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Authors: E. Wapshott



Summary

A historic building survey was carried out in June 2012 to record the extant archaeological remains at Little Haven, Newton Moor. The building is subject to a planning application (PA08/00991/F) to convert and restore the structure to a domestic dwelling. The remains comprise the stone walls of a building, the roof structure of which is missing. The building is part of a complex of mine structures with an engine house (with chimney) lying directly to the south-west and a spoil tip to the south-east; further engine houses and evidence of the historic mining industry cover the surrounding landscape.

Contents	Page No.
<i>Summary</i>	3
List of Figures	5
List of Appendices	5
Acknowledgements	5
1.0 Introduction	6
1.1 Background	6
1.2 Methodology and Sources	6
2.0 Historic Building Recording	8
2.1 Exterior	8
2.2 Interior	9
2.2.1 Room 1(R1 on plans)	9
2.2.2 Lean-to	9
2.2.3 Room 2 (R2 on plans)	10
2.2.4 Room 3 (R3 on plans)	10
3.0 Development and Function	13
3.1 Development of the Building	13
3.2 Function of the Building	13
4.0 Conclusions	15
5.0 Photographic Record (Figures)	16
5.1 Exterior	16
5.2 Interior	18
5.3 Lean-to	22
6.0 Bibliography & References	25

List of Figures

	Page No.
Cover plate: Little Haven viewed from the south.	
Figure 1: Location Map of the Camborne and Troon region with the site ringed in red.	7
Figure 2: Plan of the building at Newton Moor annotated to show room numbers.	11
Figure 3: Proposed plan layout of the building once converted; from Lawrence Associates.	11
Figure 4: Proposed elevations of the building once converted; from Lawrence Associates.	12
Figure 5: Plan of the building, showing the three main phases of construction.	15
Figure 6: The south-west elevation, facing onto the nearby engine house and spoil tip.	16
Figure 7: The south-east elevation facing onto the spoil tip.	17
Figure 8: The north-east elevation facing onto the enclosed area to the rear of the building.	17
Figure 9: The north-west elevation, facing onto the neighbouring fields.	18
Figure 10: The north corner of the building, in the main room.	18
Figure 11: The north-west wall with the two doorways to the lean-to.	19
Figure 12: The west corner of the building, in the main room.	19
Figure 13: The west end of the south-west elevation, with the chimney in the background.	20
Figure 14: The south-west elevation, internal view, showing the large central opening.	20
Figure 15: The south corner of the building, in the main room, internal view.	21
Figure 16: The south-east elevation, internal face, with the central doorway.	21
Figure 17: The north-east elevation, eastern side, internal view, showing severe wall collapse.	22
Figure 18: The internal area of the small northern room in the lean-to.	22
Figure 19: The partition wall between the two rooms of the lean-to.	23
Figure 20: The north-west exterior wall of the lean-to.	23
Figure 21: The south corner of the lean-to, internal face, with the fireplace in the south-west wall.	24
Figure 22: The south-east corner of the lean-to with the blocked doorway to the main room.	24

List of Appendices

Appendix 1: Brief supplied by HEPAO Phil Markham	26
Appendix 2: WSI for Photographic Building Recording	28
Appendix 3: Detailed Photograph List for CD	30
Appendix 4: HER entries for mines on Newton Moor	31

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1.0 Introduction

Location: Little Haven, Newton Moor
Parish: Troon
District: Camborne
County: Cornwall

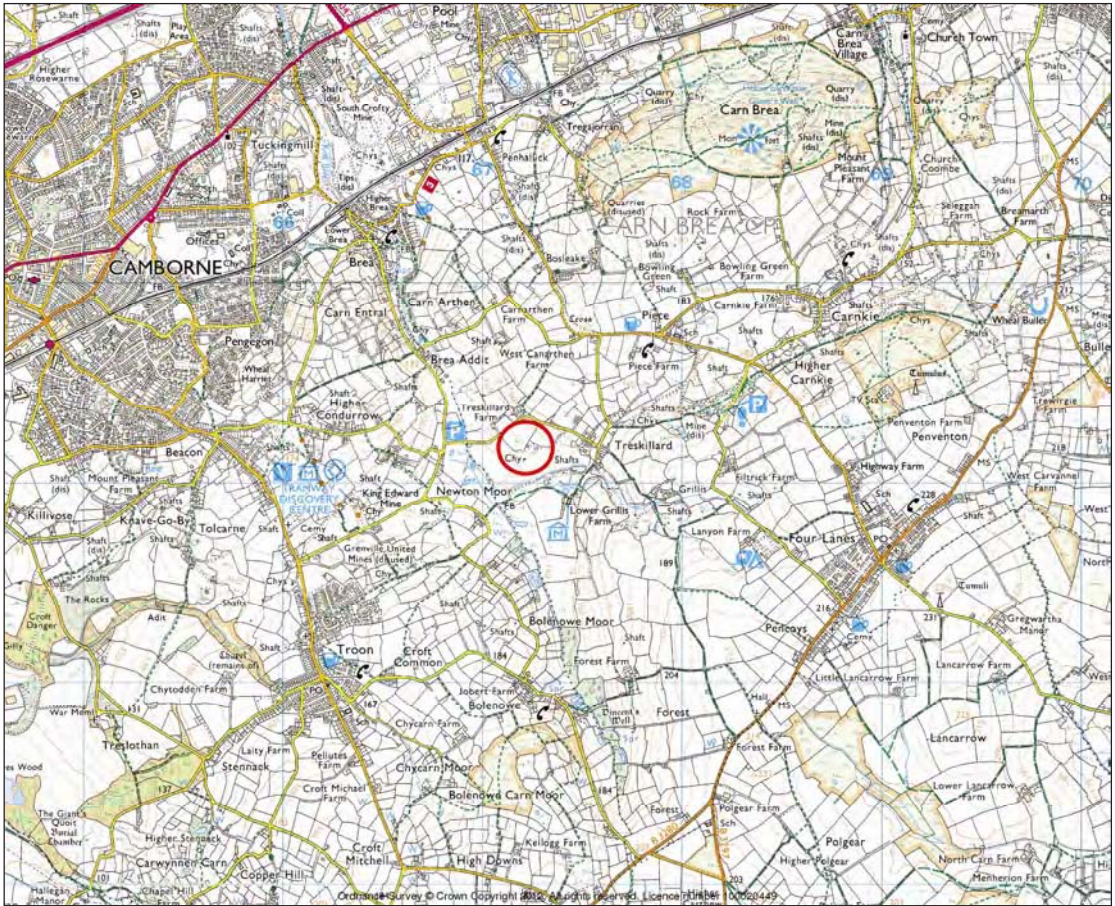
1.1 Background

South West Archaeology Limited (SWARCH) was commissioned by Jason Pledger of Lawrence Associates (the Agent) on behalf of Mr Michael Hocking (the Client) to undertake a historic building recording of the standing remains at Little Haven, Newton Moor (Figure 1). The building is subject to a planning application (PA08/00991/F) to convert and restore the structure to a domestic dwelling (Figures 3 and 4); the planning has been approved subject to fourteen conditions. The second condition deals with the recording and analysis of the archaeological features extant on the site; as the building lies within the Mining World Heritage Site it has been noted worthy of recording prior to the commencement of any works.

