Galloway Glens Landscape Partnership Can You Dig It?

Community Archaeology Project

Data Structure Report Woodhead Lead Mine, Carsphairn



by Claire Williamson issued 25th August 2023









Quality Assurance

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Quality Assurance Data

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Date of Issue 25th August 2023 Version 1.0

Commissioning Body Galloway Glens Landscape Partnership Scheme

Event Name Woodhead Lead Mine, Carsphairn

Event Type Historic Building Survey

Event Date(s) July 2022

Rathmell Archaeology Code RA18107 OASIS Ref rathmell1-437549

Location United Kingdom: Scotland: Dumfries and Galloway

NGR NX 52887 93684 Parish Carsphairn

Designation(s) Scheduled Monument (SM5184)

Canmore IDs 63884; 106171; 106179

Contents

Introduction	5
Historical & Archaeological Background	5
Project Works	8
Findings	8
Building [001]	
Building [002]	
Building [003]	
Building [004]	23
Building [005]	23
Building [006]	26
Building [007]	29
Discussion	33
Building [001] – Office Row	33
Building [002]	37
Building [003] – The Stables	37
Building [004] – The Powder Magazine	37
Buildings [005] and [006] – The Miners' Rows	38
Building [007] - The School and Schoolhouse	41
Conclusion	41
Acknowledgements	42
References	42
Documentary	
Archives	43
Online images	43
Cartographic	
Appendix 1: Photographic Register	
Contact Details	FO

Figures

Figure 1a: Extract from the 1st edition Ordnance Survey map of 1853	6
Figure 1b: Extract from the 25-inch Ordnance Survey map of 1895	6
Figure 2: Plan showing the location of surveyed buildings	7
Figure 3a: General view of Building [001] from the northeast	10
Figure 3b: Shot of Room A in Building [001], taken from the south	10
Figure 4: Plan of Building [001]	11
Figure 5: External SE facing elevation of Building [001]	12
Figure 6: Fireplace in the southwest wall of Room B, Building [001]	14
Figure 7a: External NW facing elevation of Building [001] showing junction between Roo D and E	
Figure 7b: General view of Building [002] from the southwest	15
Figure 8: Plan of Building [002]	17
Figure 9: Plan of Building [003]	18
Figure 10a: Building [003] – south wall of Room A	19
Figure 10b: Building [003] – blocked windows at south end of west wall of Room B	19
Figure 11a: Building [003] - partially blocked window in N wall of Room B	21
Figure 11b: Building [004] – blocked opening in SE wall	21
Figure 12: Plan of Building [004]	22
Figure 13: Plans of Buildings [005] and [006	24
Figure 14a: Building [005] – possible jambs of fireplace in NE wall of Room C, taken fron SW	
Figure 14b: Building [005] – remains of possible fireplace in SW wall of Room A, taken fr the NE	
Figure 15: Building [006] - external SW facing elevation	27
Figure 16: Plan of Building [007]	28
Figure 17a: Building [007] - blocked opening within NW wall of Room B, internal view	31
Figure 17b: Building [007] – Internal view of SW wall of Room D showing joist holes and traces around possible first-floor window	
Figure 18a: Building [007] – SW end of Room E taken from the SE	32
Figure 18b: 'David McMath at the leadmines September 1926' showing SW end of Buildi [001], image courtesy of <i>Carsphairn Archive</i> (see References)	
Figure 19a: View of Building [001] in 1993 taken from the southwest, courtesy of Anna Campbell	35
Figure 19b: Building [001] – external view of doorway in NW wall of Room A taken in 198 courtesy of Anna Campbell	
Figure 20a: 'Mine office on Office Row' showing SW half of Building [001] in 1959, image courtesy of <i>Carsphairn Archive</i> (see References)	
Figure 20b: View of Woodhead from the SE, showing (A) Building [007]; (B) Building [006] (C) Building [005]; (D) Building [004]; (E) Building [001] and (F) Building [003], image tak from Hunter (2001, 10)	en

Figure 21a: Extract from 'Plan of Woodhead with photos (copy), 4 parts' showing 'Stables' the left of the Office Row and dated as 1845 by Anna Campbell, image courtesy of Carsphairn Archive (see References)	
Figure 21b: 'Woodhead Lead Mine, Carsphairn No 10' taken from the SE, image courtesy Carsphairn Archive (see References)	of
Figure 22a: 'Schoolhouse at Woodhead Leadmine' taken in 1886 and showing Building [00 from the E, image courtesy of <i>Carsphairn Archive</i> (see References)	

Introduction

- 1. This Data Structure Report describes works undertaken at Woodhead Lead Mine, Carsphairn carried out as part of the Galloway Glens Landscape Partnership (GGLP) community archaeology project *Can You Dig It*. This report presents the results from a historic building survey undertaken at the site of a 19th-century lead mining village in the parish of Carsphairn.
- 2. Focusing on the buildings at the western end of the mining complex, seven structures were recorded, which included the manager's house and office, two rows of miners' cottages, stables, a powder magazine and a school. The structures vary in their state of survival; while none remain roofed, the height of the standing walls range from one or two courses up to full height. Over 300 photographs were generated from the survey, capturing details of the walls before they deteriorate any further.
- 3. The works were carried out by volunteers supported by Rathmell Archaeology staff. The structure of the works was drawn from advice and guidance from officers of GGLP, Dumfries and Galloway Council and members of local heritage societies.

Historical & Archaeological Background

- 4. The site of Woodhead Lead Mine survives as a complex of ruinous structures spread out across a hillside to the northwest of Carsphairn. It represents the remains of an entire mining village built in the 1830s (Figure 1a) and is designated as a scheduled monument (SM5184). As well as a school, library and housing, it is still possible to make out the structures and areas central to the mine's workings, which went from mining the lead right through to smelting it in furnaces. Its history has been well researched by Sassoon (1969) and Campbell (1994).
- 5. The Woodhead Lead Mine was operational from 1838 to 1873 under the control of a reputably philanthropic landowner, Colonel MacAdam Cathcart. It is a rare example of a 'total production' unit in Scotland, using the cutting-edge equipment of the time to carry out all the processes of lead production from mining the ore through to exporting high-quality lead pigs and even some silver. The machinery was powered by water, with a myriad of lades still traceable across the site.
- 6. At its peak in the 1840s, Woodhead was producing up to 900 tons of lead a year. And for every ton of lead, they were also getting around 18 ounces of silver: enough for the Colonel's wife to make communion cups from it for donation to the local church. The smelted lead was carried by horse-drawn carts up for storage in Dalmellington, before being taken to Ayr for sale and shipment.
- 7. Alongside this fully integrated mining complex, Cathcart also constructed a 'model village' to house the miners and their families, with a school and library to educate their children. By 1851 there was a population of 301 staying in the village, pulling in mainly skilled miners from Wanlockhead and Leadhills. As the mine's output started to fall dramatically throughout the 1850s however, the miners started to leave. Some went to Dalmellington, while others headed further afield to mines in America and Australia. The mine closed in 1873, but some of its buildings were later utilised for other purposes: by 1895, the school was being used as a Shooting Lodge and the powder magazine as a Kennel (Figure 1b). Some of the housing remained in use for self-employed forestry workers until as late as the mid-1950s, and the smelters' housing block in the southeast continued to be in use for scouting holidays and agricultural storage for a few decades after that.
- 8. In 2002, CFA Archaeology Ltd carried out topographical surveys of three mines in Dumfries and Galloway which included Woodhead Lead Mine (Cressey, Pickin & Hicks 2004). The works surveyed the locations of the mine, the dressing and washing floors, the smelt mill and the housing, successfully managing to create an accurate survey of their locations and outlines.
- 9. A further survey of the site in 2008 by Macrae highlighted the importance of future work on the site to further understand not just the industrial processes, but the lifestyles of the mining community that developed there (2009).

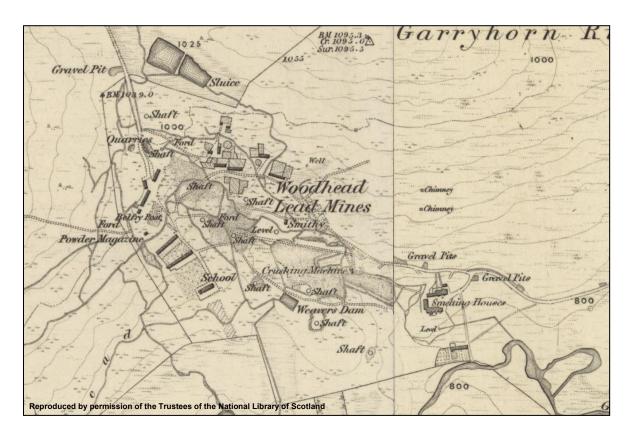


Figure 1a: Extract from the 1st edition Ordnance Survey map of 1853

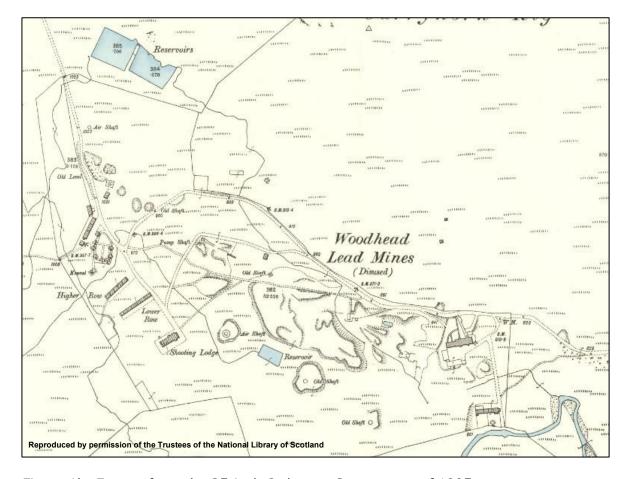


Figure 1b: Extract from the 25-inch Ordnance Survey map of 1895

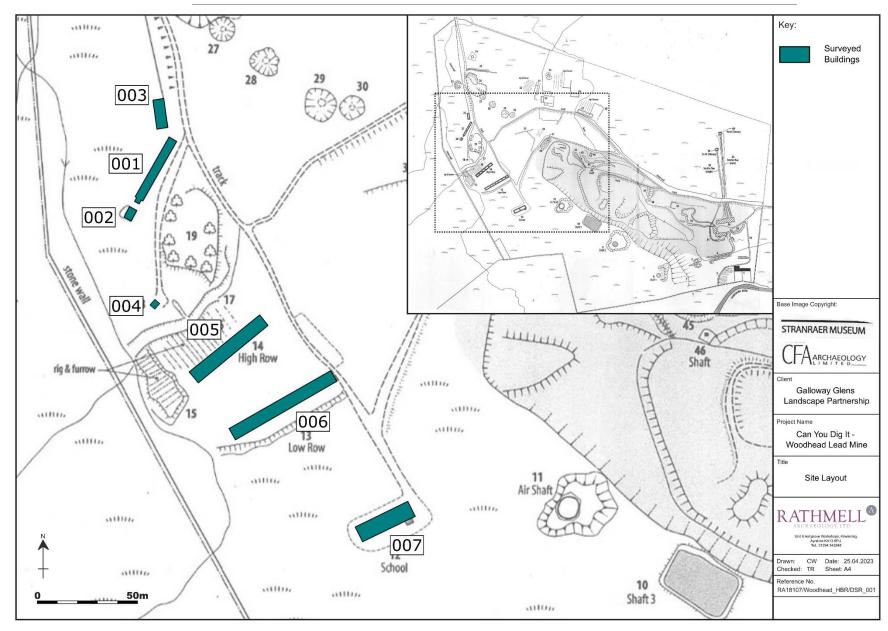


Figure 2: Plan showing the location of surveyed buildings

10. One of the aims of the works detailed in this report was to further add to these earlier surveys by providing a more detailed recording of the upstanding portions of some of the buildings and allowing an in-depth understanding of their materials and construction.

Project Works

- 11. The archaeological works focussed on the site of the miners' rows, the manager's house and the buildings associated with them. These structures are located at the western end of the Woodhead Lead Mine, accessed by a single-track road coming from the A713. The entirety of the Lead Mine and its associated structures have been granted Scheduled Monument status (SM5184).
- 12. The on-site works took place over two days on the 13th and 14th of July 2022 and consisted of a Historic Building Recording of the aforementioned structures. This recording was subject to aspects of the ALGAO:Scotland Basic Level (2013), to generate a record of the historic fabric of the structures before they deteriorate any further.
- 13. The record encompassed a photographic record, a written record, and sketched plans and elevations of the existing structures. In greater detail, these comprised:
 - a written record of the structures, including comments on the condition, construction techniques, materials, fixtures and fittings and an interpretation of function;
 - a photographic record of exterior elevations, details of interior elements and general views to place the structures in their immediate landscape; and
 - annotated sketch plans of the existing structures to identify location and character of fabric.
- 14. The product of the building recording is this report containing a summary of the work undertaken and a baseline of the archaeological resource present.
- 15. All works were carried out using Rathmell Archaeology Ltd standard methods as outlined in the Risk Assessment Method Statement (RAMS) (McKinstry 2022). The fieldwork was undertaken in mostly dry weather. In terms of structure, the core field team of Rathmell Archaeology staff and volunteers were on-site from 9am to 4pm.

Findings

- 16. As stated, the on-site works focused on a group of buildings at the western end of the area. In total, seven structures were recorded numbered Buildings [001] to [007] accordingly. These included the manager's house and office, two rows of miners' cottages, stables, a powder magazine and a school. The structures vary in their state of survival; while none remain roofed, the height of the standing walls range from one or two courses up to full height. The locations of the seven structures are shown in Figure 2.
- 17. Written descriptions were obtained for five of the buildings ([001] to [005]) but due to time constraints, the survey of Buildings [006] and [007] focused on creating a full photographic record and measured sketch plans.

Building [001]

- 18. Building [001] sits on high ground at the northwestern end of the site with clear views across the miners' cottages to the south and the mine workings beyond. It has been identified as the site of the manager's house, office and shop, otherwise known as 'Office Row'. To the north of its northeastern end sits Building [003], while just to the southwest of it is Building [002]. The ground to the southeast appears to be the site of a former garden with three trees still upstanding.
- 19. The structure of Building [001] survives as a single-storey rectangular building orientated southwest-northeast, with no surviving roof (Figure 3a). The external dimensions of the building measure approximately 37.4m southwest-northeast by 6.3m northwest-southeast, and the walls survive to a maximum height of 3.15m. Its interior is divided into five compartments, labelled Rooms A to E (Figure 4). No internal floor surfaces are

currently visible, with the internal ground level of each compartment built up by varying levels of tumble and covered by vegetation.

