



# **Moorland Close, Lower Boscaswell, Pendeen, Cornwall**

## **Archaeological watching brief**





Report No

2013R069

Report Name

Moorland Close, Lower Boscaswell,  
Pendeen, Cornwall.

Report Author

Ryan Smith BSc  
(hons)

Event Type

Watching brief

Client Organisation

Kier Living

Client Contact

Steve Mills

Monuments (MonUID)

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Fieldwork dates (From) (To)

09/09/2013

13/09/2013

(Created By)

Ryan Smith

(Create Date)

17/09/2013

Location (postal address; or general location and parish)

Lower Boscaswell

(Town - for urban sites)

Pendeen

(Postcode)

TR19

(Easting) X co-ord

137860

(Northing) Y co-ord

34610



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# 1. Project background

Historic Environment Projects (HE Projects), Cornwall Council was commissioned by Kier Living to undertake a programme of archaeological recording, ahead of the construction of eight new dwellings at Moorland Close, Lower Boscaswell, Pendeen (SW 3786 3461), (Figs 1 and 5). The development was set within an area of approximately 0.3ha.

No previous archaeological work had been carried out on the site, but archaeological investigations have been carried out in the vicinity, which highlighted the archaeological potential of the area. These include:

- Assessment carried out of National Trust land to inform management recommendations (Sturgess 2003).
- Assessment and walkover survey in advance of proposed pipeline and treatment works construction which recommended archaeological monitoring of groundworks (Taylor 2004).

The development was the subject of a Planning condition (PA12/00182), which required that archaeological recording took place ahead of construction. Phil Markham (Historic Environment Planning Advice Officer, Cornwall Council) produced a brief (5/7/2012) for archaeological recording. A Written Scheme of Investigation (WSI), specifying the methodology for archaeological recording, was produced (11/07/2012) by Andy Jones (Project Manager, HE Projects) in response to the brief (Appendix 2).

This report details the results of the watching brief.

# 2. Aims and objectives

The aims of the project were to:

- Ensure that the site works are carried out in such a way as to allow recording as set out in the Written Scheme of Investigation.
- Record archaeological features and deposits affected by the scheme.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- Establish the nature of the activity on the site.
- Provide further information on the archaeology of the area from any archaeological remains discovered.
- Recover and record artefacts uncovered by the works.
- Deposit the archive (including any finds) with the relevant museum and disseminate the results as a concise archive report and, if merited, wider publication.

# 3. Working methods

## Desk-based assessment

A rapid desk-based survey assessment of historical databases and archives was carried out prior to the commencement of fieldwork in order to inform the fieldwork stage. The main sources consulted were as follows:

- Cornwall and Isles of Scilly Historic Environment Record (HER)
- Published sources
- Historic Maps including:
  - St Just Tithe Map, c1841
  - 1<sup>st</sup> and 2<sup>nd</sup> Editions of the OS 25 inch maps, c1880 and c1907
- Modern Maps
- Aerial Photographs

## **Fieldwork**

The archaeological fieldwork was undertaken as an archaeological watching brief, with the soil stripping being carried out under archaeological supervision using a 13 tonne swing shovel fitted with a 1.8m wide toothless bucket. The soil was stripped to a level at which archaeological features or layers were revealed (i.e. the top of the first archaeologically significant horizon or the natural, whichever was highest). Due to the size of the site and the requirements of the contractor, the area was stripped in a piecemeal fashion and ongoing inspection of the site by the archaeologist was carried out as the work progressed.

No features of archaeological significance were apparent during the stripping of the designated area. Sample sections (nature of soil depth, layers present, etc.) were noted across the area (see Fig 5).

## **4. Location and setting**

The site is located on the south west edge of Lower Boscaswell, Pendeen (SW 3786 3461) (Figs 1 and 5). The project area was a grassy rectangle with granite boulders and outcrops protruding in several areas around the site. The gently undulating surface of the area slopes down toward the northwest (Fig 6). Flanking the site on the north and east are dwellings and a large parking area. The southern and western side of the site is separated from the adjoining rough ground/wasteland by a chain link fence. In the southwest corner of the fence line is a wooden stile providing access to the rough ground beyond, and there is a stone stile in the northwest corner of the fence line adjacent to some dwellings leading to the 'older' part of the village. Approach to the site is by a single road (Moorland Close) which joins on to Boscaswell Road and the B3306 at Pendeen.

The soils are freely draining acid loamy soils lying over granite (BGS 2013). The underlying geology consists of granite of the Lands End Intrusion belonging to the Carboniferous – Permian period (BGS 2013). Copper and tin mining was extensive in the area: Geevor Mine lies to the south west with several shafts and mines on the periphery of Lower Boscaswell.

The Tithe map of 1841 (Fig 2) identifies the field as 'Great Croft', classifying it as heathy pasture (rough ground), the later Ordnance Survey maps of 1888 and 1907 (Figs 3-4) show no change.

The development area is situated within an area that falls into a Historic Landscape Character (HLC) zone that has been classified as 'Post-medieval Enclosed Land'. This is land which has been enclosed in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries, usually from land that was previously Upland Rough Ground and often medieval commons (Cornwall Council 1996).

## **5. Designations**

### **National**

The site is within the St Just Mining District which is part of the Cornish Mining World Heritage Site (UNESCO 2005).

### **Regional**

The site is within an Area of Great Historical Value (AGHV), Penwith Moors and coast and Cornwall AONB. (Cornwall Council 2013).

## **6. Site history**

The settlement at Boscaswell is of medieval origin. It was first recorded in 1284 when it is spelt 'Boscasul'. The name is Cornish and contains the element *bod* 'dwelling' and an unknown second part (Padel 1985). Boscaswell is now subdivided into Lower Boscaswell and Higher Boscaswell, and is part of the village of Pendeen. Historic mapping suggests that Lower Boscaswell is the older settlement (Cahill 2002).

Earlier prehistoric activity is indicated by an Iron Age fogou and settlement which lies to the northwest of the proposed development (MCO6878; MCO51546) and by a Beaker period burnt mound 100m to the west of the area to be developed (Jones and Quinnell 2008).