1.2 Methodology and Sources

This assessment was carried out by E. Wapshott on 1st June 2012. The work was undertaken with reference to IfA guidelines on historic building recording and in reference to the Brief provided by Phil Markham, the HEPAO (Appendix 1) and the agreed WSI (Appendix 2). The building was photographed both externally and internally, to provide a comprehensive visual record of the extant remains of archive standard; producing quality contact prints and negatives, taken on black and white 35mm film. General and specific digital colour photographs were also taken to provide a photographic survey for report purposes. All photographs were taken with the inclusion of a 2m scale. A full photograph list is included at the end of the report, detailing location and direction of shot as well as feature description and photograph number.

A brief descriptive record was also made of the building, analysing: construction and materials, form and function, fenestration, internal arrangements, original and subsequent fixtures and fittings and evidence of date/period of build and use/status. The building recording will conform to Level 2 of recording levels as set in *Understanding Historic Buildings: A guide to good recording practice – English Heritage 2006*. The record made will be descriptive; with both the exterior and interior photographed and described, with some analysis of the development and function of the building but without the presentation of detailed evidentiary support.



2.0 Historic Building Recording

The structure at Little Haven is a former mine building, situated just north-west of a large spoil tip and north of an adjacent and presumably associated engine house. The building has lain derelict for many years and no longer retains any roof structure or internal fittings. The building is rectangular with its long sides facing south-west and north-east; the structure comprises a main single cell with a two-cell lean-to attached to its western end. The building is now within an area of rough grazing enclosed to the north-west and north-east by a historic hedge-bank. To the east this hedge-bank has been dug away with only a small section surviving with mature trees. To the south-west a track leads past the spoil tip to a larger open field across which access is gained from the parish road. Numerous mine structures stand in the immediate surroundings, with five other engine houses (other than that already mentioned) visible from the building.

2.1 Exterior

The 'front' of the building faces the south-west; the elevation is of various phases of random rubble, of the distinctive red/blue of the iron-rich local stones. Faced granite blocks form quoins at the corners of the elevation. The stonework is set in a pink coloured lime-mix mortar with grit and coal inclusions; some areas have been repaired or patched at a later date using a creamier coloured lime mortar. There is also evidence of use of cement mortar. To the west end of the building there is an attached lean-to, also built of random rubble of local stone with faced granite quoins to its west corner; any granite quoins to the west corner of the original structure have been removed upon the addition of the lean-to. There is however a clear build-line between the two phases of construction; there is some disturbance to the stonework within the lean-to elevation.

The front elevation of the main building is dominated by a wide central opening, flanked by granite faced block quoins, forming reveals; this may have been a double doorway. West of the central opening, within the main structure is a partly blocked opening, with granite quoin reveals to the west side, which drop below the level of the infilled stone to the base. The quoins forming the reveals to the east of this opening form a pillar with those of the doorway, this is falling away having become unstable and is tied to the rest of the structure. This opening may have been a window. To the east of the central doorway is a large beam slot forced into the elevation, with repairs to the wall visible around it; this may be for a timber lintel or be associated with a (sliding?) door to the entrance. Further to the east is another opening, higher in the elevation, narrower and longer, with granite quoin reveals to both sides, of faced blocks, as before. This opening may have provided light to the interior of the building but its high position in the elevation may suggest another function, providing access for shafts or machinery?

The south-east elevation of the building faces directly onto the spoil tip; it too has a large central opening flanked by granite faced quoins, forming reveals. The central opening on this elevation is however narrower, probably a single doorway and there is iron staining and even an element of a surviving hinge embedded in the granite quoins. The elevation is again of rubble construction stonework, with further granite block quoins to the corners. There is predominantly more dark coloured rougher finished stones to the north of the elevation, although the treatment of the opening and corners suggest a cohesive date for the elevation, the build and arrangement of the stones does seem marginally different. The stone is in a pink lime-mix mortar as seen on the south-west elevation; that to the north is darker and browner in colour. The northern section of wall is in a poor condition at the top and the corner with the north-east elevation is collapsing.

The north-east elevation faces onto a small area of enclosed rough pasture. The elevation, is again of rubble construction stonework in a lime-mix mortar with granite block quoins to the corners. The elevation is in poor condition with substantial wall collapse at the eastern end and to the west the adjoining lean-to has partially collapsed. There is a clearly defined build-line between the main building and lean-to on this elevation, with surviving granite block quoins to the north corner of the building, with the loose rubble construction lean-to built up against it. There is one narrow central opening, as to the south-east elevation; this opening lies directly opposite the wide opening in the south-west elevation, again it is flanked by granite faced block quoins, forming reveals. Where the walls have collapsed on this elevation the full profile of the walls of the building can be seen; the outer faces are constructed of large closely-packed rubble blocks with a core of smaller rubble stones and the internal core of the walls exhibit the heavy use of a pinkish-coloured thick lime-mix mortar.

2.2 Interior

2.2.1 Room 1(R1 on plans)

The interior face of the walls are of exposed stone, as to the exterior. No clear evidence survives of interior treatments (plaster etc). No fittings, furniture or contents survive and there is no evidence of an internal layout, suggesting the room was one large open space. The floor of the building has now got a thick covering of earth and grass; several small areas of clearance adjacent to openings however appear to suggest there may be a historic lime-packed or limecrete-style floor beneath the grass. No roof survives, there is one large timber lying within the building on the floor, this may be a lintel, it does not seem large enough to be from the roof. Openings lead to the exterior as recorded in the exterior descriptions, the granite block quoins, which form the reveals of all these openings are faced to the interior side, as well as the exterior. Some of the quoins appear to have flakes of slate inserted between the granite blocks forming levelling courses. Not all of the quoin reveals have been treated in this way; some have a few levelling courses to both sides, some to only one side or only to the top or bottom.

