

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Atkins

Barney Craig
Mine Water Treatment Scheme
Carrshield
Northumberland

heritage assessment

report 3692
February 2015

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1. Summary

The project

- 1.1 This report presents the results of an Heritage Assessment conducted to inform the production of a feasibility study at Carrshield, Northumberland. The assessment included a search of pertinent documentary and cartographic records, records of archaeological interventions, geotechnical data, and the Historic Environment Record.
- 1.2 The works were commissioned by Atkins and conducted by Archaeological Services Durham University.

Historic assets

- 1.3 Archaeological remains and deposits of post-medieval and modern date relating to lead mining and mineral extraction at Carrshield survive across the proposed development area. These comprise structural remains (buildings, walls, culverts, dressing floors, bouse teams and level entrances), residual material (tailings /waste heaps) transportation remains (tracks, tramways, bridges and aqueducts), as well as hushes, quarries and limekilns. The mining area is a scheduled ancient monument. Several listed buildings also survive within and beyond the mine complex. Additional unidentified remains may survive below ground, particularly beneath the tailings, and outside the scheduled area. The setting of the assets and their group value forms part of their significance.

Impact assessment

- 1.4 Groundworks associated with the development have the potential to impact on an archaeological resource present on the site, including recorded remains and unknown below ground remains.
- 1.5 Because the depth of the tailings is known to be extensive in places, the impact of shallow groundworks may be limited to disturbance of the tailings, particularly in the northern part of the scheduled area.
- 1.6 Groundworks associated with the development, and subsequent changes to water-levels on the site, may have an impact on the stability of the listed structures, as some of these appear unstable.
- 1.7 The development has the potential to impact on the setting of the historic assets.

Recommendations

- 1.8 It is recommended that, where there is potential for the stability of structures to be affected by groundworks associated with the development, stabilisation is incorporated into the design scheme. Depending on the nature and extent of the works, archaeological recording in advance of the works may be required, supplemented by archaeological monitoring and recording during the course of the works.
- 1.9 It is recommended that groundworks are restricted to the depth of the tailings where possible in order to minimise their impact.
- 1.10 Depending on the extent of groundworks in any given area, and the results of the monitoring of the geotechnical works, archaeological evaluation works may be

required to identify in advance the nature and extent of the archaeological resource that may be disturbed.

- 1.11 It is recommended that any above-ground structures are designed to minimise impact on the setting of the scheduled area, the listed buildings and surrounding landscape.
- 1.12 It is recommended that the existing topography of the site is preserved, and that existing tracks or former routes are utilised where possible.
- 1.13 A programme of archaeological monitoring and recording is likely to be required during groundworks.

2. Project background

Location (Figures 1 & 2)

- 2.1 The site is located at Carrshield, Northumberland (NGR centre: NY 9833 7287). It is irregular in plan, and covers an area of approximately 5.67 ha. The site is within the North Pennines Area of Outstanding Natural Beauty (AONB), the North Pennine Moors Special Area of Conservation (SAC) and the North Pennines Special Protection Area (SAC). To the east is an unmarked road which leads south to the A689, to the west and north is moorland. The River West Allen runs through the southern part of the site and along part of its eastern boundary.

Development proposal (Figure 2)

- 2.2 Excavation of 30 trial pits (ten hand dug and twenty machine dug) is to take place as part of the exploration stage (feasibility) for a mine water treatment scheme. Development options being considered include a passive scheme, comprising a series of ponds and wetlands with associated chambers and access tracks, positioned to the immediate north-west of the scheduled area and extending into it. An active scheme is also being considered, for which there are currently two proposed locations, to the immediate north and to the south of the mine building at the southern end of the scheduled area. This scheme includes the construction of access tracks, tanks and a new building.

Objective

- 2.3 The objective of the scheme of works was to inform the production of a feasibility study for a mine water treatment scheme in relation to the heritage assets on the site. The report aimed to identify any constraints to the scheme, the extent of any further works that may be required at the design stage, and the extent of any mitigation works that may be required.

Methods statement

- 2.4 The works have been conducted in accordance with standard Archaeological Services' procedures for assessments. They have been undertaken in reference to The Chartered Institute for Archaeologists Standards and Guidance on Historic Environment Desk Based Assessments (2012) and English Heritage's Guidance on the Setting of Heritage Assets (2012). The works comprised the study of pertinent cartographic and other historical sources, records of previous archaeological interventions, and sites listed in the Historic Environment Record (HER) within 1km of the proposed development area.

Planning guidance

- 2.5 This assessment and its recommendations are a considered response to the proposed development in relation to Government policy, as it is set out in the *National Planning Policy Framework*.

Dates

- 2.6 This report was prepared for February 2015.

Personnel

- 2.7 Research was conducted and this report prepared by Catrin Jenkins and Peter Carne, with graphics by David Graham. The Project Manager was Daniel Still.

OASIS

- 2.8 Archaeological Services Durham University is registered with the **Online AccesS** to the **Index of archaeological investigationS** project (**OASIS**). The OASIS ID number for this project is **archaeol3-203309**.

3. Landuse, topography and geology

Landuse

- 3.1 At the time of this assessment, the proposed development area comprised part of the former lead mining landscape to the south of Carrshield.

Topography

- 3.2 The site is situated alongside the River West Allen, comprising level areas along the eastern side of the river, with steep slopes rising to the west and east. To the west the land rises again on Smallburns Moor, then onto Alston Moor; to the south-east is the valley of the River North Tyne and the valleys of the River Nent and Killhope Burn; to the east the ground rises further onto Carrshield Moor.

Geology and soils

- 3.3 The underlying geology of the site varies from limestone, siltstone, mudstone and sandstone of the Alston Formation in the base of the river valley to the Great Limestone along the valley to Stainmore Formation mudstone, sandstone and limestone in the west (British Geological Survey 2015). The drift geology of the area is unrecorded. Post-medieval and modern made ground is present on the site deriving from mining operations.