The National Mapping Programme (NMP) identified potential field boundaries of probable prehistoric date within the development area. These appear to have been removed; however, associated buried remains may still exist. Geevor tin mine lies to the south of the development and post-medieval mine workings are found in the area around the development.

A number of sites were also identified in the vicinity of the development from the Historic Buildings Sites and Monuments Record (HBSMR). They included:

- The post-medieval tin mine at Geevor lying to the south of the development area (MCO38493) and further mining-related features are located in the vicinity (MCO51547; MCO11863).
- In 1737 William Borlase reported that over 100 Roman coins were found within a field bank near Lower Boscaswell (MCO 29823).

#### *Potential sites*

In addition to the identified sites there was also the potential for the survival of unrecorded buried archaeological remains and artefacts of all periods to exist within the development area.

## **7. Results**

The soil stripped area was roughly rectangular in shape. It measured 56m by 50m, and covered roughly 0.242ha. The maximum depth of the strip was difficult to determine due to the undulating nature of the natural geology and the variable amount of waste material present across the project area (see below).

Five sections were recorded across the site and are presented here to illustrate the nature of the ground encountered (see Figs 5-9).

### **Section 1**

<b>Depth</b>	<b>Thickness</b>	<b>Description</b>	<b>Interpretation</b>	<b>Context</b>
0 - 0.10m	<0.10m	Grass, roots and topsoil	Topsoil	(100)
0.10 - 0.70m	<0.70m	Black organic loose material with 80% granite blocks large rounded and irregular shape mix. Some modern waste material present within the layer.	Subsoil, bedrock, mine waste mixed with occupation waste.	(102)

### **Section 2**

<b>Depth</b>	<b>Thickness</b>	<b>Description</b>	<b>Interpretation</b>	<b>Context</b>
0 - 0.10m	<0.10m	Grass, roots and topsoil	Topsoil	(100)
0.10 - 0.30 m	<0.30m	Black organic loose material with 20% granite blocks large rounded and irregular shape mix. Some modern waste material present within the layer.	Subsoil, bedrock, mine waste mixed with occupation waste from local estate [similar to (102)].	(103)
0.30 - 0.50m	<0.50m	Mid brown loamy clay, compact with stone inclusions, stones are irregular shapes, <10%	Second subsoil.	(101)

### Section 3

Depth	Thickness	Description	Interpretation	Context
0 - 0.10m	<0.10m	Grass, roots and topsoil	Topsoil	(100)
0.10 - 0.40 m	<0.40m	Black organic loose material with 20% granite blocks large rounded and irregular shape mix. Some modern waste material present within the layer.	Subsoil, bedrock, mine waste mixed with occupation waste from local estate [similar to (102)].	(103)

### Section 4

Depth	Thickness	Description	Interpretation	Context
0 - 0.10m	<0.10m	Grass, roots and topsoil.	Topsoil	(100)
0.10 - 0.20m	<0.20m	Mid brown loamy material with some stone inclusions. Loose. Stones <10cm irregular shapes unsorted <5%.	Second subsoil	(104)
0.20 - 0.40m	<0.40m	Sand, yellowish medium to fine-grained, no stone inclusions.	Not natural material possible waste from construction.	(105)
0.40m - 0.50m	<0.50m	Mid brown loamy clay, compact with stone inclusions, stones were irregular shapes, <10%	Subsoil material	(101)

### Section 5

Depth	Thickness	Description	Interpretation	Context
0 - 0.10m	<0.10m	Grass, roots and topsoil.	Topsoil	(100)
0.10 - 0.20m	<0.20m	Mid brown loamy material with some stone inclusions. Loose. Stones <10 cm irregular shapes unsorted <5%.	Second subsoil	(104)
0.20m - 0.50m	<0.50m	Mid brown loamy clay, compact with stone inclusions, stones are irregular shapes, <10%.	Subsoil material	(101)

After removal of the grass and topsoil layer (100), dependant on the location within the site, the next layer was either a redeposited subsoil (101) or (104), or a darker more organic material with decayed granite inclusions (102) or (103). One area of the site (Section 4) revealed a large area of sand (105) which can be seen on Google Earth (2001). The sandy area (Section 4) (Figs 5 and 7), which appeared to be overlain by (101) and/or (104), (105), covered an area of about 10m by 7m.

Deeper removal of the darker, more organic material (102) and (103), and associated rubbish was carried out in several locations, in an attempt to reveal the true nature of the geology.

In the southwest and west parts of the site were several larger granite boulders/stones ranging between 1.4m - 0.4m. These boulders were sat on the darker material and



topsoil indicating recent introduction to the site. Within this area was a single larger outcrop of granite, possibly the only natural piece of granite in the area.

The rubbish contained within the darker material (102) and (103) comprised modern plastic materials, glass, vehicle parts and other detritus, as well as possible mine waste.

The mixture of both organic stone mix and what appears to be redeposited natural subsoil (101) across the site is likely to have been the result of the backfilling and spreading of material across the site in the last few decades.

The site had been further disturbed by a series of manholes which were located within the centre of the site. The sewer system is believed to be 1.7m – 1.4m below the present surface and transits through the site on a north south orientation. During clearance three further manholes were revealed indicating another line on an east west orientation toward the centre of the site. These manholes were associated with a foul water conduit.

## **8. Conclusion**

The initial removal of the topsoil and subsoils initially appeared to indicate the natural geological sequence. However, on closer investigation it was found that the apparently natural subsoil was redeposited and it sat on top of a darker more organic layer, which contained waste material of various types (glass/plastics/car parts/bricks) as well as decayed granite stones.

An attempt by the digger operator to dig deeper with a grading bucket was thwarted by the density of the granite boulders which were no deeper than 1m below the surface. The central part of the south west part of the site had the largest density of granite, and it appeared to be outcropping bedrock, with several larger displaced stones being located nearby.

No archaeological features were uncovered and any possible archaeology has either been destroyed or buried so deeply that that it could not be examined. The prehistoric field boundaries mapped on aerial photographs were probably destroyed during the construction of the adjacent estate or the installation of the sewer outflow conduits located within this area of the site. The lack of trenches marking the excavation area of this utility would imply that a larger area had been excavated and then backfilled on completion of the work.