Room A

- 20. Room A sits at the very southwest end of the building and is the smallest of the five rooms. Externally, it measures 2.7m southwest-northeast by 2.4m transversely, with a wall thickness of approximately 0.3 to 0.4m. It is rectangular in plan with only one external entrance from the southeast. There is no evidence of internal access to the adjacent Room B.
- 21. The walls of Room A are mostly collapsed, only surviving to approximately 1.5m high (Figures 3b and 5). They comprise coursed greywacke rubble, bonded with mortar and have traces of a roughcast render across their external faces. The walls of Room A do not appear to tie in with the southwest wall of Room B, instead abutting it, and it seems possible that Room A is a later addition to the structure.
- 22. The single external entrance sits at the northeast end of the southeast wall. It does not survive to its full height but appears to have been a simple rectangular opening measuring 1.08m wide, with no notable finish to the door jambs.

Room B

- 23. Room B sits adjacent to the northeast of Room A and is comparatively much bigger in size, measuring 8.95m (southwest-northeast) by 5m (southeast-northeast) internally with a wall thickness of 0.6m. There is only one external entrance, which sits central to the southeast wall, and three windows: one to either side of the external doorway and a smaller one at the centre of the northwest wall.
- 24. The walls of Room B consist of coursed greywacke rubble bonded with mortar and covered by a roughcast render across their external faces. Squared ashlar quoins are present at both of the southwest corners. The southeast, southwest and northwest walls stand between 2 and 3.15m high, while the internal northeast wall (which separates it from Room C) is mostly collapsed, standing to approximately 1m across most of its length.
- 25. The single external entrance at the centre of the southeast wall measures approximately 1m wide and 2.5m high. It is defined by simple squared jambs and a stone lintel.
- 26. To either side of the central doorway sits a window. Both windows sit approximately 0.65m above the external ground level and measure between 1.15 and 1.35m wide. Neither the upper portions of the windows nor their sills survive *in situ*. Only small sections of the simple squared jambs remain at either window, with 'L' shaped iron brackets on their external faces indicating the locations of hinges.
- 27. At the centre of the southwest wall sits a substantial fireplace, which measures 1.25m wide and 0.55m deep (see Figure 6). Only the upper portion of the fireplace remains visible as its interior is partially infilled by tumble. It is capped by a large, shaped blonde sandstone block (its central section now missing) with a further greywacke lintel above. The vertical jambs are also shaped blonde sandstone, and the top of a cast-iron stove, with possible oven and hot plate, is visible within the rubble infill of the interior.
- 28. Set into the wall just to the right of, and approximately 1m above, the fireplace, is a small recess measuring approximately 0.25m square. It is defined by a greywacke lintel and jambs and appears to have been a small storage shelf.
- 29. Approximately 0.6m to the left, southeast, of the fireplace at ground level are the remains of an alcove or cupboard which measures 0.85m wide, 0.3m deep and approximately 1m high. The stones at the rear of the alcove have been covered by a lime plaster.
- 30. The central portion of the northwest wall is slightly recessed, defined by squared greywacke jambs and measuring 1.7m wide by 0.15m deep. At the centre of this recess sits a small window with a lintel, sill and jambs of greywacke. The window has a splayed embrasure, measuring 0.3m wide externally and 0.5m wide internally. It sits approximately 0.6m above the external ground level and measures approximately 0.5m high.



Figure 3a: General view of Building [001] from the northeast



Figure 3b: Shot of Room A in Building [001], taken from the south

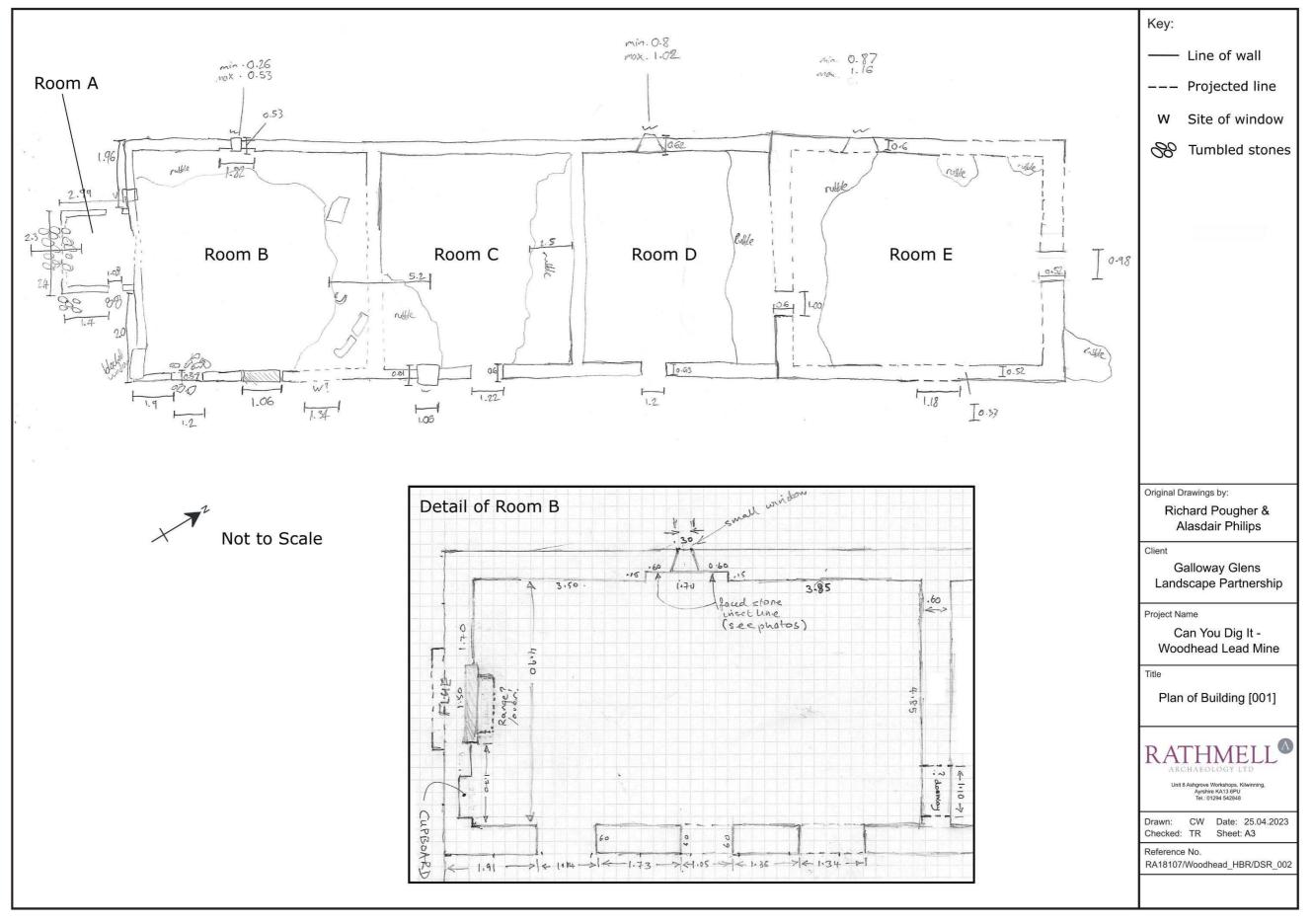


Figure 4: Plan of Building [001]

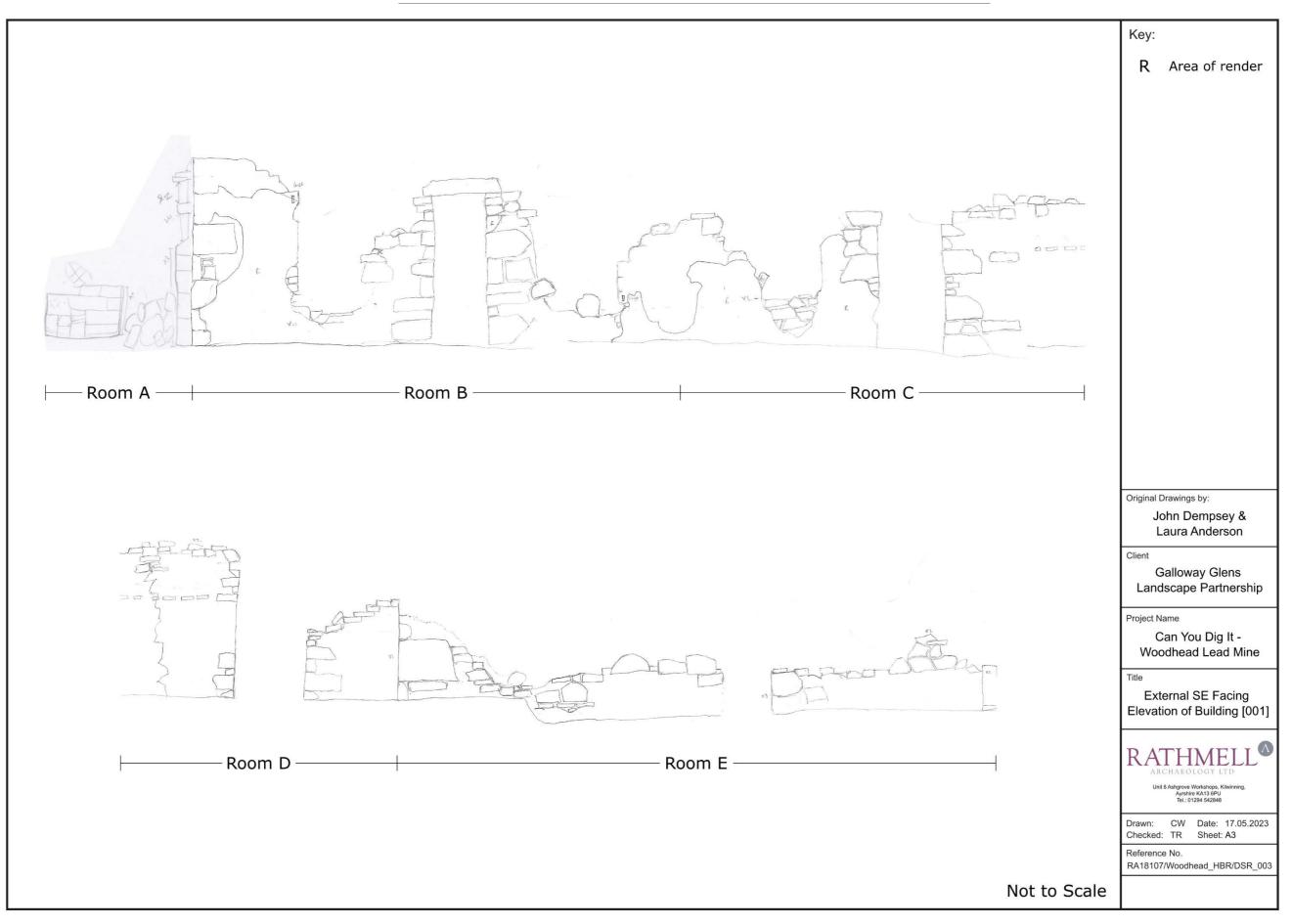


Figure 5: External SE facing elevation of Building [001]

31. As stated, the northeast wall has mainly collapsed but a possible *in situ* jamb visible within the tumble could suggest the presence of an internal doorway at its southeast end leading to Room C. The presence of ceramic chimney pots within this rubble might also hint at the presence of another fireplace in this wall but no definite structural evidence for this is currently visible.

Room C

- 32. Directly to the northeast sits Room C, which measures approximately 7.35m (southwest-northeast) by 5m (southeast-northeast) internally with a wall thickness of 0.6m. There is only one external entrance and one window, both of which sit on the southeast wall.
- 33. The walls of Room C consist of coursed greywacke rubble bonded with mortar and covered by a roughcast render across their external faces. Traces of lime plaster can also be seen covering the internal face of the southeast wall. The southeast, northwest and northeast walls stand between 2 and 2.9m high, while the internal southwest wall (which separates it from Room B) is mostly collapsed, standing to approximately 1m across most of its length. The internal face of the northeast wall has partially tumbled, obscuring its lower half.
- 34. The single external entrance sits central to the southeast wall and measures 1.06m wide. It is defined by squared greywacke jambs, but the lintel is no longer *in situ*.
- 35. To the southwest of the doorway sits the room's only window, at 0.66m above the external ground level. It measures 1.22m wide, but its lintel, sill and jambs are no longer present.
- 36. The only possible internal doorway is the partially visible door jamb at the southeast end of Room C's southwest wall which was noted in the description of Room B. No other internal features are currently visible.

Room D

- 37. Continuing to the northeast is Room D, a nearly square room measuring 4.8m southwest to northeast by approximately 5m northwest to southeast with a wall thickness of 0.6m. There is one external doorway in the southeast wall, a single window in the northwest wall and an internal doorway in the northeast wall leading to Room E.
- 38. The walls comprise coursed greywacke rubble bonded with mortar and covered by a roughcast render across their external faces. As with Room C, traces of lime plaster can also be seen covering the internal face of the southeast wall and across the lower half of the northwest wall. The walls stand between 1.84m (along the northeast half) and 2.9m (along the southwest half) high.
- 39. The external doorway sits roughly central to the southeast wall and measures 1.2m wide. Its lintel is no longer present, and its jambs are formed of squared greywacke blocks.
- 40. The room's only window sits at the centre of its northwest wall, roughly 0.3m up from the external ground level. It has a splayed embrasure, measuring 0.8m wide externally and 1.02m wide internally, but its sill and lintel are no longer *in situ*.
- 41. There is no internal access from Room C, but the squared jambs of a potential opening within the collapsed northeast wall indicate the possible presence of a doorway into Room E. This opening measures 1m wide.
- 42. Viewed externally, the northeast ends of both the northwest and southeast walls abut the corners of Room E (Figure 7a), which are defined by squared quoins, indicating that Rooms B, C and D appear to be later than the structure of Room E.

Poom F

- 43. Building [001] ends with Room E at its northeast end. Room E measures 9.9m southwest to northeast by approximately 5m transversely, with a wall thickness of 0.6m.
- 44. The walls are formed of coursed greywacke rubble bonded with mortar. Compared with the rest of the building, Room E's walls have mostly collapsed and only stand between 0.39 and 1.02m high. While only a few courses survive at the northeast corners, the room's southwest corners are defined by squared quoins.