4. Geotechnical investigations

- 4.1 Archaeological monitoring was undertaken during geotechnical investigations works for the West Allen Mine Water Scheme in 2012 (Archaeological Services 2012). This comprised observation of boreholes, logged exposures, test pits, and trial pits.
- 4.2 The excavations reached bedrock at between 4.8m to 7.2m below ground level. Above bedrock, variations of natural clays and made ground were recorded at depths of between 0.3m and 0.4m below ground level. Probable mining waste was recorded in test pits TP01, TP03, TP05, TP06 and TP08 and in logged exposure EP02 and in boreholes BH01, BH02, BH03 and BH04. A possible cinder surface was recorded in one logged exposure (EP02) at 0.25m below ground level. Topsoil and mixed rubble deposits were recorded at depths of up to 0.4m.

5. Historical and archaeological development

Previous archaeological works

- 5.1 There have been three schemes of archaeological works undertaken at the site. In 2009 a building recording survey was undertaken of the Barney Crag Mine Shop, which provided an archaeological and historical assessment of the structure. An archaeological watching brief was undertaken during geotechnical investigations at the site in October 2012. The works monitored boreholes, lodged exposures, test pits and trial holes. The works recorded tailings from mine workings in one of the test pits near the ore plant, laminated silts and clays, probably residue from ore

washing and silt traps, and a possible cinder surface behind a retaining wall, to the west of the ore works. A further watching brief was undertaken in 2014, which monitored excavations for the construction of an access ramp and the reduction of tailings. During the works a short section of the Barney Crag adit/level culvert was exposed and recorded, and laminated tailings were also observed.

The prehistoric period (up to AD 70)

- 5.2 There is little evidence for prehistoric settlement in either the study area or from the wider landscape. However, the recovery of a Neolithic arrowhead from the watershed between the West Allen and Wear valleys indicates a presence at this time in the vicinity. A Bronze Age arrowhead has also been found at Middle Edge to the north of the site, demonstrating a continuation of activity.

The Roman period (AD 70 to 5th century)

- 5.3 Although little research has been undertaken in the study area, the potential for evidence to survive in the surrounding areas was highlighted by the Miner Farmer Landscapes of the Area of Outstanding Natural Beauty (AONB) project. This project has identified at least twenty potential Romano-British Settlement sites on the Alston Moors.
- 5.4 The Roman Road known as the Maiden Way and the Roman Fort of Whitley Castle are both located close to Alston. It has been assumed that the fort was placed to oversee Lead and Silver mining in the vicinity. No evidence for Roman mining has been identified to date and it is thought that the Roman sites would have been obscured by later mining activity.

The medieval period (5th century to 1540)

- 5.5 The earliest recorded medieval settlements in the area were at Alston to the west and Wolsingham and Stanhope to the south-east. The Boldon Buke of 1083 describes the area to the west of Stanhope as hunting forest devoid of settlement (Bowes 1990, 11).
- 5.6 The earliest evidence for mining in the area is tenuous and consists of the discovery of coins of William II (1087 to 1100) at a mine in Garrigill on Alston Moor (Raistrick and Jennings 1965, 94). There is no documentary evidence for mining until 1130, when mines are recorded on Alston Moor. By this date the mines were productive and developed, and so were established before then (Raistrick and Jennings 1965, 46). The mines of Weardale to the south and east are first recorded in 1154, when King Stephen granted all the mines of Weardale to his nephew Hugh de Pudsey, Bishop of Durham (Bowes 1990, 11).
- 5.7 During the medieval period the Allendales in which the study area lies were part of the Regality and Liberty of Hexham which was held by the Archbishops of York (Northumberland Council 2009, 16). A document of late 12th century date records a complaint by the landowners of woodland destroyed by miners, suggesting mineral extraction in the vicinity (Raistrick and Jennings 1965, 47). In 1478 all of the gold, silver, copper and lead mines in Northumberland and Westmoreland were leased to William Godeswyk and other merchants for ten years (*ibid*, 49).
- 5.8 Medieval smelting sites are recorded at Shieldridge Quarry (HER 24027), c.300m to the south of the proposed development site, and at Whiteley Shield (HER 20757),

approximately 1km to the north. These would have been bale hills; these were small open furnaces on hilltops where the prevailing wind provided the air blast.

The post-medieval period (1541 to 1899)

- 5.9 During the late medieval and early post-medieval period, the estate's lands in the area were defined by boundary markers and cairns. On Carrshield Moor, to the east of the proposed development site, there are three such monuments, all of post-medieval date (HERs 7137, 7139 and 22832).
- 5.10 By 1565, Matthew Bee of Ninebanks, some 5km to the north of Carrshields, had opened three mines on his estate, all south of the village. Some 15 years later Bee was prosecuted for trespass by the Crown and his mines were recorded as producing 200 tonnes of lead over five years (Raistrick and Jennings 1965, 50).
- 5.11 The Regality and Liberty of Hexham was eventually dissolved and the lands were appropriated to the Crown by Henry VIII. In the late medieval and early post-medieval periods, the area was the site of frequent boarder raiding and skirmishes. As a result of this unrest, defended homesteads or bastles were built in the region. One survives at Whitely Shield Farmhouse (HER 7083 & HER 18726), a Grade 2 listed building approximately 1km to the north of Carrshield Lead Mine.
- 5.12 In 1632 the Allendale estate was bought by the Fenwick family; later the mining rights were leased to Sir William Blackett, a Newcastle merchant and coal mine owner. In 1694, Blackett bought the land from the Fenwicks and extended and further developed the mines (Raistrick and Jennings 1965, 50). In 1696 Blackett leased the Weardale mining grounds from Killhope to the head of the dales, which were owned by the Bishops of Durham. These he worked together with the Allendale mines (*ibid*, 51). The estate lands and mining leases passed down the family of Blacketts, Wentworth Blacketts and Beaumonts through the 17th, 18th and 19th centuries (Burt 1984, 32).
- 5.13 Although the mines in the Allendales were not well recorded until the Blackett records begin in 1725, mining was taking place in the 17th century around Ninebanks and also at Allenheads and Coalcleugh. The parish register in the mid-17th century records 'grovers' at Shield Ridge in West Allendale, c.1.5km to the south of the proposed development site. The Coalcleugh area at the head of West Allendale to the south of the study area became one focus for the Blackett's mining operations. A mine level entrance at Shield Ridge held a stone inscription (now disappeared) of William Blackett dating to 1684. The level became the main water level for the development of the Coalcleugh mines (Raistrick and Jennings 1965, 148).
- 5.14 The landscape of the area has been shaped by both mining and farming, with people and settlements seasonally linked with one or other industry. The frequency of shield place names suggests shielings or seasonal farming settlements. One farming settlement in the area at Dike Nook was established in the 18th century (HER 18780).
- 5.15 Around 1760 the Barney Crag Horse Level (HER 18589) was begun on the eastern bank of the River West Allen to the south of Carrshield. By the beginning of the 19th century the level had brought some rich lead veins into production and measured

almost 2km long, serving a complex of levels which led to various mineral veins (Raistrick and Jennings 1965, 150).