Furthermore, the extensive presence of rubbish within the dark organic material underneath what appeared to the natural subsoil implies that this site had been used as an informal rubbish dump which had then been backfilled and covered over with material from outside the immediate area.

A piece of flint and several pieces of 19<sup>th</sup> century smoking pipe were recovered but cannot be attributed to the site, in all probability they were brought to the site during its backfilling.

This development will in all probability have little, if any, direct impact on any significant buried remains within the area that have not already been damaged/destroyed.

## **9. References**

### **Primary sources**

<http://mapping.cornwall.gov.uk/website/ccmap/> Accessed: 29 August 2013

Magic 2013 Mapping <http://www.magic.gov.uk/> Accessed: 29 August 2013

Ordnance Survey, c1880. 25 inch Map First Edition (licensed digital copy at HE)

Ordnance Survey, c1907. 25 inch Map Second Edition (licensed digital copy at HE)

Ordnance Survey, 2013 Mastermap Digital Mapping

Tithe Map and Apportionment, c1841. *Parish of St Just in Penwith* (digital copy at HE)

## Websites

BGS 2013 Geological maps <http://www.bgs.ac.uk/> Accessed: 29 August 2013

UNESCO 2005 Documents St Just Mining District World Heritage Properties <http://whc.unesco.org/en/documents/104907> Accessed: 29 August 2013

## Publications

Cahill, N.J. 2002. *Cornwall Industrial Settlements Initiative Pendeen and Lower Boscaswell (St Just Area)*, Cornwall County Council

Campbell, G, Moffett, L and Straker, V. 2011. *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (second edition)<sup>1</sup>. Portsmouth: English Heritage

Cornwall County Council, 1996. *Cornwall Landscape Assessment 1994*, Cornwall County Council, Truro

Jones, A. & Quinnell, H. 2008, *Cornish Beakers: new discoveries and perspectives*, *Cornish Archaeology*, 45, pp 31-69

Padel, O. 1985. *Cornish Place Name elements (English Place Name Society series, v. 56/57)*; Nottingham: English Place Name Society.

Sturgess, J. 2003, *Lower Boscaswell, West Penwith, Cornwall: archaeological and historical assessment. Report No 2003R011*, CAU, English Heritage.

Taylor, S 2004, *Lower Boscaswell to Cot Valley Sewage Treatment Works, St Just, Cornwall: archaeological assessment, Report No 2004R017*, Cornwall Archaeological Unit (assessment and evaluation reports), CAU, English Heritage.

## 10. Project archive

The HE project number is **146298**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, New County Hall, Truro, Cornwall, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration.
2. Digital photographs stored in the directory ..\ R\Historic Environment (Images)\Sites P\Pendeen Moorland Close Mitigation
3. English Heritage/ADS OASIS online reference: cornwall2-159513
4. This report text is held in digital form as: G:\ Historic Environment (Documents)\HE Projects\Sites\Sites P\Pendeen Moorland Close Mitigation

# 11. Appendices

## Appendix 1: BRIEF FOR ARCHAEOLOGICAL RECORDING

**Date:** 5<sup>th</sup> July 2012

**Address:** Moorland Close, Pendeen, Penzance TR19 7EF

**Application:** PA12/00182

**HBSMR:** CCO4873

**Applicant:** Mrs Sue James, St Just Town Council, Town Council Offices, 1 Chapel Street, St Just, Penzance, TR19 7LS

**Agent:** David Perry, Wm G Weller & son Ltd, Trecarrel, Drump Road, Redruth TR15 1LU t. 01209 215621 e. David@wmweller.co.uk

**Historic Environment Planning Advice Officer:** Phil Markham, Cornwall Council, Historic Environment Service, Dolcoath Avenue, Camborne, Cornwall TR14 8SX t. 07973 813572 e. pmarkham@cornwall.gov.uk

**Local Planning Authority Officer:** Mrs W Grocutt, Cornwall Council, Planning & Regeneration, Dolcoath Avenue, Camborne, Cornwall TR14 8SX t. 01209 614075 e. Wendy.Grocutt@cornwall.gov.uk

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. Any written scheme of investigation (WSI) resulting from this brief shall only be considered for the same period. The contractor is strongly advised to visit the site before completing their WSI as there may be implications for accurately costing the project.

### Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor's WSI.

#### **1 Introduction**

This brief has been written by the HEPAO and sets out the minimum requirements for archaeological recording at the above address to discharge condition 9 of planning application PA12/00182.

#### **2 Site Location and Description**

The site is located on the south-west edge of Lower Boscaswell, Pendeen at Ordnance Survey Grid Reference SW 3786 3461. The site is relatively level on a gentle north-west facing slope.

#### **3 Planning Background**

Planning application PA12/00182 was submitted on the 9<sup>th</sup> January 2012 and was for the construction of 8 dwellings and associated works. This application has been approved subject to 9 conditions. Condition 9 states:

*No development shall take place within the area to be developed until the applicant has secured the implementation of a programme of archaeological recording based on a written scheme of investigation submitted to and approved by the Local Planning Authority.*

*Reason: To ensure that provision is made to record finds of archaeological interest in accordance with the requirements of the National Planning Policy Framework 2012 with specific reference to paragraph 128.*

The applicant, their agents and any subcontractors should note that where there are other conditions requiring satisfaction in advance of the commencement of works on site; it is the responsibility of the applicant to liaise with the planning officer concerned to ensure that the timetabling of these works is managed.

#### **4 Archaeological Background**

The development area has been recorded on the Cornwall and Scilly Historic Environment Record (HER) as having contained potential prehistoric field boundaries recorded from aerial photography. Although the site appears to have been levelled buried archaeological remains may survive.

#### **5 Requirement for Work**

Ground works associated with the development may disturb buried archaeological remains. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

The site specific aims are to:

- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of the area from any archaeological remains encountered

#### **6 General Methodology**

- 6.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).
- 6.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).
- 6.3 Details including the name, qualifications and experience of the site director and all other personnel (including specialist staff) shall be included within the WSI.
- 6.4 All of the latest Health and Safety guidelines shall be followed on site.
- 6.5 The IfA's Standards and Guidance should be used for additional guidance in the production of the WSI, the content of the report and the general execution of the project.
- 6.6 Terminology will be consistent with the English Heritage Thesaurus.

