddfed Estate as depicted on the First Edition 25" to the mile County Series Ordnance Survey Map of 1889





Plate 01: The Gardener's cottage at Cestyll photographed as part of a survey of the property undertaken by GAT in 2013, prior to its demolition. View from the south east.



Plate 02: Portrait of Violet Vivian with a dog in the valley garden at Cestyll in September 1931. View from the south (RCIN 2304968). Royal Collection Trust/@ Her Majesty Queen Elizabeth II 2016.



Plate 03: View of Cestyll garden showing the diverted mill race running down through the western lawn, with Felin Cafnan beyond. Photograph dated Sep 1931. View from the east (RCIN 2304966). Royal Collection Trust/@ Her Majesty Queen Elizabeth II 2016.



Plate 4: Wylfa Headland. Vertical Aerial Photography 1948.

KEY:-

- ① Location of valley garden
- ② Location of kitchen garden
- Location of Cestyll House



Plate 05: Photograph of view of Cestyll garden from south west side, rock escarpment looking north west (RCIN 2304969).
Royal Collection Trust/@ Her Majesty Queen Elizabeth II 2016.



Plate 06: Aerial photograph of Cestyll house and kitchen garden dated c. 1960. View from the south.



Plate 07: Aerial photograph of Cestyll Gardens, taken in 2006.



Plate 06: Memorial to the Hon. W.W. Vivian and the Hon. Violet Vivian. View from the south west.



Plate 09: Memorial bench dedicated to Alexandra Bridget Mason. View from the north. 1x1m scale.



Plate 10: A slate plaque inserted into what appears to be an original decorative cast iron gate in memory of Patricia Wright. View from the south.



Plate 11: Limestone bench erected in memory of Minnie (Pat) Livingstone. View from the east.



Plate 12: The access track to Cestyll which leads northeast off the minor road linking Tregele and Cemlyn, the shelter belt which shields the valley garden from the west may be seen to the left of the track, with the house site beyond. View from the west.



Plate 13: View of the wall surrounding the kitchen garden at Cestyll, now partially demolished. View from the south east.



Plate 14: View of the kitchen garden in its current overgrown state. View from the south.



Plate 15: The view of the valley garden from the house plot at Cestyll. View from the east.



Plate 16: View of the Cafnan stream which winds its way through the valley garden from south to north. View from the south west.

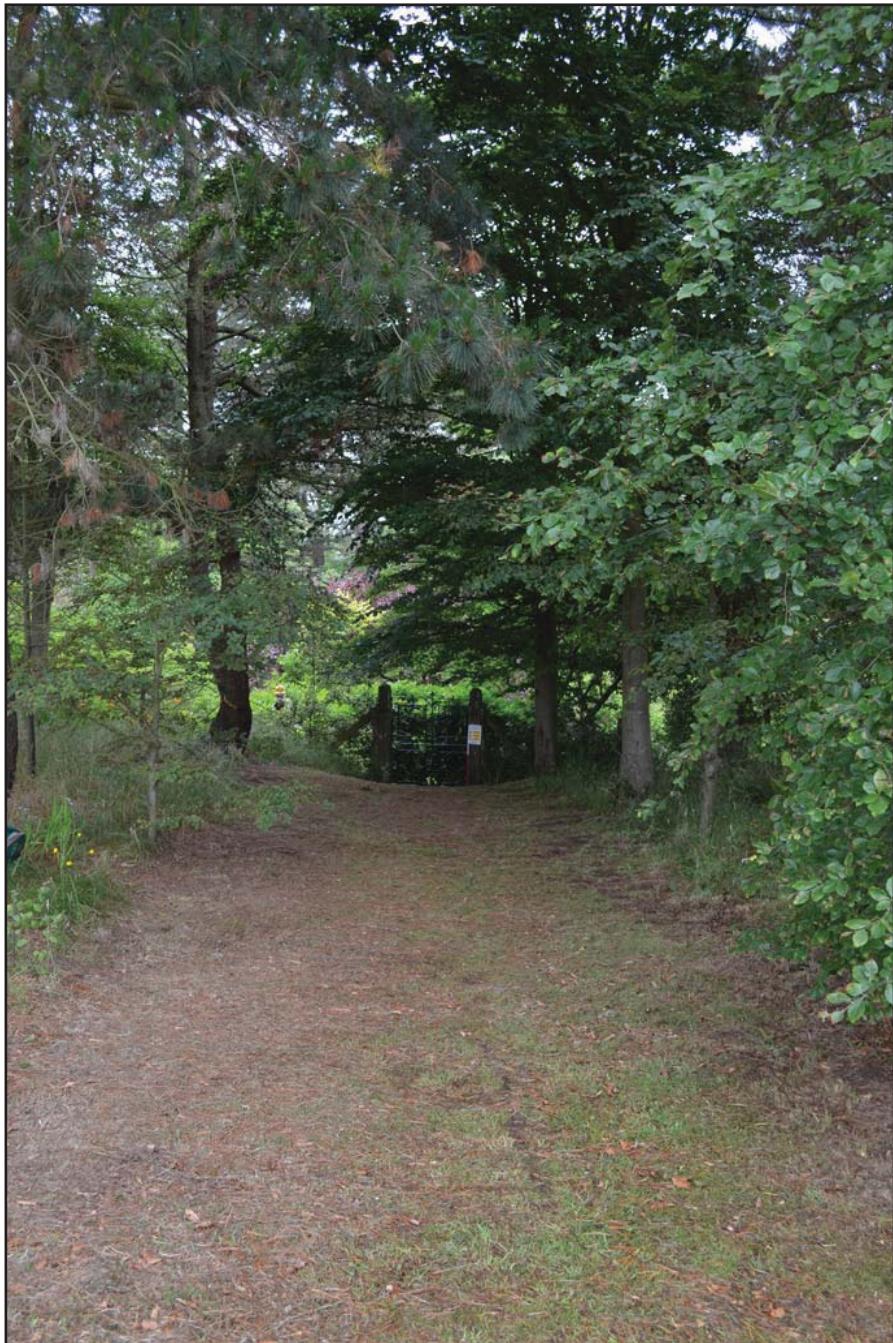


Plate 17: View of the shady path which leads down through the shelter belt of trees on the eastern side of the garden to a decorative iron gate. View from the north east.



Plate 18: View of the shelter belt of trees on the eastern side of the valley garden showing some storm damage. View from the north.

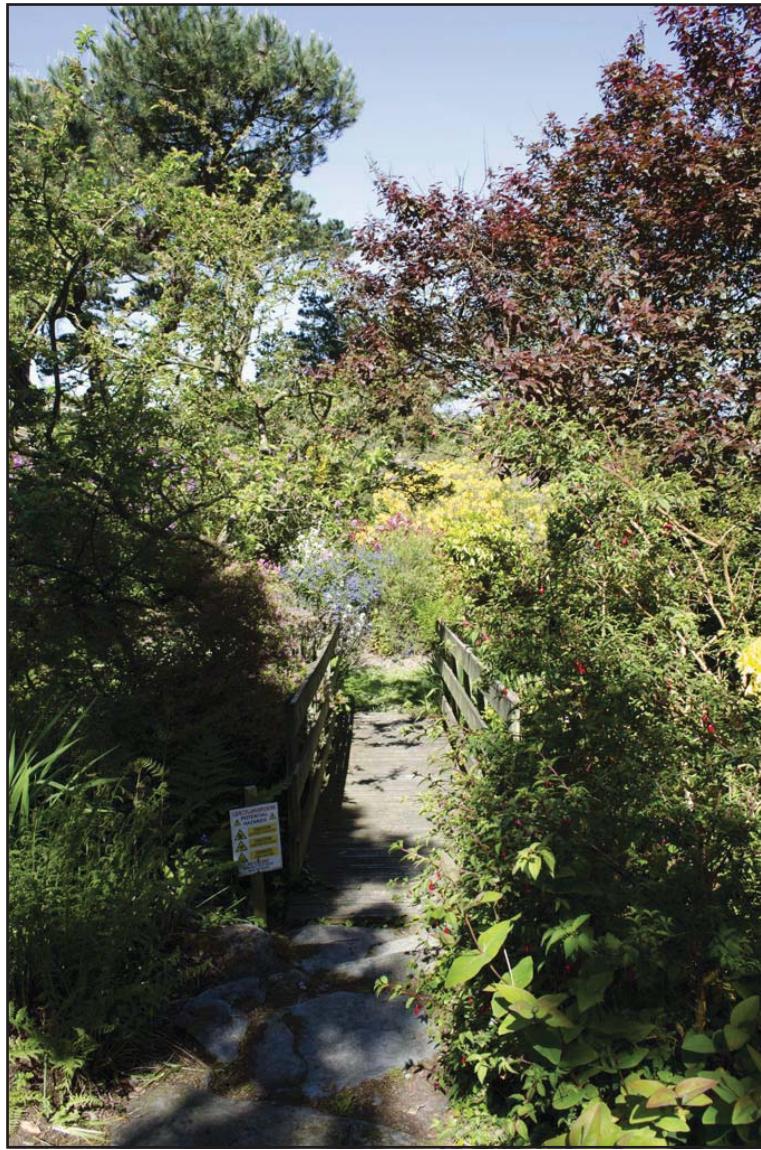


Plate 19: View across Bridge 4 towards planting area O.
View from the south east.

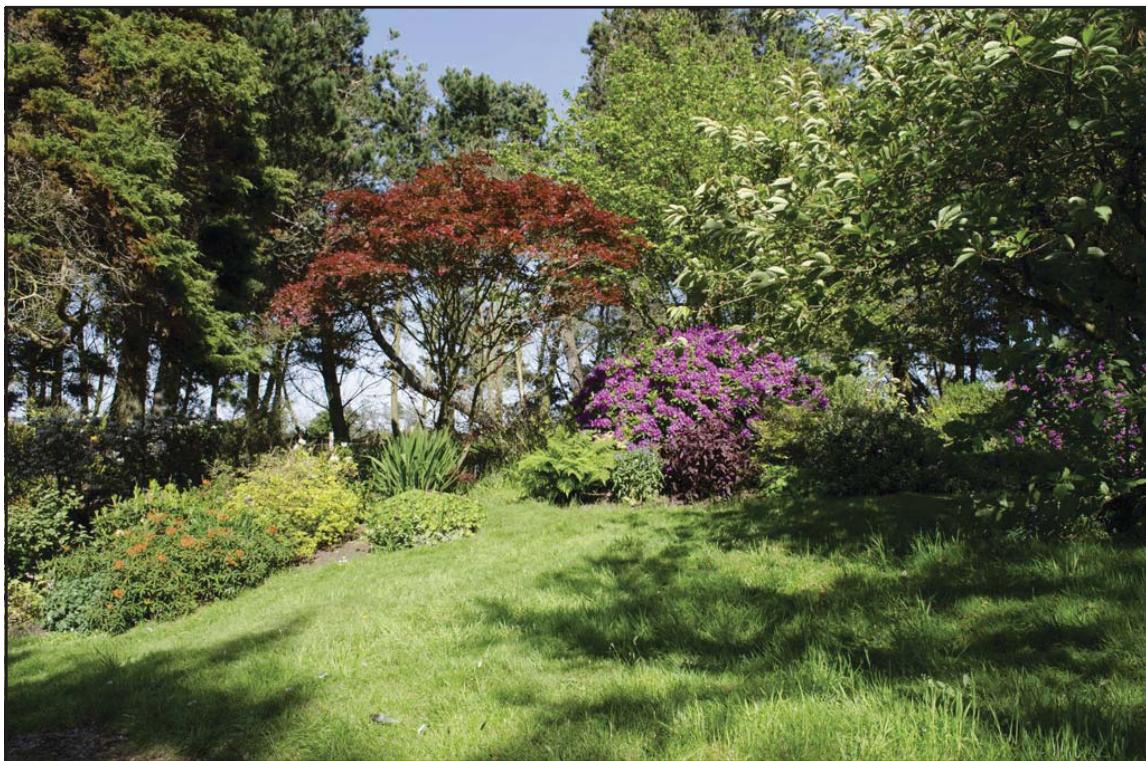


Plate 20: The lawned area at the southern end of the valley garden broken up by areas of planting.
View from the west.



Plate 21: View of the shady lawn which forms part of the section of the Valley garden designed by Princess Victoria. View from the north west.



Plate 22: Third lawned area located on an east facing slope with glimpses of the sea through the foliage. View from the south.



Plate 23: Coastal view framed by Cafnan Mill and Scott's Pine. View from the south.

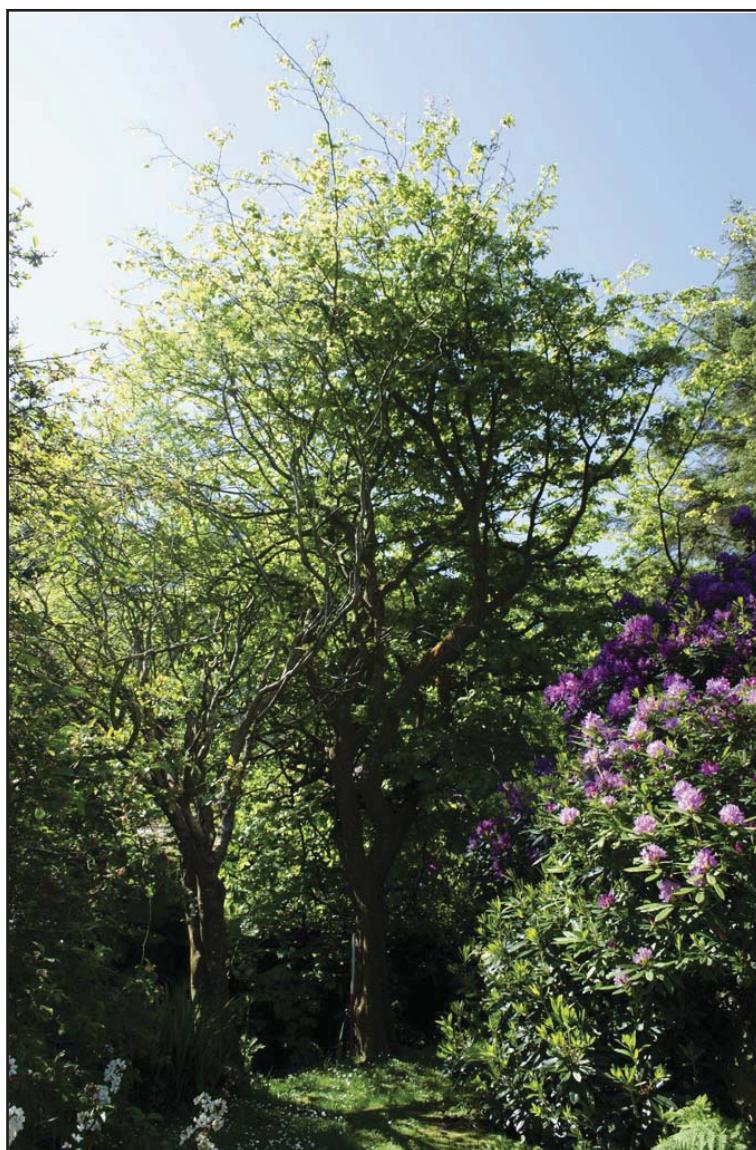


Plate 24: A mature Persian Iron wood (*Parrotia persica*), growing adjacent to the stream in bed M. View from the north east .