- 5.16 The Barney Crag Horse Level was at the south end of what became the Carrshield's mining complex (HERs 7089 and 7167), which was developed in the 19th century. Much of the post-medieval lead mining site is preserved and is a Scheduled Monument (SM 28541) containing Grade 2 listed structures (HER 18593). The site includes a two storey lodging shop (HER 18592) surrounding by a series of culverts (HER 18591), which probably drained the mines or were associated with ore processing at the north end of the complex. In the 19th century on the west bank of the river a second level, Scrathole Mine (HER 7128), was driven. Also on the west bank are two probable hushes, where lead ore was exposed by directing flows of water across the line of the vein. It is not clear with which phase of mining activity they were associated, though hushes are usually related to early mineral extraction.
- 5.17 Ore processing took place towards the northern end of the complex, where there is an extensive spoil heap related to this. In the centre of the site is a series of bouse teams where ore was sorted and then crushed. Documentary sources refer to a crushing mill at Barney Crag during the 1860s and 1870s, although its exact position is uncertain. To the north of the bouse teams is an area covered by later dressing waste but the original washing floor probably survives beneath. Earthwork features are visible beneath the dressing waste at the northern end of the site. The river extends through the centre of the site and is revetted with stone walls (HER 18590). The revetment originally carried arches of 19th century date, some of which survive, to support a raised floor affording an extension to the washing floor. On the eastern river bank above the washing floor were two large reservoirs, perhaps used as settling tanks. The complex included a railway line with several trackways giving access to the waste heaps, and the washing floors. At the south end of the complex a bridge crossed the river (HER 7102).
- 5.18 Fryer's map of Northumberland in 1820 (Figure 3) depicts the study area. There are several buildings either side of the river at Carrshield, suggesting a settlement with smaller outlying farming sites also shown at Dykenook, Small Burn and Whitley Shield.
- 5.19 The 1st edition Ordnance Survey map of 1860 (Figure 4) records the mining complex and study area in detail. Low Blue Row miner's housing is at the north of the site, to the south of which is a series of tanks and small buildings associated with ore washing. Two reservoirs are labelled to the east and south-east of the tanks and buildings. Parallel to the reservoirs on the river's western bank are spoil heaps topped by a trackway and an aqueduct is recorded adjacent to these. Further tanks or structures are recorded on the east bank below the reservoirs and to the east of these on the main road is High Blue Row miner's housing (HER 18594). To the south of High Blue Row a level is marked and there is also the suggestion of a spoil heap. Towards the southern part of the site, either side of the river and also to the east of the river, are further small structures or tanks. At the southern end of the site a level is marked and below this the mine shop is depicted. Several tracks lead from the main road to the site and within the site and parallel to the river are further tracks. Within the river in the central area of the site are several possible piers or posts.

- 5.20 The 1st edition map also records industrial exploitation in the wider landscape with limekilns (HERs 6319, 6323, 7088, 7131, 713, and 7181) and quarries (HERs 7106, 7110, 7111, 7129, 7156 and 22721) some of which may have provided materials for mining operations. The map also depicts several wells (HERs 7130, 22716, 22718, 22719, 22722), a sheep fold (HER 22831) and a footbridge (HER 22717) in the study area.
- 5.21 Carrshield village (HER 7099) probably evolved from a seasonal farming site and expanded during the 19th century as a result of lead mining. Housing and shops (HER 18692 and HER 18728, 18775, 18785) and a school (HER 18699), which was built in 1851 by the Beaumonts, accommodated the growing population. Other settlements in the study area developed in a similar manner as a result of mining activity, such as Whiteley Shield (HER 7112, 7105, 18659 and 18672) to the north and Shield ridge (HER 7132, 7134 and 7183) to the south. Smaller mining and farming settlement sites are recorded to the east on Carrshield moor (HER 7140) where there is also a probable bield (HER 7138) and to the west at Smallburn (HER 18621). An inn was located at Temperance Farm in the 18th century which developed into a farm in the 18th and 19th century (HER 18705 and 18725).
- 5.22 The Carrshield mining complex continued to produce lead until 1880 when it became exhausted (Raistrick and Jennings 1965, 150).
- 5.23 The 2nd edition Ordnance Survey map of 1897 (Figure 5) depicts little change to the site. A tramway is labelled on the river's west bank which extends from the north part of the complex parallel to the river to the south then crosses the river and connects to a probable series of further tramways on the east bank of the river within the mining complex. The Barney Crag mine is labelled as disused and old shaft are shown to the west of the site. The wider study area is also little changed.

The modern period (1900 to present)

- 5.24 The 3rd edition plan of 1924 (Figure 6) depicts further change to the site. Much of the lead mines, levels and shafts both within the complex and within the wider study area are marked as old or disused. Extensive spoil heaps are shown on the west river bank and the tramway has disappeared. On the east bank at the north end of the site tanks are labelled and these have been developed, the reservoirs are marked as old. In the south part of the site are further spoil heaps with a possible tramway shown on one leading to the area of the mine shop.
- 5.25 With the market demand for lead decreasing in the late 19th and early 20th century, the Beaumont company eventually gave up their mining leases. In Weardale these were renewed by the Weardale Lead Company, which found many new deposits and worked the mines until 1940 (Raistrick and Jennings 1965, 330). The Belgian-owned Vielle Montagne Zinc Company took up the lease for the mine at Carrshield and worked it until 1921. Many of the area's mines were restored due to the exploitation of other minerals such as Barytes, fluorspar and zinc, which was mined at Carrshield. In 1913 Vielle Montagne mined 459 tons of lead ore (Burt 1984, 288) at Carrshield, but the value of zinc ore coming from the mine was over three times that of the lead being mined in the same year (Burt 1984, 292).
- 5.26 Scrathole Mine, operated during the 19th century by the Beaumont Company, was reopened in the 1950s when it continued to be operational until 1981.