## **7 Archaeological Recording Methodology**

- 7.1 Prior to the commencement of on site works the archaeological contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro and the Cornwall Centre at Redruth, where appropriate.
- 7.2 An archaeologist shall be present during all ground works associated with the development, unless circumstances dictate a different approach. A toothless ditching bucket can be used for the removal of any overburden until the first archaeological horizon is exposed. This will then be hand cleaned as appropriate.
- 7.3 Any surviving remains which will be disturbed or destroyed by the development shall be archaeologically excavated and recorded.
- 7.4 Details of how all archaeological contexts and artefacts will be excavated, surveyed, recovered and recorded shall be provided. The site will be tied into the national grid.
- 7.5 Details of the site planning policy shall be given in the WSI. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections 1:10, unless circumstances indicate that other scales would be more appropriate.
- 7.6 The photographic record shall consist of prints in both black and white and colour together with the negatives. Digital photography may be used for report illustration. For both general and specific photographs, a photographic scale shall be included. In the case of detailed photographs it may be appropriate to include a north arrow. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.
- 7.7 If significant archaeological deposits are exposed, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

## **8 Finds**

- 8.1 All finds, where appropriate, will be retained from each archaeological context excavated.
- 8.2 All finds, where appropriate, shall be washed.
- 8.3 All pottery, and other finds, where appropriate, shall be marked with the site code and context number.
- 8.4 The WSI shall include an agreed list of specialist consultants, who may be required to conserve and/or report on finds, and advise or report on other aspects of the work including environmental sampling.
- 8.5 The requirements for conservation and storage shall be agreed with the Royal Cornwall Museum prior to the start of work, and confirmed in writing to the HEPAO.

- 8.6 Finds work should be to accepted professional standards and adhere to the Institute for Archaeologists *Guidelines for Finds Work*.
- 8.7 Environmental sampling should be guided by *Environmental Archaeology* (English Heritage Centre for Archaeological Guidelines. 2001/02).
- 8.8 Further English Heritage guidance that may be helpful includes *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- 8.9 The English Heritage Advisor for Archaeological Science will be able to provide archaeological science advice if required (Vanessa Straker 0117 975 0689).

## **9 Human Remains**

- 9.1 Any human remains which are encountered must initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this must comply with the relevant Government regulations. If burials are encountered their legal status must be ascertained and recording and/or removal must comply with the legal guidelines.
- 9.2 If human remains are not to be removed their physical security must be ensured, preferably by back filling as soon as possible after recording.
- 9.3 If human remains are to be removed this must be done with due reverence and in accordance to current best practice and legal requirements. The site must be adequately screened from public view. Once excavated human remains must not be exposed to public view.

## **10 Results**

- 10.1 The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 10.2 The archaeological contractor will undertake the English Heritage/ADS online access to the index of archaeological investigations (OASIS).
- 10.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 10.4 The report must contain:
- A concise non-technical summary of the project results.
  - The aims and methods adopted in the course of the investigation.
  - A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
  - A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of any archaeological plans and sections. All plans shall be tied to the national grid.
  - All specialist reports and assessments.
  - A summary of the archive contents and date of deposition.
  - A context register with brief descriptions shall be included as an appendix.

- A copy of the brief and the approved WSI will be included as an appendix.

10.5 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

## **11 Archive Deposition**

11.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project. The requirements for archive storage shall be agreed with the Royal Cornwall Museum. Please check the accessioning and deposition information on the Royal Cornwall Museum website and fill in the 'Notification of Fieldwork' form. Once this has been accepted an accession number will be provided by the museum.

<http://www.royalcornwallmuseum.org.uk/policies/>

11.2 If the finds are to remain with the landowner a full copy of the documentary archive shall be housed with the Cornwall County Record Office and with the Courtney Library of the Royal Institution of Cornwall.

11.3 The archive including a copy of the written report shall be deposited with the Royal Cornwall Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.

11.4 Where there is only a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtney Library of the Royal Institution of Cornwall.

11.5 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.

11.6 A summary of the contents of the archive shall be supplied to the HEPAO.

11.7 Only on completion of 11.1 to 11.5 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

## **12 Monitoring**

12.1 The HEPAO will monitor the work and should be kept regularly informed of progress.

12.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.

12.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.



## **Appendix 2: Written Scheme of investigation for Archaeological Mitigation at Moorland Close, Lower Boscaswell, Pendeen**

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### **1. Introduction**

#### **1.1 Background**

Historic Environment Projects, Cornwall Council have been requested by Mr David Perry of Wm G Weller & Son Ltd to provide a project design and estimate for a programme of archaeological recording ahead of the construction of residential dwellings at land at Moorland Close, Pendeen. The development will cover an area of approximately 0.3 HA. The site is within the World Heritage Site, is inside the Cornwall AONB and is an AGHV.

These investigations are required as part of planning condition (PA12/00182). This application has been approved subject to 9 conditions. Condition 9 states:

*No development shall take place within the area to be developed until the applicant has secured the implementation of a programme of archaeological recording based on a written scheme of investigation submitted to and approved by the Local Planning Authority.*

*Reason: To ensure that provision is made to record finds of archaeological interest in accordance with the requirements of the National Planning Policy Framework 2012 with specific reference to paragraph 128.*

Phil Markham (Historic Environment Planning Advice Officer, Cornwall Council) has produced a brief for archaeological recording (5/7/12) and his requirements for archaeological recording have guided this project design and estimate.

#### **1.2 Historical background**

The settlement at Boscaswell is of medieval origin. It was first recorded in 1284 when it is spelt 'Boscasul'. The name is Cornish and contains the element *bod* 'dwelling' and an unknown second part. Boscaswell is now subdivided into Lower Boscaswell and Higher Boscaswell, now part of Pendeen village. Lower Boscaswell appears to be the older settlement. Earlier activity is indicated by a prehistoric field system and a fogou which lies to north west of the proposed development. Prehistoric field walls were located within the development area. These seem to have been removed; however, associated buried remains may still exist. Geevor tin mine lies to the south of the development and post-medieval mine workings are found in the area around the development.