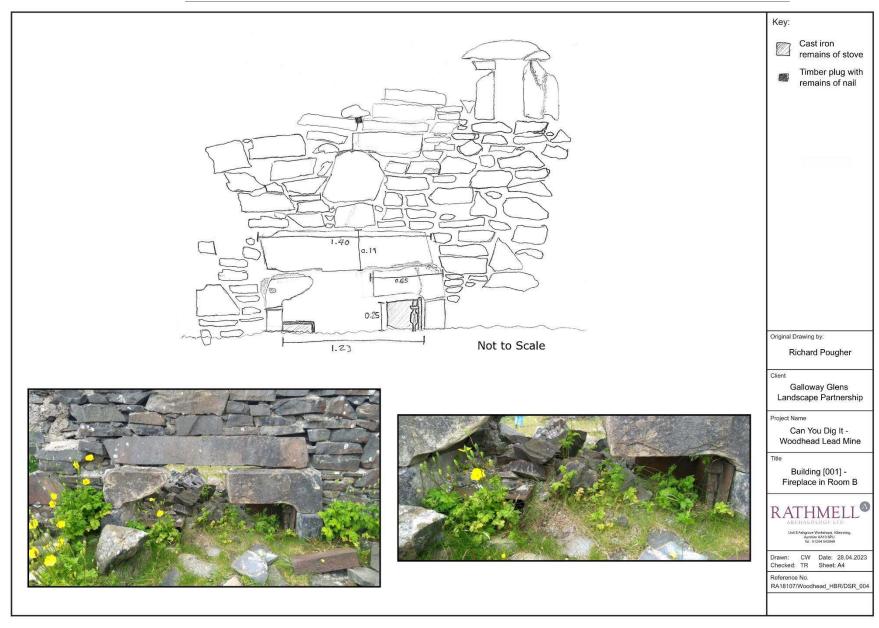


Figure 6: Fireplace in the southwest wall of Room B, Building [001]



Figure 7a: External NW facing elevation of Building [001] showing junction between Rooms D and E $\,$



Figure 7b: General view of Building [002] from the southwest

- 45. One window is present at the southwest end of the northwest wall, its splayed embrasure measuring 0.87m externally and 1.16m internally.
- 46. The ruinous state of Room E's external walls makes it difficult to be definite about the locations of doorways. Aside from the possible internal access in the southwest wall leading from Room D, there are two possible locations for external doorways observed in the southeast and northeast walls respectively.
- 47. The location of a possible external doorway in the southeast wall is suggested by a break in its length, which measures 1.18m wide and is defined on one side by a squared greywacke block which could represent a possible door jamb.
- 48. Another gap at the centre of the northeast wall, measuring 0.98m wide, suggests the possible location for another external doorway, which is defined by thin upright slabs still standing to a height of 0.38m on either side.

Building [002]

- 49. A short distance to the southwest of Building [001], and on the same alignment, was Building [002]: a single-compartment structure measuring approximately 5m square internally with a wall thickness of 0.7m (Figures 7b and 8). There is no roof remaining, and the interior is covered by tumble, turf and vegetation obscuring any potential floor surfaces.
- 50. The building is in a much more ruinous state than Building [001] and most of its walls only survive from approximately 0.3 to 0.5m high. A small section at the northwest end of its southwest wall is upstanding to 0.8m, however, and its northern corner still stands to 2.05m. These sections indicate that its walls are constructed of coursed greywacke rubble bonded with mortar, with squared quoins also present in this upstanding corner.
- 51. The poor survival of the walls means that window locations cannot be identified, but a gap at the centre of the southeast wall, measuring approximately 1m wide, might represent the site of an external doorway.

Building [003]

- 52. Slightly upslope from the northeast end of Building [001], Building [003] sits on a north-northwest to south-southeast alignment. It has been identified as the site of the stables and consists of a two-storey rectangular building with no surviving roof (Figure 9). As with Buildings [001] and [002], its interior is covered by tumble and overgrown with turf and vegetation obscuring any floor surfaces that might survive beneath.
- 53. Externally, the building measures approximately 5.8m east-west by 13.5m transversely. Its walls consist of coursed greywacke rubble bonded with mortar, although they vary in survival across their length. Most of the southern gable wall survives to full height at 4.6m, while the west and north elevations stand between 2.15 and 2.4m high and are missing their external faces. The east elevation is mostly collapsed only surviving to approximately 0.5m along most of its length. Large, squared quoins can still be seen in the southwest and northwest corners.
- 54. The interior of Building [003] is subdivided into two compartments: Rooms A and B. Room A
- 55. Room A occupies the southern end of the building and is the smaller of the two rooms, measuring 4.9m east-west by 3.3m north-south internally. Its walls measure from 0.4 to 0.6m thick, and there is one external entrance in its eastern wall and a small opening that sits high in its south wall.
- 56. The south wall is the gable end of the building which still stands to 4.6m (Figure 10a), while the west wall stands to 2.4m, and both are covered by a possible lime plaster on their internal faces. The north wall, which would have subdivided it from the adjacent Room B, has mostly collapsed, surviving to only 0.6m high and very overgrown.

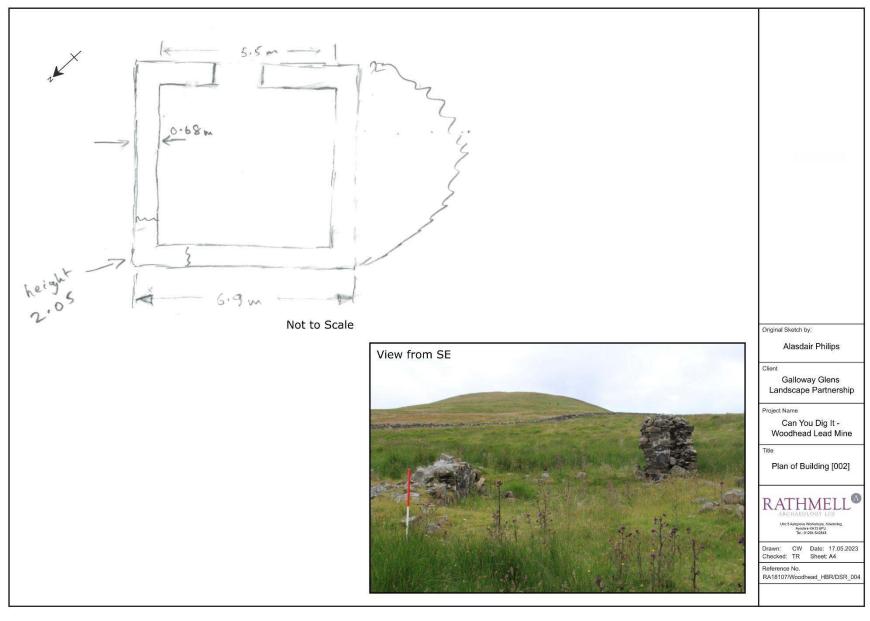


Figure 8: Plan of Building [002]

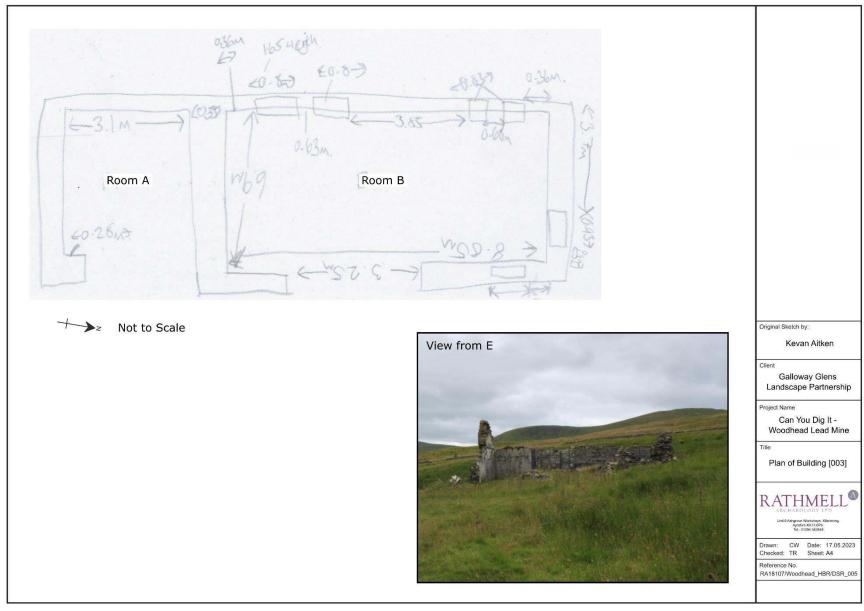


Figure 9: Plan of Building [003]



Figure 10a: Building [003] – south wall of Room A



Figure 10b: Building [003] – blocked windows at the south end of the west wall of Room B

- 57. The eastern end of the room appears to have been the site of a large opening which sat at the south end of the building's eastern elevation. The opening measures approximately 2.8m wide, although only the small section of walling at its southern edge survives, standing to approximately 1.2m high, meaning that the full height of the opening is no longer known. This surviving southern jamb is a simple square form with a lime plaster covering on its west and north faces.
- 58. The only other opening still present in Room A sits at the top of the southern gable wall, at a height of approximately 4m (Figure 10a). It measures approximately 0.6m square and is defined by single flat greywacke stones for both its jambs and lintel. There does not appear to be a discernible sill still *in situ*.
- 59. At around 2.5m high on the south wall, a horizontal break is visible in the plaster indicating the location of an upper floor, within which the above window sat (Figure 10a). At the same level in the adjoining west wall are a row of vertical rectangular joist holes, numbering seven in total, each measuring approximately 0.07m wide by 0.19m tall and spaced roughly 0.45m apart (partly visible on the right-hand side of Figure 10a).
- 60. Possible scrapes of red paint and an iron bolt are also visible on the internal faces of the south and west walls, and an iron ring also remains set into the middle of the south wall, approximately 1m above ground level.

Room B

- 61. At the northern end, Room B is larger in size, measuring 4.9m east-west by 8.85m north-south, with a wall thickness of 0.4 to 0.6m. While it could reflect a deeper build-up, the floor level of Room B appears to sit higher than Room A by approximately 0.6m.
- 62. The west and north walls stand between 2.15 and 2.5m high, while the east wall has mostly collapsed. It measures approximately 0.5m high across most of its length, apart from the final 3 to 4m of its northern end which measures from 1 to 2.5m high. Traces of lime plaster can be seen across the internal faces of the west, north and east walls.
- 63. There appears to be one external doorway in the east wall, and six windows (five of which have at least been partially blocked) split across the west, north and east walls.
- 64. A large gap within the southern half of the east wall provides a possible location for an external doorway into Room B. This gap measures 3.25m wide. This might represent another wide opening similar to the one into Room A, but only the footings survive of the walls to either side meaning that this might be more a reflection of poor survival.
- 65. On the west wall there are four blocked windows, all of similar style and dimensions, which sit in pairs at either end of the wall. Each of the four windows measures approximately 0.8m wide, and their jambs are formed by large, squared greywacke blocks. They have all been fully blocked using coursed greywacke rubble covered by lime plaster.
- 66. The two windows at the southern end of the west wall are positioned level to each other approximately 0.35m up from the internal ground surface (Figure 10b). They sit 0.7m apart and measure 1.75m tall but their lintels are no longer *in situ*. The two at the north end also sit level with each other but are set approximately 0.3m higher than the southern pair. They also sit 0.7m apart and survive to approximately 1m tall although, again, their lintels are no longer *in situ*.
- 67. A fifth window sits at the eastern end of the north wall (Figure 11a). It measures 0.93m wide by 1.4m tall and sits 0.15m up from the internal ground level. Its lintel and jambs are formed by large, squared greywacke blocks but its sill appears to be missing. The lower 0.4m of the opening has been blocked with coursed rubble containing traces of lime plaster.
- 68. At the northern end of the east wall, the remains of a possible jamb comprising squared greywacke blocks suggest the position of a sixth window. Neither the opposite jamb nor the sill or lintel survive to suggest its character, however.



Figure 11a: Building [003] - partially blocked window in N wall of Room B



Figure 11b: Building [004] – blocked opening in SE wall

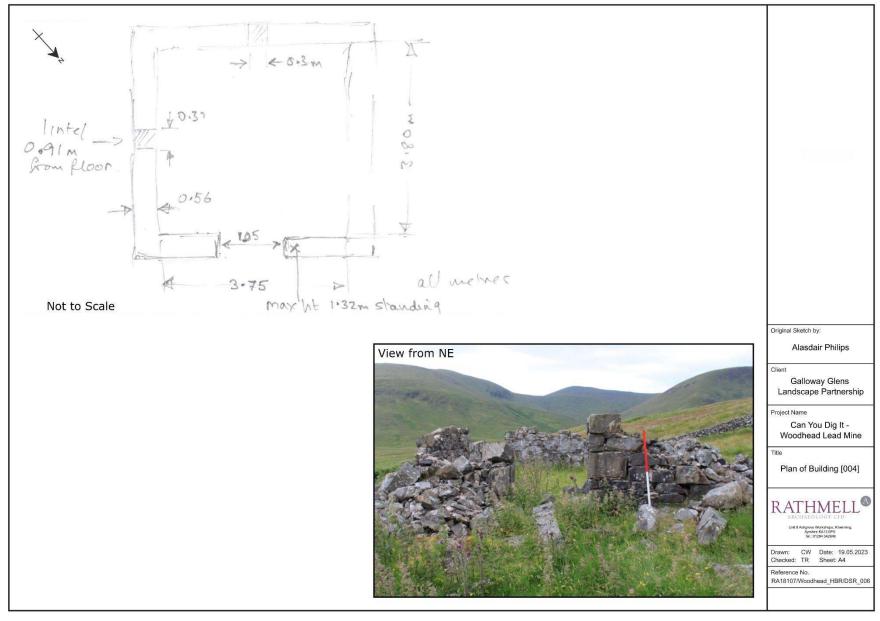


Figure 12: Plan of Building [004]

Building [004]

- 69. This structure is positioned further to the south, downslope of Buildings [001], [002] and [003]. It occupies a section of level ground which overlooks the rows of miners' cottages (Buildings [005] and [006]) sitting further to the southeast.
- 70. Building [004] is a single-compartment structure with walls consisting of coursed greywacke rubble bonded with mortar, and no surviving roof (Figure 12). The interior is overgrown with turf and vegetation but a section of concrete floor can be seen in the northern corner.
- 71. Externally, Building [004] measures roughly 4.9m square in plan, with a wall thickness of 0.56m. The walls have mostly collapsed, surviving to a maximum height of 1.32m, with a large amount of tumble covering the ground both externally and internally. There are traces of a possible lime plaster on the internal faces of the walls. The building has no internal subdivisions and only one doorway which sits central to the northeast wall.
- 72. This doorway measures 1.05m wide and survives up to a height of approximately 1.2m although its upper portion is no longer extant. Its jambs are defined by large, squared greywacke blocks.
- 73. The only other features noted in the surviving walls are two narrow, blocked openings that sit at ground level, one in each of the southwest and southeast walls. Each opening measures around 0.33m wide and 0.95 high. The southeast example is still capped by a stone lintel (Figure 11b). Both have been infilled with rubble and mortar. There might also be a similar opening in the northwest wall, but this wall has mostly collapsed making it unclear.