The buildings

- 5.27 There are five statutorily protected buildings within the site; these are all Grade 2 listed structures associated with the Carrshield mine complex (Appendix). Within the study area, there are a further sixteen Grade 2 listed buildings to the north of the site and one to the east of the site.

Scheduled Ancient Monuments and other Designated Heritage Assets

- 5.28 The Carrshield mining site is a Scheduled Ancient Monument. Scheduled Monument Consent is required prior to any work at the site.

6. Development constraints

- 6.1 Archaeological remains and deposits of post-medieval and modern date relating to lead mining and mineral extraction at Carrshield survive across the proposed development area. These comprise structural remains (buildings, walls, culverts, dressing floors, bouse teams and level entrances), residual material (tailings /waste heaps) transportation remains (tracks, tramways, bridges and aqueducts), as well as hushes, quarries and limekilns.
- 6.2 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the potential archaeological resource could address a number of agenda items, specifically Agenda Item PM7: North Pennine Dales and PMii: Industrialisation.
- 6.3 There are several listed buildings which form part of the mine complex and the near vicinity. These are the mine offices (HER 18593) to the north-east; the terraced housing to the east (HER 18594); tunnel entrance, arched chamber and associated adits (HER 18591); mine lodging shops and associated structures (HER 18589); a revetment wall of the east side of the river (HER 18590); and the bridge over the river (HER 7102). These structures have evidential value but also a group value through their association with the mine complex, which is scheduled (HER 7089).
- 6.4 A series of adits have been identified in the vicinity of the lodgings at the southern part of the site. Elements of these may survive which are not known. Further adits may exist elsewhere on the site which are not known.
- 6.5 As the visible mine remains primarily relate to the later phases of its use, and as there are considerable areas of the site covered with mine tailings, it is possible that remains relating to earlier activity on the site survive which are unknown. Processing floors are assumed to be present in the north of the site, underneath the tailings, and a series of features visible on historic mapping in this area may also survive.
- 6.6 Disused mine shafts are recorded to the west of the scheduled area, where the possible remains of a lime kiln have also been noted. Vegetation may be obscuring remains in this area. Remains may exist here which may be unrecorded.
- 6.7 A series of historic assets have been designated in the surrounding landscape; the mine complex may be considered to be part of their setting. The development may

impact on the setting of the scheduled area and the listed buildings within and beyond it.

7. Impact assessment

- 7.1 Groundworks associated with the development have the potential to impact on an archaeological resource present on the site.
- 7.2 Because the depth of the tailings is known to be extensive in places, the impact of shallow groundworks may be limited to disturbance of the tailings, particularly in the northern part of the scheduled area.
- 7.3 Groundworks associated with the development, and subsequent changes to water-management on the site, may have an impact on the stability of the listed structures, as some of these appear unstable.
- 7.4 Groundworks have the potential to remove unknown archaeological remains, including remains outside the scheduled area.
- 7.5 The development has the potential to impact on the setting of the historic assets.

8. Recommendations

- 8.1 It is recommended that, where there is potential for the stability of structures to be affected by groundworks associated with the development, stabilisation is incorporated into the design scheme. Depending on the nature and extent of the works, archaeological recording in advance of the works may be required, supplemented by archaeological monitoring and recording during the course of the works.
- 8.2 It is recommended that groundworks are restricted to the depth of the tailings where possible in order to minimise their impact.
- 8.3 Additional ground survey work in areas of probable impact is unlikely to be necessary or productive. Depending on the extent of groundworks in any given area, and the results of the monitoring of the geotechnical works, archaeological evaluation works may be required to identify in advance the nature and extent of the archaeological resource that may be disturbed. Mitigation works may be required in the event that a significant archaeological resource is identified.
- 8.4 It is recommended that any above-ground structures are designed to minimise impact on the setting of the scheduled area, the listed buildings and surrounding landscape.
- 8.5 It is recommended that the existing topography of the site is preserved, and that existing tracks or former routes are utilised where possible.
- 8.6 A programme of archaeological monitoring and recording is likely to be required during groundworks.

9. Sources

Cartographic sources

Fryer, 1820 Map of the County of Northumberland

Ordnance Survey 1st Edition, 6" Durham sheet XV

Ordnance Survey 2nd Edition, 6" Northumberland sheet CXI.NW & SWheet 109

Ordnance Survey 3rd Edition, 6" Durham sheet XV

Other sources

Archaeological Services 2012 *West Allen Metal Minewater Scheme*

Carrshield Lead Mines and Ore Works, Northumberland ; archaeological monitoring. Unpublished report **3010**, Archaeological Services Durham University

Archaeological Services 2014 *West Allen Metal Minewater Scheme Carrshield Lead Mines and Ore Works, Northumberland: archaeological monitoring.*

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Northumberland County Council 2009 *Hexham: Northumberland Extensive Urban Survey*.

Petts, D, & Gerrard, C, 2006 *Shared Visions: The North-East Regional Research Framework for the Historic Environment*. Durham

Raistrick, A, & Jennings, B, 1965 *A History of Lead Mining in the Pennines*. Longman

Websites

www.bgs.ac.uk

www.key to the past. Info

Geotechnical works

Records of boreholes, logged exposures and test pits were consulted from 2012 for this assessment (Archaeological Services 2012).

Appendix: Historic Environment Record

The tables include sites recorded within the vicinity of the proposed development area (within an approximate radius of 1km from the site).