Plate 25: The western wind break formed of a mixture of conifer variates. View from the south east.



Plate 26: A large stand of *Gunnera manicata* growing at the northern end of the Valley garden in bed V. View from the north.



Plate 27: Close up of Rosa 'Lady Grey', growing on the bank of the stream in planting area T.



Plate 28: Example of an original slate bridge crossing the Cafnan stream (bridge no. 2). View from the south east.



Plate 29: Example of a modern crossing the Cafnan stream (bridge no. 9). View from the south.



Plate 30: The pump house located in an overgrown area at the southern limit of the valley garden. View from the east.



Plate 31: A small dog's grave located on the eastern side of the garden. View from the west.



Plate 32: Photo of the garden associated with Cestyll House and the kitchen garden in the background, with a border visible along the side of the gardener's cottage. Photograph dated September 1931. View from the west (RCIN 2304965). Royal Collection Trust/@ Her Majesty Queen Elizabeth II 2016.



Plate 33: Remnants of slate borders in the kitchen garden.
View from the south west. 1 x 1m scale.



Plate 34: Remnants of a brick built structure identified within the border on the north east side of the walled kitchen garden. View from the south west. 2 x 2m scales.



Plate 35: Remnants of a slate bordered path identified running parallel with the north east wall of the kitchen garden. View from the south east. Scales 2 x 2m.

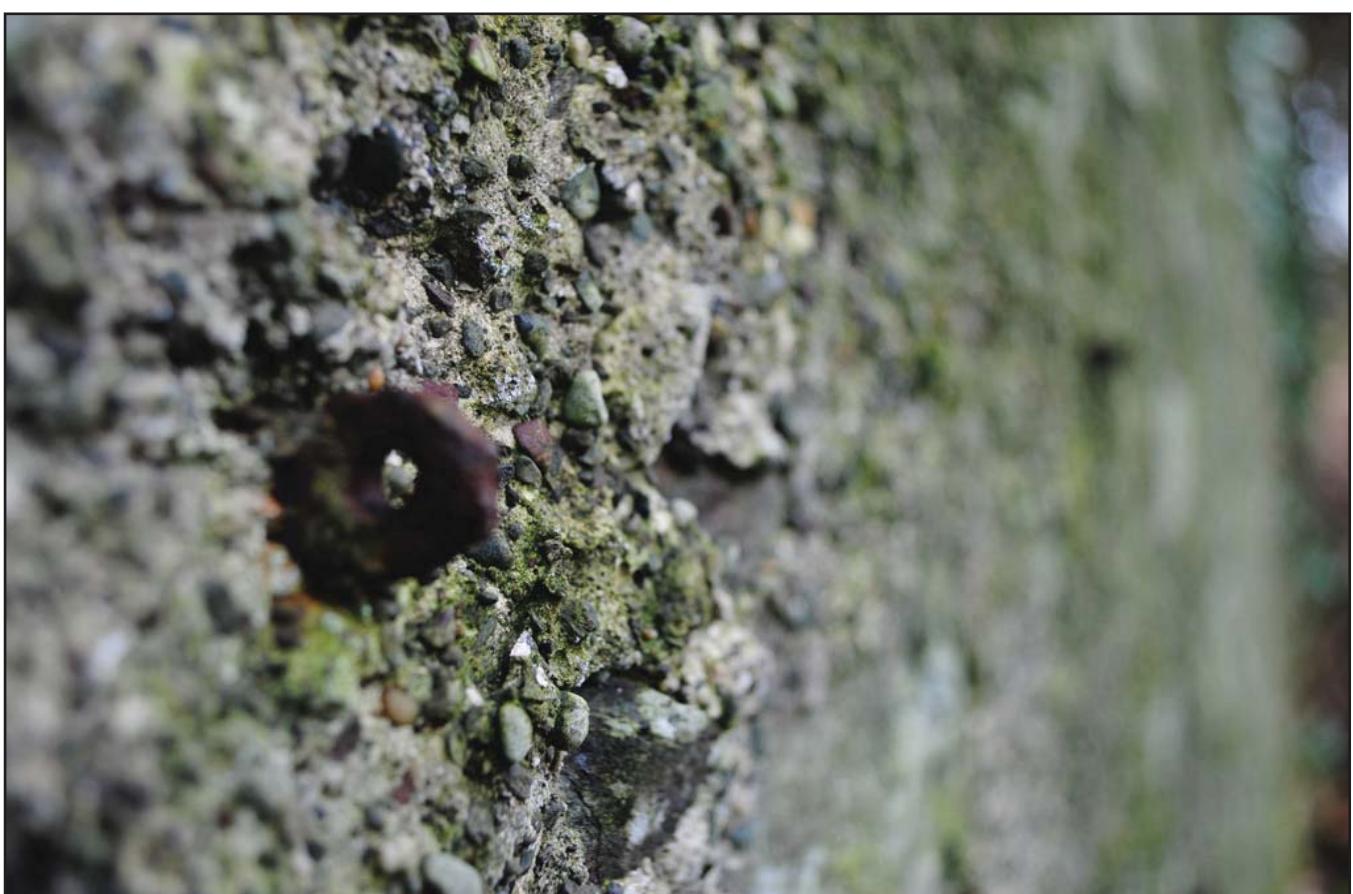


Plate 36: Metal pins set into the mortar of the north east facing wall of the kitchen garden indicate the locations of further fruit trees. View from the west.



Plate 37: Tree 1. View from the southeast.

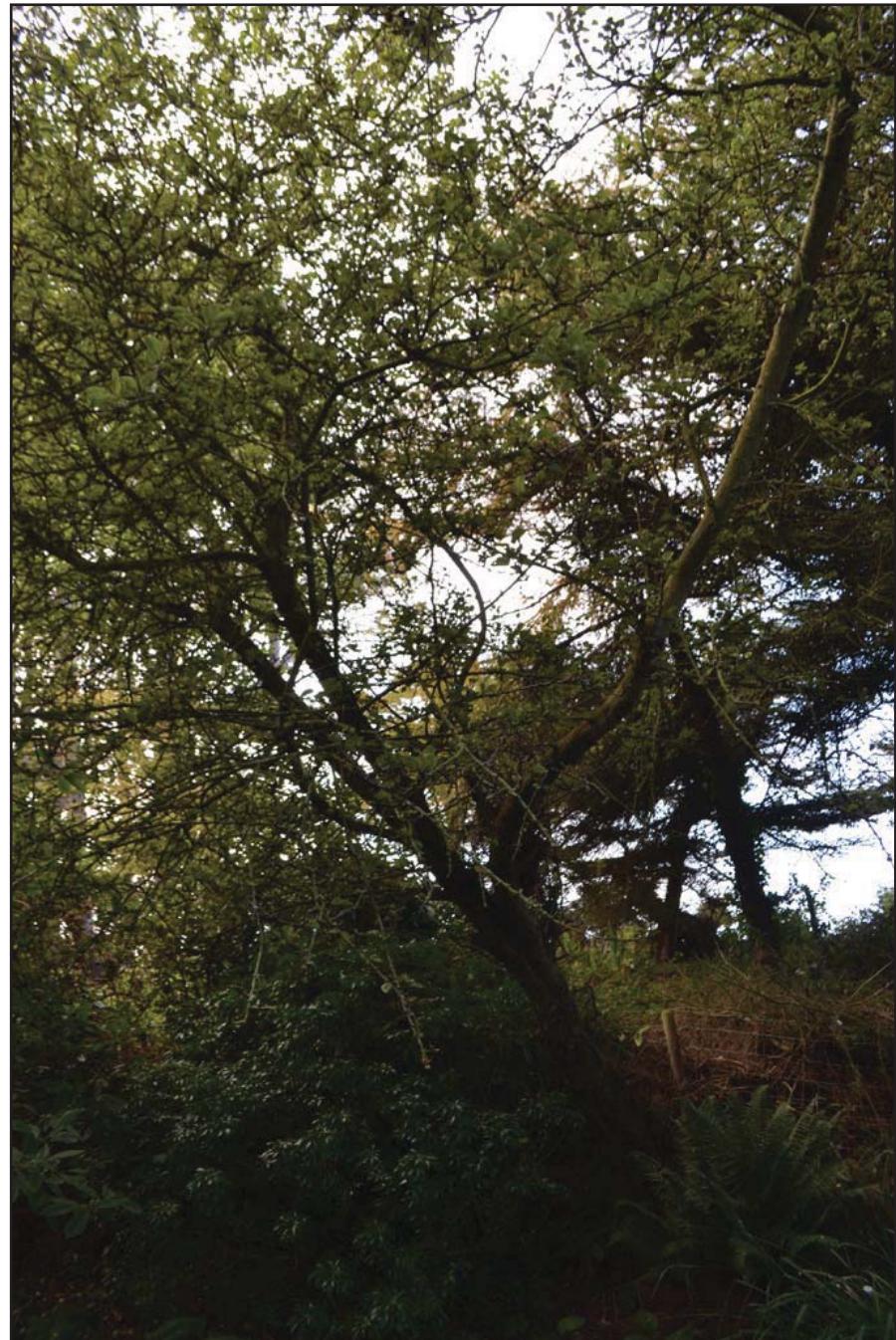


Plate 38: Tree 13. View from the north.



Plate 39: Tree 15. View from the north.

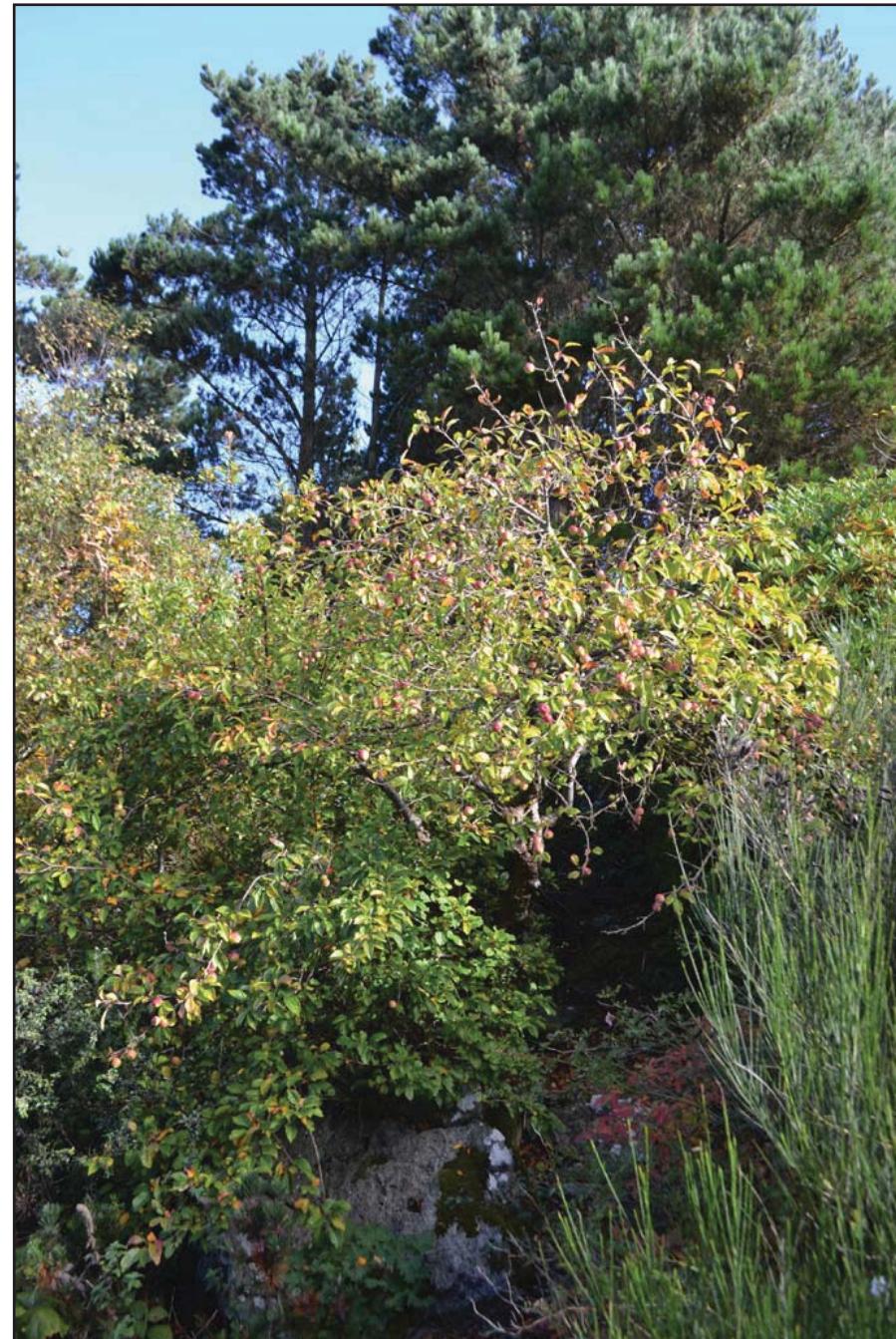


Plate 40: Tree 16. View from the west.



Plate 41: Tree 9, Kidd's Orange Red. View from the south west.



Plate 42: Tree 10, Sunset View from the south west.



Plate 43: Tree 12, Lady's Finger of Lancaster. View from the south west.



Plate 44: View of a small, single storey, rubble built structure located in the eastern corner of the kitchen garden (structure 1). View from the north east. 2 x 2m scales.



Plate 45: View of a small, severely overgrown structure to the north of the gardener's cottage, likely a former privy (structure 2). View from the north west. 2 x 2m scales.