The north-western wall of the main building which is obscured externally by the lean-to can be seen to have three openings. One smaller opening to the north end with a surviving timber lintel, which is narrow and square-cut. This opening has granite block quoins forming the reveals. To the south the openings appear to be taller and narrower. The central opening, opposite that in the south-east elevation also has granite block quoins to the reveals; the opening against the south-west elevation has been blocked with concrete blocks, it only has quoins to the reveals on its north side. The north-west wall has been patched and rebuilt in looser stonework, up against the south-western elevation and this includes some brickwork; some of this brick appears early of pale orange and brown colours, narrower than modern brick. Some of the brick however is red, of fairly modern date, with frogs and air holes. On the south-western wall adjacent to the central opening and underneath the window to the west the wall appears to have several phases of repair and repointing. To the east the tall narrow opening in the south-western elevation appears to have had a wide sill or granite block removed at its base. To the west of this opening at the top of the wall is a further area of brickwork, which appears to be blocked with stone. The wall has been heavily repointed in sections in a creamier coloured lime mortar.

2.2.2 Lean-to

The lean-to is built up against the north-western elevation of the building. It is built in a similar style with rubble construction stonework and faced granite block quoins. The north-western elevation is rendered to its southern end and appears to possibly have an outer skim of brickwork or considerable repairs have been undertaken in brick. There is one window and one

door in the elevation to the southern end. The wall is of rubble stonework to the north end, with granite faced quoins to the north corner. There is scarring on the south-western elevation to the centre, to the west of the build-line with the main building. Both the south-west and north-east elevations have clear build-lines between the lean-to and the main building, although both have different build styles. The north-eastern elevation shows a blocked doorway is positioned up against the quoins of the main building, further quoins can be seen forming the reveals to the west side of this doorway, with quoins to the north corner. The lean-to has suffered substantial collapse at the northern end. No roof structure survives. The floor to the south is concrete, that to the north obscured by rubble. No door or window fittings survive to any opening. The narrow lean-to is divided into two rooms; a small room (room 2) to the north and a larger heated room to the south (room 3). Both rooms are directly accessible to the main building through narrow doorways, with granite quoins, but cannot access each other. There is staining for iron hooks and hinges on the granite blocks forming the reveals of both open doorways into the main building, to both rooms. The rooms may not have been added to the structure at the same time and may represent two sub-phases.

2.2.3 Room 2 (R2 on plans)

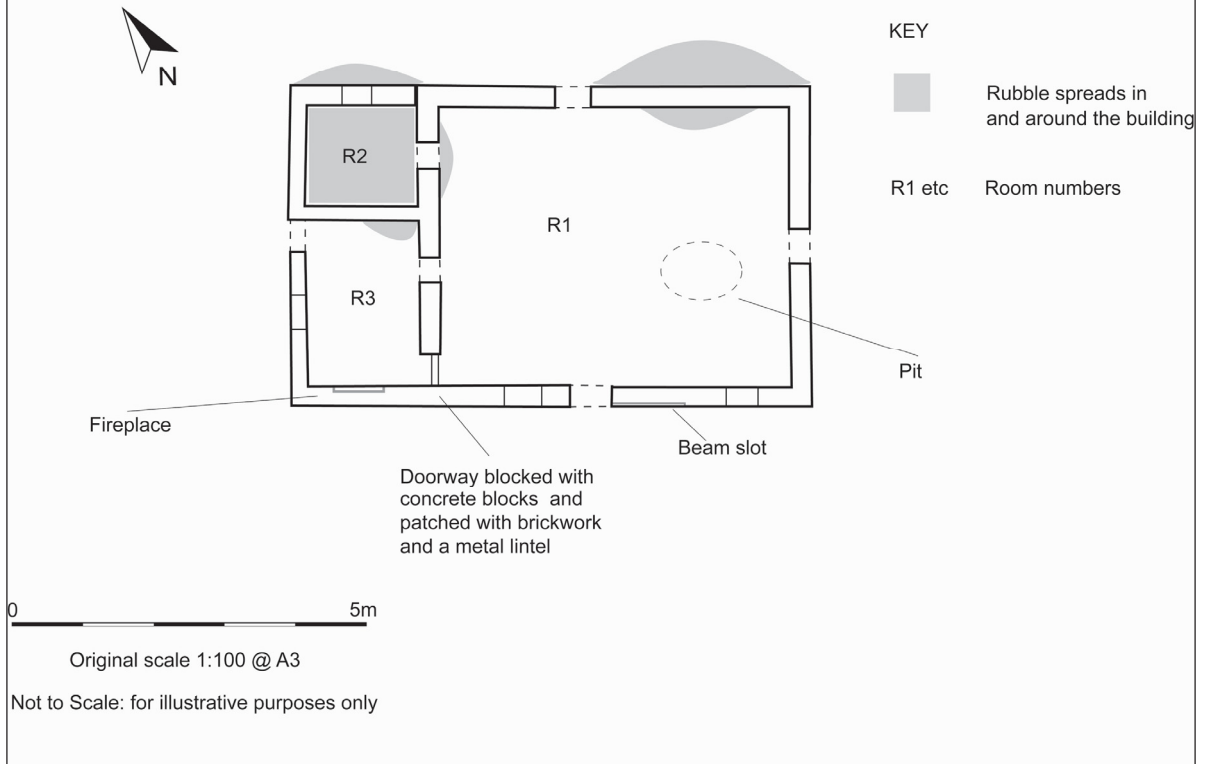
The northern room shows evidence of one blocked exterior opening in the north-east remaining section of wall. There is no evidence of any internal wall treatments, being exposed stone. The room is almost completely filled and obscured with rubble from its collapsed walls. The walls however are considerably thicker than those of the adjacent southern room and it appears as if they may be on a slightly different alignment. There is a large hole in the party wall with the southern room, part infilled with brick and cement mortar and with evidence of a rusted metal frame set into the brick. No other details can be established.