Building [005]

- 74. Continuing downslope to the southeast, Buildings [005] and [006] represent two rows of miners' cottages, named the 'Higher Row' and the 'Lower Row' respectively. They both sit on the same alignment running southwest to northeast.
- 75. Externally, Building [005] measures approximately 44m southwest to northeast by 6m southeast to northwest, with a wall thickness of 0.55 to 0.6m. Its walls are constructed of coursed greywacke rubble bonded with mortar. The walls have largely collapsed: the highest section is at the northwest corner of the southwestern end, which stands up to 1.85m high, but the rest of the structure stands between 0.14 and 0.92m high. The interior is covered by tumble, and overgrown with turf and vegetation, obscuring any floor surfaces that may survive. Many roofing slates are also present in the tumbled material.
 - Building [005] has been subdivided into five compartments: Rooms A to E labelled sequentially from southwest to northeast (Figure 13). Due to the poor survival of the walls and the similar nature between the rooms, it seems appropriate to describe them as a group.

Rooms A to E

- 76. Each of the compartments measures 4.8m wide (northwest to southeast) and ranges between 6.72m and 9.1m in length (southwest to northeast).
- 77. They each appear to have a single external entrance through their southeast walls, with no internal access between them. In Rooms B, D and E, the positioning of the doorways is indicated by gaps in what survives of the walls. The footings of the doorways in Rooms A and C are still visible, however, measuring approximately 1.2m wide and marked by squared stone jambs.
- 78. Across most of the rooms, the walls do not survive to a height that allows for the identification of window locations. The only window that can be identified is at the southwest end of the northwest wall in Room A. This window sits roughly 1.4m up from the external ground level. It has a splayed embrasure, measuring 0.56m wide externally and 0.73m wide internally, but its sill and lintel are no longer *in situ*.

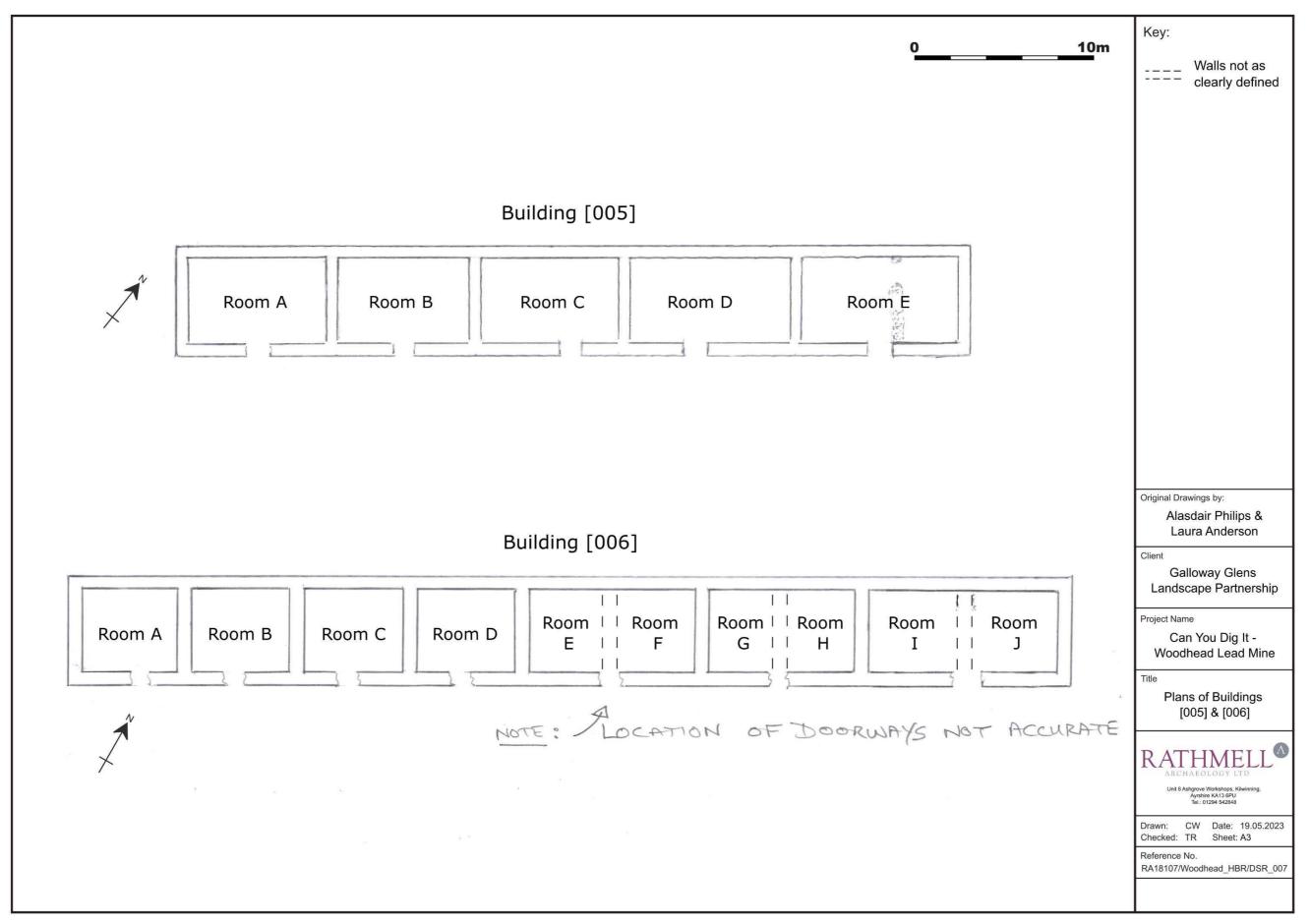


Figure 13: Plans of Buildings [005] and [006



Figure 14a: Building [005] – possible jambs of fireplace in NE wall of Room C, taken from the SW



Figure 14b: Building [005] – remains of a possible fireplace in the SW wall of Room A, taken from the NE

79. Traces indicating the locations of fireplaces can be seen in each of the internal subdividing walls, as well as in either gable end. Most only survive as one or two vertically placed stones, visible within the base of the walls, suggesting the site of jambs (see Figure 14a). In the gable wall, which formed the southwest wall of Room A, the site of a fireplace is more strongly indicated by the lower remains of a recess measuring 1.05m wide (Figure 14b).

Building [006]

- 80. Known as the 'Lower Row', Building [006] is similar in character to Building [005] but is longer and has more internal compartments. Externally, it measures approximately 56m southwest to northeast by 6m southeast to northwest, with a wall thickness of 0.55 to 0.6m.
- 81. The walls of Building [006] are in a more dilapidated state than those of Building [005], measuring between approximately 0.2 and 0.7m across most of its extent. The clear exception to this is the southwest gable, which appears to still stand at its full height of approximately 5m. It is in this gable wall that we can see a construction style of coursed greywacke rubble bonded with mortar.
- 82. As with [005], the interior of Building [006] is covered by tumble and overgrown with turf and vegetation, obscuring any floor surfaces that may survive.
- 83. As stated, Building [006] was only subject to a quick photographic survey and a simple measured sketch plan, so the description below is taken from these and may be missing some finer details.
- 84. Building [006] has been subdivided into 10 rooms: Rooms A to J labelled sequentially from southwest to northeast (Figure 13). These 10 rooms appear to form two distinct groups in terms of their character, with Rooms A to D appearing to represent four individual units, while Rooms E to J appear to be further subdivisions within three larger units. This will be discussed in more detail below.

Rooms A to D

- 85. The southwestern half of Building [005] contains four rooms, A to D, which each measure approximately 4.8m northwest-southeast by 5.7m southwest-northeast internally, with a wall thickness of 0.5 to 0.6m.
- 86. Except for the southwest gable, the poor survival of the walls makes it difficult to discern the locations of windows and fireplaces. As with Building [006], each of the rooms appears to have an external doorway in their southeast wall, with no internal access between them.
- 87. The southwest gable, which sits at the outer end of Room A, contains a fireplace and a window at height (Figure 15). The fireplace sits central to the wall at ground floor level and measures approximately 1 to 1.5m wide and 1m high. Its jambs and lintel comprise simple, roughly shaped greywacke slabs. Directly behind the fireplace, at the centre of the wall's external face, a chimney still stands to the full height of the wall. It is constructed from the same material as the wall itself and measures 1.8m wide at the base narrowing in steps towards the top. The chimney pot is no longer present.
- 88. The window sits at first-floor level directly against the southeast side of the chimney. It measures, very approximately, 0.5m wide and 0.9m high and sits at a height of roughly 4m. The window's northwest edge is defined by the chimney itself, while its southeast jamb, sill and lintel are formed by roughly shaped greywacke blocks.

Rooms E to J

- 89. The northwestern half of the building contains six rooms, but as stated these appear to represent three two-room compartments: E/F, G/H and I/J.
- 90. Each two-room compartment or 'unit' measures approximately 4.8m northwest-southeast by 10m southwest-northeast internally, with each room within appearing to be roughly equal in size. The wall thickness measures 0.5 to 0.6m.



Figure 15: Building [006] - external SW facing elevation

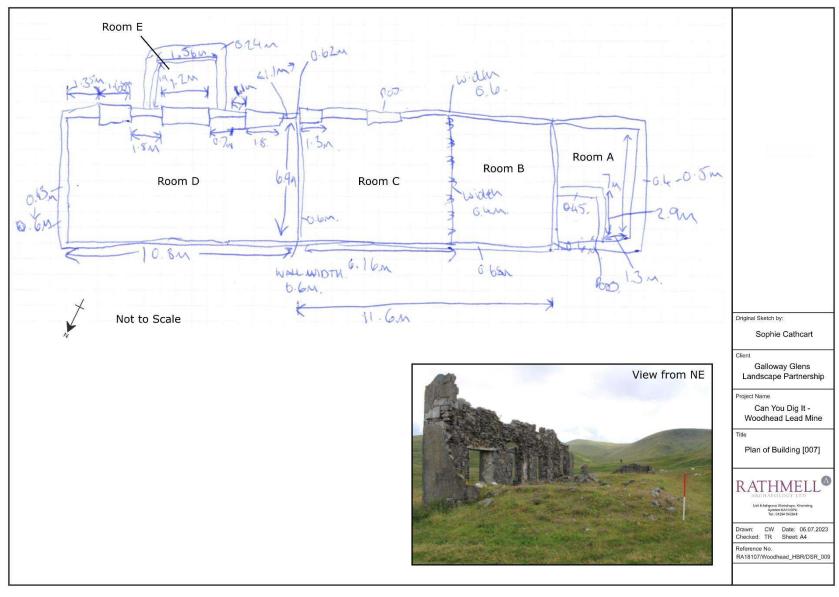


Figure 16: Plan of Building [007]

91. The poor survival of the walls at this end of the building makes it difficult to identify the locations of openings, but it is possible that there was only one external entrance into each unit via the southeast wall of the southwest room, that is, through Rooms E, G and I. Internal access points between the rooms are harder to identify, although it is possible that there were doorways leading between the rooms within a unit (i.e. from Rooms E to F, G to H and I to J) but no internal access from unit to unit.

Building [007]

- 92. The final building to be surveyed sat the lowest on the slope, continuing the line of buildings that run along the western edge of the site. Building [007] has been identified as the site of the school and schoolhouse during the site's use as a lead mine in the 19th century.
- 93. It survives as a rectangular building orientated southwest-northeast with no surviving roof. Externally it measures approximately 26m southwest-northeast by 8m southeast-northwest, with a small porch adjoined to its southeast face. The walls have mostly collapsed, surviving up to approximately 1.5m in height. The exception to this is the front southeast-facing elevation, which stands approximately 4m high across roughly two-thirds of its length. No internal floor surfaces are currently visible, with the internal ground level of each compartment built up by varying levels of tumble and covered by vegetation.
- 94. The interior of Building [007] comprises five rooms: A to E running southwest to northeast (Figure 16). As with Building [006], [007] was only subject to a quick photographic survey and a simple measured sketch plan, so the description below is taken from these and may be missing some finer details.

Room A

- 95. Room A sits at the southwestern end of the building. It has mostly collapsed and is covered by a large amount of tumble, making its layout difficult to ascertain. Internally, it measures 7m northwest to southeast by approximately 3 to 3.5m southwest to northeast, with a wall thickness of 0.4 to 0.5m. It appears to have been further subdivided with a small compartment, measuring 2.9m northwest-southeast by approximately 2m transversely, set into its northern corner with its walls measuring 0.45m thick.
- 96. The walls of Room A are constructed from greywacke rubble bonded with a mortar but not enough survives to suggest more about their character or the locations of openings. The northeastern wall, which it shares with Room B, stands taller and has a roughcast render covering its face on the side of Room A. It is uncertain if there is an opening in this wall to indicate internal access between the two rooms.

Room B

- 97. Sitting adjacent to the northeast is Room B, which internally measures 6.9m northwest-southeast by approximately 5m northeast-southwest with a wall thickness of 0.4 to 0.6m.
- 98. Its walls have mostly collapsed, only standing between 0.4 and 1.5m in height along its northwest, southwest and southeast sides. They appear to comprise the coursed greywacke rubble bonded with mortar seen elsewhere.
- 99. The internal subdividing wall, which separates Room B from Room C to the northeast, is in a worse state, surviving as a low overgrown bank of tumble measuring approximately 0.2 to 0.3m high.
- 100. The poor survival of the walls makes identifying the sites of openings difficult but there does appear to be the remains of a blocked opening at the southwest end of the external northwest wall. Sat approximately 1.2m apart, slightly splayed jambs formed by roughly squared greywacke blocks can be seen in the internal face, with the intervening gap infilled by rubble and mortar (Figure 17a). The base of the blocked opening is largely obscured by overgrown tumble making its exact character unclear. It is also not as easily recognisable on the external face. It is possible that it could represent an external doorway or potentially an internal alcove.