Plate 46: View of a small brick built structure located at the northern corner of the kitchen garden (structure 3). View from the south. 2 x 2m scales.

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8.1.3 Photographs

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APPENDIX I – REPRODUCTION OF CADW REGISTER ENTRY FOR CESTYLL GARDEN

CESTYLL

Ref No	PGW (Gd) 45 (ANG)
OS Map	114
Grid Ref	SH 345 933
Former County	Gwynedd
Unitary Authority	Anglesey
Community Council	Cylch-y-Garn/Mechell
Designations	Heritage coast
Site Evaluation	Grade II

Primary reasons for grading Unusual, small and intimate 1920s garden informally planted with tender plants, well suited to its rocky seaside site, which is of great natural beauty; good survival of original planting. Princess Victoria, a close friend of the garden's owner and principal designer, Violet Vivian, designed part of the garden.

Type of Site A small garden exploiting a particular site - the sheltered valley of a small stream, leading down to the sea - with interesting plantings and an intimate atmosphere.

Main Phases of Construction 1920s

SITE DESCRIPTION

Cestyll is an unusual garden, situated in a small valley running north to the sea, on the north coast of Anglesey, to the west of Wylfa Head. Originally Cestyll formed part of the Carreglwyd estate, but in 1918 the estate was broken up and Cestyll was bought by the Hon. William Walter Vivian as a present for his favourite niece, Violet. The Hon. Violet Vivian was a daughter of Lord Vivian of Bodmin and one of Queen Alexandra's maids of honour; when not waiting on the Queen she lived with her uncle at Glyn Bangor, and continued to do so at first, using Cestyll only for holidays, although she later made it her permanent home.

Nothing now remains of the house, but it was sited quite close to the edge of the cliff, with a view out to sea. It was demolished in 1991 as it had become unsafe. Since purchase of the property by the then Central Electricity Generating Board in 1983, as part of the Wylfa Power Station grounds, it had been uninhabited and unmaintained.

The gardener's cottage and garage form a continuous range along most of the south-east side of the kitchen garden. The garage, with its inspection pit, is to the south and appears relatively modern, but as the top of an arch is bricked up over the doors on the south end it is probably

converted from a building (stable/coach house?) shown on the 1900 25 in. Ordnance Survey map. The cottage is not shown on this map, but appears on the 1924 version, so it was probably built and the garage converted by Violet Vivian after she acquired the house in 1918.

Both are stone-built, the cottage having brick window surrounds; the roof of the whole range is slate and appears to have been fairly recently renewed. The cottage has a brick chimney, and there is a lean-to shed on the northern end.

The 1924 Ordnance Survey map shows three small sheds against the kitchen garden wall in the west corner, near the house; one of these also appears on the 1900 map. The remains of this, and all of the next, which is still standing, survive, with an entrance to the garden between them; the third has been cleared away and there is a large breach in the garden wall. A later, stone-built, shed is outside the garden at the north corner.

There are three further buildings indicated on the large-scale map of 1924, one of them circular, in the area north of the kitchen garden. Unfortunately this area is now so completely overgrown that it is impenetrable, and no buildings can be seen, but the concrete base of the largest of the buildings, on the east side, is visible. This may have been the boat house; although there is no slipway on the beach, there is known to have been a boat house at one time.

The garden, in a small valley to the west of the house site and divided from it by a field, was laid out from 1922 onwards, to take advantage of the particular site, both in terms of its geography - a small, rocky valley with a fast-flowing stream, leading down to a sea cove - and of the sheltered conditions, which allowed half-hardy and tender species to be grown. The result is an informal plantsman's garden which has many small, separate but linked areas, in many cases defined by the bends and loops of the stream, which give it a very intimate atmosphere.

Despite her commitments elsewhere, Violet Vivian began work on the garden early on, beginning to develop the valley of the Cafnan from 1922 onwards. An area corresponding roughly to the central third of the final garden is shown on the 1924 25 in. Ordnance Survey map as being enclosed and planted with shrubs, and there is a new footbridge across the stream.

Violet (with her twin sister Dorothy, also a maid of honour) was a great favourite with the Queen, and during her time at Court became friendly with several members of the royal family. Later they came to visit her at Cestyll, and Princess Victoria, a particular friend and one who was also, clearly, interested in gardening, was responsible for designing one small area of the valley garden. Violet herself designed the rest.

The first plantings were made without the benefit of any shelter but that offered by the natural shape of the ground, but later a shelter belt of conifers was added. This is mainly on the east side of the garden, the direction from which the most damaging strong, cold winds come. It continues along the south side to include a small compound in which there is a well and pump house. The shelter belt consists mostly of pines, many of which are modern replacements. A few large trees along the west boundary help to break the warmer wind from this direction.

The garden contains a very wide range of plants, concentrating on shrubs and waterside plants. There are also many ornamental trees, mostly smaller varieties which can flourish within the sheltered valley. There are many azaleas and rhododendrons, but these are by no means the main interest of the garden, which is notable for its variety.

A large, sloping rock outcrop on the western side of the garden was covered with soil carried there by hand, and carpeted with bedding plants - around 3,000 of them - every year. This continued until after the Second World War. In the summer, this carpet of vivid colour must have added a very different dimension to the otherwise rather green, leafy and watery world of the valley garden.

Violet Vivian was a well known local character and lived to the age of 83, dying in 1962. She is remembered for driving about the lanes in a succession of orange and black cars. After her death, her ashes were scattered in the garden, as those of her uncle had been, and there is a memorial tablet to them both.

The house and garden went, in 1962, to Violet's sister Dorothy's daughter, Lady Astor. In 1983 it was sold to the then CEGB on condition that the valley garden should be maintained and cared for, as a memorial to the two Vivians responsible for its creation. Violet had, in her lifetime, begun to open the garden to the public twice a year, and this practice, which had lapsed after her death, was reinstated in 1985.

The garden today probably remains much as it was in Violet's lifetime. The valley is narrow, steep and rocky, with outcrops in several places, and the soil is thin and sandy, bedrock being very near the surface where it is not outcropping. Despite the garden's small size, there is plenty of variety in its geography, including an extremely steep, sun-baked bank, shady nooks under overhanging rocks, damp areas beside the stream, and larger areas of more gently sloping ground.

The whole valley is crammed with growing things, from sizeable trees through a wide variety of shrubs to lush waterside perennials, and many narrow paths wind their way among shrubs, across tiny lawns and along the stream. There are several different areas, almost all linked by the stream, and none defined by any hard structure apart from the naturally outcropping rocks. The stream is crossed and re-crossed; there are different glimpses of the seaward view here and there; at every turn some interesting plant is in the foreground.

Being enclosed within a valley, the garden is essentially self-contained, but the view down towards the sea is an important aspect of its design, and the old mill in the foreground of this view, although outside the garden, adds a romantic touch. The romance is intensified by the hidden nature of the garden, and the fact that it lies at some distance from the house site and kitchen garden, across a bare field. There is no physical link with the house site, and a stile over the wall of the garden area around the house is the only remaining hint of a path across to the garden.

The highest part of the garden is at the southern end, and here there is a gravelled space where

one could sit to appreciate the view. To either side of this is an area of flat outcropping rock; that to the east has been treated as a rockery and planted with small shrubs, that to the west left bare. The stream runs in a deep cutting to the west of this.

In front of the gravelled area, which has its back to the boundary hedge, is a small lawn, the top part of which is paved with widely-spaced stone slabs and planted with specimen trees. From here, stone steps lead down through a small decorative iron gate towards the stream, which swings across to the east of the garden below the outcrop. Below the gate is a natural rockery, this time on steep rock faces cut by the stream and planted with larger shrubs. The steps lead down through this to a small, shady lawn beside the stream, with two larger trees. Opposite, on the other side of the stream, is a small, sheer cliff.

A detour to the west, via a modern wooden bridge across the stream, leads to another shady lawn in the small area designed by Princess Victoria. A sole gatepost in the western boundary hints at an entrance having been here at one time. The southern boundary is an old wire fence, with an iron grille across the stream to catch debris. Princess Victoria's garden is probably now rather more shady than it was when laid out, which has resulted in the loss of some plants, giving a rather bare appearance at present.

Following the stream across to the east, the path disappears into a tunnel created by the rock cliff on one side and very large shrubs growing on the stream edge on the other. On the far side of the stream, the rockery area with large shrubs north of the lawn continues to the east. At the end of the tunnel is another small lawn, in a loop of the stream where it swings right round back to the west. The stream is edged with shrubs, which thus surround the lawn, and in Violet Vivian's day picnics would be held or a trio or quartet of musicians would occasionally play on this lawn.

On the east side of the river, at the bend, is a steep bank, now rather bare and probably recently cleared, crossing which is a terracing wall about 1 m high, overgrown with ivy. A wooden bridge crosses the stream to the north, and immediately beyond is another, as the stream now curves sharply back to the east again. Between the two bridges is a flattish outcrop with plants and small shrubs growing in its crevices and around the edges. From here there is an open view to the sea. Beyond the second bridge is another flat outcrop, partly overflowed by the stream.

Just below the further bridge, on the east, is a small waterfall, and immediately past this the stream turns northwards and flows more or less straight, at the foot of a high, steep bank on the east, to the sea. On the west side of the stream is the largest open area in the garden, sloping fairly gently down from the west, and consisting mostly of lawn.

At the top, south-west, side of this area is the large outcropping slab which used at one time to be covered with bedding plants every summer. There is one small, curved terrace near the edge of this, retained by a tiny bit of dry-stone walling, which suggests that there may have been other similar terraces used to retain the soil for the bedding plants. To the east and north of the outcrop is an area of lawn, and beyond, to the north, is the watermill, Felin Cafnan. A culvert associated with the mill, dry at present, runs down the slope from the west across this lawn, to

join the stream. This culvert has been treated as part of the garden and its edges planted, and there are also beds in the lawn containing large, architectural plants. There are minor rocky outcrops and smaller beds with shrubs. Beside the stream, along the east edge of the lawn, are many wet-loving plants. The mill leat, also dry, which runs parallel with the culvert, to the north, forms the boundary of the garden here.

The east bank of the stream is very steep and sun-baked, resulting in the loss of several plants during the exceptionally hot, dry summer of 1995. Some small areas have now been replanted. Other areas carry a more or less wild vegetation, the removal of which poses a problem because of the angle of slope. The bank is dominated by a large pine tree, visible from almost every part of the garden, and there are several very narrow paths traversing the slope; these are, of necessity, revetted and some have stone slabs on edge on the upper side, suggesting an alternative use as seats.

In the north-east corner of the garden is a small, rough lawn with a few trees, from which there is a view out over an old dry-stone wall down to the beach. A steep path with steps ascends to this and continues up to the south-east, then runs along inside the eastern boundary of the garden. There is a way out to the shelter belt, or one can continue along the eastern edge of the garden, with good views down into it, descending a little westwards by steep paths or steps. On the face of an outcrop above the stream, opposite the small lawn used for picnics and music, is a plaque to the memory of Violet Vivian and William Walter Vivian. This is a plain stone tablet fixed to the face of a rock outcrop, with bronze lettering. The Vivians' ashes were scattered in the garden nearby. There are also three small dog graves in this area.

There was at one time clearly a small garden area surrounding the house, lying mostly in a rough semi-circle to west and north (open to the view, which is spectacular), but including a high-walled triangular area at the back of the house, on the east. Of the semi-circular area, nothing remains except the surrounding iron fence and hedge, with a stile over it on the valley garden side; there is no sign of a path crossing from this towards the garden, but it might have been ploughed up. The interior contains little but coarse grass, suggesting perhaps that it was mostly lawn.

The triangular area has the south-west wall of the kitchen garden for its north-east boundary, and another wall of similar height runs off the south corner of the kitchen garden, forming the south wall. This turned slightly northwards part way along, and met the back of the house, but this part of the wall has been destroyed, probably during demolition of the house. The area enclosed within these walls was rather narrow and must have been shaded by its walls, but would have been very sheltered. The surviving planting is ornamental.

There is an area north of the kitchen garden, occupying most of the remaining level space between its wall and the edge of the cliff, which must at one time have been part of the garden. The 25 in. Ordnance Survey map of 1900 shows nothing north of the kitchen garden except a small building at the east end of the north-east wall, but the 1924 map shows this building gone and three others (two on the east and a circular one to the north) replacing it, and the area partly enclosed. This dating strongly suggests that the changes were made by Violet Vivian.

The area is at present completely overgrown and impenetrable, and it is now fully enclosed by stone walls on all sides. The entrance, on the east side, has an iron field gate hung between cylindrical stone-built posts, and north of this the concrete base of the largest of the three buildings can be seen, but nothing is visible within except trees and undergrowth.

The kitchen garden is shown on the Ordnance Survey map of 1900, and is probably contemporary with the house (which existed by the early nineteenth century at least). It is about 50m by 35m, surrounded by a wall. The garden lies to the north of the house site, and is rectangular, with a mortared stone wall up to 2 m high. This is roughly rendered on the inside. The ground level within the garden is lower than outside. There are entrances with wooden doors, painted yellow, still in place in the west corner and near the east corner, just beyond the gardener's cottage. There is also a door leading, up a flight of steps, directly into the garage. The wall seems to be generally in good condition, but there is a large deliberate breach on the south-west side, near the house site. It may have been created during demolition of the house, and it is probable that it enlarged a pre-existing entrance.

The interior of the garden is now completely overgrown and few details of the layout are discernible. There is, however, a line of fruit trees running south-west to north-east, and where the bases of these are fairly clear of undergrowth, at the south-west end, their positioning suggests that a path once ran between a double row of them. There does not appear to be any fruit against the walls. The 1900 Ordnance Survey map has a line across the garden from north-west to south-east which seems to suggest an internal division, but this had apparently disappeared by 1924. Some ornamental planting survives close to the south-west wall, including lilac and rose bushes.