Historic Environment Record

(PRN = Public Record Number, SAM = Scheduled Ancient Monument)

PRN	SAM	Description	Date
6319		Black Cleugh lime kiln	post-medieval
6323		Smallburns lime kiln	post-medieval
7083		Whiteley Shield Bastle	17th century
7088		Barney Crag lime kilns	post-medieval
7089	28541	Carrshield lead mine and ore works	post-medieval
7099		Carrshield mining village	post-medieval
7102		Bridge over River West Allen on track to Smallburn	post-medieval
7105		Whiteley Shield Primitive Methodist Chapel	1857
7106		Barney Crag Quarry	post-medieval
7110		Loudside Quarries	post-medieval
7111		Philip's Quarry	post-medieval
7112		Mine shafts	post-medieval
7128		Scraithope (Scraithole) Mine	post-medieval
7129		Ladlewell Quarry	post-medieval
7130		Ladle Well	post-medieval
7131		Lime kiln	post-medieval
7132		Shieldridge Mine	post-medieval
7134		Air shaft	post-medieval
7135		Lime kiln	post-medieval
7137		Burnup's Currick boundary marker	post-medieval
7138		Probable bield	post-medieval
7139		Three Currick's boundary marker	post-medieval
7140		Coal workings	post-medieval
7156		Quarries	post-medieval
7167		Carr Shield Mine	post-medieval
7181		Lime kiln	post-medieval
7183		Shield Rigg Wesleyan Methodist Chapel	1854
18589		Adit portal of Barneycraig Horse Level	18th century
18590		Revetment wall on east side of River West Allen	19th century
18591		Tunnel entrance and chamber	19th century
18592		Range of lead mine buildings on east side of River West Allen	19th century
18593		Carr Shield Mine Offices	1825-1850
18594		Nos 1-4 High Blue Row, lead mining housing	c.1840
18621		Smallburn Farmhouse	early 19th century
18659		Piers and railings of Whiteley Shield Chapel	mid -19th century
18672		Pair of houses	early 19th century
18692		Stone walls and railings	19th century
18699		Former school	1851
18705		Temperance Farmhouse	18th century
18725		Garden walls and railings of Temperance Farmhouse	19th century
18726		Whiteley Shield Farmhouse and adjacent outbuildings	17th century
18728		Carrshield House	early 19th century
18775		Dwarf wall, railings and gate of Carrshield House	19th century
18780		Dyke Nook Farmhouse and adjacent cottage	late 18th century
18785		House with shop	mid-19th century
20757		Medieval lead smelt site	medieval
22716		Well	post-medieval
22717		Footbridge over River West Allen	post-medieval
22718		Black Cleugh well	post-medieval
22719		Well	post-medieval
22721		Quarry	uncertain
22722		Well	post-medieval
22831		Sheep fold	post-medieval

PRN	SAM	Description	Date
22832		Currick marker cairn	post-medieval
24027		Shieldridge Quarry lead smelting site	medieval