Room C

- 101. As with Room B, Room C also spanned the full width of the building, measuring internally 6.9m northwest-southeast, but it is slightly longer at 6.2m northeast-southwest. Its walls have a thickness of 0.4 to 0.6m, with the southwest, northwest and northeast walls only standing between approximately 0.2 and 0.8m high.
- 102. In contrast, the northeast half of the southeast wall forms part of the front façade of the building which still stands to a height of approximately 4m, allowing for the identification of two possible windows on this side. The wall itself is formed of coursed greywacke rubble bonded with mortar and has a roughcast render covering on its external face.
- 103. The northeast window still has its stone lintel and slightly splayed jambs *in situ* but its sill and the wall beneath are missing. The opening as it currently appears measures 1.3m wide and approximately 1.5m high, with a splayed embrasure on the internal face.
- 104. The only surviving element of the southwestern window is the northeastern jamb, also slightly splayed on the interior. None of the rest of this window remains although two small iron brackets survive set into the exterior of the stones which form the remaining jamb. Sections of the wall surviving beneath where the opening would have been indicate that this represents the site of a window rather than a doorway.

Room D

- 105. The largest room, Room D, occupies the northeast end of the building and measures 10.8m northeast-southwest by 6.9m southwest-northeast internally, with a wall thickness of 0.45 to 0.6m. Most of its walls survive as overgrown banks of tumble measuring between 0.2 and 0.8m in height, but the southeast wall still stands approximately 4m high comprising coursed greywacke rubble bonded with mortar and covered by a roughcast render on its external face. The southeast wall of Room D sits slightly in advance of Room C.
- 106. Several features can be seen in this southeast wall, which still contains a central doorway with a window to either side and traces of a possible third window at first-floor height.
- 107. The central doorway measures 1.2m wide and is defined by a roughly shaped greywacke lintel and jambs. This doorway appears to have been the main external access into Room D through an external porch: Room E.
- 108. The two ground-floor windows, which sit on either side of this doorway, both measure 1.7 to 1.8m wide and approximately 2.3m high. They are defined by a roughly shaped greywacke lintel and sill, and their jambs are slightly splayed on the interior. The internal faces of the embrasure are covered by traces of lime plaster, and small iron brackets remain fitted to the external faces of the jambs.
- 109. At first-floor level, directly above the southwest window, the lower courses of a possible third window are visible (Figure 17b). What may be the sill and lower jambs of this window are formed by red brick, in contrast to the other openings, which indicates that it is a later addition or modification/repair of an earlier opening. It could not be reached for measurement but appears to be similar in width to the ground-floor windows.
- 110. As well as this window, the presence of an upper floor above Room D is also indicated by two rectangular joist holes visible at the very southwest end of the wall (Figure 17b). These sit just above the height of the ground-floor windows' lintels. The internal face of the wall has come away at this height across most of its length, but it seems likely that the joist holes would have once run the full length of the room.

Room E

- 111. Room E comprises the small porch which sits along the external southeast elevation, roughly 4.6m in from its northeastern end. A small brick-built structure measuring internally 1.56m southwest-northeast by 1.9m transversely, Room E appears to have been a later addition to the front of the central external doorway which leads into Room D.
- 112. Its red-brick walls measure 0.24m wide and stand up to only four or five courses (approximately 0.4 to 0.5m) high. They are bonded with mortar and their external faces have been covered by a roughcast render.



Figure 17a: Building [007] - blocked opening within NW wall of Room B, internal view



Figure 17b: Building [007] – Internal view of SW wall of Room D showing joist holes and brick traces around possible first-floor window



Figure 18a: Building [007] – SW end of Room E taken from the SE



Figure 18b: `David McMath at the leadmines September 1926' showing SW end of Building [001], image courtesy of *Carsphairn Archive* (see References)

113. The room appears to have been accessed from the exterior by a doorway in its northeast wall, although its jambs are no longer clearly defined. There also appears to have been a further internal brick partition wall running northwest to southeast, set approximately 0.3m in from its southwest wall (Figure 18a). The function of this partition is unclear, but it also has a roughcast render across its northeast face matching the external faces of the other walls.

Discussion

- 114. The remains at Woodhead Lead Mine comprise an amazing resource for an important period of Scotland's industrial history, but it is a finite one. Its walls continue to collapse a little more with each passing decade taking with them insights into its form and character, which makes any recording of their condition all the more important.
- 115. This survey focussed on the buildings located along the western edge of the mining complex, encompassing domestic dwellings, offices and the school. The volunteers' work generated over 300 photographs of these structures in their current condition and saw the team immersed in trying to understand the character and physical changes etched into their fabric. From these records, it is possible to try and add a little bit more to their story within this discussion.
- 116. Alongside this, in a further nod to the importance of record, it is possible to compare the buildings today with the available historical photographs taken during their use (and some more recent photographs showing changes in their ruins). It is important to remember, however, that these photographs are few in number and represent a snapshot of the buildings at one point in time: they will not account for the different forms they may have taken before and since.

Building [001] - Office Row

- 117. One of the buildings with the best survival amongst those surveyed was [001]: the five-compartment Office Row occupying the highest point of the survey area. With its walls still standing up to 3m in places, several features remain visible that can help us to form some conclusions about its character.
- 118. Within its fabric, it is possible to identify that [001] was a sequential build constructed over at least three phases:
 - Its earliest phase appears to be represented by Room E, potentially initially erected as a stand-alone rectangular structure;
 - ❖ Rooms B, C and D appear to have then been constructed in a single phase directly abutting the external wall of Room E and substantially extending the building to the southwest;
 - Lastly, Room A appears to be a small lean-to added to the external southwest wall of Room B.
- 119. A difference in the state of survival between the three 'phases' could further support the notion that they were constructed at different times using different techniques, but this should be viewed with caution. It could equally represent phased abandonment in the years following the mine's closure, with some sections remaining in use for longer than others.
- 120. Nevertheless, the higher survival of the walls within Rooms B, C and D do enable further suggestions on their function.
- 121. Externally, Room B is entered through a central doorway in its southeast wall, which has a window to either side. The presence of iron hinges indicates that these windows were once shuttered, while another smaller splayed window sits within a recess at the centre of the northwest wall. Once inside, the most imposing feature remaining is the fireplace in the southwest wall, with the remains of a stove still surviving *in situ*.
- 122. These details all suggest that Room B was part of the domestic residence that formed the manager's house within the row. Historical photographs also suggest that Room B occupied the ground floor of a one-and-a-half-storey structure: you can see the location of a first-

floor window within the southwest wall in Figure 18b.

- 123. The lean-to, Room A, was constructed against the chimney stack on the exterior of the southwest wall. Tumble obscuring its interior makes it difficult to be certain of its function, although its simple form is supported by the photograph in Figure 18b. It may have been used for storage, or perhaps as an outhouse seeking some semblance of warmth from its position against the chimney. As well as the entrance in its southwest wall, Room A also appears to have had an external entrance in its rear northwest wall; while it is obscured by the tumble today, photographs from Anna Campbell's private collection show that the room was once 'L' shaped with a narrower section leading to an entrance on this side (Figures 19a and 19b). Figure 19b might also suggest that there was an internal partition that further subdivided A into two compartments with no internal access, perhaps giving it a dual function.
- 124. From Figure 18b, it is possible to see that Room B occupies the highest portion of the row, with the roofline stepped lower over Room C. This lower height appears to remain consistent across the rest of the row (Rooms D and E). The presence of skylights within the roof above Room C could suggest that there continues to be an upper storey, although perhaps a less substantial one, such as an attic or loft space.
- 125. The location of a fireplace within the wall dividing Rooms B and C, suggested by the presence of chimney pot fragments, is confirmed in the historical photographs that show a chimney in this location (Figure 18b) and more recent photographs that show it still standing in the mid-20th century (Figure 20a).
- 126. Unlike Rooms B, C and D, the poor survival of the walls in Room E makes it difficult to discern specific features that could help to identify function or if there were internal partitions. Historical photographs, however, do show a chimney at its northeast end suggesting the presence of a fireplace in this wall (Figure 20b). It is possible that the opening identified at the centre of its northeast wall marks the site of this fireplace rather than a doorway, but this is very uncertain without further evidence.
- 127. The possibility of internal access from Room B into Room C might suggest that this also formed part of the living quarters, with the presence of a chimney (and therefore fireplace) at either end. Room C does, however, have its own external entrance and appears to be less 'well furnished' than Room B, with its lower roofline and only one window. Perhaps this was not part of the living quarters but was the site of a private office; if it had internal access to the house in Room B, then it would seem likely to have been for the sole use of the manager or whoever dwelled there.
- 128. There is no internal access between Rooms C and D, which indicates a definite division between the southwest half of the building (Rooms B and C) and the northeast half (Rooms D and E). This could suggest a more significant difference in function, possibly between the private and/or domestic use of the manager and their family, and a more public/commercial use of Rooms D and E. Indeed, Room D is the smallest in the main row (that is Rooms B to E) with only one entrance and potentially only one small window in its rear wall, making it a less desirable option for domestic use.
- 129. The division between private and public is also strengthened by the presence of the formal gardens and trees which sit in front of the southwest half of the building, obscuring it in historical photographs, unlike the more open northeast half (as can be seen in Figures 20b and 21b).
- 130. If Room E represents the initial construction of a stand-alone structure (indicated by the presence of quoins in its southwest corners) then it could potentially represent the site of an office or store from the earliest phases of the mine workings being established. A diary entry written by McAdam Cathcart during a visit to the Woodhead Mine on 7th March 1839, mentions accepting contracts respecting "the intended buildings at the Mine" including mason and carpenter work on the "Shops & houses" (see *Carsphairn Archive* section in References); perhaps Room E was part of the initial establishment phase with Rooms B to D, which included the manager's house, added during the more formal building works that came later.



Figure 19a: View of Building [001] in 1993 taken from the southwest, courtesy of Anna Campbell



Figure 19b: Building [001] – external view of doorway in NW wall of Room A taken in 1987, courtesy of Anna Campbell



Figure 20a: 'Mine office on Office Row' showing SW half of Building [001] in 1959, image courtesy of *Carsphairn Archive* (see References)



Figure 20b: View of Woodhead from the SE, showing (A) Building [007]; (B) Building [006]; (C) Building [005]; (D) Building [004]; (E) Building [001] and (F) Building [003], image taken from Hunter (2001, 10)

131. The difference in survival across the different rooms in Office Row seems likely to at least partially be a result of phased abandonment. In Figure 18b, we can see that Rooms A, B and C were still in use during the 1920s and the more ruinous Room E may have gone out of use prior to this point; if its sole purpose was as an office or store for the workings of the mine then it perhaps held little value for people living at the site after. This is very tentative, however, without further evidence.

Building [002]

132. There is little that can be discerned about the nature of Building [002], the simple rectangular structure to the southwest of Building [001]. It does not appear within the available historical images and the poor survival of the walls makes it difficult to identify any internal features which might have helped to assign a possible function. Unlike several of the other buildings, depictions of [002] also appear unnamed on the historic mapping, potentially suggesting that it had a minor function, such as storage, and may have also gone out of use at an early stage after the mine's closure.

Building [003] - The Stables

- 133. The building to the northwest of [001] at the very top end of the survey area was Building [003], identified on at least one phase of mapping as the 'Stables' (Figure 21a). As with [001], Building [003] is also one of the better-surviving buildings included in the survey, with two of its walls standing over 2m high and a third (the southwest gable) standing near its original height at 4.6m.
- 134. The building sits on a natural slope and this appears to be reflected in its construction. Namely, the stepping of the larger windows in its western wall, which places the pair at the northern end higher than those to the south, could relate to the changing external ground level and a desire to maximise the incoming light. The floor level within the northern Room B also sits higher than the floor in A and, while it is uncertain how much of this could be the result of build-up post-abandonment, it might reflect a deliberate design in respect of the underlying topography.
- 135. The presence of the larger external entrance in the east wall of Room A can be seen in the background of the historical images (Figure 20b). If Building [003] was used as stables, Room A may have been used as a cart shed which would require a wider doorway than one designed for horses alone. However, the presence of the iron ring set into the wall a possible tethering point might suggest that it was a multi-purpose space.
- 136. Cressey, Pickin and Hicks (2004, 61) identify Building [002] as being the site of the "main smithy and workshop" suggesting that the building saw a change in function during its lifetime. It is unclear when this change occurred or which function came first in the sequence, but this change might account for the modifications visible within the fabric: the blocking of the larger windows along the west wall and the, at least, partial blocking of the window in the north wall. The scale of these modifications, which would have affected levels of light, warmth and access to the building, does appear to be substantial enough to mark a significant change in use.
- 137. The high window and joist holes in Room A indicate the presence of an upper floor in this half of the building. This could have taken the form of an attic or loft space mimicking the one-and-a-half-storey form visible elsewhere at Woodhead. This upper floor may have extended above Room B, but it is possible that it only appeared over Room A, particularly if the lower floor level in this section is a deliberate feature.

Building [004] - The Powder Magazine

138. Gunpowder, often called black powder, was used for blasting in British mines from the 17th century (Palmer, Nevell & Sissons 2012, 156-157), although became more common during the 18th century (Raistruck & Jennings 1965, 133-134). A mixture of saltpetre (potassium nitrate), charcoal and sulphur, the black powder required separate storage to minimise any risk of explosion. Building [004] has been identified as the powder store, or magazine, at Woodhead although, in agreement with Cressey, Pickin and Hicks (2004, 61), it sits closer to the living accommodation than would be expected.

- 139. Building [004] stands as a simple square structure with a concrete floor and a single entrance from the northeast. From the historical photographs, it is possible to see that it once had a hipped roof and whitewashed external walls (Figure 20b).
- 140. This simple square-shaped form of the magazine appears to be a fairly standard style noted by Cressey, Pickin and Hicks at other Scottish mining sites such as Glencreif, Wanlockhead and Wood of Cree, Minnigaff (2004, 61).
- 141. At the base of at least two of the walls, there is evidence of narrow vertical openings which were later blocked. It is possible that these were vents relating to the proper storage of the powder, which needed to be kept dry. Vents positioned near the base of the walls can be seen in the newer square magazine found at Glencrief (see weblink for *Mine Explorer* in References). By the time of the 1895 Ordnance Survey 25-inch map (Figure 1b), however, Building [004] was in use as a 'Kennel' and the low-level openings were likely blocked for this purpose.