A number of sites have been identified in the vicinity of the development from the Historic Buildings Sites and Monuments Record (HBSMR). They include:

- An Iron Age/Romano-British fogou and settlement to the northwest of the development area (MCO6878; MCO51546).
- A prehistoric field system was located within the area of the development. It appears to have been removed, however, associated settlement remains may survive as buried archaeological features within the project area.
- The post-medieval tin mine at Geevor lies to the south of the development area (MCO38493) and further mining-related features are located in the vicinity (MCO51547; MCO11863).

#### *Potential sites*

There is potential for buried archaeological sites to survive within the project area and there is the scope for the survival of previously unrecorded archaeological remains and artefacts of all periods.

### **2. Aims and objectives**

- To ensure that the site works are carried out in such a way as to allow recording as set out in this Written Scheme of Investigation.
- To record archaeological features and deposits affected by the scheme
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered



- To establish the nature of the activity on the site
- To provide further information on the archaeology of the area from any archaeological remains encountered
- To recover and record artefacts uncovered by the works.
- To deposit the archive (including any finds) with the relevant museum and disseminate the results of discoveries as a concise archive report and, if merited, wider publication.

### 2.1 Key objectives are:

- To locate and identify and record prehistoric, medieval settlement activity and/or post-medieval industrial activity in the area of the development.

### 3. Methodology

The archaeological programme will follow five stages: desk-based assessment; fieldwork; archiving; assessment; analysis; final publication.

#### 3.1 Fieldwork

##### 3.1.1 Archaeological Recording

The soil strip should be carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (ie, top of the "natural"). Machines will not run over the stripped area until the archaeological works are complete. The area will then be inspected by an archaeologist and any archaeological features or layers exposed in the stripped area will be carefully excavated by hand and archaeologically recorded by written description, plan and section and photographic record as appropriate by an HE Projects archaeologist.

During the archaeological recording the archaeologist will:

- Identify and record any archaeological features that are revealed in the stripped area; the level of recording will be appropriate to the character/importance of the archaeological remains.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Historic Environment Planning Advice Officer and HE Projects. **In the event that remains cannot be preserved *in situ* then full-scale excavation may be required.** A contingency should be allowed to record any significant archaeological remains which are uncovered during the stripping. The significance of the remains should be agreed between the client, the Historic Environment Planning Advice Officer and HE Projects.

Where necessary the detailed archaeological recording may include:

- Excavation of archaeological features exposed in the stripped area and plotting them onto a base map.
- Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.
- Retrieval of artefacts.

#### *Recording - general*

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.
- All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used more selectively and for illustrative purposes.

This will include both general and site specific photographs. Photographs should have a scale and detailed ones should include a north arrow.

- Drawings and photographs will be recorded in a register giving details of feature number and location.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).
- If human remains are discovered on the site the Historic Environment Planning Advice Officer and the Ministry of Justice will be informed. All recording will conform to best practice and legal requirements.
- If human remains are uncovered, which require excavation, they will be will be excavated with due reverence. The site will be adequately screened from public view. Once excavated, human remains must not be exposed to public view.
- If human remains are not to be removed their physical security will be ensured, by back filling as soon as possible after recording.

### **3.2 Treatment of finds**

The archaeological fieldwork may produce artefactual material.

- All finds in significant stratified contexts predating 1800 AD (eg, settlement features) should be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.
- All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

### **3.3 Archiving**

Following review with the HE Project Manager the results from the fieldwork will be collated as an archive. This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records.

All finds, etc will be stored in a proper manner (being clearly labelled and marked and stored according to HE guidelines).

- All records (context sheets, photographs, etc) will be ordered, catalogued and stored in an appropriate manner (according to HE guidelines).
- The site archive and finds will initially be stored at HE premises and transferred to the Royal Cornwall Museum and the RCM conditions for archives will be followed. The RCM will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.
- In the event that there are no finds or they are retained by the owner documentary archive in due course shall be deposited with the Cornwall Record Office, but in the medium term will be stored at ReStore. All digital records will be filed on the Cornwall Council network.

### **3.4 Archive report**

The results from the fieldwork will be presented in a concise report. Copies of the report will be distributed to the Client, the County Archaeologist and the local and main archaeological record libraries. A PDF copy of the report will be produced.

This will involve:

- producing a descriptive text;
- producing maps and line drawings;
- selecting photographs;
- report design;

- report editing;
- dissemination of the finished report
- deposition of archive and finds in the Royal Cornwall Museum, Truro.

The report will have the following contents:

- Summary - Concise non-technical summary.
- Introduction - Background, objectives, aims and methods.
- Results - Factual description of the results of the various aspects of the project, with separate sections as necessary for discussion/interpretation and potential for further analysis.
- Discussion - Discussion of the interpretation of the results, highlighting information gained on a chronological or thematic basis  
Recommendations for further analysis and publication.
- Archive - A brief summary and index to the project archive.
- Appendix - A copy of the project brief.  
- A copy of the WSI
- Illustrations - General location plan.  
- Detailed location plans to link fieldwork results to OS map.  
- Selected plans and section drawings (as appropriate).  
- Finds drawings (if appropriate).  
- Photographs (if appropriate).

An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record will be made.

### **3.5 Assessment/analysis**

The structural and stratigraphic data and artefactual material will be assessed to establish whether further analyses and reporting is appropriate. The outline of final report, and the work required to produce it will be determined in an updated project design.

In the event of significant remains being recovered (eg, prehistoric or medieval artefacts) it may be appropriate to:

- Liaise with specialists (eg, artefacts) to arrange for assessment of the potential for further analysis and reporting.
- Arrange for specialist analyses, where appropriate.
- Consult with the Historic Environment Planning Advice Officer over the requirements for assessment, analysis and reporting.

### **3.6 Analyses and final publication**

In the event of significant remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (eg, *Cornish Archaeology*).