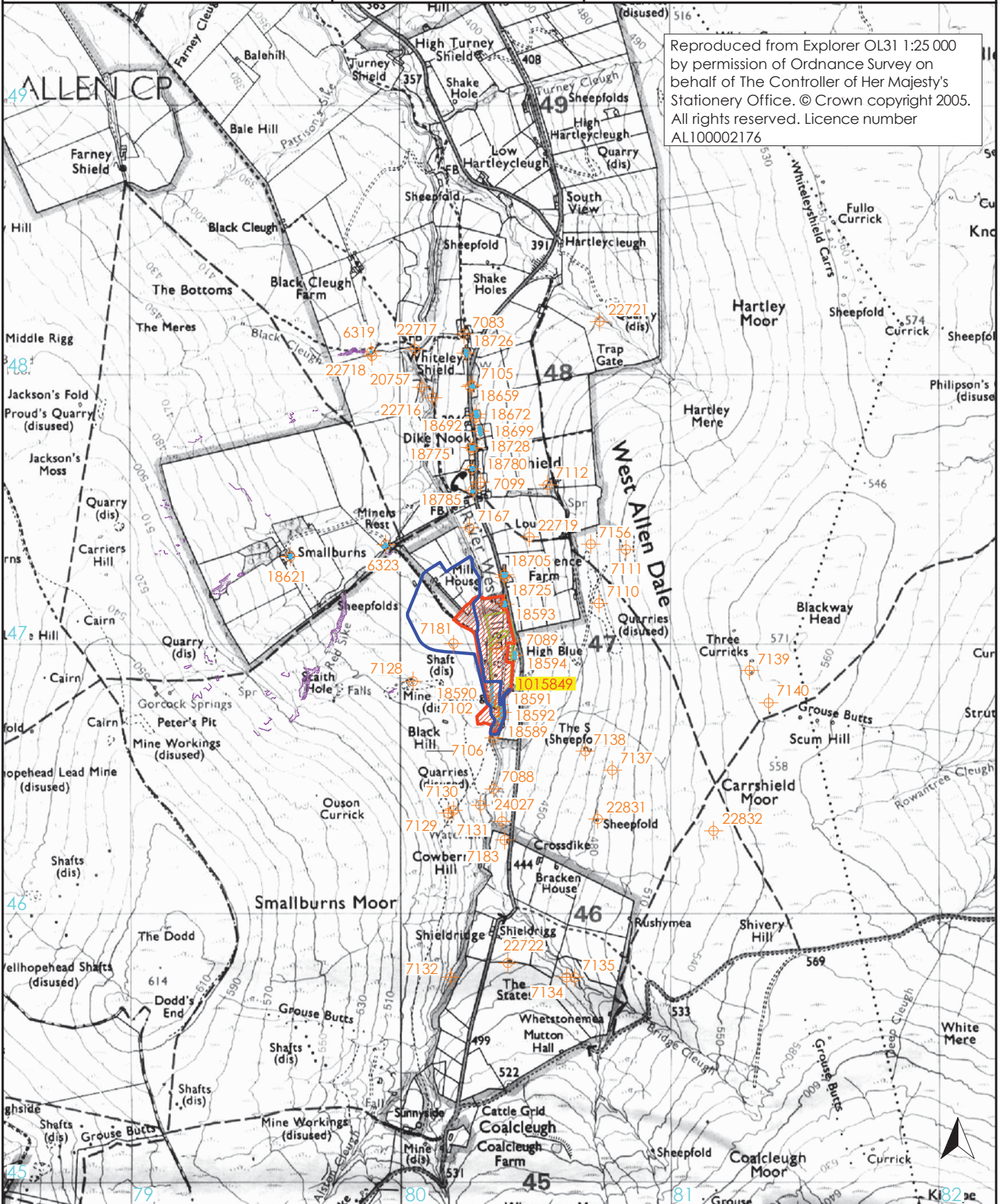
Listed buildings

PRN	Description	Grade
240336	Piers and railings of Whiteley Shield Chapel	II
240280	Revetment wall on east side of River West Allen	II
240281	Carrshield tunnel entrance	II
240282	Range of lead mine buildings on east side of River West Allen	II
240283	Carrshield Mine Offices	II
240284	Nos 1-4 High Blue Row, housing	II
240278	Adit portal of Barneyraig Horse Level	II
240332	Smallburn Farmhouse	II
240333	Lime kiln	II
240279	Bridge over River West Allen	II
240335	Whiteley Shield Primitive Methodist Chapel	II
240346	Post Office, house with shop	II
240337	Pair of houses, north of Carrshield Expedition Centre	II
240338	Stone wall and railings	II
240339	Carrshield Expedition Centre, former school	II
240340	Temperance Farmhouse, former inn	II
240341	Garden wall and railings in front of Temperance Farmhouse	II
240342	Whiteley Shield Farmhouse and adjacent outbuildings	II
240343	Carrshield House	II
240344	Dwarf wall railings and gate in front of Carrshield House	II
240345	Dyke Nook Farmhouse and adjacent cottage	II
240334	Blackcleugh lime kiln	II

Previous archaeological interventions

PRN	description
14615	Building survey of Barneyraig Mine Shop, Carrshield
15068	Watching brief during West Allen Metal Minewater Scheme, Carrshield
15338	Watching brief during West Allen Minewater Scheme, Carrshield

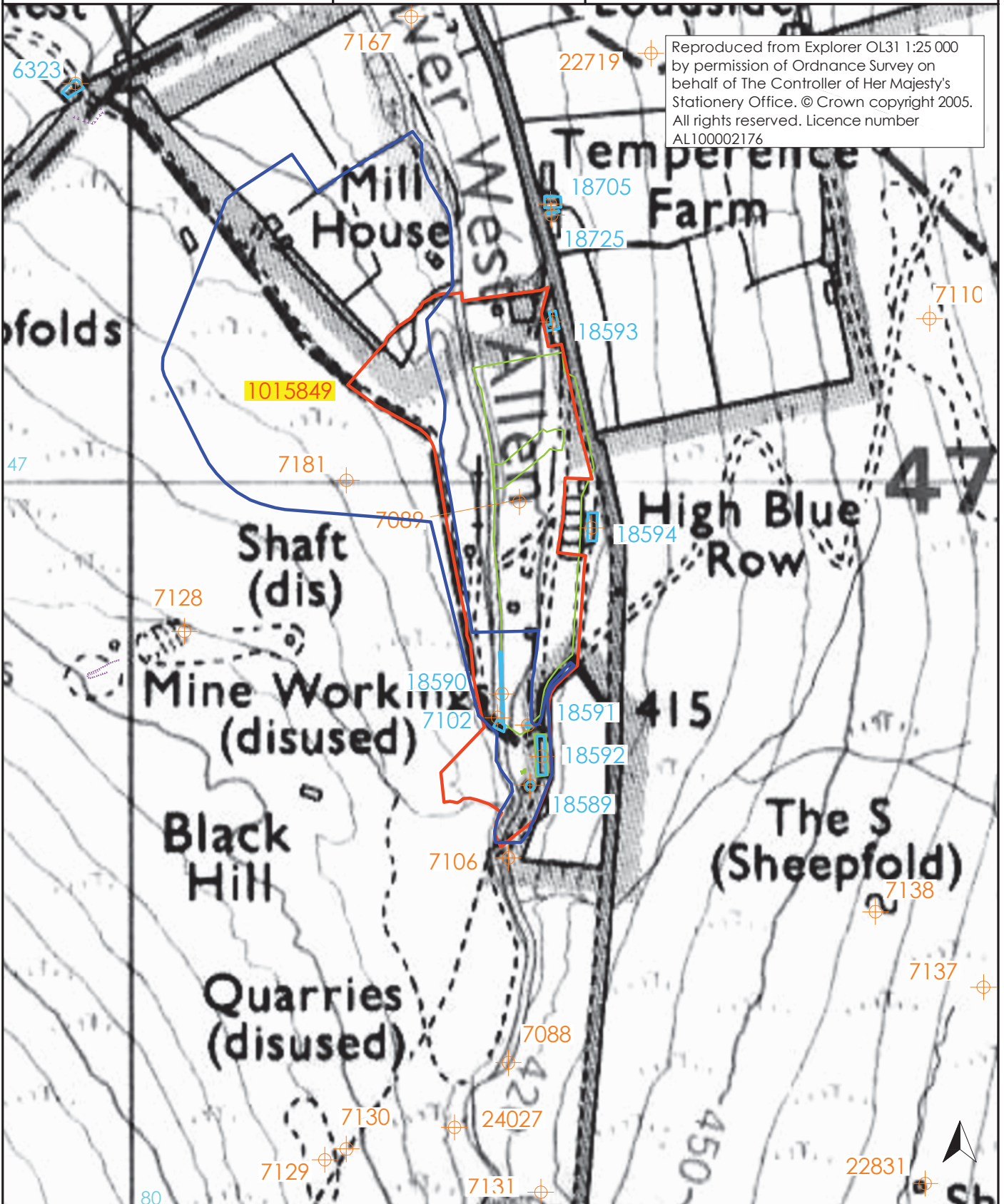
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- proposed development area
- HER site
- event
- listed building
- scheduled monument
- NMP