Buildings [005] and [006] - The Miners' Rows

- 142. The remote nature of lead mines often meant that workers needed accommodation. At some sites, this took the form of barracks in which workers would stay during the week and then go home to their families at weekends, while others saw workers being put up by locals with the companies covering the costs of extensions and modifications to make this possible.
- 143. The layout at Woodhead, however, included permanent accommodation for the workers and their families, which, alongside the provision of a school and library was aimed at creating a community for the workers, not just a place of work.
- 144. Two rows of miners' cottages were surveyed during this phase: Buildings [005] and [006], otherwise known as Higher Row and Lower Row respectively. In comparison with Office Row and the school, a large portion of the walls in these structures do not survive much beyond their lower courses. A reason for this is given by Sassoon (1969, 175) who explains that most of the houses were robbed for slates and timber during the first half of the 20th century. An article about Amelia Vernon, who lived in the housing at Woodhead during this period, even recounts her childhood experience of "climbing up onto the crumbling walls of the rows of cottages at the top of the village by the green to prise wooden lintels out from above the door frames" so that she could take it home for firewood (see Carsphairn Archive in References). There are still several slates present within the tumble of row [006], although perhaps this goes more to demonstrate the number of slates that are missing from the other structures.
- 145. The exception to the poor survival of the miners' housing is the southwest gable wall of [006] which still stands at its full height. Within this remaining wall can be seen a fireplace, a feature that will have been present within each of the internal walls separating the different compartments or residences.
- 146. Although there was not enough time to undertake detailed descriptions of the different compartments, fireplaces in the dividing walls were recorded in more detail by Macrae who describes their "back-to-back" brick linings (2009, 199). It is also possible to see in the available historical photographs a series of chimneys along each row confirming the frequency of the fireplaces within (such as in Figure 21b).
- 147. Another interesting feature of the upstanding gable is the window which sits at height. The miners' cottages are described as single-storey in the contemporary Ordnance Survey Name Book (OS1/20/10/13 in References) but the presence of this higher window suggests that there might have been an upper floor. The housing was perhaps one-and-a-half-storeys in height similar to the manager's house; the lack of notable first-floor windows would make this less noticeable to an outside observer. A study of the company-sponsored housing at Wanlockhead describes forty new cottages built in the 1840s and 50s as "simple dwellings, having two ground floor rooms for living and sleeping accommodation ... and, with higher roofs, space under the thatch provided extra bed space for the large Victorian families" (Downs-Rose 1979, 175). The miners' row housing at Woodhead may have also included additional sleeping space within an upper floor, loft or attic.

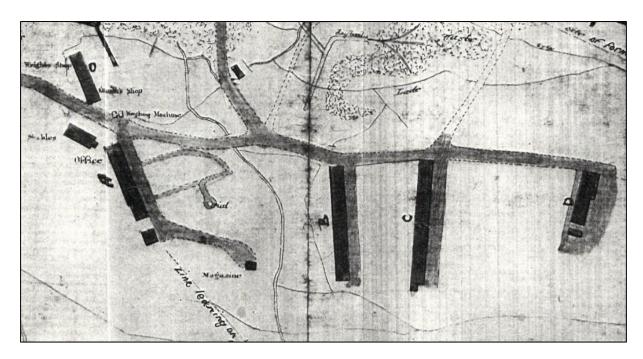


Figure 21a: Extract from 'Plan of Woodhead with photos (copy), 4 parts' showing 'Stables' to the left of the Office Row and dated as 1845 by Anna Campbell, image courtesy of *Carsphairn Archive* (see References)

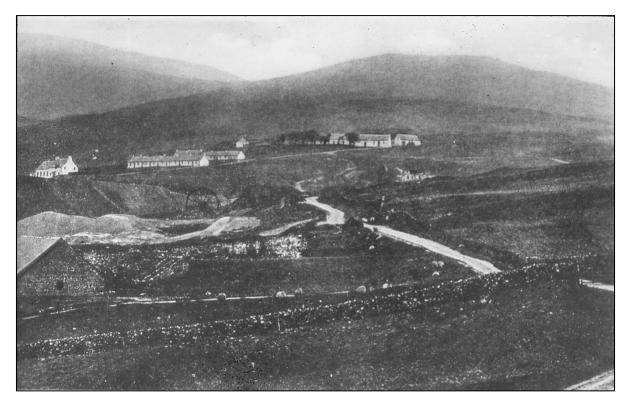


Figure 21b: 'Woodhead Lead Mine, Carsphairn No 10' taken from the SE, image courtesy of *Carsphairn Archive* (see References)

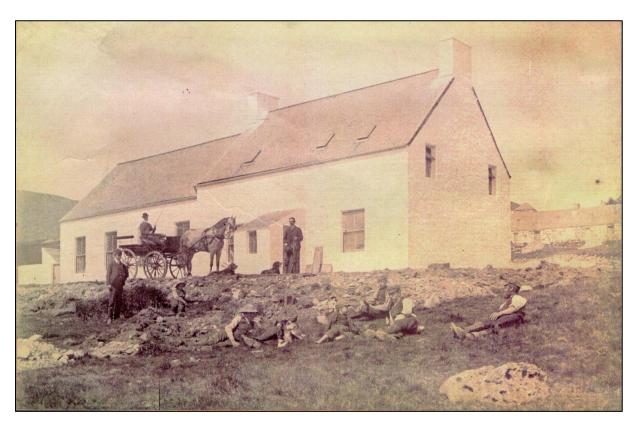


Figure 22a: 'Schoolhouse at Woodhead Leadmine' taken in 1886 and showing Building [007] from the E, image courtesy of *Carsphairn Archive* (see References)

- 148. The low survival of the walls in row [006] makes it difficult to discern too much about its character. Of interest, however, is the number of residences it represents. Historic mapping since 1895 depicts seven compartments within the Lower Row matching the four smaller (Rooms A to D) and three larger units (Rooms E/F, G/H and I/J) identified during this survey. It is also possible to count seven doorways in the historical photograph shown in Figure 21b, with those at the northeast end sitting at larger intervals. In contrast to this, however, the 1851 census returns list the addresses of 10 properties within the 'Low Row' as opposed to seven. It is possible that instead of being larger properties, the double-roomed units in the northeast half of [006] were used as dual residences with a shared entrance. Perhaps they were initially plotted as larger residences but had to be adapted due to population demand.
- 149. The same census returns also list 10 properties within the Higher Row (Building [005]). Five rooms or compartments (A to E) were recorded in [005] during the survey, although traces of a possible internal subdividing wall were recorded in Room E within the sketch plan (Figure 13). With the individual rooms also measuring larger than those within Building [006], these may have also been further subdivided like the units in the northeast half of the latter. It is interesting, however, that the depictions of Building [005] in the mid-19th century mapping, specifically the 1st edition Ordnance Survey map of 1853 (Figure 1a) and the 1845 map shown in Figure 21a, show it to be a longer structure which continued up to the edge of the roadway to the northeast, similar to Building [006]. This is different from the shorter length shown in the later mapping (Figure 1b) and seen on the ground today. Perhaps the Higher Row was shortened at some point in the latter half of the 19th century; both rows would benefit from further detailed survey to see if further internal subdivisions or possible remains to the northeast of Building [005] could be traced.

Building [007] - The School and Schoolhouse

- 150. At the lower end of the survey area, Building [007] has been identified as the site of the school and schoolhouse, built in 1843 (Campbell 1994, 31). Most of its walls only survive up to a few courses high, with the notable exception of the front southeast-facing façade of Room D which, at 4m, still survives near to its original height.
- 151. Despite this varied survival, it is possible to ascertain some aspects of the building's character, particularly when comparing the physical remains with the available historic photographs.
- 152. Within Room D, which occupies the northeast of the building, we can see traces indicating the presence of an upper floor, namely the presence of joist holes in the southeast wall just above the southwest window. Figure 22a also shows the presence of potential first-floor windows within the structure's northeast gable wall.
- 153. Another potential first-floor window can be identified by the line of bricks that sits at the southwest end of Room D. These bricks have likely been inserted during a later modification or repair, and it is interesting to see there are no first-floor windows in the southwest wall of the building in Figure 22a. This photograph was taken in 1886 after the schoolhouse had been converted into a shooting lodge, and the brick might represent a window that had been blocked before or during its conversion. Further to this, looking at the school in the background of Figure 20b, there may be two dormer windows present on the school's front façade; if this is the case, then perhaps these were removed at some point and replaced with the skylights seen in the later image (Figure 22a). This is a very tentative suggestion, however.
- 154. The porch, Room E, against the exterior of the same façade is also constructed of brick and indicates that this is another later addition, potentially dating to the same time as the bricks appearing in the southeast wall of Room D.
- 155. The historic photographs of the structure consistently show the presence of chimneys in the northeast and southwest walls of Room D, indicating the presence of fireplaces in these locations, but none in the southwest external wall of the building. This might suggest that Room D specifically represents the living quarters while the school rooms occupied the southwest half of the building. A suggestion that is further supported by the presence of the formal porch entrance, and the heightened roofline above Room D adding to the "ample and commodious" schoolhouse described by Welsh (1844, 281).

Conclusion

- 156. The survey works undertaken at Woodhead Lead Mine have created a detailed record of some of the remaining buildings as they stand today.
- 157. Focusing on the buildings at the western end of the mining complex, seven structures were recorded, which included the manager's house and office, two rows of miners' cottages, stables, a powder magazine and a school. The structures vary in their state of survival; while none remain roofed, the height of the standing walls range from one or two courses up to full height.
- 158. Over 300 photographs were generated from the survey, capturing details of the walls before they deteriorate any further. The mine at Woodhead was a rare example of a total production unit in Scotland one which mined, crushed, washed and smelted the lead before it was exported but it was also a village: the landowner who established the mine built housing, a school and even founded a library for the workers so that they could form their own community in this remote setting.
- 159. There is still much to learn about the site at Woodhead, which can give us further insights into industrial life in 19th-century Scotland. But it is a resource that is continually deteriorating as time goes on. Spending time at Woodhead allowed the volunteers to immerse themselves in a different way of life, delving deeper into what the surviving remains have to tell us, and their work in capturing these elements of Woodhead has added to the record of this site for future generations.

Acknowledgements

- 160. This project is part of a wider Community Archaeology project, 'Can You Dig It', run by the Galloway Glens Landscape Partnership Scheme from February 2019 to September 2023. See www.gallowayglens.org.uk/Resources for their published outputs. The Community Archaeology project was offered free to volunteers thanks to funding from the National Lottery Heritage Fund and Historic Environment Scotland. The land at Woodhead is owned by Kenneth Wallace of Garryhorn who kindly allowed us access and gave his support for the works. Guidance was also given by Dumfries and Galloway Council Archaeology Service and members of local heritage societies.
- 161. Special thanks go to Anna Campbell and John Pickin whose knowledge and expertise were so readily given in support of the project. Anna attended the site throughout the survey and her enthusiasm about the importance of the site and her ability to bring the ruins to life was very much appreciated by the site team, thank you.
- 162. The author would like to thank all the hardworking volunteers who took part in the on-site works: Kevan Aitken, Kirsten Bax, John Dempsey, Alasdair Philips and Richard Pougher.
- 163. The support and guidance provided by Rathmell Archaeology staff members Laura Anderson and Sophie Cathcart on-site was much appreciated by everyone involved. Further thanks should go to Thomas Rees for his guidance throughout the initial organisation of the project and I am also grateful to Liam McKinstry for editing this report.

References

Documentary

ALGAO:Scotland 2013 *Historic Building Recording Guidance* [online] available at: https://www.algao.org.uk/sites/algao.org.uk/files/2023-08/ALGAO%20Buildings%20Guidance.pdf [accessed 16 August 2023]

Campbell, A. 1994 'The Woodhead Lead Mines', Scottish Local History Vol. 31, pp 31-34

Cressey, M., Pickin, J. & Hicks, K. 2004 'The Silver Rig, Pibble and Woodhead Metal Mines, Galloway, Scotland', *Mining History: The Bulletin of the Peak District Mines Historical Society*, Vol. 15, No. 6, pp. 49-62

Downs-Rose, G. 'A Note on Housing at Wanlockhead', *Transactions of the Dumfriesshire and Galloway Natural History and Antiquarian Society*, Series III, Vol. 54, pp 174-176

Hunter, J. 2001 The Upper Glenkens, Catrine: Stenlake Publishing

McKinstry, L. 2022 Galloway Glens Landscape Partnership, Can You Dig It? Community Archaeology Project (Phase 2), Risk Assessment Method Statement, Woodhead Lead Mine – Historic Building Survey, unpublished commercial document by Rathmell Archaeology Ltd

Macrae, K. 2009 'A Galloway Ghost Town: the social dimension of a 19th Century leadmining community in the uplands of south-west Scotland' in P. Claughton & C. Mills (eds) *Mining Perspectives: Proceedings of the 8th International Mining History Congress*, pp 194-202

Palmer, M., Nevell, M. & Sissons, M. 2012 *Industrial Archaeology: A Handbook*, CBA Practical Handbook No.21, York: Council for British Archaeology

Raistrick, A., & Jennings, B. 1965 *A History of Lead Mining in the Pennines*, London: Longmans, Green and Co Ltd

Sassoon, J. 1969 'Lead-Mining at Woodhead, Carsphairn', *The Transactions of the Dumfriesshire and Galloway Natural History and Antiquarian Society*, Vol. XLVI, pp 170-177

Welsh, Rev. D. 1844 'Parish of Carsphairn', The New Statistical Accounts of Scotland, Vol. IV, pp 273-281

Archives

Carsphairn Archive

'Amelia Vernon: Life at the mines' [online] available at:
http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-woodhead/occupations-at-the-mine/reminiscence [accessed 22 August 2023]

'David McMath at the leadmines September 1926' [online] available at: http://carsphairn.org/CarsphairnArchive/items/show/1680 [accessed 21 August 2023]

'Diary of Woodhead Mine: Colonel Frederick McAdam Cathcart's Diary of Woodhead Mine' [online] available at: http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-woodhead/the-owner/diary-of-woodhead-mine [accessed 22 August 2023]

'Mine office on Office Row' [online] available at:

http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-atwoodhead/item/773 [accessed 22 August 2023]

'Plan of Woodhead with photos (copy), 4 parts' [online] available at: http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-woodhead/item/4004 [accessed 22 August 2023]

'Schoolhouse at Woodhead Leadmines' [online] available at:

http://carsphairn.org/CarsphairnArchive/items/show/2583 [accessed 22 August 2023]

'Woodhead Lead Mine, Carsphairn No 10 [online] available at: <a href="http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-http://carsphairn.org/CarsphairnArchive/exhibits/show/leadmining-at-http://carsphairnArchive/exhibits/show/exhibits/show/exhibits

woodhead/item/1578 [accessed 22 August 2023]

Dumfries & Galloway Council Historical Indexes

'The 1851 Census Returns for Dumfriesshire, Kirkcudbrightshire and Wigtownshire' [online] available at:

https://info.dumgal.gov.uk/HistoricalIndexes/Home/DisplayQuickSearchResults/1?page= 1 [accessed 22 August 2023]

Ordnance Survey Name Book

OS1/20/10/13 – Kirkcudbrightshire, Volume 10 [online] available at: https://scotlandsplaces.gov.uk/digital-volumes/ordnance-survey-name-books/kirkcudbrightshire-os-name-books-1848-1851/kirkcudbrightshire-volume-10/13 [accessed 22 August 2023]

Online images

Mine Explorer 'New Glencrieff Mine Surface Features' taken 2011 [online] available at: http://www.mineexplorer.org.uk/new glencrieff/new glencrieff surface features/slides/ngsf-newmagazine2.html [accessed 22 August 2023]

Cartographic

1853	Ordnance Survey	Six-inch 1st edition, Kirkcudbrightshire, Sheet 4
1895	Ordnance Survey	Six-inch 2 nd edition, <i>Kirkcudbrightshire</i> , Sheet VII.SW
1895	Ordnance Survey	25-inch, Kirkcudbrightshire, VII.10
1909	Ordnance Survey	25-inch, Kirkcudbrightshire, VII.10
1910	Ordnance Survey	Six-inch 3 rd edition, <i>Ayrshire</i> , Sheet LIX.SW

Appendix 1: Photographic Register

Within this appendix is the photographic register pertaining to the works on site.