2.2.4 Room 3 (R3 on plans)

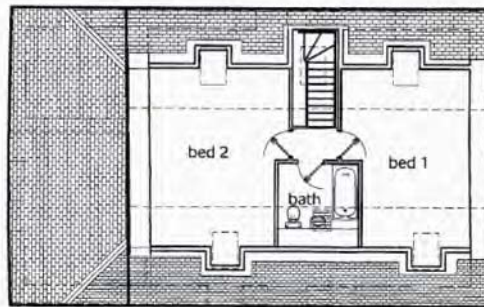
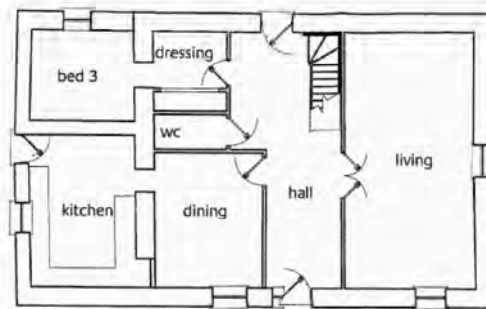
The larger southern room has a doorway to the exterior through the north-western elevation and a window south of this; both with granite block quoins forming the reveals to the openings visible to the interior face. Both are rendered internally showing evidence of frames having been removed. The walls of this room are partly rendered and it has a fireplace. There is a second doorway in the south-east corner seemingly forced into the north-west elevation of the main building, only having granite reveals to one side. This door may have provided further access into the large main room or had a particular function; it may suggest this large room was once divided. This doorway is patched with concrete and brickwork around the head of the opening and there is a large concrete and metal girder forming a lintel. The opening has been blocked with concrete blocks.

The fireplace has large granite block jambs and a granite slab lintel, which is partially infilled with brick, quartz and rubble stone in cement mortar, to hold a 19th century register grate which has been inserted into the earlier open firebox. Parts of the outer frame, moulded cheeks, register plate and fireback survive although the rest of the cast iron has rusted or broken away. There appears to be no evidence of a chimney surviving associated with this fireplace on the exterior, although there is an area of disturbance. There appears to have been a more comprehensive phase of blocking on the fireplace, after it possibly became redundant, which may have sealed the stack before it was removed. The doorway in the south-east corner is almost adjacent to the fireplace which is an unusual plan and it may be that the doorway dates from a later phase when the fireplace had already been blocked. The floor in the southern room is concrete. The walls of this room appear to be thinner than those of the main building and of the northern section of the lean-to; this is particularly clear when looking at the depth of the window and door openings in the north-west wall. Any build line is obscured by the render on the party wall with the north room but these may be of different phases.

Plan of the Mine Building at Little Haven, Newton Moor.

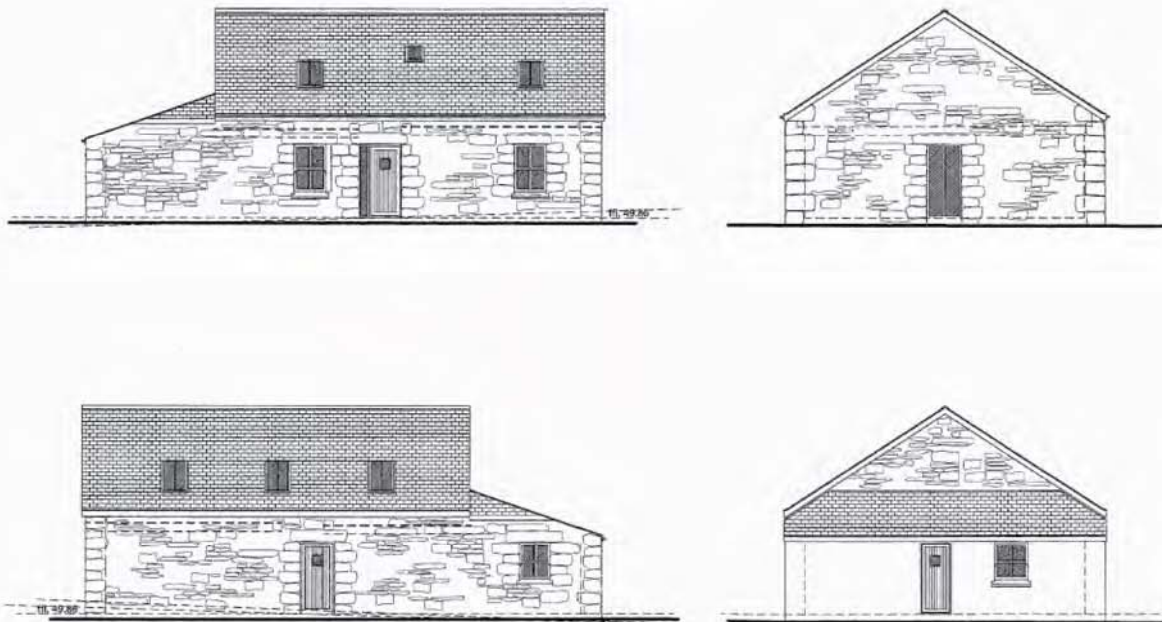


Proposals for the Building at Little Haven, Newton Moor



For illustrative purposes only. Original scale 1:100 at A3.

Proposed Elevations of the building at Little Haven, Newton Moor



For illustrative purposes only, not to scale. Original Scale 1:100 at A3.

3.0 Development and Function

3.1 Development of the Building

Phase One

The main building (Room 1) is roughly square in shape, of the four sides; there are various numbers and sizes of openings. It has been built in closely-packed rubble stone construction, however the quality of the square-cut faced granite blocks which form the quoins and reveals to the openings are certainly of fine quality and would suggest an element of display and status in the build. The main structure appears to have been of one storey, however as no roof survives and the top of the walls are in a bad state we cannot conclusively rule out the walls continuing higher and we cannot suggest a specific roofing style or type.

Phase Two (A)

The northern portion of the lean-to (Room 2) has thick walls similar to the main building and shows similar treatments to its doorways, with formal square-faced granite blocks forming the quoins to the reveals. There is almost complete collapse of this section and it is very hard to make further analysis. When the building is cleared of loose rubble further understanding of its development and function may become clearer. There is certainly a hole or recess in the interior party wall which is partly blocked with brickwork and a metal frame. The doorway to this room is the only one to which a timber lintel has survived. This is square-cut and of narrow form.

Phase Two (B)

The southern portion of the lean-to (Room 3) appears to have thinner walls, the north-west of which is rendered externally and has some bricks included within the construction. The walls here are also partly rendered internally (the wall between Rooms 2 and 3). This portion of the building appears to have been heavily repaired with cement, patched with brick and stone. There are quoin reveals to the door and window, although the granite is not faced to the same standard as seen in the main building and building to the north. The south-western elevation does not exhibit formal quoins between the lean-to and main building, although there certainly appears to be a build-line. This suggests that this portion comprises a re-build or conversion of an existing structure, rather more than a later addition.