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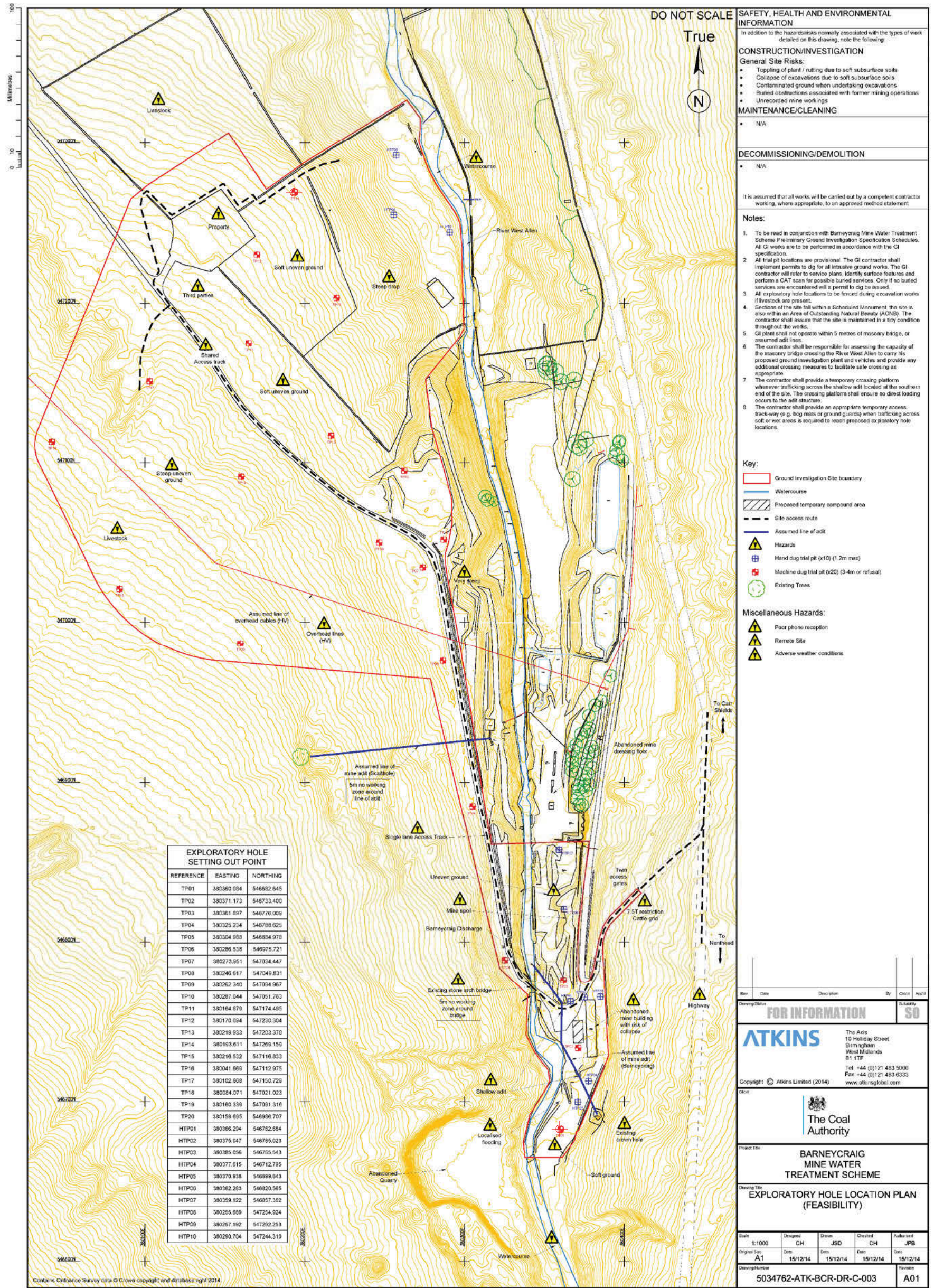
-  ground investigation site boundary
-  listed building

-  HER site
-  scheduled monument

-  event
-  NMP



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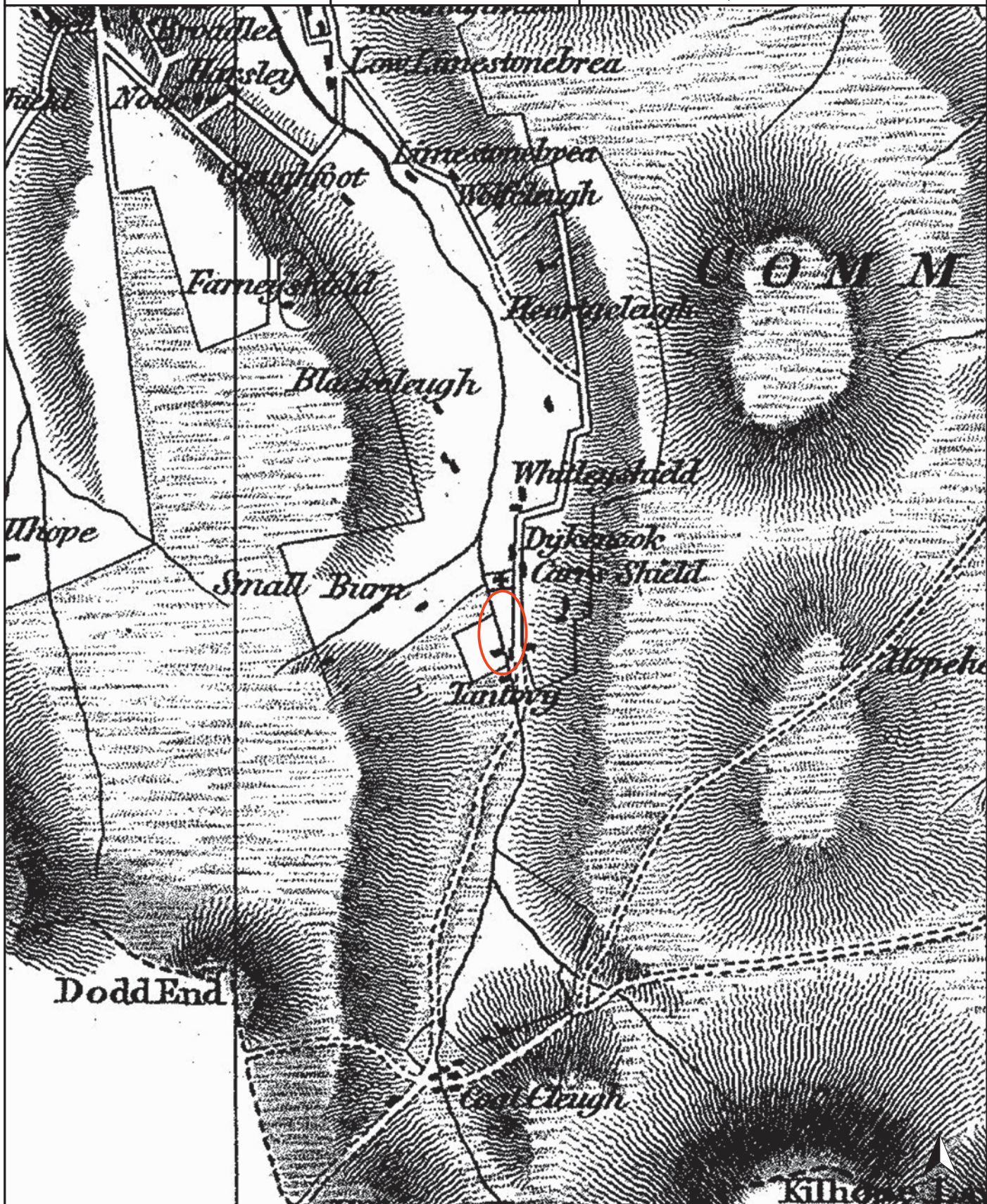
0 100m
scale 1:2500 for A3 plot