APPENDIX II – CESTYLL GARDEN, AUTUMN SURVEY; FRUIT SAMPLING AND STORAGE STRATEGY

The Wylfa Newydd Project

Cestyll Gardens – Autumn Survey

Fruit Sampling Strategy

The Autumn Survey of the kitchen garden will be conducted on the week commencing 12th October 2015 by a GAT archaeologist, who will undertake the work in line with current land access requirements. Once a suitable area of vegetation has been cleared to allow access to the surviving fruit trees in the kitchen garden, the GAT archaeologist will, based on advice supplied by Ian Sturrock:

- Take brief descriptive notes of each fruit tree that will be sampled on GAT pro-forma sheets. This information will include tree condition, location and type. The notes will be accompanied by photographs of the trees. The photographs will be taken with a digital SLR set to RAW format;
- A minimum of 3 fruits, along with stalks, will be taken from each identified fruit tree. The fruit must be ripe and a 'typical' example of the tree, for example if the tree is scabby then pick scabby fruit to reflect this; and
- Once picked the fruit will be carefully packed in a secure bag to prevent damage to the samples. Each fruit tree will have a separate bag and will be clearly labelled.

Fruit Storage Strategy

Once the samples of fruit have been collected and the autumn survey has been completed, the samples will be brought back to the GAT office in Bangor.

- The samples will be transferred to special polyethylene bags impregnated with carbon and stored in a dedicated fridge in the finds storage room at GAT.
- All storage bags will be clearly labelled.
- The fridge will be kept at 3°C.
- On a weekly basis the samples will be sprayed with water and checked for signs of deterioration.
- If a fruit is becoming rotten it will be removed from direct contact with the other samples and kept separately in the fridge to prevent more wide spread deterioration within the samples.

The fruit samples will be stored in this manner until they can be examined by the Ian Sturrock in the week commencing 2nd November 2015.

APPENDIX III – PLANTING AREAS OF THE VALLEY GARDEN

Appendix III – Valley Garden Planting Areas

Planting area A is an undulating border which runs along the southern boundary of the garden and continues down the eastern boundary as far as the gate, edged in places by sub-rounded cobbles. The planting, which is a little sparse in places, comprises a mixture of shrubs, trees and herbaceous plants which vary in height, though there is no particular graduation from front to back. This area is fairly dry and is shaded by the adjacent conifer shelter belt.

Planting area B is a small irregular bed partially edged by sub-rounded cobbles located in a level, shady and fairly dry area at the southern end of the garden. The planting comprises low shrubs with some herbaceous under-planting.

Planting area C lies northeast of area B, and is similar in character, though is somewhat larger, with small trees providing greater height to the planting.

Planting area D comprises a stand of closely planted mature ornamental cherries with a wisteria climbing through them, set within a sloping lawned area.

Planting area E refers to a pair of small narrow beds which flank a north-south running concreted stone path in a level shady location towards the southern end of the garden. This area also includes a stand of closely planted mature, ornamental cherry trees with some sparse under planting to the immediate west.

Planting area F refers to an irregular bed set on a north facing slope in the southeast corner of the garden. It is densely planted with a mixture of ornamental trees, low shrubs and herbaceous plants, many of which may be self-seeded.

Planting area G is divided from area F by a rocky outcrop which runs northwest/southeast, it is very similar in character to F, though somewhat smaller.

Planting area H refers to an irregular bed set on a north facing slope in the southeast corner of the garden. It is densely planted with a mixture of ornamental trees, low shrubs and herbaceous plants, many of which are likely to be self-seeded.

Planting area I refers to a narrow strip of densely growing waterside plants which border the southern bank of the stream between bridges 3 and 4 and continues up either side of a narrow flight of stone steps to meet bed E (the two are separated by a decorative iron gate) .

Planting area J refers to a narrow strip of low, densely growing waterside plants which border the eastern bank of the stream between bridges 1 and 2.

Planting area K refers to a narrow strip of densely growing waterside plants which border the western bank of the stream between bridges 1 and 2 and also a looser area of shrubs which continue up to the boundary to the west and the cliff face to the north. These occupy a low, sheltered location.

Planting area L refers to a long, steeply sloping strip of dense planting which borders the eastern bank of the stream between bridges 4 and 5 and continues up the west facing slope to the eastern boundary. This area is bordered to the north by narrow stone steps and to the south by a gravel path.

Planting area M refers to a narrow strip of mixed planting which borders the northern bank of the stream between bridges 3 and 4. This section includes several trees which shade the

stream towards the eastern end, whilst to the west the planting includes much self-seeded herbaceous material.

Planting area N refers to a densely planted area which borders the eastern bank of the stream between bridges 4 and 5. The planting comprise a mixture of shrubs and trees which mostly obscure the stream.

Planting area O refers to a large irregular area of planting which commences in a low, sheltered curve of the stream and continues up the rocky east facing slope. The planting at the eastern end is dense, but it becomes increasingly sparse as it continues west up the dry rocky slope. This section is dominated by a large statuesque pine, which is likely to be inhibiting other growth.

Planting area P refers to a wide densely planted bed which follows the western bank of the stream between bridges 6 and 7. It features large stands of ornamental grasses as well as several trees lower shrubs, which render access to the stream impossible.

Planting area Q refers to a sparse area of planting which runs along the top of the east/west orientated cliff; a very dry exposed section of the garden. At the eastern end this area is dominated by a large rhododendron, whilst to the west there are lower shrubs which cascade down the south facing cliff face.

Planting area R refers to a curving streamside bed lying in the eastern crook of the stream between bridges 6 and 7. The planting mostly comprises fairly low dense herbaceous plants and shrubs, though a tall willow provides height and dappled shade in the centre.

Planting area S refers to a large area of planting which commences at the eastern stream edge between bridges 5 and 6 and continues up the steep west facing slope towards the eastern boundary, encompassing the rocky outcrop and memorial to Violet Vivian and her uncle. The planting is dense and includes large rhododendrons and azaleas.

Planting area T refers to a large area of planting which commences at the eastern stream edge between bridges 8 and 9 and continues up the steep west facing slope towards the eastern boundary. The area is subdivided by several small paths, most severely overgrown and some now impassable. The planting comprises mostly dry tolerant hardy shrubs, though becomes lusher as it nears the sheltered stream side. A large statuesque pine rises up from the centre of this area framing the view of the sea cove to the north.

Planting area U refers to a narrow bed running along the western stream bank between bridges 8 and 9 in a low lying sheltered location. The planting comprises low shrubs interspersed by a tall ornamental twisting willow and a large shrub rose.

Planting area V refers to the area on the southern side of the stream to the west of bridge 9 which continues up to the western boundary. This includes an impressive stand of gunnera which forms an impenetrable northern boundary to the garden, and a stand of ornamental fruit trees which frame the view of Cafnan mill.

APPENDIX IV – PLANT INVENTORY FOR THE VALLEY GARDEN

Bed	Genus	sp. var. cv. Type
A	Eucalyptus	gunnii
A	Rhododendron	luteum *
A	Choisya	Aztec Pearl
A	Rhododendron	luteum *
A	Rhododendron	ponticum
A	Hypericum	androsaemum
A	Photinia	Red Robin
A	Ilex	x altarclarens 'Lawsoniana'
A	Aucuba	japonica variegata
A	Hydrangea	macrophylla
A	Hypericum	androsaemum
A	Amelanchier	lamarckii
A	Rhododendron	evergreen hybrid *
A	Weigela	florida Variegata
A	Rhododendron	luteum *
A	Prunus	serrulata Flowering Cherry
A	Magnolia	Sp *
A	Hemerocallis	cv
A	Rosa	wichuriana hybrid
A	Rhododendron	deciduous azalea
A	Hemerocallis	cv
A	Vinca	difformis 'Ruby Baker'
A	Arbutus	unedo
A	Rhododendron	evergreen hybrid *
A	Viburnum	tinus
A	Camellia	japonica cultivar
A	Spiraea	cv
A	Cotoneaster	simonsii
A	Cotoneaster	horizontalis
A	Choisya	ternata
A	Crocosmia	masonorum
A	Viburnum	tinus
A	Chamaecyparis	lawsoniana dwarf cultivar
A	Cotoneaster	simonsii
A	Crocosmia	masonorum
A	Berberis	thunbergii atropurpurea
A	Crocosmia	masonorum
A	Polygonatum	x hybridum
A	Hemerocallis	cv
A	Rhododendron	evergreen hybrid *
A	Chamaecyparis	lawsoniana dwarf cultivar

A	Berberis	thunbergii atropurpurea
A	Alstroemeria	ligtu hybrid
A	Libertia	grandiflora
A	Magnolia	cv
A	Rhododendron	evergreen hybrid
A	Malus	cv Ornamental Crab Apple *
A	Rhododendron	deciduous azalea
A	Philadelphus	cv
A	Potentilla	fruticosa cv
A	Aucuba	japonica variegata
A	Ulex	europaeus
A	Ilex	aquifolium variegated cv
B	Convallaria	majalis
B	Vinca	major cv
B	Meconopsis	cambrica
B	Rhododendron	'Cunningham's White' *
B	Camellia	japonica cultivar
B	Amelanchier	lamarckii
B	Zantedeschia	aethiopica
B	Crocosmia	Lucifer
B	Viola	cultivars
B	Iris	foetidissima
C	Libertia	grandiflora *
C	Forsythia	x intermedia
C	Crataegus	monogyna cv x3
C	Ilex	aquifolium 'Ferox Variegata'
C	Chamaecyparis	lawsoniana dwarf cultivar
C	Rhododendron	'Amoenum' *
C	Pentaglottis	semperflorens (Alkanet)
C	Berberis	wilsonii
C	Euonymus	japonicus 'Albovariegatus'
C	Hydrangea	'Limelight'
D	Prunus	serrulata Flowering Cherry x5 *
D	Wisteria	Sinensis *
D	Rosa	White Climbing
E	Elaeagnus	pungens Variegata x2
E	Fuchsia	'Riccartonii' x2
E	Libertia	grandiflora x2
F	Juniperus	squamata cv
F	Lonicera	periclymenum
F	Viburnum	rhytidophyllum
F	Berberis	wilsonii
F	Corylus	avellana (self sown)
F	Photinia	davidiana 'Palette'

F	Crocosmia	masonorum
F	Acer	japonicum 'Aconitifolium' *
F	Rhododendron	lutea *
F	Cotoneaster	simonsii
F	Choisya	ternata
F	Cotoneaster	simonsii
F	Lonicera	periclymenum
F	Rhododendron	augustinii *
F	Iris	sibirica Group
F	Rhododendron	'Cunningham's White' *
F	Camellia	japonica cultivar
F	Chamaecyparis	pisifera 'Plumosa' (large tree) *
F	Libertia	grandiflora
F	Viburnum	cultivar
F	Euphorbia	griffithii
F	Geranium	endressii
F	Rhododendron	evergreen azalea *
F	Crocosmia	masonorum
F	Euonymus	japonicus 'Albovariegatus'
F	Geranium	maccrorhizum
F	Acer	palmatum 'Atropurpureum' (large tree) *
F	Rhododendron	evergreen hybrid
F	Centaurea	montana
F	Sorbaria	sorbifolia 'Sem'
F	Persicaria	Red Dragon'
F	Rhododendron	evergreen azalea
F	Cistus	'Peggy Sammons'
F	Dicentra	formosa
G	Rhododendron	luteum *
G	Rhododendron	'Cunningham's White' *
G	Rhododendron	deciduous azalea
G	Rhododendron	evergreen azalea
G	Rhododendron	evergreen hybrid
H	Osmunda	regalis
H	Rhododendron	evergreen azalea
H	Crocosmia	masonorum
H	Rhododendron	evergreen azalea
H	Rhododendron	dwarf evergreen hybrid
H	Rhododendron	lutescens
H	Rhododendron	'Amoenum'
I	Osmunda	regalis
I	Rhododendron	evergreen hybrid
I	Cotoneaster	simonsii
I	Rhododendron	augustinii
I	Escallonia	rubra

I	Olearia	macrodonta
I	Magnolia	hybrid
I	Crocosmia	masonorum
I	Fuchsia	'Riccartonii' *
I	Olearia	macrodonta
I	Rhododendron	'Pink Pearl' *
I	Larix	europaea (2 large trees) *
I	Libertia	grandiflora
I	Rhododendron	evergreen azalea
I	Betula	utilis (x2)
I	Rhododendron	ponticum 'Variegatum' *
I	Crocosmia	masonorum
I	Exochorda	racemosa
I	Lonicera	periclymenum
I	Phormium	tenax
I	Phormium	tenax variegatum
J	Hemerocallis	cultivar
J	Crocosmia	masonorum
J	Trachystemum	orientale
J	Phormium	tenax
J	Picea	sitchensis (x2) (large trees) *
J	Crocosmia	masonorum
K	Magnolia	sp (large)
K	Malus	Cv Ornamental Crab Apple *
K	Choisya	ternata
K	Carex	pendula
K	Trachystemum	orientale
K	Darmera	peltata
K	Aruncus	dioicus
K	Prunus	serrulata Flowering Cherry
K	Rhododendron	evergreen hybrid
K	Rhododendron	Original evergreen hybrid (possibly 'Geoffrey Millais')*
K	Crocosmia	masonorum
K	Trachystemum	orientale
K	Buddleja	davidii
K	Mahonia	japonica
K	Fuchsia	Riccartonii
K	Hydrangea	petiolaris (climbing on rock face) *
K	Betula	pubescens 'Aurea' *
K	Escallonia	rubra
L	Rhododendron	evergreen hybrid
L	Rhododendron	evergreen azalea
L	Prunus	cerasifera 'Pissardii' *
L	Viburnum	tinus

L	Hamamelis	mollis
L	Pyracantha	rogersiana
L	Rhododendron	luteum *
L	Prunus	serrulata Flowering Cherry
L	Ilex	aquifolium variegated cv
L	Aucuba	japonica variegata
L	Malus	cv Ornamental Crab Apple *
L	Crocosmia	masonorum
L	Laburnum	anagyroides
L	Brachyglottis	Sunshine
L	Wisteria	sinensis *
L	Aucuba	japonica variegata
L	Rhododendron	ponticum
L	Berberis	wilsonii
L	Fuchsia	Riccartonii
L	Betula	pubescens 'Aurea' *
L	Rhododendron	luteum *
L	Darmera	peltata *
L	Osmunda	regalis *
L	Camellia	japonica cultivar *
L	Hemerocallis	cultivar
M	Rosa	cultivar
M	Bergenia	cordata
M	Crocosmia	masonorum
M	Rhododendron	'Pink Pearl' *
M	Parrotia	persica
M	Sorbus	aucuparia
M	Crocosmia	masonorum
M	Rhododendron	evergreen azalea
M	Malus	cv Ornamental Crab Apple *
M	Libertia	grandiflora
N	Fuchsia	'Riccartonii'
N	Crocosmia	masonorum
N	Viburnum	cultivar
N	Ceanothus	integerrimus
N	Yucca	gloriosa x2
N	Rhododendron	yunnanense *
N	Rhododendron	occidentale
N	Prunus	cerasifera 'Pissardii'
N	Rhododendron	'Amoenum' x3 *
N	Hydrangea	macrophylla
N	Crinum	powellii *
N	Hydrangea	macrophylla
N	Wisteria	sinensis *
N	Cortaderia	selloana