Phase Three

This phase incorporates the render and exterior treatments given to the southern portion of the lean-to. This will also include the blocking of the fireplace and the blocking of the doorway. Although there may in fact be many small minor phases within these works they have been grouped here for practicality; they are all largely cosmetic or secondary non-structural works.

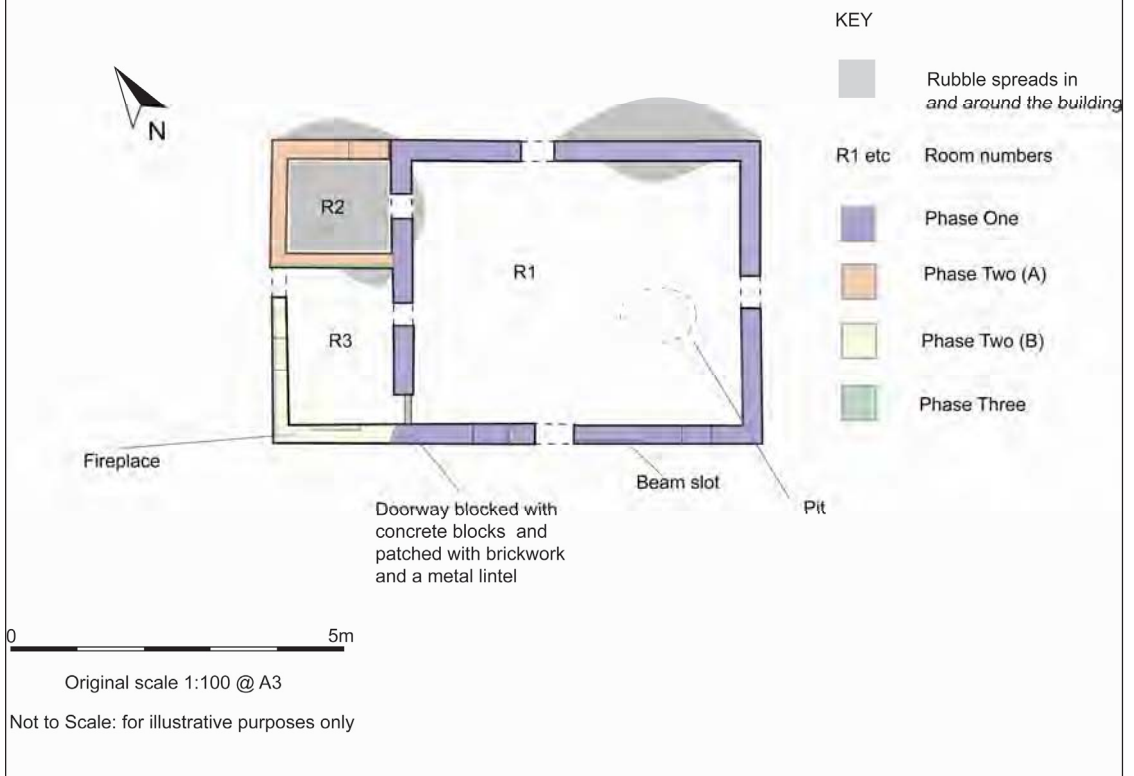
3.2 Function of the Building

The building combines decorative architectural elements such as the granite quoins to the corners and reveals of the openings with the basic rubble construction of a mine building. The use of faced granite blocks represents a considerable outlay of money and it is unlikely such money would be spent on a purely functional building. These elements of display would lead to an analysis of the building having more of a public or official function; possibly as offices or a counting house. The various openings in the elevations appear to be either double or single doorways and certainly the opening adjacent to the main front entrance may be a window. There are no obvious openings in the elevations for machinery shafts or belts to transfer in and out of the building and no internal fittings surviving that give us definite clues to the active

use of the building but the lack of wall scars certainly suggests that it was one large open space.

The walls are damaged at the top so the existence of a second storey or half storey cannot be established. When considering the tall narrow opening on the south-west elevation could this be designed to light a stairway rising to an additional floor? One would expect however that an administrative building might have had more window openings providing light to the interior. The position immediately next to the spoil tip and the large amount of iron slag found in and around the building may suggest a mixed administrative and quality control use, possibly an ore weighing or processing building, with attached offices. The lean-to clearly had one small room to the north, with internal and exterior access and to the south the larger room was heated. This fireplace has two clear phases, a simple open hearth and a second phase of infill with a finer cast-iron register grate. The moulded grate again suggests an element of display, was this possibly a smart private office? No evidence of heating can be found in the large main room.

Phased plan of the Mine Building at Little Haven, Newton Moor.





















6.0 Bibliography & References

Published Sources:

Institute of Field Archaeologists 1996 (Revised 2001 & 2008): *Standard and Guidance for archaeological Investigation and Recording of Standing Buildings or Structures.*

English Heritage 2006: *Understanding Historic Buildings, a Guide to Good Recording Practice.*

Internet Resources:

Heritage Gateway 2012: [www.heritage gateway.org.uk](http://www.heritagegateway.org.uk)

Appendix One

BRIEF FOR PHOTOGRAPHIC RECORDING

Date: 20th September 2010

Address: Little Haven, Newton Moor, Troon TR14 9AR

Site: Former mine building at OS grid reference SW 67231 39173

Application: PA08/00991/F

Applicant: Michael Hocking Little Haven, Newton Moor, Troon TR14 9AR

Agent: Jason Pledger, Lawrence Associates, Lemon House, Lemon Street, Truro TR1 2LS t. 01872 225259 e. hello@latp.co.uk

Historic Environment Planning Advice Officer: Phil Markham, Cornwall Council, Historic Environment Service, Kennall Building, Old County Hall, Truro TR1 3AY. t. 01872 322546 e. pmarkham@cornwall.gov.uk

Local Planning Authority Officer: Miles Forman, Cornwall Council, Planning & Regeneration, Dolcoath Avenue, Camborne TR14 8SX t. 01209 614450 e. planning.west2@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.

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 site to discharge condition 2 of planning application PA08/00991/F. The structure is recorded on the Ordnance Survey Map of 1907. Former mining structures within the Mining World Heritage Site are important for its understanding, setting and landscape and are worthy of recording prior to development.