Image	Digital	Description	From	Date
1	5041	Building 002 - elevation photo of E facing external wall.	E	13/07/22
2	5042	Building 001 - elevation photo of E facing external wall.	E	13/07/22
3	5043	Building 001 - elevation photo of E facing external wall.	E	13/07/22
4	5044	Building 001 - elevation photo of E facing external wall.	E	13/07/22
5	5045	Building 001 - elevation photo of E facing external wall.	E	13/07/22
6	5046	Building 001 - elevation photo of E facing external wall.	E	13/07/22
7	5047	Building 001 - elevation photo of E facing external wall.	E	13/07/22
8	5048	Building 001 - elevation photo of E facing external wall.	E	13/07/22
9	5049	Building 001 - elevation photo of E facing external wall.	E	13/07/22
10	5050	Building 001 - elevation photo of E facing external wall.	E	13/07/22
11	5051	Building 001 - elevation photo of E facing external wall.	E	13/07/22
12	5052	Building 001 - elevation photo of E facing external wall.	E	13/07/22
13	5053	Building 001 - elevation photo of E facing external wall.	E	13/07/22
14	5054	Building 001 - elevation photo of N facing external wall.	N	13/07/22
15	5055	Building 001 - elevation photo of W facing external wall.	W	13/07/22
16	5056	Building 001 - elevation photo of W facing external wall.	W	13/07/22
17	5057	Building 001 - elevation photo of W facing external wall.	W	13/07/22
18	5058	Building 001 - elevation photo of W facing external wall.	W	13/07/22
19	5059	Building 001 - elevation photo of W facing external wall.	W	13/07/22
20	5060	Building 001 - elevation photo of W facing external wall.	W	13/07/22
21	5061	Building 001 - elevation photo of W facing external wall.	W	13/07/22
22	5062	Building 001 - elevation photo of W facing external wall.	W	13/07/22
23	5063	Building 001 - elevation photo of W facing external wall.	W	13/07/22

Image	Digital	Description	From	Date
24	5064	Building 001 - elevation photo of W facing external wall.	W	13/07/22
25	5065	Building 001 - elevation photo of W facing external wall.	W	13/07/22
26	5066	Building 002 - elevation photo of S facing external wall.	S	13/07/22
27	5067	Building 001 - detail shot of remaining chimney stones on S facing external wall.	Е	13/07/22
28	5068	Building 001 - detail shot of possible chimney on S facing external wall.	Е	13/07/22
29	5069	Building 001 - detail shot of butting corner stones under render on S and E facing external walls.	Е	13/07/22
30	5070	Building 001 - oblique shot of window on southernmost end of building 001 on external E facing wall.	NE	13/07/22
31	5071	Building 001 - detail shot of bottom edge of window on southernmost end of building 001 on external E facing wall.	E	13/07/22
32	5072	Building 001 - oblique shot of right side of window on southernmost end of building 001 on external E facing wall.	SW	13/07/22
33	5073	Building 001 - detail shot of metal bracket on left side of window on S end of building on external E facing wall.	NEE	13/07/22
34	5074	Building 001 - detail shot of left side of doorway on S end of building 001 on external E facing wall.	SW	13/07/22
35	5075	Building 001 - detail shot of right side of doorway on S end of building 001 on external E facing wall.	NE	13/07/22
36	5076	Building 001 - oblique shot of window in external E facing wall of building 001.	NE	13/07/22
37	5077	Building 001 - oblique shot of right side of window in external E facing wall of building 001.	SW	13/07/22
38	5078	Building 001 - detail shot of window bracket on right side of middle south window.	SE	13/07/22
39	5079	Building 001 - detail shot of change of material from render to stone on E facing external wall.	E	13/07/22
40	5080	Building 001 - detail shot of render on facing of left side window.	SE	13/07/22
41	5081	Building 001 - detail shot of bracket hole on left side of window on E facing external wall building.	E	13/07/22
42	5082	Building 001 - detail shot of bracket hole on left side of window on E facing external wall.	Е	13/07/22
43	5083	Building 001 - detail shot of lower sill of window external E facing wall.	Е	13/07/22
44	5084	Building 001 - left side of window on external E facing wall.	NE	13/07/22
45	5085	Building 001 - left side of doorway on E facing external wall.	Е	13/07/22
46	5086	Building 001 - right side of doorway on E facing external wall.	NE	13/07/22

Image	Digital	Description	From	Date
47	5087	Building 001 - detail shot of stonework on E facing external wall of.	E	13/07/22
48	5088	Building 001 - detail shot of left side of doorway with render remaining on external E facing wall.	NE	13/07/22
49	5089	Building 001 - detail shot of right of doorway Efacing external wall.	SE	13/07/22
50	5090	Building 001 - detail shot of stonework on external E facing wall with possible extension join.	E	13/07/22
51	5091	Building 001 - detail shot of entrance in E facing external wall possible floor surface or tumble.	E	13/07/22
52	5092	Building 001 - detail shot of wall material on external wall.	S	13/07/22
53	5093	Building 001 - detail shot of corner of N and E facing external wall.	W	11/06/22
54	5094	Building 001 - detail shot of window on W facing external wall.	W	13/07/22
55	5095	Building 001 - oblique shot of window on W facing external wall.	NW	13/07/22
56	5096	Building 001 - oblique shot of window on W facing external wall.	NE	13/07/22
57	5097	Building 001 - joint on W facing wall.	NE	13/07/22
58	5098	Building 001 - left side of window in W facing external wall.	W	13/07/22
59	5099	Building 001 - right side of window in W facing external wall.	W	13/07/22
60	5100	Building 001 - hole and exposed rubble core in external W facing wall.	W	13/07/22
61	5101	Building 001 - detail shot of small window in W facing external wall.	W	13/07/22
62	5102	Building 001 - detail shot of right side of small window in W facing external wall.	W	13/07/22
63	5103	Building 001 - Detail shot of render on left side of small window in W facing external wall.	W	13/07/22
64	5104	Building 001 - SW corner.	SW	13/07/22
65	5105	Building 001 - chimney on S facing external wall.	S	13/07/22
66	5106	Building 002 - detail shot of wall material.	S	13/07/22
67	5107	Building 002 - oblique internal elevation photo N and W facing walls.	NW	13/07/22
68	5108	Building 002 - oblique internal elevation photo of S and E facing walls.	SE	13/07/22
69	5109	Building 002 - elevation photo of S facing internal walls.	S	13/07/22
70	5110	Building 002 - elevation photo of W facing internal wall remnants 002	W	13/07/22
71	5111	Building 001 room A - general shot.	SE	13/07/22

Image	Digital	Description	From	Date
72	5112	Building 001 room A - detail shot of chimney in S facing external wall/S facing internal wall.	S	13/07/22
73	5113	Building 001 room A - General shot.	SW	13/07/22
74	5115	Building 001 room A - detail shot of doorway to room A.	E	13/07/22
75	5116	Building 001 Room B – internal elevation of N facing wall.	E	13/07/22
76	5117	Building 001 Room B – internal elevation of N facing wall.	N	13/07/22
77	5118	Building 001 Room B – internal elevation of E facing wall	E	13/07/22
78	5119	Building 001 Room B – internal elevation of E facing wall.	E	13/07/22
79	5120	Building 001 Room B – internal elevation of S facing wall.	S	13/07/22
80	5121	Building 001 Room B – internal elevation of W facing wall.	W	13/07/22
81	5122	Building 001 Room B – Detail shot of possible cupboard on N facing internal wall.	NW	13/07/22
82	5123	Building 001 Room B – detail shot of fireplace in N facing internal wall.	N	13/07/22
83	5124	Building 001 Room B – detail shot of square feature in N facing internal wall.	N	13/07/22
84	5125	Building 001 Room B – detail shot of square feature in N facing internal wall.	N	13/07/22
85	5126	Building 001 Room B – detail shot of left side of small window in E facing internal wall.	NE	13/07/22
86	5127	Building 001 Room B – detail shot of right side of small window in E facing internal wall.	SE	13/07/22
87	5128	Building 001 Room B – detail shot of depression in stone block near window E facing wall.	NE	13/07/22
88	5129	Building 001 Room B – stone lintel/fire surround in tumble.	-	13/07/22
89	5130	Building 001 Room B – detail shot of depression in underside of stone lintel in doorway.	-	13/07/22
90	5131	Building 001 Room C – oblique internal elevation of N and W facing internal walls.	NW	13/07/22
91	5132	Building 001 Room C – oblique internal elevation of N and E facing internal walls.	NE	13/07/22
92	5133	Building 001 Room C – oblique internal elevation of N and E facing internal walls.	NE	13/07/22
93	5134	Building 001 Room C – oblique internal elevation S and E facing walls.	SE	13/07/22
94	5135	Building 001 Room C – oblique internal elevation S and W facing walls.	SW	13/07/22
95	5136	Building 001 Room C – detail shot of external E facing wall of render and possible bracket socket.	E	13/07/22
96	5137	Building 001 Room D – oblique internal elevation of N and W facing walls	NW	13/07/22

Image	Digital	Description	From	Date
97	5138	Building 001 Room D – oblique internal elevation of N and E facing walls.	NE	13/07/22
98	5139	Building 001 Room D – oblique internal elevation of S and E facing walls.	SE	13/07/22
99	5140	Building 001 Room D – oblique internal elevation of S and W facing walls.	SW	13/07/22
100	5141	Building 001 Room D – detail shot of render on inside right side of window on E facing internal wall.	NE	13/07/22
101	5142	Building 001 Room D – detail shot of render and wall on inside left side of window on E facing internal wall.	SE	13/07/22
102	5143	Building 001 Room D – detail shot of render and bare stone face on E facing internal wall	Е	13/07/22
103	5144	Building 001 Room E – general elevation photo	N	13/07/22
104	5145	Building 001 Room E – internal elevation photo of S facing wall.	S	13/07/22
105	5146	Building 001 Room E – detail shot of vertical stone in S facing internal wall.	SW	13/07/22
106	5147	Building 001 Room E – detail shot of two vertical stones in S facing internal wall.	S	13/07/22
107	5148	Building 001 Room E – detail shot of window in east facing internal wall.	E	13/07/22
108	5149	Building 001 Room D – detail shot of window in east facing internal wall.	E	13/07/22
109	5150	Building 001 Room D – oblique internal elevation of S and W facing walls.	SW	13/07/22
110	5151	Building 001 – general shot	NE	13/07/22
111	5152	Building 001 – general shot	NE	13/07/22
112	5153	Building 001 – general shot	NE	13/07/22
113	5154	Building 001 – general shot	SW	13/07/22
114	5155	Building 001 – general shot.	NNE	13/07/22
115	5156	Building 001 and building 003 – general shot.	E	13/07/22
116	5157	Building 001 and building 003 – general shot.	N	13/07/22
117	5158	Building 003 – external elevation of S facing wall.	S	13/07/22
118	5159	Building 003 – external elevation of E facing wall.	E	13/07/22
119	5160	Building 003 – external elevation of E facing wall.	E	13/07/22
120	5161	Building 003 – external elevation of N facing wall.	N	13/07/22
121	5162	Building 003 – external elevation of N facing wall.	N	13/07/22

Image	Digital	Description	From	Date
122	5163	Building 003 – external elevation of N facing wall.	N	13/07/22
123	5164	Building 003 – external elevation of N facing wall.	N	13/07/22
124	5165	Building 003 – detail shot of window in N facing external wall.	N	13/07/22
125	5166	Building 003 – detail shot of NE corner in external wall.	NE	13/07/22
126	5167	Building 003 room A – internal elevation of N facing wall.	N	13/07/22
127	5168	Building 003 room A – internal elevation of E facing wall.	E	13/07/22
128	5169	Building 003 room A – internal elevation of S facing wall.	SE	13/07/22
129	5170	Building 003 room A – internal elevation of W facing wall.	S	13/07/22
130	5171	Building 003 room B – internal elevation of N facing wall.	N	13/07/22
131	5172	Building 003 room B – internal elevation of E facing wall.	E	13/07/22
132	5173	Building 003 room B – internal elevation of E facing wall.	E	13/07/22
133	5174	Building 003 room B – internal elevation of S facing wall.	S	13/07/22
134	5175	Building 003 room B – internal elevation of W facing wall.	W	13/07/22
135	5176	Building 003 room B – internal elevation of W facing wall.	W	13/07/22
136	5177	Building 003 room A – detail shot of vent.	SSW	13/07/22
137	5178	Building 003 room A – detail shot of possible marking of upper level in N facing internal wall.	N	13/07/22
138	5179	Building 003 room A – detail shot of joist holes in E facing internal wall.	E	13/07/22
139	5180	Building 003 room A – detail shot of metal ring in N facing internal wall.	N	13/07/22
140	5181	Building 003 room A – detail shot of metal ring and paint on internal N facing wall.	N	13/07/22
141	5182	Building 003 room A – detail shot of paint on render on internal W facing wall.	S	13/07/22
142	5183	Building 003 room A – detail shot of marks on plaster on internal N facing wall.	NE	13/07/22
143	5184	Building 003 room A – detail shot of marks on plaster on internal N facing wall.	NE	13/07/22
144	5185	Building 003 room A – detail shot of metal spike on E facing internal wall.	NE	13/07/22
145	5186	Building 003 room A – detail shot of mark remaining from dividing wall.	NE	13/07/22
146	5187	Building 003 room B – detail shot of blocked window in internal E facing wall.	E	13/07/22