N	Hemerocallis	cultivar
O	Darmera	peltata *
O	Rhododendron	luteum *
O	Wisteria	sinensis
O	Aucuba	japonica variegata
O	Hypericum	androsaemum
O	Spiraea	cultivar
O	Photinia	'Red Robin'
O	Rhododendron	evergreen hybrid
O	Magnolia	hybrid
O	Ceanothus	'Italian Skies'
O	Rhododendron	'Germania'
O	Deutzia	scabra 'Candidissima'
O	Chaenomeles	japonica
O	Libertia	grandiflora
O	Rhododendron	ponticum
O	Pinus	radiata *
O	Libertia	grandiflora
O	Rosa	canina
O	Juniperus	squamata cv
O	Cotoneaster	simonsii
P	Fuchsia	'Riccartonii'
P	Rhododendron	ponticum
P	Cytisus	scoparius cv
P	Pinus	contorta *
P	Cryptomeria	japonica
P	Rhododendron	luteum *
P	Phormium	tenax *
P	Phormium	tenax variegatum x2
P	Crocosmia	masonorum
P	Gunnera	manicata
P	Cortaderia	selloana
Q	Rhododendron	evergreen hybrid
Q	Cotoneaster	horizontalis
Q	Ulex	europaeus
Q	Crocosmia	masonorum
Q	Malus	x domestica *
Q	Hebe	speciosa
Q	Hebe	hybrid
Q	Pinus	sylvestris (x3 original planting) *
Q	Betula	pendula
Q	Cupressus	macrocarpa (original planting) *
Q	Oxalis	crassipes 'Rosea'
R	Rhododendron	ponticum
R	Fuchsia	'Riccartonii'

R	Hemerocallis	cultivar
R	Darmera	peltata
R	Rosa	glauca
R	Malus	cv Ornamental Crab Apple *
R	Lysimachia	punctata
R	Crocosmia	'Lucifer'
R	Zantedeschia	aethiopica
R	Osmunda	regalis
R	Astilbe	cultivar
R	Salix	species (large self-sown)
S	Darmera	peltata
S	Fuchsia	'Riccartonii'
S	Rosa	canina
S	Rhododendron	'Amoenum' *
S	Cotoneaster	simonsii
S	Rhododendron	yunnanense *
S	Prunus	serrulata Flowering Cherry
S	Wisteria	sinensis
S	Libertia	grandiflora
S	Rhododendron	evergreen azalea x3 *
S	Berberis	wilsonii
S	Rhododendron	evergreen azalea
S	Camellia	japonica cultivar
S	Rhododendron	evergreen azalea
S	Rosa	wichuriana hybrid
S	Rhododendron	deciduous azalea
S	Cytisus	scoparius cv
S	Rosa	wichuriana hybrid
S	Rhododendron	evergreen hybrid
S	Camellia	japonica cultivar
S	Libertia	grandiflora
T	Pinus	contorta *
T	Weigela	florida
T	Malus	x domestica *
T	Libertia	grandiflora
T	Elaeagnus	pungens
T	Escallonia	rubra
T	Brachyglottis	'Sunshine'
T	Ligustrum	vulgare
T	Viburnum	tinus
T	Cistus	corbariensis cv
T	Cytisus	scoparius cv
T	Cistus	x purpureus
T	Muehlenbeckia	complexa
T	Libertia	grandiflora

T	Brachyglottis	'Sunshine'
T	Cistus	corbariensis cv
T	Griselinia	littoralis
T	Cordyline	australis 'Purpures Group'
T	Hebe	speciosa cv
T	Elaeagnus	pungens
T	Erica	carnea
T	Viburnum	tinus
T	Olearia	macrodonta
T	Cortaderia	selloana
T	Rosa	rugosa
T	Rosa	'Emily Gray' *
T	Genista	hispanica
T	Spiraea	japonica 'Aurea'
T	Pinus	radiata (mature dominating tree) *
T	Pinus	contorta
T	Rosa	'Alberic Barbier' *
T	Osmunda	regalis
T	Hypericum	forrestii
T	Phormium	tenax variegatum
T	Berberis	darwinii
U	Gunnera	manicata
U	Hydrangea	macrophylla
U	Darmera	peltata
U	Hemerocallis	cultivar
U	Symphoricarpu	s albus
U	Symphoricarpu	s x chenaultii
U	Salix	baylonica 'Tortuosa'
U	Hydrangea	macrophylla
U	Rosa	glauca hybrid
V	Escallonia	rubra
V	Sorbus	'Joseph Rock'
V	Darmera	peltata
V	Gunnera	manicata
V	Brachyglottis	Sunshine
V	Berberis	x stenophylla
V	Tamarix	pentandra
V	Aucuba	japonica variegata
V	Crocosmia	masonorum
V	Cotoneaster	horizontalis
V	Hydrangea	macrophylla
V	Prunus	serrulata Flowering Cherry (suckering group of 5)*
V	Forsythia	x intermedia
V	Rosa	White Shrubby

V	Phormium	tenax
V	Phormium	tenax variegatum
V	Begonia	cordifolia *

Plants marked * are of earlier significance, not necessarily from the initial stages of the garden , as these are indicated in the text, but probably C20th and of structural and visual importance.

APPENDIX V – PLANT INVENTORY FOR THE KITCHEN GARDEN

APPENDIX V – KITCHEN GARDEN PLANT INVENTORY

Genus	Type
<i>Buddleja</i> <i>davidii</i> cultivars	Buddleia
<i>Chaenomeles</i> cultivars	Flowering Quince
<i>Chionodoxa</i> <i>forbesii</i> cv	'Glory of the Snow'
<i>Cydonia</i> <i>oblonga</i>	Quince
<i>Euonymus</i> <i>japonicus</i> 'Aureus'	Evergreen Golden
<i>Forsythia</i> <i>x intermedia</i>	Forsythia
<i>Fuchsia</i> <i>magellanica</i>	Wild Fuchsia
<i>Hyacinthoides</i> <i>hispanica</i>	Spanish Bluebells
<i>Laburnum</i> <i>anagyroides</i>	Laburnum
<i>Lonicera</i> <i>nitida</i>	Box Honeysuckle
<i>Malus</i> <i>domestica</i> cultivars	Cultivated apple
<i>Narcissus</i> cultivars	Daffodils
<i>Ribes</i> <i>nigrum</i>	Blackcurrant
<i>Ribes</i> <i>uva-crispa</i>	Gooseberry
<i>Rubus</i> <i>fruticosus</i>	Blackberry
<i>Rubus</i> <i>idaeus</i>	Raspberry
<i>Syringa</i> <i>vulgaris</i>	Lilac
<i>Taxus</i> <i>baccata</i> 'Fastigiata'	Irish Yew
<i>Malus</i> <i>domestica</i> cultivars	Kidd's Orange Red
<i>Malus</i> <i>domestica</i> cultivars	Sunset
<i>Malus</i> <i>domestica</i> cultivars	Lady's Finger of Lancaster

APPENDIX VI - PHOTO METADATA

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_001	G2096 Cestyll Garden	Initial Site Visit	Kitchen Garden		Detail: Spring bulbs: <i>hionodoxa forbesii</i> ,	-	-	01/04/14
G2096_Cestyll_002	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Gunnera growing within stream	N	-	01/04/14
G2096_Cestyll_003	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Stump of felled conifer within eastern shelterbelt	-	-	01/04/14
G2096_Cestyll_004	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Pump house at southern end of garden	N	-	01/04/14
G2096_Cestyll_005	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Small structure associated with pump house	S	-	01/04/14
G2096_Cestyll_006	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Blossom camellia <i>japonica</i> cultivar	-	-	01/04/14
G2096_Cestyll_007	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Seed pods	-	-	01/04/14
G2096_Cestyll_008	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		General view of garden	S	-	01/04/14
G2096_Cestyll_009	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		General view of garden	S	-	01/04/14
G2096_Cestyll_010	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Rhododendron blossom	-	-	01/04/14

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_011	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Pine cone	-	-	01/04/14
G2096_Cestyll_012	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Lawned area to the east of the stream between bridges 1 and 2	W	-	01/04/14
G2096_Cestyll_013	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		General view of garden	S	-	01/04/14
G2096_Cestyll_014	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Bridge 3	SW	-	01/04/14
G2096_Cestyll_015	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: blue blossom	-	-	01/04/14
G2096_Cestyll_016	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		General view of garden	W	-	01/04/14
G2096_Cestyll_017	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Blossom camellia japonica cultivar	-	-	01/04/14
G2096_Cestyll_018	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Blossom	-	-	01/04/14
G2096_Cestyll_019	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Working shot: Ivor Stokes	N	-	01/04/14
G2096_Cestyll_020	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Fern	-	-	01/04/14
G2096_Cestyll_021	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: rhododendron buds	-	-	01/04/14
G2096_Cestyll_022	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Bridges 2 and 3	NE	-	01/04/14
G2096_Cestyll_023	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Detail: Wood Anemones	-	-	01/04/14

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_024	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		Lawned area to the east of the stream between bridges 1 and 2	W	-	01/04/14
G2096_Cestyll_025	G2096 Cestyll Garden	Initial Site Visit	Valley Garden		The stream between bridges 8 and 9	N	-	01/04/14
G2096_Cestyll_026	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Access to the garden	E	-	20/07/15
G2096_Cestyll_027	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Conifer shelterbelt to the east of the garden	N	-	20/07/15
G2096_Cestyll_028	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area A	N	-	20/07/15
G2096_Cestyll_029	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area A	N	-	20/07/15
G2096_Cestyll_030	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area A	W	-	20/07/15
G2096_Cestyll_031	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area A	SW	-	20/07/15
G2096_Cestyll_032	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Gate in eastern boundary	E	1x1m	20/07/15
G2096_Cestyll_033	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Access track to the garden	E	-	20/07/15
G2096_Cestyll_034	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area B	SW	-	20/07/15
G2096_Cestyll_035	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area C	W	-	20/07/15
G2096_Cestyll_036	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area D	SW	-	20/07/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_037	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area E	S	-	20/07/15
G2096_Cestyll_038	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area E	SE	-	20/07/15
G2096_Cestyll_039	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area F	W	-	20/07/15
G2096_Cestyll_040	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area F	N	-	20/07/15
G2096_Cestyll_041	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Memorial Bench	N	-	20/07/15
G2096_Cestyll_042	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area G	S	-	20/07/15
G2096_Cestyll_043	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area H	NE	-	20/07/15
G2096_Cestyll_044	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area I	SW	-	20/07/15
G2096_Cestyll_045	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area I	W	-	20/07/15
G2096_Cestyll_046	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 1	N	-	20/07/15
G2096_Cestyll_047	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 1	E	-	20/07/15
G2096_Cestyll_048	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area J	S	-	20/07/15
G2096_Cestyll_049	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 2	SE	-	20/07/15
G2096_Cestyll_050	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area K	S	-	20/07/15
G2096_Cestyll_051	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area K	SE	-	20/07/15
G2096_Cestyll_052	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 3	SW	-	20/07/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_053	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting area J	S	-	20/07/15
G2096_Cestyll_054	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 4	S	-	20/07/15
G2096_Cestyll_055	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area L	W	-	20/07/15
G2096_Cestyll_056	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area L	NW	-	20/07/15
G2096_Cestyll_057	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area M	NE	-	20/07/15
G2096_Cestyll_058	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 4	N	-	20/07/15
G2096_Cestyll_059	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area N	SW	-	20/07/15
G2096_Cestyll_060	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 5	S	-	20/07/15
G2096_Cestyll_061	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area O	NW	-	20/07/15
G2096_Cestyll_062	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area Q	NE	-	20/07/15
G2096_Cestyll_063	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Western wind break	SE	-	20/07/15
G2096_Cestyll_064	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Western wind break	SE	-	20/07/15
G2096_Cestyll_065	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area P	NW	-	20/07/15
G2096_Cestyll_066	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Western wind break	E	-	20/07/15
G2096_Cestyll_067	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 6	S	-	20/07/15
G2096_Cestyll_068	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 7	NW	-	20/07/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_069	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 6 & 7	N	-	20/07/15
G2096_Cestyll_070	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area P	N	-	20/07/15
G2096_Cestyll_071	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area R	N	-	20/07/15
G2096_Cestyll_072	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area S	W	-	20/07/15
G2096_Cestyll_073	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area S	SW	-	20/07/15
G2096_Cestyll_074	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Dog grave	NW	-	20/07/15
G2096_Cestyll_075	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Vivian Memorial	SW	-	20/07/15
G2096_Cestyll_076	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area T	E	-	20/07/15
G2096_Cestyll_077	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area T	S	-	20/07/15
G2096_Cestyll_078	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area T	W	-	20/07/15
G2096_Cestyll_079	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area U	SW	-	20/07/15
G2096_Cestyll_080	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area U	W	-	20/07/15
G2096_Cestyll_081	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area V	S	-	20/07/15
G2096_Cestyll_082	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Bridge 9	S	-	20/07/15
G2096_Cestyll_083	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Planting Area V	E	-	20/07/15
G2096_Cestyll_084	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Coastal view	S	-	20/07/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_085	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Memorial bench (stone)	E	-	20/07/15
G2096_Cestyll_086	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Mill Race	E	-	20/07/15
G2096_Cestyll_087	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Cafnan Mill	S	-	20/07/15
G2096_Cestyll_088	G2096 Cestyll Garden	Summer Site Visit	Valley Garden		Detail: rose (bed U)	S	-	20/07/15
G2096_Cestyll_089	G2096 Cestyll Garden	Summer Site Visit	Kitchen Garden		General view	S	-	20/07/15
G2096_Cestyll_090	G2096 Cestyll Garden	Summer Site Visit	Kitchen Garden		General view	SE	-	20/07/15
G2096_Cestyll_091	G2096 Cestyll Garden	Summer Site Visit	Kitchen Garden		General view	E	-	20/07/15
G2096_Cestyll_092	G2096 Cestyll Garden	Summer Site Visit	Kitchen Garden		General view	NE	-	20/07/15
G2096_Cestyll_093	G2096 Cestyll Garden	Summer Site Visit	Kitchen Garden		General view	E	-	20/07/15
G2096_Cestyll_094	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 1	SE	-	12/10/15
G2096_Cestyll_095	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 1	SE	-	12/10/15
G2096_Cestyll_096	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 1, 2 and 3	NE	-	12/10/15
G2096_Cestyll_097	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 4	NE	-	12/10/15
G2096_Cestyll_098	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 5	E	-	12/10/15
G2096_Cestyll_099	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 6, 7 & 8	E	-	12/10/15
G2096_Cestyll_100	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 9	SW	-	12/10/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_101	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 10	SW	-	12/10/15
G2096_Cestyll_102	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 11	SW	-	12/10/15
G2096_Cestyll_103	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 12	SW	-	12/10/15
G2096_Cestyll_104	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 12	SW	-	12/10/15
G2096_Cestyll_105	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 9 & 10	SW	-	12/10/15
G2096_Cestyll_106	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 11	SW	-	12/10/15
G2096_Cestyll_107	G2096 Cestyll Garden	Autumn Site Visit	Kitchen Garden		Tree 11	SW	-	12/10/15
G2096_Cestyll_108	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View of the garden from the house site	NE	-	12/10/15
G2096_Cestyll_109	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View of the garden from the house site	NE	-	12/10/15
G2096_Cestyll_110	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 13	SE	-	12/10/15
G2096_Cestyll_111	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 13	SE	-	12/10/15
G2096_Cestyll_112	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 13	N	-	12/10/15
G2096_Cestyll_113	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 13	N	-	12/10/15
G2096_Cestyll_114	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north from bridge 4	S	-	12/10/15
G2096_Cestyll_115	G2096 Cestyll	Autumn Site Visit	Valley Garden		Tree 15	N	-	12/10/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
	Garden							
G2096_Cestyll_116	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north from the southern rocky outcrop	S	-	12/10/15
G2096_Cestyll_117	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Hydrangea planted by Penelope Keith (planting area B)	N	-	12/10/15
G2096_Cestyll_118	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north from the southeast lawn	S	-	12/10/15
G2096_Cestyll_119	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north from the southeast lawn	S	-	12/10/15
G2096_Cestyll_120	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north planting area R	S	-	12/10/15
G2096_Cestyll_121	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 16	W	-	12/10/15
G2096_Cestyll_122	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 16	W	-	12/10/15
G2096_Cestyll_123	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 16	W	-	12/10/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_124	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View looking north from the western rocky outcrop	S	-	12/10/15
G2096_Cestyll_125	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View of the western lawn	E	-	12/10/15
G2096_Cestyll_126	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View of the western lawn	E	-	12/10/15
G2096_Cestyll_127	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 17	S	-	12/10/15
G2096_Cestyll_128	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		Tree 17	S	-	12/10/15
G2096_Cestyll_129	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View north from the eastern bank (planting area T)	S	-	12/10/15
G2096_Cestyll_130	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View north from the eastern bank (planting area T)	S	-	12/10/15
G2096_Cestyll_131	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View west from the eastern bank	E	-	12/10/15
G2096_Cestyll_132	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View west from the eastern bank	E	-	12/10/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_133	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View north from the eastern bank	S	-	12/10/15
G2096_Cestyll_134	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View northwest from the field	SE	-	12/10/15
G2096_Cestyll_135	G2096 Cestyll Garden	Autumn Site Visit	Valley Garden		View south from the field	SE	-	12/10/15
G2096_Cestyll_136	G2096 Cestyll Garden	Apple Samples			Apples from Tree1	N/A		06/11/15
G2096_Cestyll_137	G2096 Cestyll Garden	Apple Samples			Apples from Tree 2	N/A		06/11/15
G2096_Cestyll_138	G2096 Cestyll Garden	Apple Samples			Apples from Tree 9	N/A		06/11/15
G2096_Cestyll_139	G2096 Cestyll Garden	Apple Samples			Apples from Tree 10	N/A		06/11/15
G2096_Cestyll_140	G2096 Cestyll Garden	Apple Samples			Apples from Tree 11	N/A		06/11/15
G2096_Cestyll_141	G2096 Cestyll Garden	Apple Samples			Apples from Tree 13	N/A		06/11/15
G2096_Cestyll_142	G2096 Cestyll Garden	Apple Samples			Apples from Tree 14	N/A		06/11/15
G2096_Cestyll_143	G2096 Cestyll Garden	Apple Samples			Apples from Tree 15	N/A		06/11/15
G2096_Cestyll_144	G2096 Cestyll Garden	Apple Samples			Apples from Tree 16	N/A		06/11/15
G2096_Cestyll_145	G2096 Cestyll Garden	Apple Samples			Apples from Tree 17	N/A		06/11/15