2 Planning Background

Planning application PA08/00991/F was submitted on the 5th June 2008 and was for the conversion of a former mine building to form a dwelling. This application has been approved subject to 14 conditions. Condition 2 states:

No work shall be undertaken until the implementation of an appropriate programme of recording and analysis of archaeological features has been agreed in writing by the local planning authority, to be carried out by a specialist acceptable to the local planning authority and in accordance with an agreed written brief and specification.

Reason: To record existing features of archaeological interest.

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.

3 Requirement for Work

The present proposals will culminate in the modification of the material remains of the structure. It is therefore important that the structure is recorded to an appropriate level and that the results are made available to interested parties. In this particular instance an archive standard photographic record will be made together with a brief report. This recording needs to be conducted by a building archaeologist or architectural historian that will be able to 'read' the structure and record the important details. The recorder needs to consider:

- Site layout and organisation
- Function
- Materials, method of construction
- Fenestration
- Internal arrangements
- Original fixtures and fittings
- Subsequent fixtures and fittings
- Evidence of use and status
- Date/period of initial build and subsequent alterations

4 General Methodology

4.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).

4.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).

4.4 All of the latest Health and Safety guidelines shall be followed on site.

4.5 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.

4.6 Terminology will be consistent with the English Heritage Thesaurus.

5 Site Recording Methodology

5.1 The photographic record shall be a comprehensive record to archive standard of the existing structure, both externally and internally. The photographs will be taken with black and white 35mm or medium format film producing archive quality contact prints and negatives. Colour photography may be utilised for inclusion of the report. For both general and specific photographs, a photographic scale shall be included. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

6 Results

6.1 The report shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological/historic building contractor, Cornwall Council Historic Environment Service and the Cornwall Record Office. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.

6.2 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

6.3 The report must contain:

- A concise non-technical summary of the project results.
- A location map tied to the national grid and one or two representative images

7 Archive Deposition

- 7.1 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 appropriate organisations.
 - 7.2 The archive including a copy of the written report shall be deposited within two months of the completion of the full report and confirmed in writing with the HEPAO.
 - 7.3 The archive will be deposited with the Cornwall Record Office.
 - 7.4 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.
 - 7.5 A summary of the contents of the archive shall be supplied to the HEPAO.
 - 7.6 Only on completion of 7.1 to 7.4 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.
- 8 Monitoring**
- 8.1 The HEPAO will monitor the work and should be kept regularly informed of progress.
 - 8.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.
 - 8.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.
 - 8.4 If significant detail is discovered, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forward.

Appendix Two

WRITTEN SCHEME OF INVESTIGATION FOR PHOTOGRAPHIC BUILDING RECORDING OF
A FORMER MINE BUILDING AT LITTLE HAVEN, NEWTON MOOR, TROON, CORNWALL.

Location: Little Haven, Newton Moor, Troon TR14 9AR
Parish: Troon
County: Cornwall
NGR: SW 67231 39173
Planning Application No: PA08/00991/F
Proposal: Conversion of a former mine building to form a dwelling
Date: 29.05.2012

1.0 INTRODUCTION

- 1.1 This document forms a Written Scheme of Investigation (WSI) which has been produced by South West Archaeology (SWARCH) at the request of Tony Griffin (the Client), and sets out the methodology for a desk-based assessment and historic building recording of a former mine building at Little Haven, Newton Moor, Troon and for related off site analysis and reporting. The WSI and the schedule of work it proposes was devised in consultation with and conforms to a brief as supplied by the Cornwall County Council Historic Environment Service Historic Environment Planning Advice Officer, Phil Markham (HEPAO).
- 1.2 The planning application for this development has been approved subject to 14 conditions. Condition 2 states that:
No work shall be undertaken until the implementation of an appropriate programme of recording and analysis of archaeological features has been agreed in writing by the local planning authority, to be carried out by a specialist acceptable to the local planning authority and in accordance with an agreed written brief and specification.
Reason: To record existing features of archaeological interest.
- 1.2 The programme of work to be carried out by SWARCH and covered by this WSI consists of:
- 1.2.1 A photographic survey and brief description of the extant building to inform whether certain features of the structure should be retained or certain styles of entrance/fenestration etc. should be incorporated
- 1.2.2 Related analysis and reporting.

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 The structure is recorded on the Ordnance Survey Map of 1907. Former mining structures within the Mining World Heritage Site are important for its understanding, setting and landscape and are worthy of recording prior to development. The present proposals will culminate in the modification of the material remains of the structure. It is therefore important that the structure is recorded to an appropriate level and that the results are made available to interested parties. In this particular instance an archive standard photographic record will be made together with a brief report.

3.0 METHOD

- 3.1 Historic Building Recording:
This will conform to Level 2 of recording levels as set in *Understanding Historic Buildings: A guide to good recording practice - English Heritage 2006* (available on-line at the English Heritage website) and described in outline below:
This is a descriptive record, made in circumstances similar to those of Level 1 but when more information is needed. It may be made of a building which is judged not to require any fuller record, or it may serve to gather data for a wider project. Both the exterior and the interior will be viewed, described and photographed. The record will present conclusions regarding the building's development and use, but will not discuss in detail the evidence on which these conclusions are based. A plan and sometimes other drawings may be made but the drawn record will normally not be comprehensive and may be tailored to the scope of a wider project.
Consideration will be given to the site layout and organisation, function, the materials and method of construction, fenestration, internal arrangements, original fixtures and fittings, subsequent fixtures and fittings, evidence of use and status and the date/period of initial build and subsequent alterations
- 3.2 The Client will provide SWARCH with details of the location of proposed works within the building area, and of the proposed construction programme.
- 3.3 Health and Safety requirements will be observed at all times by any archaeological staff working on site, particularly when working with machinery. As a minimum: high-visibility jackets, safety helmets and protective footwear will be worn.
- 3.4.1 Appropriate PPE will be employed at all times.
- 3.4.2 The site archaeologist will undertake any site safety induction course provided by the client.
- 3.4 If significant detail is discovered, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forward.
- 3.5 SWARCH will agree monitoring arrangements with the HEPAO who will be informed of the start of the fieldwork, will be regularly informed of progress and will monitor the project throughout, and may wish to inspect the works in progress.
- 3.6 The IfA's Standards and Guidance will be used throughout the execution of the project.