## **4. Monitoring**

- This written scheme of investigation will need to be approved by the Planning authority.
- The recording exercise will be monitored. The Historic Environment Planning Advice Officer should be informed 1 week in advance of the intention to start the recording.
- HE Projects will liaise with the Historic Environment Planning Advice Officer to advise on the programme and progress of work, and agree site meetings as required.

- A summary of the results will be presented to the Historic Environment Planning Advice Officer within 1 month of the completion of the fieldwork.
- In the event that significant remains are encountered an updated project design will be agreed with the Historic Environment Planning Advice Officer.

## **5. Project Staff**

An experienced archaeologist employed by HE will carry out the archaeological fieldwork. The report will be compiled by experienced archaeologist(s) employed by HE.

Relevant experienced and qualified specialists will be employed to undertake appropriate tasks during the assessment and analysis stages of the project.

The project will be managed by a manager who is a Member of the Institute for Archaeologists, who will:

- Take responsibility for the overall direction of the project.
- Discuss and agree the objectives and programme of each stage of the project with project staff, including arrangements for Health and Safety.
- Monitor progress and results for each stage.
- Edit the project report.

## **6. Timetable**

The archiving and archive report will be completed within 12 months of the ending of the excavations. The timetable for further stages of assessment, analyses and publication will be agreed with Historic Environment Planning Advice Officer in the light of the results of the excavations.

## **7. Health and safety during the fieldwork**

### **7.1 Health and safety statement**

**Historic Environment is within the Environment, Planning and Economy Directorate of Cornwall Council. The HE projects team follows Cornwall Council's *Statement of Safety Policy*.**

**Prior to carrying out any fieldwork HE will carry out a risk assessment**

### **8. Insurance**

As part of Cornwall Council, HE is covered by Public Liability and Employers Liability Insurance.

### **9. Standards**

The HE follows the Institute for Archaeologists' Standards and Code of Conduct and is a Registered Archaeological Organization.

As part of Environment, Planning and Economy Directorate of Cornwall Council, the HE projects team has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

### **10. Copyright**

Copyright of all material gathered as a result of the project will be reserved to the Environment, Planning and Economy Directorate of Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

This project design and estimate is the copyright of Historic Environment, Cornwall Council.

Use of the material will be granted to the client.

### **11. Freedom of Information**

All information gathered during the implementation of the project will be subject to the rules and regulations of the Freedom of Information Act 2000.