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_146	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Southwestern elevation and door way of Structure 2.	SW	2x1m	27/01/16
G2096_Cestyll_147	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Southwestern elevation of Structure 2.	S	2x1m	27/01/16
G2096_Cestyll_148	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Quarry tile floor of Structure 2.	SW	1x1m	27/01/16
G2096_Cestyll_149	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		White washed walls of interior of Structure 2.	SW	-	27/01/16
G2096_Cestyll_150	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		White washed walls and ceiling of interior of Structure 2.	SW	-	27/01/16
G2096_Cestyll_151	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Possible overgrown rose bush tethered to the southwestern elevation of Structure 2.	SSW	-	27/01/16
G2096_Cestyll_152	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Slate edged path along the northern edge of the garden.	NEE	2x1m	27/01/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_153	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Slate edged path along the northern edge of the garden.	NEE	2x1m	27/01/16
G2096_Cestyll_154	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Garden feature between Structures 2 & 3 and between path and northern garden wall.	SW	2x1m	27/01/16
G2096_Cestyll_155	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of garden feature.	SW	2x1m	27/01/16
G2096_Cestyll_156	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Portrait view of garden feature between Structures 2 & 3.	SW	2x1m	27/01/16
G2096_Cestyll_157	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of part of the slate edging of the garden path.	NEE	1x1m	27/01/16
G2096_Cestyll_158	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of slate edging in relation to concrete paving of the garden feature.	SWW	1x1m	27/01/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_159	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Exterior view of western garden wall.	W	-	27/01/16
G2096_Cestyll_160	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Southwestern elevation of Structure 3.	SW	2x1m	27/01/16
G2096_Cestyll_161	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Structure 3 built on top of the garden wall, external view.	NW	1x1m	27/01/16
G2096_Cestyll_162	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Interior shot of Structure 3.	W	1x1m	27/01/16
G2096_Cestyll_163	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Interior shot of Structure 3.	NE	1x1m	27/01/16
G2096_Cestyll_164	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Southwestern corner of garden wall with beam slots.	SW	-	27/01/16
G2096_Cestyll_165	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Southwestern corner of garden wall with beam slots.	SW	-	27/01/16
G2096_Cestyll_166	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		North-eastern elevation of Structure 1.	NE	2x1m	27/01/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_167	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of window frame in North-eastern elevation of Structure 1.	NE	1x1m	27/01/16
G2096_Cestyll_168	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Northwestern elevation of Structure 1.	NW	2x1m	27/01/16
G2096_Cestyll_169	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of metal pin inserted in northwestern elevation of Structure 1.	NW	-	27/01/16
G2096_Cestyll_170	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of metal pins inserted in northwestern elevation of Structure 1.	NW	-	27/01/16
G2096_Cestyll_171	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Doorway through garden wall adjacent to Structure 1.	NE	1x1m	27/01/16
G2096_Cestyll_172	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Remnants of stone slabs of path through doorway adjacent to Structure 1.	NE	1x1m	27/01/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_173	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Close-up of metal pin with length of metal wire inserted within interior of southwestern garden wall.	NE	-	27/01/16
G2096_Cestyll_174	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Slate edging adjacent to doorway.	SW	1x1m	27/01/16
G2096_Cestyll_175	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Slate edging adjacent to doorway, with doorway in background.	NE	1x1m	27/01/16
G2096_Cestyll_176	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Overgrown wall pillar/entrance opposite Structure 1.	NW	1x1m	27/01/16
G2096_Cestyll_177	G2096 Cestyll Garden	Winter Site Visit	Kitchen Garden		Overgrown wall pillar adjacent to Structure 1.	SE	-	27/01/16
G2096_Cestyll_178	G2096 Cestyll Garden	Winter Site Visit	Valley Garden		External view of the Valley Garden taken from gated entrance off Cemlyn Road.	SW	-	27/01/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_179	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Evergreen hybrid purple Rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_180	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Evergreen hybrid purple Rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_181	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Magnolia Sp (Flower)	-	-	25/05/16
G2096_Cestyll_182	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Magnolia Sp (Flower)	-	-	25/05/16
G2096_Cestyll_183	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Orange deciduous azalea (Flower)	-	-	25/05/16
G2096_Cestyll_184	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Orange deciduous azalea (Leaf)	-	-	25/05/16
G2096_Cestyll_185	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Purple vinca	-	-	25/05/16
G2096_Cestyll_186	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Large evergreen hybrid purple Rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_187	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Large evergreen hybrid purple Rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_188	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Magnolia stellata (Flower)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_189	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Malus (Flower)	-	-	25/05/16
G2096_Cestyll_190	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Malus (Leaf)	-	-	25/05/16
G2096_Cestyll_191	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Magnolia (Flower)	-	-	25/05/16
G2096_Cestyll_192	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	A	Magnolia (Leaf)	-	-	25/05/16
G2096_Cestyll_193	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	Pale pink Rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_194	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	Pale pink Rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_195	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	Camellia japonica (Flower)	-	-	25/05/16
G2096_Cestyll_196	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	Camellia japonica (Leaf)	-	-	25/05/16
G2096_Cestyll_197	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Libertia (Flower)	-	-	25/05/16
G2096_Cestyll_198	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Libertia (Plant)	-	-	25/05/16
G2096_Cestyll_199	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Dwarf yellow rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_200	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Dwarf yellow rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_201	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Dwarf evergreen hybrid pink rhododendron (Flower)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_202	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	C	Dwarf evergreen hybrid pink rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_203	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Purple rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_204	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Purple rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_205	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Purple rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_206	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	White rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_207	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	White rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_208	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	White rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_209	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Small pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_210	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Small pink rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_211	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	F	Dark pink geranium (Flower)	-	-	25/05/16
G2096_Cestyll_212	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	White rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_213	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	White rhododendron (Leaf)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_214	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	Dark pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_215	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	Dark pink azalea (Leaf)	-	-	25/05/16
G2096_Cestyll_216	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	White azalea (Flower)	-	-	25/05/16
G2096_Cestyll_217	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	White azalea (Leaf)	-	-	25/05/16
G2096_Cestyll_218	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	G	Pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_219	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Pale pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_220	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Pale pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_221	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Pale pink rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_222	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Blue rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_223	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Blue rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_224	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Blue rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_225	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Salmon pink rhododendron (Flower)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_226	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Salmon pink rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_227	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Mauve rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_228	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Mauve rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_229	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Small red rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_230	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Small red rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_231	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Small pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_232	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Small pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_233	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Small pink azalea (Leaf)	-	-	25/05/16
G2096_Cestyll_234	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_235	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_236	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_237	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Flower)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_238	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_239	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Rhododendron Pink Pearl (Flower)	-	-	25/05/16
G2096_Cestyll_240	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Rhododendron Pink Pearl (Flower bud/leaf)	-	-	25/05/16
G2096_Cestyll_241	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Rhododendron Pink Pearl (Flower)	-	-	25/05/16
G2096_Cestyll_242	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_243	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_244	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Magnolia (Flower)	-	-	25/05/16
G2096_Cestyll_245	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Magnolia (Flower)	-	-	25/05/16
G2096_Cestyll_246	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Magnolia (Flower)	-	-	25/05/16
G2096_Cestyll_247	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Large white rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_248	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Large white rhododendron (Flower)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_249	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Large white rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_250	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Large white rhododendron (Bud)	-	-	25/05/16
G2096_Cestyll_251	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Large white rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_252	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Pale salmon rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_253	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Pale salmon rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_254	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Pale salmon rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_255	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Dark pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_256	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Crinum (foliage)	-	-	25/05/16
G2096_Cestyll_257	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Crinum (foliage)	-	-	25/05/16
G2096_Cestyll_258	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Small pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_259	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Large pink rhododendron (Bud)	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_260	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Large pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_261	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Large pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_262	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Large pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_263	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Small pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_264	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Crab apple (Flower)	-	-	25/05/16
G2096_Cestyll_265	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Crab apple (Flower)	-	-	25/05/16
G2096_Cestyll_266	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	O	Magnolia (Flower)	-	-	25/05/16
G2096_Cestyll_267	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	O	Oxalis crassipes rosea (Flower)	-	-	25/05/16
G2096_Cestyll_268	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	O	Oxalis crassipes rosea (Leaf)	-	-	25/05/16
G2096_Cestyll_269	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	P	Fuchsia (Flower)	-	-	25/05/16
G2096_Cestyll_270	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	P	Fuchsia (Leaf)	-	-	25/05/16
G2096_Cestyll_271	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	P	Gunnera	-	-	25/05/16
G2096_Cestyll_272	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	P	Gunnera	-	-	25/05/16
G2096_Cestyll_273	G2096 Cestyll	Spring Site Visit	Valley Garden	P	Gunnera	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
	Garden							
G2096_Cestyll_274	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	V	Gunnera	-	-	25/05/16
G2096_Cestyll_275	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	V	Gunnera	-	-	25/05/16
G2096_Cestyll_276	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	V	Gunnera	-	-	25/05/16
G2096_Cestyll_277	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	V	Gunnera	-	-	25/05/16
G2096_Cestyll_278	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Double flowered pink prunus (Flower)	-	-	25/05/16
G2096_Cestyll_279	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Double flowered pink prunus (Leaf)	-	-	25/05/16
G2096_Cestyll_280	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Weagela (Flower)	-	-	25/05/16
G2096_Cestyll_281	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Weagela (Flower)	-	-	25/05/16
G2096_Cestyll_282	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Weagela (Leaf)	-	-	25/05/16
G2096_Cestyll_283	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	View out of the garden towards Cafnan Mill	SE	-	25/05/16
G2096_Cestyll_284	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	View of planting area T	W	-	25/05/16
G2096_Cestyll_285	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	View of planting area T	W	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_286	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	View of planting area T	NW	-	25/05/16
G2096_Cestyll_287	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Yellow rose on the eastern bank of the stream in planting area T	W	-	25/05/16
G2096_Cestyll_288	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	Pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_289	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	Pink rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_290	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	White rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_291	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	White rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_292	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	White rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_293	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	White rhododendron (Leaf)	-	-	25/05/16
G2096_Cestyll_294	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	S	Small pink azalea (Flower)	-	-	25/05/16
G2096_Cestyll_295	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Large pink rhododendron (Flower)	-	-	25/05/16
G2096_Cestyll_296	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	View of flowering rhododendrons in planting area H	-	-	25/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_297	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	H	Close up of purple rhododendron, mauve flower, drooping leaves	SW	1x1m	31/05/16
G2096_Cestyll_298	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Key plant 8 - Rhododendron	E	-	31/05/16
G2096_Cestyll_299	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 1 - Golden Birch	E	-	31/05/16
G2096_Cestyll_300	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 1 - Golden Birch - Leaf	-	-	31/05/16
G2096_Cestyll_301	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 1 - Golden Birch - Leaf	-	-	31/05/16
G2096_Cestyll_302	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 2 - Rhododendron 'Pink Pearl'	NE	1x1m	31/05/16
G2096_Cestyll_303	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Mature Magnolia at S. end of planting area	N	-	31/05/16
G2096_Cestyll_304	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Key plant 3 - Parrotia Persica	S	-	31/05/16
G2096_Cestyll_305	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	M	Key plant 3 - Parrotia Persica	NE	1x1m	31/05/16
G2096_Cestyll_306	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	O	General view of Planting area O	S	-	31/05/16
G2096_Cestyll_307	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Key plant 6 - Rosa 'Emily Grey'	-	-	31/05/16
G2096_Cestyll_308	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	Key plant 6 - Rosa 'Emily Grey'	-	-	31/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_309	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	T	General view of Planting area T & view beyond out to the coast	SE	-	31/05/16
G2096_Cestyll_310	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	O	View over bridge 3 towards planting area O	SE	-	31/05/16
G2096_Cestyll_311	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 1 - Golden Birch - Bark	-	-	31/05/16
G2096_Cestyll_312	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	K	Key plant 1 - Golden Birch - Bark	-	-	31/05/16
G2096_Cestyll_313	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	View of Bridge 3 & planting area I	W	-	31/05/16
G2096_Cestyll_314	G2096 Cestyll Garden	Spring Site Visit	Valley Garden		General view of 'Princess Victoria's garden'	SW	-	31/05/16
G2096_Cestyll_315	G2096 Cestyll Garden	Spring Site Visit	Valley Garden		View of S. facing cliff	SW	-	31/05/16
G2096_Cestyll_316	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	White rhododendron flower	W	-	31/05/16
G2096_Cestyll_317	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	B	White rhododendron - general view	E	-	31/05/16
G2096_Cestyll_318	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Key plant 4 - Malus	SE	-	31/05/16
G2096_Cestyll_319	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Key plant 4 - Malus	NW	-	31/05/16