4.0 ARCHAEOLOGICAL RECORDING

- This will be based on IfA guidelines and those advised by the HEPAO and will consist of:
- 4.1 A photographic record consisting of black and white prints, supplemented by digital photography, will be compiled. The black and white prints and negatives of archive quality will comprise the primary archive. All photographs, both general and specific, will include scale and, where appropriate, a north arrow. A full photographic concordance will accompany this archive which will contain a description of each photograph, including structure, direction of shot, scale size, date and photographer identification.
- 4.2 The photographic record will be supplemented by descriptive notes.
Any variation of the above shall be agreed in consultation with the HEPAO.

5.0 ARCHIVE AND REPORT

- 5.1 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 entire project. The documentary archive will be produced to the relevant archive standards. This will include relevant correspondence together with field drawings, notes and photographic records and a copy of the project report. The documentary archive will be deposited with the Cornwall Records Office.
- 5.2 A summary of the contents of the archive shall be supplied to the HEPAO.

- 5.3 An illustrated summary report will be produced within six months of the completion of fieldwork, specialist reports allowing, and submitted to the HEPAO, and the Client.
- 5.4 A report will be produced. This will include the following elements:
- 5.4.1 A report number;
 - 5.4.2 A copy of the HEPAO brief and this WSI;
 - 5.4.3 The aims and methods adopted in the course of the investigation;
 - 5.4.4 A location plan, an overall site plan, a plan of the buildings, with an indication of where photographs have been taken, with appropriate annotation;
 - 5.4.5 One or more representative images (as appropriate) with appropriate annotation;
 - 5.4.6 A concise non-technical summary of results of the project;
 - 5.4.7 A description of the building and any significant historical elements;
 - 5.4.8 Any specialist reports and assessments commissioned.
- 5.5 The HEPAO will receive the report within six months of completion of fieldwork, dependant on the provision of specialist reports, radiocarbon dating results etc., the production of which may exceed this period. If a substantial delay is anticipated then an interim report will be produced. The report will be supplied to the HEPAO on the understanding that one of the hard copies will be deposited for public reference in the HER. In addition to the hard copies of the report, one copy will be provided to the HES in digital Adobe Acrobat PDF format, on the understanding that it may in future be made available to researchers via a web-based version of the HER.
- 5.6 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.
- 5.7 A copy of the report detailing the results of these investigations will be submitted to the OASIS (*Online AccesS to the Index of archaeological investigationS*) database.
- 5.8 Should they merit it; the results of these investigations will be published in an appropriate academic journal. If required, after the production of a summary report, a programme and timetable for this will be submitted to the HEPAO and the Client for approval.
- 6.0 MONITORING**
- 6.1 The HEPAO will monitor the work and will be kept regularly informed of progress.
- 6.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.
- 6.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.
- 7.0 PERSONNEL**
- 7.1 The project will be managed by Colin Humphreys and the building survey will be conducted by Emily Wapshott. Where necessary, appropriate specialist advice will be sought (see list of consultant specialists in Appendix 2 below).

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Appendix 1 – List of specialists

Building recording

Richard Parker 11 Toronto Road, St James, Exeter. EX4 6LE. Tel: 07763 248241

Conservation

Alison Hopper Bishop the Royal Albert Memorial Museum Conservation service a.hopperbishop@exeter.gov.uk

Richard and Helena Jaeschke

2 Bydown Cottages, Swimbridge, Barnstaple EX32 0QD mrshjaeschke@email.msn.com Tel: 01271 830891

Curatorial

Thomas Cadbury

Curator of Antiquities Royal Albert Memorial Museum, Bradninch Offices, Bradninch Place, Gandy Street, Exeter EX4 3LS

Tel: 01392 665356

Alison Mills

The Museum of Barnstaple and North Devon The Square, Barnstaple, North Devon. EX32 8LN Tel: 01271 346747

Bone

Human Professor Chris Knusel University of Exeter Tel: 01392 722491 c.j.knusel@ex.ac.uk

Animal Wendy Howard

Department of Archaeology, Laver Building, University of Exeter, North Park Road, Exeter EX4 4QE

w.j.howard@exeter.ac.uk Tel: 01392 269330

Lithics

Martin Tingle

Higher Brownston, Brownston, Modbury, Devon, PL21 OSQ martin@mtingle.freemove.co.uk

Metallurgy

Lee Bray

Exmoor National Park Authority, Exmoor House, Dulverton TA22 9HL Tel: 01398 324491

Palaeoenvironmental/Organic

Wood identification Dana Challinor Tel: 01869 810150 dana.challinor@tiscali.co.uk

Plant macro-fossils Julie Jones juliedjones@blueyonder.co.uk

Pollen analysis Ralph Fyfe Room 211, 8 Kirkby Place, Drake Circus, Plymouth, Devon, PL4 8AA

Pottery

Prehistoric

Henrietta Quinnell
39D Polsloe Road, Exeter EX1 2DN Tel: 01392 433214

Roman

Alex Croom, Keeper of Archaeology
Tyne & Wear Archives & Museums, Arbeia Roman Fort and Museum, Baring Street, South Shields,
Tyne and Wear NE332BB

Tel: (0191) 454 4093 alex.croom@twmuseums.org.uk

Medieval

John Allen,
22 Rivermead Road, Exeter, EX2 4RL Tel: 01392 256154

Post Medieval

Graham Langman
Exeter, EX1 2UF Tel: 01392 215900 email: su1429@eclipse.co.uk

Appendix Three

Detailed Photograph List for Little Haven, Newton Moor, Troon.