Image	Digital	Description	From	Date
147	5188	Building 003 room B – detail shot of possible fixture fastening render on E facing internal wall.	SE	13/07/22
148	5189	Building 003 room B – detail shot of blocked window in internal E facing.	E	13/07/22
149	5190	Building 003 room B – detail shot of blocked window in internal E facing wall.	E	13/07/22
150	5191	Building 003 room B – detail shot of blocked window in internal E facing wall.	E	13/07/22
151	5192	Building 003 room B – detail shot partially blocked window in internal S facing wall.	S	13/07/22
152	5193	Building 003 room B – detail shot of possible window in W facing internal wall.	W	13/07/22
153	5194	Building 004 – external elevation NE facing wall.	NE	13/07/22
154	5195	Building 004 – external elevation of NW facing wall.	NW	13/07/22
155	5196	Building 004 – external elevation of SW facing wall.	SW	13/07/22
156	5197	Building 004 – external elevation of SE facing wall.	SE	13/07/22
157	5198	Building 004 – oblique internal elevation of NW and NE facing walls.	N	13/07/22
158	5199	Building 004 – oblique internal elevation of NW and NE facing walls.	N	13/07/22
159	5200	Building 004 – oblique internal elevation of SW and SE facing walls.	S	13/07/22
160	5201	Building 004 – detail shot of wall material in SE internal facing wall.	NE	13/07/22
161	5202	Building 004 – detail shot of entrance in NE facing external wall.	N	13/07/22
162	5203	Building 004 – detail shot of entrance with render.	S	13/07/22
163	5204	Building 004 – detail shot of unconnected possible blast control feature in SE facing internal wall.	SE	13/07/22
164	5205	Building 004 – detail shot of unconnected possible blast control feature in NW facing internal wall.	NW	13/07/22
165	5206	Building 004 – general shot.	N	13/07/22
166	5207	Building 004 – general shot.	NE	13/07/22
167	5208	Building 004 – general shot.	SE	13/07/22
168	5209	Building 004 – detail shot on feature on western wall.	W	13/07/22
169	5210	Building 004 – detail shot of internal floor	-	13/07/22
170	5211	Building 001 Room B – Detail of fireplace in S internal wall.	NE	14/07/22
171	5212	Building 001 room B – detail of fireplace in S internal wall.	E	14/07/22

Image	Digital	Description	From	Date
172	5213	Building 001 room B – detail of fireplace in S internal wall.	E	14/07/22
173	5214	Building 005 room E – general shot	E	14/07/22
174	5215	Building 005 room E – general shot	S	14/07/22
175	5216	Building 005 room E – elevation shot of S facing external wall.	S	14/07/22
176	5217	Building 005 room D – general shot	S	14/07/22
177	5218	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
178	5221	General landscape shot.	W	14/07/22
179	5222	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
180	5223	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
181	5224	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
182	5225	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
183	5226	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
184	5227	Building 005 – external elevation shot of SE facing wall.	SE	14/07/22
185	5228	Building 005 – external elevation shot of SW facing wall.	S	14/07/22
186	5229	Building 005 – external elevation shot of SW facing wall.	SW	14/07/22
187	5230	Building 005 – external elevation shot of SW facing wall.	W	14/07/22
188	5231	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
189	5232	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
190	5233	Building 005 – external elevation of NW facing wall.	NW	14/07/22
191	5234	Building 005 – external elevation of NW facing wall.	NW	14/07/22
192	5235	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
193	5236	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
194	5237	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
195	5238	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22
196	5239	Building 005 – external elevation shot of NW facing wall.	NW	14/07/22

Image	Digital	Description	From	Date
197	5240	Building 005 – external elevation shot of NW and NE facing walls.	W	14/07/22
198	5241	Building 005 – general shot	E	14/07/22
199	5242	Building 005 room E – general shot.	SE	14/07/22
200	5243	Building 005 room E – general shot.	NE	14/07/22
201	5244	Building 005 room D – internal elevation of NE and NW facing walls.	N	14/07/22
202	5245	Building 005 room D – internal elevation of SE and SW facing walls.	S	14/07/22
203	5246	Building 005 room C – internal elevation of SE and SW facing wall.	SW	14/07/22
204	5247	Building 005 room C – internal elevation of SE facing wall.	S	14/07/22
205	5248	Building 005 room C – internal elevation of SE facing wall.	S	14/07/22
206	5249	Building 005 room C – internal elevation of NE facing wall.	NE	14/07/22
207	5250	Building 005 room C – internal elevation of NW facing wall.	NW	14/07/22
208	5251	Building 005 room B – internal elevation of SW facing wall.	SW	14/07/22
209	5252	Building 005 room B – internal elevation of SE facing wall.	SE	14/07/22
210	5253	Building 005 room B – internal elevation of SE facing wall.	S	14/07/22
211	5254	Building 005 room B – internal elevation of NE facing wall.	NE	14/07/22
212	5255	Building 005 room B – general shot of NW facing internal wall.	E	14/07/22
213	5256	Building 005 room A – internal elevation of NE facing wall.	NW	14/07/22
214	5257	Building 005 room A – internal elevation of SE facing wall.	SE	14/07/22
215	5258	Building 005 room A – internal elevation of SW facing wall.	SW	14/07/22
216	5259	Building 005 room A – detail shot of fireplace in NE facing internal wall.	NW	14/07/22
217	5260	Building 005 room A – detail shot of window in SW facing internal wall.	SW	14/07/22
218	5261	Building 005 room A – detail shot of slates.	-	14/07/22
219	5262	Building 005 room A – detail shot of nails in slate.	-	14/07/22
220	5263	Building 005 room A – detail shot of wall material.	-	14/07/22
221	5264	Building 005 room B – detail shot of brick in wall.	-	14/07/22

Image	Digital	Description	From	Date
222	5265	Building 005 room B – detail shot of vertical stones in NE facing internal wall.	NE	14/07/22
223	5266	Building 005 room B – detail shot of vertical stones in NE facing internal wall.	NE	14/07/22
224	5267	Building 005 room B – detail shot bricks in SE facing internal wall.	-	14/07/22
225	5268	Building 005 room C – detail shot of vertical stones and vertical stones in NE facing internal wall.	NE	14/07/22
226	5269	Building 005 room C – detail shot of entrance in NW facing internal wall.	NW	14/07/22
227	5270	Building 005 room C – detail shot of vertical stones in SW facing internal wall.	SW	14/07/22
228	5271	Building 005 room C – detail shot of S facing corner.	S	14/07/22
229	5272	Building 005 room D – detail shot of vertical stones in SW facing internal wall.	SW	14/07/22
230	5273	Building 005 room D – detail shot of large rectangular stone in tumble.	-	14/07/22
231	5274	Building 005 room D – detail shot of bricks in tumble.	-	14/07/22
232	5275	Building 005 room D – detail shot of vertical stones in SW facing internal wall.	SW	14/07/22
233	5276	Building 005 room D – detail shot of wall material.	-	14/07/22
234	5277	Building 005 room E – detail shot of vertical stones in NE facing internal wall.	NE	14/07/22
235	5278	Building 005 room E – detail shot of vertical stones in SW facing internal wall.	SW	14/07/22
236	5279	Building 005 room E – detail shot of vertical stones in SW facing internal wall.	SW	14/07/22
237	5280	Building 006 – general view.	NE	14/07/22
238	5281	Building 006 – general view.	SE	14/07/22
239	5282	Building 006– general view.	SE	14/07/22
240	5283	Building 006 – general view.	SE	14/07/22
241	5284	Building 006 – general view.	SE	14/07/22
242	5285	Building 006 – general view.	SE	14/07/22
243	5286	Building 006 – general view.	SE	14/07/22
244	5287	Building 006 – general view.	SE	14/07/22
245	5288	Building 006 – general view.	SE	14/07/22
246	5289	Building 006 – general view.	SE	14/07/22

Image	Digital	Description	From	Date
247	5290	Building 006 – general view.	SE	14/07/22
248	5291	Building 006 – general view.	SE	14/07/22
249	5292	Building 006 – general view.	SE	14/07/22
250	5293	Building 006 – external elevation of S facing wall.	SE	14/07/22
251	5294	Building 006 – general view.	SE	14/07/22
252	5295	Building 006 – external elevation of SW facing wall.	SW	14/07/22
253	5296	Building 006 – external elevation of NW facing wall.	NW	14/07/22
254	5297	Building 006 – general view.	NW	14/07/22
255	5298	Building 006 – general view.	NW	14/07/22
256	5299	Building 006 – general view.	NW	14/07/22
257	5300	Building 006 – general view.	NW	14/07/22
258	5301	Building 006 – general view.	NW	14/07/22
259	5302	Building 006 – general view.	NW	14/07/22
260	5303	Building 006 – general view.	NW	14/07/22
2261	5304	Building 006 – general view.	NW	14/07/22
262	5305	Building 006 – general view.	NW	14/07/22
263	5306	Building 006 – general view.	NW	14/07/22
264	5307	Building 006 room J – detail shot of cement floor surface with depression.	-	14/07/22
265	5308	Building 006 room I – detail shot of metal object found inside structure.	-	14/07/22
266	5309	Building 006 room I – detail shot of metal object found inside structure.	-	14/07/22
267	5310	Building 006 room D – general shot of internal NE facing wall.	-	14/07/22
268	5311	Building 006 room D – general shot of internal NE facing wall.	N	14/07/22
269	5312	Building 006 room D – general shot of internal NE facing wall.	S	14/07/22
270	5313	Building 006 room A – detail shot of fireplace in internal NE facing wall.	N	14/07/22
271	5314	Building 006 room A – detail shot of fireplace in internal NE facing wall.	SW	14/07/22

Image	Digital	Description	From	Date
272	5315	Building 006 room A – detail shot of window in internal NE facing wall.	S	14/07/22
273	5316	Building 006 room A – detail shot of window in internal NE facing wall.	N	14/07/22
274	5317	Building 006 room A – detail shot of chimney in internal NE facing wall.	NE	14/07/22
275	5318	Building 006 room A – detail shot of roof internal NE facing wall.	NE	14/07/22
276	5319	Building 006 – detail shot of abutting stones in corner of external SE facing external wall.	S	14/07/22
277	5320	Building 006 – detail shot of chimney in external NW facing external wall.	S	14/07/22
278	5321	Building 006 – detail shot of chimney and window in external NW facing external wall.	S	14/07/22
279	5322	Building 006 – detail shot of hole in chimney of external NW facing external wall.	SW	14/07/22
280	5323	Building 006 – detail shot of hole in chimney of external NW facing external wall.	SW	14/07/22
281	5324	Building 006 – detail shot of hole in chimney of external NW facing external wall.	SW	14/07/22
282	5325	Building 006 – detail shot of chimney of external NW facing external wall.	SW	14/07/22
283	5326	Building 006 – detail shot of inside of chimney of external NW facing external wall.	-	14/07/22
284	5327	Building 006 – detail shot of depressions in corner stones of external NW facing external wall.	SW	14/07/22
285	5328	Building 006 – detail shot of nail in external NW facing external wall.	SW	14/07/22
286	5329	Building 007 – general shot of NE facing external wall.	NE	14/07/22
287	5330	Building 007 – general shot of SE facing external wall	SE	14/07/22
288	5331	Building 007 – external elevation of SE facing wall.	SE	14/07/22
289	5332	Building 007 – external elevation of SE facing wall.	SE	14/07/22
290	5333	Building 007 – external elevation of SE facing wall.	SE	14/07/22
291	5334	Building 007 – external elevation of SE facing wall.	SE	14/07/22
292	5335	Building 007 – external elevation of SW facing wall.	SW	14/07/22
293	5336	Building 007 – external elevation of NW facing wall.	NW	14/07/22
294	5337	Brick lined feature built into hillside NW of building 007	S	14/07/22
295	5338	Building 007 – external elevation of NW facing wall.	NW	14/07/22
296	5339	Building 007 – external elevation of NW facing wall.	NW	14/07/22

Image	Digital	Description	From	Date
297	5340	Building 007 – external elevation of NW facing wall.	NW	14/07/22
298	5341	Building 007 – external elevation of NW facing wall.	NW	14/07/22
299	5342	Building 007 room D – detail shot of window in NW facing internal wall.	NW	14/07/22
300	5343	Building 007 room D – detail shot of doorway in NW facing internal wall.	NW	14/07/22
301	5344	Building 007 room D – detail shot of upper brick lined window in NW facing internal wall.	NW	14/07/22
302	5345	Building 007 room D – detail shot of window in NW facing internal wall.	NW	14/07/22
303	5346	Building 007 room C – detail shot of window in NW facing internal wall.	NW	14/07/22
304	5347	Building 007 room B – detail shot of possible blocked opening in SE facing internal wall.	S	14/07/22
305	5348	Building 007 room B – detail shot of possible blocked opening in SE facing internal wall.	SW	14/07/22
306	5349	Building 007 – shot of large rectangular stone in tumble.	-	14/07/22
307	5350	Building 007 – detail shot of metal bracket on right side of window in SE facing external wall.	SE	14/07/22
308	5351	Building 007 – detail shot of metal bracket on right side of window in SE facing external wall.	SE	14/07/22
309	5352	Building 007 – detail shot window in SE facing external wall.	S	14/07/22
310	5353	Building 007 – detail shot window with metal brackets in SE facing external wall.	SE	14/07/22
311	5354	Building 007 – detail shot of metal downpipe bracket in SE facing external wall.	SE	14/07/22
312	5355	Building 007 – detail shot metal bracket in stone in tumble.	-	14/07/22
313	5356	Building 007 – detail shot of metal downpipe bracket in SE facing external wall.	-	14/07/22
314	5357	Building 007 – detail shot window with metal brackets in SE facing external wall.	SE	14/07/22
315	5358	Building 007 – detail shot window with hole for metal brackets in SE facing external wall.	-	14/07/22
316	5359	Building 007 – general shot of brick extension on SE facing external wall.	SE	14/07/22
317	5360	Building 007 – general shot of brick extension on SE facing external wall.	W	14/07/22
318	5361	Building 007 – general shot of brick extension on SE facing external wall.	W	14/07/22
319	5362	Building 007 – general shot of brick extension on SE facing external wall.	Е	14/07/22
320	5363	Building 007 – general shot of brick extension on SE facing external wall.	Е	14/07/22
321	5364	Building 007 – detail shot of stone lintel in SE facing external wall.	Е	14/07/22

RA18107 Galloway Glens LP, Can You Dig It – Woodhead Lead Mine, Carsphairn

Image	Digital	Description	From	Date
322	5365	Building 007 – detail shot window with metal brackets in SE facing external wall.	Е	14/07/22
323	5366	Building 007 – detail shot window in SE facing external wall.	SE	14/07/22
324	5367	Building 007 – detail shot filled hole in SE facing external wall.	SE	14/07/22
325	5368	Building 007 – detail shot of material change SE facing external wall.	SE	14/07/22
326	5369	Building 007 – detail shot of material change and exposed whitewash SE facing external wall.	SE	14/07/22

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