File reference	Project name	Project phase	Site sub-division	Planting area	Description	View from	Scale (s)	Date
G2096_Cestyll_320	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Key plant 5 - <i>Pinus Radiata</i>	SE	-	31/05/16
G2096_Cestyll_321	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	N	Key plant 4 - <i>Malus</i>	SE	-	31/05/16
G2096_Cestyll_322	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Variegated rhododendron	E	-	31/05/16
G2096_Cestyll_323	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Variegated rhododendron	-	-	31/05/16
G2096_Cestyll_324	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Variegated rhododendron	-	-	31/05/16
G2096_Cestyll_325	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	General view of planting area F	W	-	31/05/16
G2096_Cestyll_326	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron to the south of the path	-	-	31/05/16
G2096_Cestyll_327	G2096 Cestyll Garden	Spring Site Visit	Valley Garden	I	Purple rhododendron to the south of the path	N	-	31/05/16

APPENDIX VII – BASELINE SOIL SURVEY REPORT FOR CESTYLL GARDEN



Wylfa Newydd Nuclear Power Station

Horizon Nuclear Power

Baseline soil survey report for Cestyll Garden

N/A | 0

17 January 2018

Document history and status

Revision	Date	Description	By	Review	Approved
0	12/1/18	Draft	David Bull	Jonathan Dempsey	Hannah Young

Distribution of copies

Revision	Issue approved	Date issued	Issued to	Comments

Wylfa Newydd Nuclear Power Station

Project No: 60PO8099
Document Title: Baseline soil survey report for Cestyll Garden
Document No.: N/A
Revision: 0
Date: 17 January 2018
Client Name: Horizon Nuclear Power
Client No: Client Reference
Project Manager: Rob Bromley
Author: David Bull
File Name: \\EDIFIL02\\Data1\\60PO8007 - Horizon\\SSBU\\3.Techical\\Info\\Heritage\\Main site\\Cestyll Garden\\Soils Baseline\\Baseline soil survey report for Cestyll Garden_draft.docx

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Figure 1. Soil Sample Locations at Cestyll Garden

Appendix A. Soil sample results

Abbreviations, terms and definitions

Table 1 : Abbreviations, terms and definitions

Abbreviation	Term	Definition
LOI	Loss on ignition	A test of soil samples involving the dry heating of a measured sample to approximately 100°C to allow volatile compounds (e.g. water, organic matter) to escape. The difference in mass of the sample once mass-change has ceased provides an accurate representation of the proportion of organic matter within the soil sample.

Executive Summary

This report presents the results of a soil survey which was undertaken to establish the baseline pH, nitrogen and nitrate levels within the valley garden which forms part of Cestyll Garden, a Grade II Registered Historic Park and Garden on the north coast of Anglesey.

Samples were collected from five locations (S1 – S5) within the valley garden. Laboratory results from the soil samples collected showed a baseline pH ranging from 4.75-5.91, indicating an acidic soil. The total nitrogen on site averaged at 0.43% dry weight of the soil mass, varying from 0.37% at sample location S1 to 0.55% at sample location S4. Loss of ignition from the soil samples ranged from 5.5% at sample location S1 to 21.8% at sample location S3. These results indicate high levels of organic matter within the soil.

1. Introduction

1.1 Purpose of this report

The purpose of this report is to present the results of a baseline soil survey for the valley garden, which form part of Cestyll Garden which is designated as a Grade II Registered Historic Park and Garden on the Register of Parks and Gardens of Special Historic Interest in Wales.

The report forms Appendix VII to *Wylfa Newydd Proposed New Nuclear Power Station Assessment of the Significance of Cestyll (Grade II) Registered Historic Park and Gardens* (GD45) (Gwynedd Archaeological Trust, 2016) and should be read in conjunction with it.

1.2 Cestyll Garden

1.2.1 Cestyll Garden Designation

Cestyll Garden is located on the north coast of Anglesey and west of Wylfa Head (National Grid Reference SH 3452 9331). The site consists of a valley garden, an early 20th century garden which exploits the natural beauty of the rocky valley of the Cafnan stream, a nearby walled kitchen garden and former site of Cestyll House which was demolished in 1991.

Cestyll Garden is designated as a Grade II Registered Historic Park and Garden on the Register of Parks and Gardens of Special Historic Interest in Wales. The designation includes the valley garden, kitchen garden, house plot, site of the gardener's cottage and garage and the wider landscape which forms its Essential Setting. This designation is based on its historical associations with the Rt. Hon. Violet Vivian and thereby the Vivian family and Royal Family of the Edwardian era, the evidence it provides for development as an early 20th century intimate coastal garden, and the varied sensory experience which derives from the combination of planting and the differing landscape types and views from the valley garden which is described as an "unusual, small and intimate 1920s garden informally planted with tender plants, well suited to its rocky seaside site, which is of great natural beauty" (Cadw, 1998). The valley garden has been assessed to be of national importance, while the kitchen garden has been assessed to be of local importance as a poorly preserved example of a relatively common type of garden. The former location of Cestyll House, comprises a semi-circle area bounded by a high wall, which does not contribute greatly to the significance of Cestyll Garden as a designated heritage asset.

1.2.2 Planting

The valley garden consists of surviving introduced exotic plants such as rhododendrons (*Rhododendron* sp.) which reflect popular garden design and gentry interests of the early 20th century. The valley garden also incorporated a wide variety of waterside plants and ornamental trees. Due to the lack of a planting inventory by Violet Vivian it is difficult ascertain to what degree the original planting survives. Nevertheless, the current assemblage of plants within the valley garden consists largely of rhododendrons growing unchecked and a variety of other introduced species such as azaleas (*Rhododendron* sp.), New Zealand flax (*Phormium* sp.) and several cultivars of rose (*Rosa* sp.). Members of the genus *Rhododendron* favour acidic soils.

Unlike the valley garden, the kitchen garden has gone unmaintained for many years and has become colonised by a variety of woody and herbaceous perennial weed species. Some original planting survives in the form of shrubs and trees, including several fruit trees. Most notable amongst these is a Lady's Finger of Lancaster apple tree (*Malus pumila*), a rare and old variety compared to other identified domestic varieties. There is extensive growth of buddleia (*Buddleja* sp.) along the south-east facing wall which may have been the result of early ornamental planting or wind-blown seed.

For more detailed information on plants in the valley and the kitchen garden please refer to GAT (2016).

2. Methodology

2.1 Soil sampling

To provide a suitable baseline soil samples were collected from the valley garden in December 2017. Samples were collected from five locations (S1 – S5) based on a W-pattern to provide a spatially representative grid of samples (see Figure 1). Worked garden beds were chosen where possible to mitigate the possibility of disturbing scattered ashes. Soil samples were collected using a trowel at various depths ranging from surface level to 0.2m (Appendix A). Each sample was placed in an individual sample container provided by the laboratory carrying out the analysis of the soil composition.

The determinants for laboratory analysis were selected to provide baseline data for the site, against which results can be compared during and post-construction if required. Key areas of focus were the current nitrogen and nitrate levels to establish current levels of N deposition. Loss on ignition (LOI) analysis provides insight into the buffering capacity of the soil to acidification, and pH provides a baseline to which any potential acidification of the soils can be measured. It involves the dry heating of a measured sample to approximately 100°C to remove volatile compounds (e.g. water, organic matter). The difference in mass of the sample once mass-change has ceased provides an accurate representation of the proportion of organic matter within the soil sample.

3. Results

3.1 Soil sample results

Laboratory results from the soil samples collected showed a baseline pH ranging from 4.75-5.91, indicating an acidic soil as would be expected from the plant species present. The total nitrogen on site averaged at 0.43% dry weight of the soil mass, varying from 0.37% at sample location S1 to 0.55% at sample location S4. Loss of ignition from the soil samples ranged from 5.5% at sample location S1 to 21.8% at sample location S3. These results indicate high levels of organic matter within the soil.

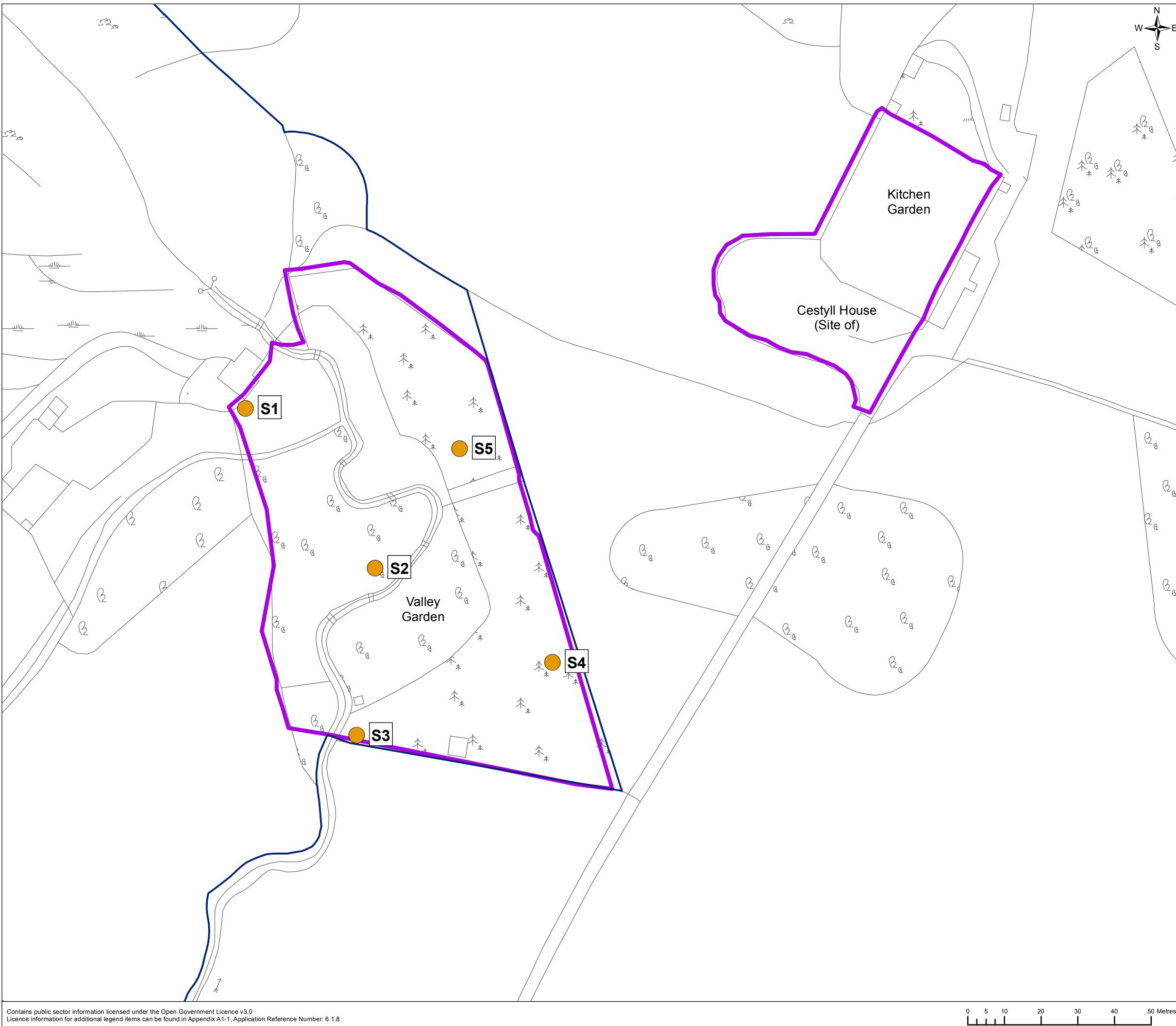
For full results see Appendix A.