1. The south-west elevation, showing the lean-to building and central opening; from the west.
2. As above, looking through the entrance in the south-west elevation to the north-east elevation; from the south-west.
3. The south-west elevation; from the south.
4. The corner of the south-west and south-east elevations, showing the faced granite block quoins; from the south.
5. The south-east elevation; from the east.
6. The north-east elevation, showing substantial wall collapse; from the east.
7. As above; from the north-east.
8. The central opening on the north-west elevation, leading into room 1 (R1).
9. The western end of the north-east elevation where the main building is abutted by the lean-to; from the north-east.
10. The lean-to building at its north corner, showing severe collapse; from the north-east.
11. The interior of the building, north corner (room 1; R1); from the south.
12. The interior of the building the north-west elevation, showing the various openings to the lean-to building (room 2 and 3; R2, R3).
13. The north section of the lean-to; from the south-east (room 2; R2).
14. The north section of the lean-to; from the south (room 2; R2).
15. The central opening in the north-west elevation, leading from room 1 (R1) to room 3 (R3); from the south-east.
16. The interior of the building, west corner (room 1; R1); from the east.
17. The west side of the central opening in the south-west elevation, showing the partly blocked window; from the north-east.
18. View through the central opening in the south-west elevation, to the engine house beyond; from the north.
19. The interior of the building, south corner (room 1; R1), showing the tall narrow opening high in the south-west elevation; from the north.
20. The south-east elevation, showing the central opening which leads out almost directly onto the spoil tip; from the west.
21. The interior of the building, east corner (room 1; R1), showing the extent of the wall collapse at this point; from the south-west.
22. View of the current grass covered floor surface in the interior of the building in room 1 (R1); from the south-south-east.
23. View of a cleared area of the floor, showing a hard packed lime floor; adjacent to the central opening in the north-east elevation; from the south-west.
24. The central opening in the north-west elevation which leads back from room 2 (R2) to room 1 (R1); from the west.
25. The party wall between rooms 2 and 3, in the lean-to building; from the west.
26. The interior view of the north-west wall of the lean-to showing the doorway and window within room 3 (R3).
27. The west corner of room 3 (R3); from the east.
28. The south corner of room 3 (R3), showing the blocked doorway in the south-east wall and the fireplace in the south-west wall; from the north.
29. Detailed view of the head of the blocked opening in the south-east corner of room 3 (R3); from the north.
30. View of the fireplace showing the blocking and collapse of the flue above; from the north-east.
31. As above, detailed view showing the outer granite jambs and lintel and the infill of the cast-iron grate and cement mortared brick and stone blocking the whole opening; from the north-east.
32. View of the concrete floor in room 3 (R3) in the lean-to; from the east.
33. View of the north-west exterior elevation of the lean-to, showing the rendered exterior; from the west.

Appendix Four

HER records for Mines on Newton Moor

HER Number: 162773

Name: NEWTON MOOR - Post Medieval mine

Summary: Newton Moor was probably an C18 mine but was working in 1836-7 with Polgrine and Condurrow as Polgrine and Condurrow Consols Mining Company, also known as Polgrine, Newton Moor and Condurrow Consols.

Grid Reference: SW 6698 3913

Parish: Camborne, Kerrier, Cornwall
Carn Brea, Kerrier, Cornwall

MINE (Post Medieval - 1540 AD to 1900 AD)

Full description: Newton Moor was probably an eighteenth century mine but was working in 1836-7 with Polgrine and Condurrow as Polgrine and Condurrow Consols Mining Company, also known as Polgrine, Newton Moor and Condurrow Consols. Workings were described as still on an insignificant scale, although a 36" engine had been erected on Newton Moor Shaft with 250 fathoms of flat rods to Polgrine Shaft, and a set of stamps was driven by a 14' waterwheel. The sett was abandoned in 1839, but was taken up soon afterwards by John Taylor & Son who had already acquired an interest in this area (b1). Newton Moor eventually formed a part of Wheal Grenville (35302), for which see detailed history.

HER Number: 162776

Name: CONDURROW - Post Medieval mine

Summary: Condurrow passed from being a copper producer to one of tin but failed in the tin slump of the early 1870s. It later became a part of Condurrow Utd. Mines and then Condurrow Mines Ltd.

Grid Reference: SW 6615 3919

Parish: Camborne, Kerrier, Cornwall

MINE (Post Medieval - 1540 AD to 1900 AD)

Full description: Also known as Great Condurrow, the earliest surviving reference to this mine appears to be an advert for shares published in 1815: the first recorded sales, of some 29 tons of copper ore, come three years later. Condurrow improved drastically in the 1820s (1,200 tons of copper ore produced in 1826), but closed by 1830. The mine reopened in 1844, with copper ore output rising dramatically from 50 tons that year to 1,550 tons in 1848, and stayed at around 1,750 tons annually until collapsing in 1863. Tin was first raised in 1851 but tonnages were small before the 1860s. In 1866 Condurrow became part of Pendarves United, a concern which included several old, unsuccessful mines like Wheal Tryphena (162777), to the west of the Troon-Beacon road. Most of this combine's output came from Condurrow's sett, but the slump that followed the intense but all-too-brief tin boom of 1871-2 put it out of action. A part of the sett was finally reopened again in 1906 as part of Condurrow United Mines Ltd., which had all of the Pendarves United area, plus other abandoned setts to the north and east, but concentrated work on Condurrow, around the shaft formerly called Woolf's, though now renamed Neames. It is this shaft that boasts the very prominent engine house on top of Carn Entral. In 1910 this mine became Condurrow Mines Ltd., but neither this company nor its predecessor could make any money here, and it closed for good in 1914. Total production figures are about 32,000 tons of copper ore (1815-66) and about 5,000 tons of tin ore (1851-72). Production in the C20th was negligible. During its earlier operations as Condurrow, the mine paid dividends of around £20,000. In 1910 this mine became Cundurrow Mines Ltd., but was unsuccessful closing in 1914 (b1).

HER Number: 40282

Name: POLGINE - Post Medieval mine

Summary: Polgine Mine was in operation from 1792 to 1799.

Grid Reference: SW 661 384

Parish: Camborne, Kerrier, Cornwall

MINE (19th Century - 1801 AD to 1900 AD)

Full description: Polgine Mine was in operation from 1792 to 1799, the workings of which are still marked by a series of shafts extending in a north-easterly direction from the Methodist chapel at Troon. Working apparently continued until 1826, by which time the name had changed to New Dolcoath. The mine was again active in the 1830s when the sett was incorporated into a sett that comprised also that of Condurrow and Newton Moor (162773). The original name of the sett was Wheal Gine (b1).

HER Number: 35302

Name: WHEAL GRENVILLE - Post Medieval mine

Summary: A large and important mine which persevered in the face of financial adversity, finally hitting the Great Flat Lode to benefit from boom prices for tin in the 1880s. It became part of Grenville United in 1906.

Grid Reference: SW 6639 3861

Parish: Camborne, Kerrier, Cornwall

MINE (Post Medieval - 1540 AD to 1900 AD)

Full description: A large and important mine, Wheal Grenville was made up of the setts of several much older ones, including Polgine (40282) and Newton Moor Mine (162773) (b2). The original lease for Wheal Grenville was granted in 1845 by Baroness Grenville, the then mineral lord. In 1851 the company was acquired by John Taylor & Sons, the