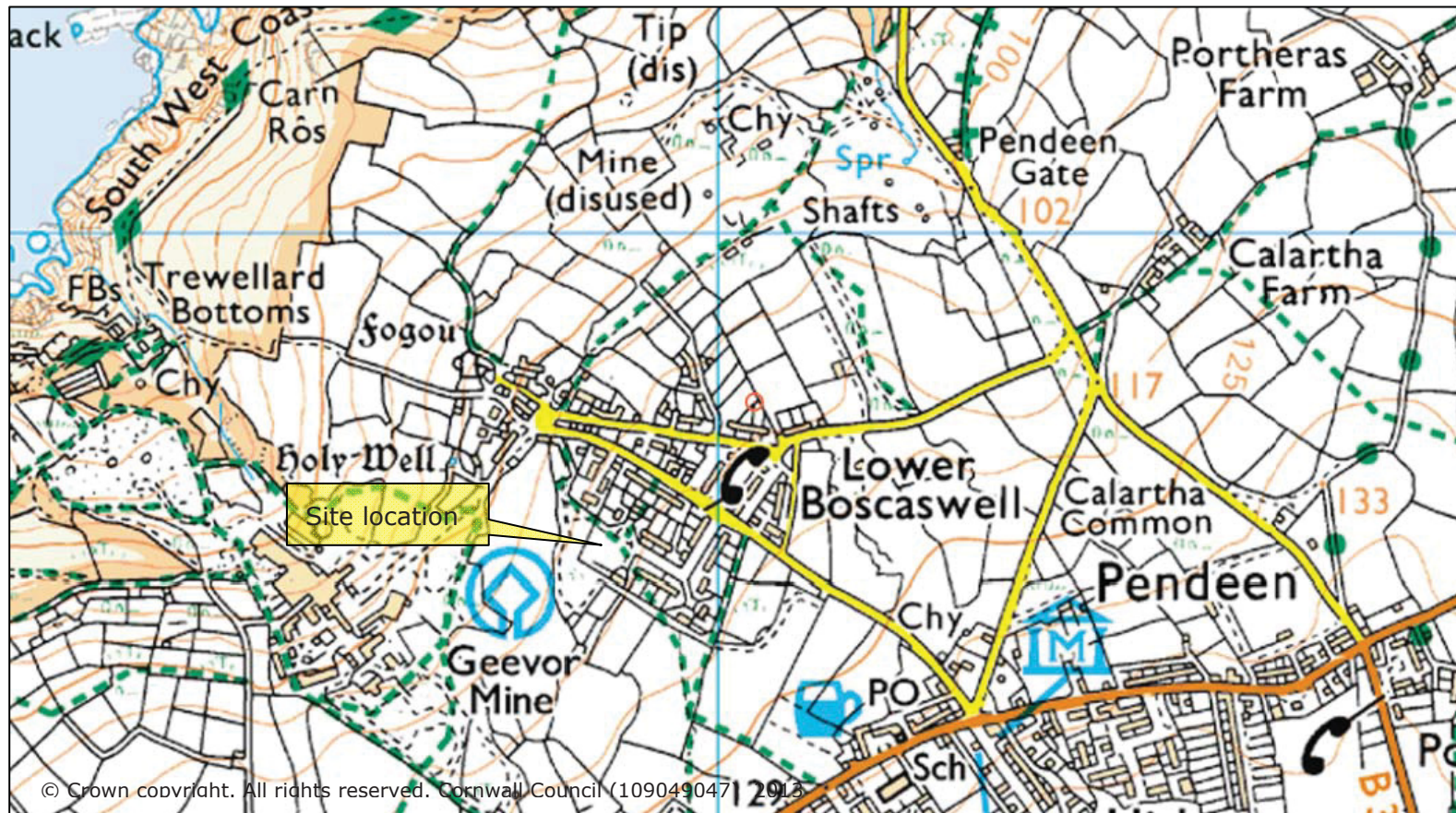


Fig 1. Location of Moorland Close, Lower Boscaswell

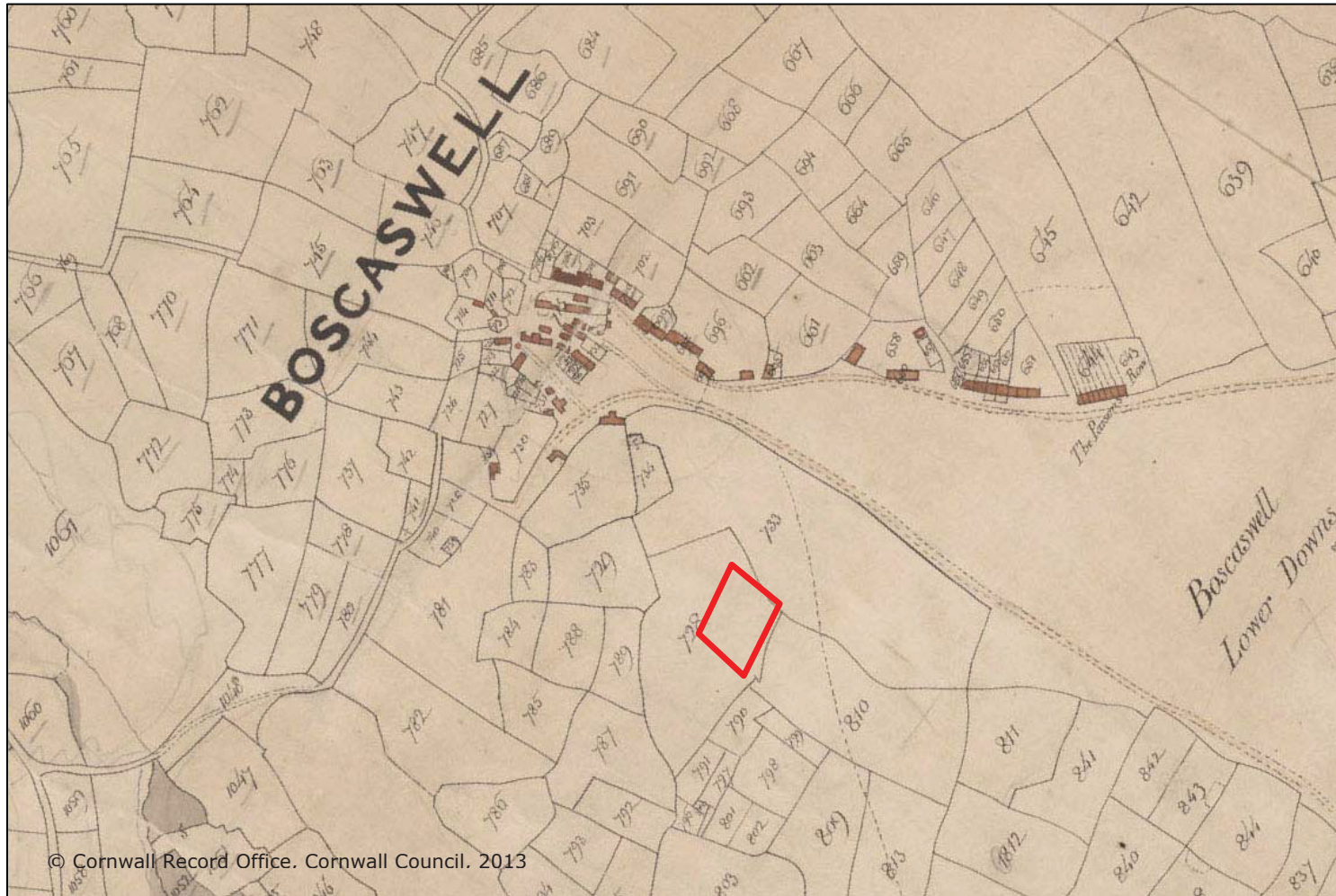


Fig 2. Tithe map c1841, Parish of St Just in Penwith



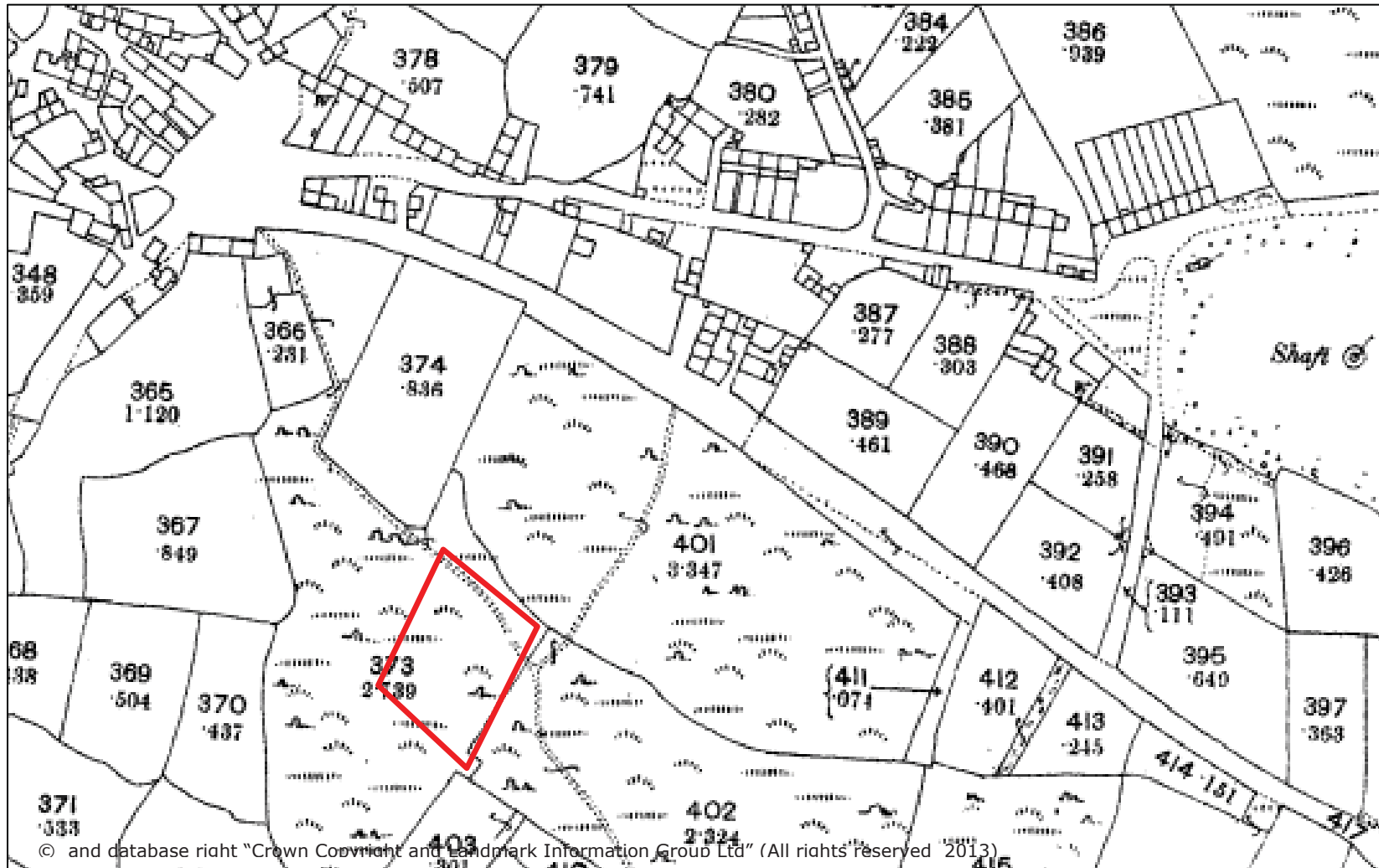


Fig 3. First Edition of the Ordnance Survey 25 inch map, c1880

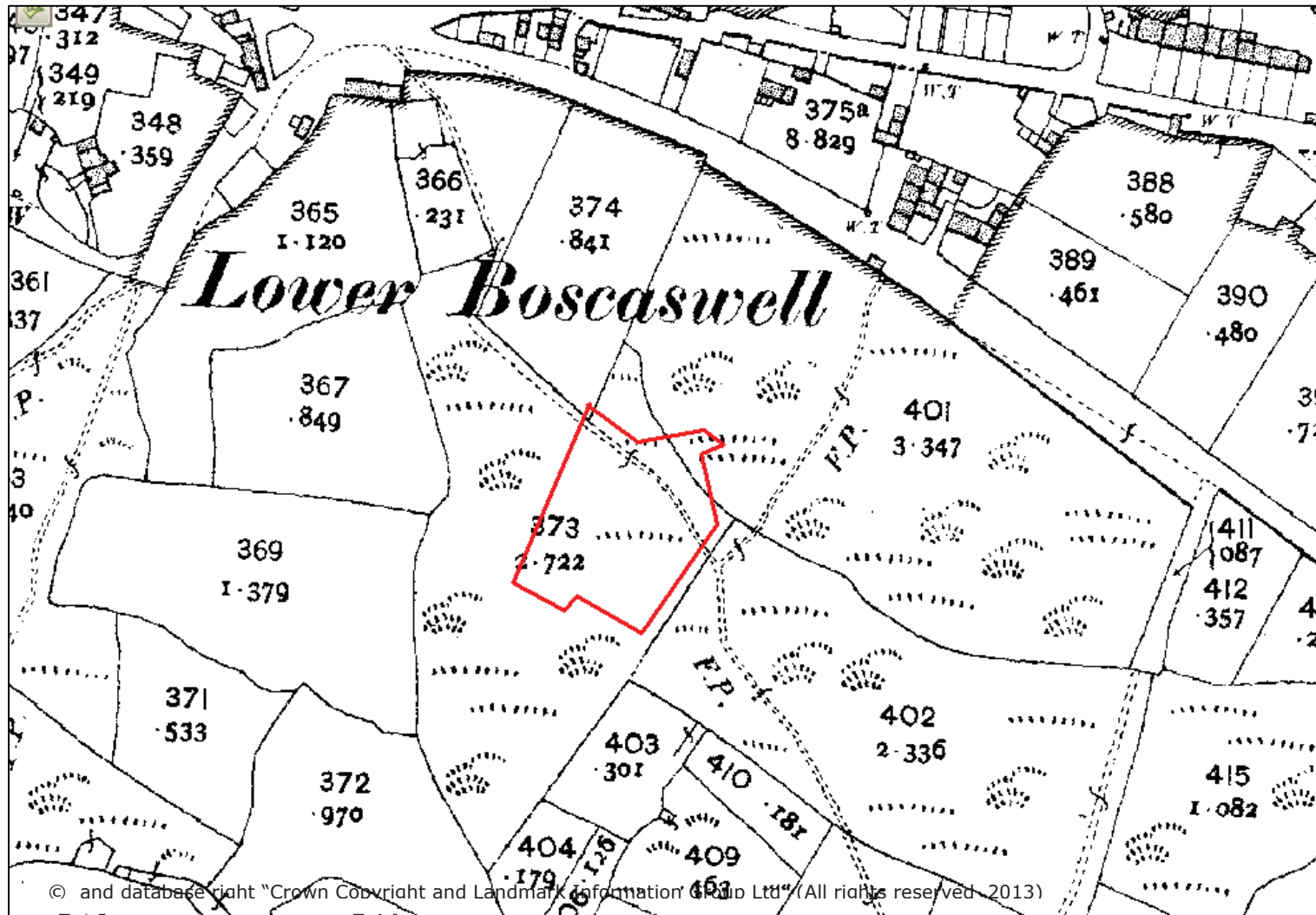


Fig 4. Second Edition of the Ordnance Survey 25 inch map, c1907





Fig 5. Ordnance Survey mapping showing area investigated



Figure 6. View from SW corner of site prior to stripping



Figure 7. View of sandy area northwest part of site (looking north east)



Figure 8. View of site after stripping showing nature of materials, view toward south west





*Figure 9. General view of site after stripping (View from NE corner looking south west)*