4. References

Cadw, 1998. *Register of Parks and Gardens in Wales, Conwy, Gwynedd and the Isle of Anglesey*.

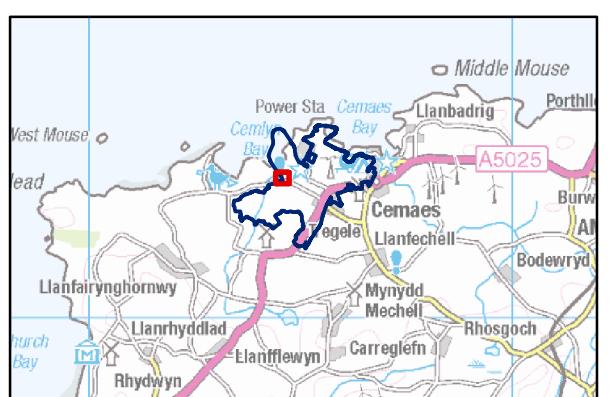
Gwynedd Archaeological Trust, 2016. *Wylfa Newydd Proposed New Nuclear Power Station Assessment of the Significance of Cestyll (Grade II) Registered Historic Park and Gardens (GD45)*. Unpublished archaeological report.

FIGURE 1



Legend

- Wylfa Newydd Development Area (Blue line)
- Cestyll Garden (Purple line)
- Soil sample location (Orange circle)



1.0	MAR 18	DCO submission	HNPWL	HNPWL	HNPWL	HNPWL
Rev.	Date	Purpose of revision	Drawn	Check'd	Rev'd	App'd
Client						
HORIZON NUCLEAR POWER						
Project						
WYLFA NEWYDD PROJECT ENVIRONMENTAL STATEMENT						
Drawing Title						
SOIL SAMPLE LOCATIONS AT CESTYLL GARDEN						
Scale @ A3	1:1,000	DO NOT SCALE				
Jacobs No.	60PO8077					
Client No.						
Drawing No.	60PO8077_DCO_APP(CG)_01					

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

Appendix A. Soil sample results



Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
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Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Jacobs
Number One Building
5 First Street
Manchester
Lancashire
M15 4GU,

Attention: Chris Cantle

CERTIFICATE OF ANALYSIS

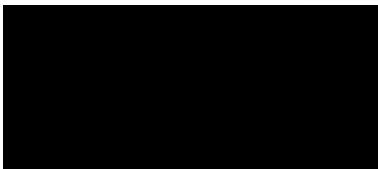
Date: 03 January 2018
Customer: H_ENVIROS_MAN
Sample Delivery Group (SDG): 171211-37
Your Reference: 60908097
Location: WYLFA, CESTYLL
Report No: 438821

We received 5 samples on Monday December 11, 2017 and 5 of these samples were scheduled for analysis which was completed on Wednesday January 03, 2018. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden (Method codes TM) or ALS Environmental Aberdeen (Method codes S).

Approved By:



Sonia McWhan

Operations Manager





CERTIFICATE OF ANALYSIS

SDG: 171211-37
Location: WYLFA, CESTYLL

Client Reference: 60908097
Order Number: UK/60PO8099/00000019

Report Number: 438821
Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
16736838	S1		0.10 - 0.20	11/12/2017
16736840	S2		0.05 - 0.15	11/12/2017
16736841	S3		0.05 - 0.15	11/12/2017
16736842	S4		0.05 - 0.15	11/12/2017
16736843	S5		0.00 - 0.10	11/12/2017

Maximum Sample/Coolbox Temperature (°C) :

3.6

ISO5667-3 Water quality - Sampling - Part3 -

ALS have data which show that a cool box with 4 frozen icepacks is capable of

During Transportation samples shall be stored in a cooling device capable of maintaining a temperature of (5±3)°C.

maintaining pre-chilled samples at a temperature of (5±3)°C for a period of up to 24hrs.

Only received samples which have had analysis scheduled will be shown on the following pages.



CERTIFICATE OF ANALYSIS

SDG: 171211-37
Location: WYLFA, CESTYLLClient Reference: 60908097
Order Number: UK/60PO8099/00000019Report Number: 438821
Superseded Report:

Results Legend

X Test
N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference				
	AGS Reference				
	Depth (m)				
	Container				
	Sample Type				
Alkali Metals by iCap-OES (Soil)	All	NDPs: 0 Tests: 5	X	X	X
Alkali Metals in Agricultural soils	All	NDPs: 0 Tests: 5	X	X	X
Ammonium Soil by Titration	All	NDPs: 0 Tests: 5	X	X	X
Loss on Ignition in soils	All	NDPs: 0 Tests: 5	X	X	X
Metals in solid samples by OES	All	NDPs: 0 Tests: 5	X	X	X
NO ₃ , NO ₂ and TON by KONE (s)	All	NDPs: 0 Tests: 5	X	X	X
pH	All	NDPs: 0 Tests: 5	X	X	X
Phosphate (Bicarbonate Extractable)	All	NDPs: 0 Tests: 5	X	X	X
Sample description	All	NDPs: 0 Tests: 5	X	X	X
Soil Density	All	NDPs: 0 Tests: 5	X	X	X
Total Nitrogen*	All	NDPs: 0 Tests: 5	X	X	X



CERTIFICATE OF ANALYSIS

SDG: 171211-37
Location: WYLFA, CESTYLL

Client Reference: 60908097
Order Number: UK/60PO8099/00000019

Report Number: 438821
Superseded Report:

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
-----------	----------	------	-----------------	--------	-------------	--------	------------	-------------	-------

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
16736838	S1	0.10 - 0.20	Dark Brown	Silt Loam	Stones	Vegetation
16736840	S2	0.05 - 0.15	Dark Brown	Silt Loam	Stones	Vegetation
16736841	S3	0.05 - 0.15	Dark Brown	Sandy Clay Loam	Stones	Vegetation
16736842	S4	0.05 - 0.15	Dark Brown	Sandy Clay Loam	Stones	Vegetation
16736843	S5	0.00 - 0.10	Dark Brown	Sandy Clay Loam	Stones	Vegetation

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.



CERTIFICATE OF ANALYSIS

SDG: 171211-37
Location: WYLFA, CESTYLL

Client Reference: 60908097
Order Number: UK/60PO8099/00000019

Report Number: 438821
Superseded Report:



CERTIFICATE OF ANALYSIS

SDG: 171211-37
Location: WYLFA, CESTYLL

Client Reference: 60908097
Order Number: UK/60PO8099/00000019

Report Number: 438821
Superseded Report:

Table of Results - Appendix

Method No	Reference	Description
PM001		Preparation of Samples for Metals Analysis
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
SUB		Subcontracted Test
TM018	BS 1377: Part 3 1990	Determination of Loss on Ignition
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM224	US EPA Method 6010B	Determination of Alkaline Metals by iCap 6500 Duo ICP-OES
TM229	The Analysis of Agricultural Materials, MAFF, Third Edition 1986.	Determination Of Extractable Phosphorus in Agricultural Soils using MAFF Extraction Procedures.
TM243		Mixed Anions In Soils By Kone
TM244	The Analysis of Agricultural Materials, MAFF, Third Edition 1986.	Determination Of Extractable Magnesium and Potassium in Agricultural Soils using MAFF Extraction Procedures
TM339		

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden (Method codes TM) or ALS Environmental Aberdeen (Method codes S).



CERTIFICATE OF ANALYSIS

Validated

SDG: 171211-37
Location: WYLFA, CESTYLL

Client Reference: 60908097
Order Number: UK/60PO8099/00000019

Report Number: 438821
Superseded Report:

Test Completion Dates

Lab Sample No(s)	16736838	16736840	16736841	16736842	16736843
Customer Sample Ref.	S1	S2	S3	S4	S5
AGS Ref.					
Depth	0.10 - 0.20	0.05 - 0.15	0.05 - 0.15	0.05 - 0.15	0.00 - 0.10
Type	Soil/Solid (S)				
Alkali Metals by iCap-OES (Soil)	15-Dec-2017	15-Dec-2017	15-Dec-2017	15-Dec-2017	15-Dec-2017
Alkali Metals in Agricultural soils	28-Dec-2017	28-Dec-2017	28-Dec-2017	28-Dec-2017	28-Dec-2017
Ammonium Soil by Titration	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017
Loss on Ignition in soils	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017
Metals in solid samples by OES	15-Dec-2017	15-Dec-2017	15-Dec-2017	15-Dec-2017	15-Dec-2017
NO ₃ , NO ₂ and TON by KONE (s)	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017
pH	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017	14-Dec-2017
Phosphate (Bicarbonate Extractable)	27-Dec-2017	27-Dec-2017	27-Dec-2017	27-Dec-2017	27-Dec-2017
Sample description	13-Dec-2017	13-Dec-2017	13-Dec-2017	13-Dec-2017	13-Dec-2017
Soil Density	21-Dec-2017	21-Dec-2017	21-Dec-2017	21-Dec-2017	21-Dec-2017
Total Nitrogen*	03-Jan-2018	03-Jan-2018	03-Jan-2018	03-Jan-2018	03-Jan-2018

Ms Foster
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F: +44 (0)24 7685 6575
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02 January 2018

Test Report: COV/1481447/2017

Dear Ms Foster

Analysis of your sample(s) submitted on 14 December 2017 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: P. Patel

Title: Inorganic Team Leader



This communication has been sent to you by ALS Environmental Ltd. Registered in England and Wales. Registration No.02148934. Registered Office: ALS Environmental Limited, Torrington Avenue, Coventry, CV4 9GU.

Report Summary

ANALYSED BY



Ms Carrie Foster
ALS Life Sciences Limited
Units 7 & 8 Hawarden Business
Park
Manor Road
Hawarden
Deeside
CH5 3US

Date of Issue: **02 January 2018**

Report Number: **COV/1481447/2017**

Issue **1**

This issue replaces
all previous issues

Job Description: 2016 Analysis

Number of Samples
included in this report **5**

Job Received: **14 December 2017**

Number of Test Results
included in this report **5**

Analysis Commenced: **19 December 2017**

Signed:



Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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ALS Environmental Ltd

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Tel: +44 (0)24 7642 1213 Fax: +44 (0)24 7685 6575

Page 1 of 8

Certificate of Analysis

ANALYSED BY



Report Number: **COV/1481447/2017**

Issue **1**

Laboratory Number: **16684290**

Sample **1** of **5**

Sample Source: **ALS Life Sciences Limited**

Sample Point Description:

Sample Description: **16744421 S1**

Sample Matrix: **Soil**

Sample Date/Time: **11 December 2017**

Sample Received: **14 December 2017**

Analysis Complete: **21 December 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Total Nitrogen	3700	mg/kg	21/12/2017	N Cov	48/63

Analyst Comments for 16684290: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH4 9EP), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2SW), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

ALS Environmental Ltd

Torrington Avenue, Coventry, CV4 9GU
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Page 2 of 8

Certificate of Analysis

ANALYSED BY



Report Number: **COV/1481447/2017**

Issue **1**

Laboratory Number: **16684291**

Sample **2** of **5**

Sample Source: **ALS Life Sciences Limited**

Sample Point Description:

Sample Description: **16744427 S2**

Sample Matrix: **Soil**

Sample Date/Time: **11 December 2017**

Sample Received: **14 December 2017**

Analysis Complete: **21 December 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Total Nitrogen	4100	mg/kg	21/12/2017	N Cov	48/63

Analyst Comments for 16684291: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH4 9EP), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2SW), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

ALS Environmental Ltd

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Page 3 of 8

Certificate of Analysis

ANALYSED BY



Report Number: **COV/1481447/2017**

Issue **1**
Sample **3** of **5**

Laboratory Number: **16684292**

Sample Source: **ALS Life Sciences Limited**

Sample Point Description:

Sample Description: **16746276 S3**

Sample Matrix: **Soil**

Sample Date/Time: **11 December 2017**

Sample Received: **14 December 2017**

Analysis Complete: **21 December 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Total Nitrogen	4300	mg/kg	21/12/2017	N Cov	48/63

Analyst Comments for 16684292: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH4 9EP), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2SW), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

ALS Environmental Ltd

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/1481447/2017**

Issue **1**
Sample **4** of **5**

Laboratory Number: **16684293**

Sample Source: **ALS Life Sciences Limited**

Sample Point Description:

Sample Description: **16746031 S4**

Sample Matrix: **Soil**

Sample Date/Time: **11 December 2017**

Sample Received: **14 December 2017**

Analysis Complete: **21 December 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Total Nitrogen	5500	mg/kg	21/12/2017	N Cov	48/63

Analyst Comments for 16684293: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH4 9EP), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2SW), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/1481447/2017**

Issue **1**

Laboratory Number: **16684294**

Sample **5** of **5**

Sample Source: **ALS Life Sciences Limited**

Sample Point Description:

Sample Description: **16745890 S5**

Sample Matrix: **Soil**

Sample Date/Time: **11 December 2017**

Sample Received: **14 December 2017**

Analysis Complete: **21 December 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Total Nitrogen	4000	mg/kg	21/12/2017	N Cov	48/63

Analyst Comments for 16684294: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH4 9EP), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2SW), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**

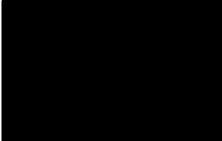
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ANALYST COMMENTS FOR REPORT COV/1481447/2017**Issue 1**This issue replaces
all previous issues**Date of Issue: 02 January 2018**

Sample No	Analysis Comments
16684290	
16684291	
16684292	
16684293	
16684294	

Signed: 

Name: **P. Patel** Date: **02 January 2018**
Title: **Inorganic Team Leader**

DETERMINAND COMMENTS FOR REPORT COV/1481447/2017

Date of Issue: 02 January 2018

ISSUE 1

This issue replaces
all previous issues

Sample No	Description	Determinand	Comments

Signed:

Name: **P. Patel**

Date: **02 January 2018**

Title: **Inorganic Team Leader**



CERTIFICATE OF ANALYSIS

SDG:
Location:

171211-37
WYLFA, CESTYLL

Client Reference:
Order Number:

60908097
UK/60PO8099/00000019

Report Number:
Superseded Report:

438821

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinants there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP - No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals - total metals must be requested separately.

11. Results relate only to the items tested.

12. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix effect.

14. **Product analyses** - Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethylphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

General

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
◆	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.



Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd

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