Barney Craig
Mine Water and Treatment Scheme
Carshield
Northumberland

heritage assessment
report 3692

Figure 2: Site as existing and proposed development

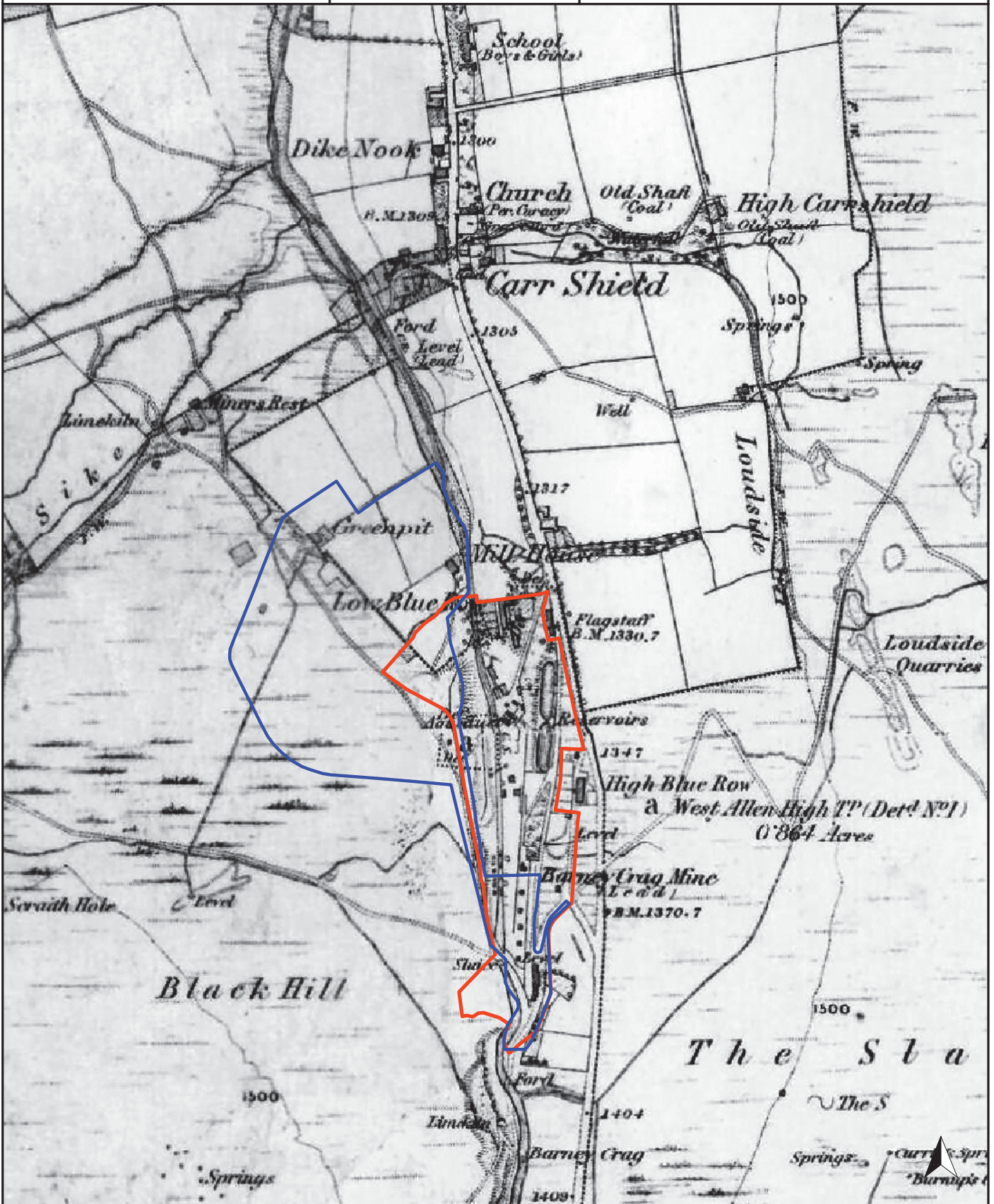
Figure 3: Extract from Fryer's map of
Northumberland, 1820





approximate location of the proposed development area

not to scale

Figure 4: Extract from the 1st edition Ordnance Survey map, 1861

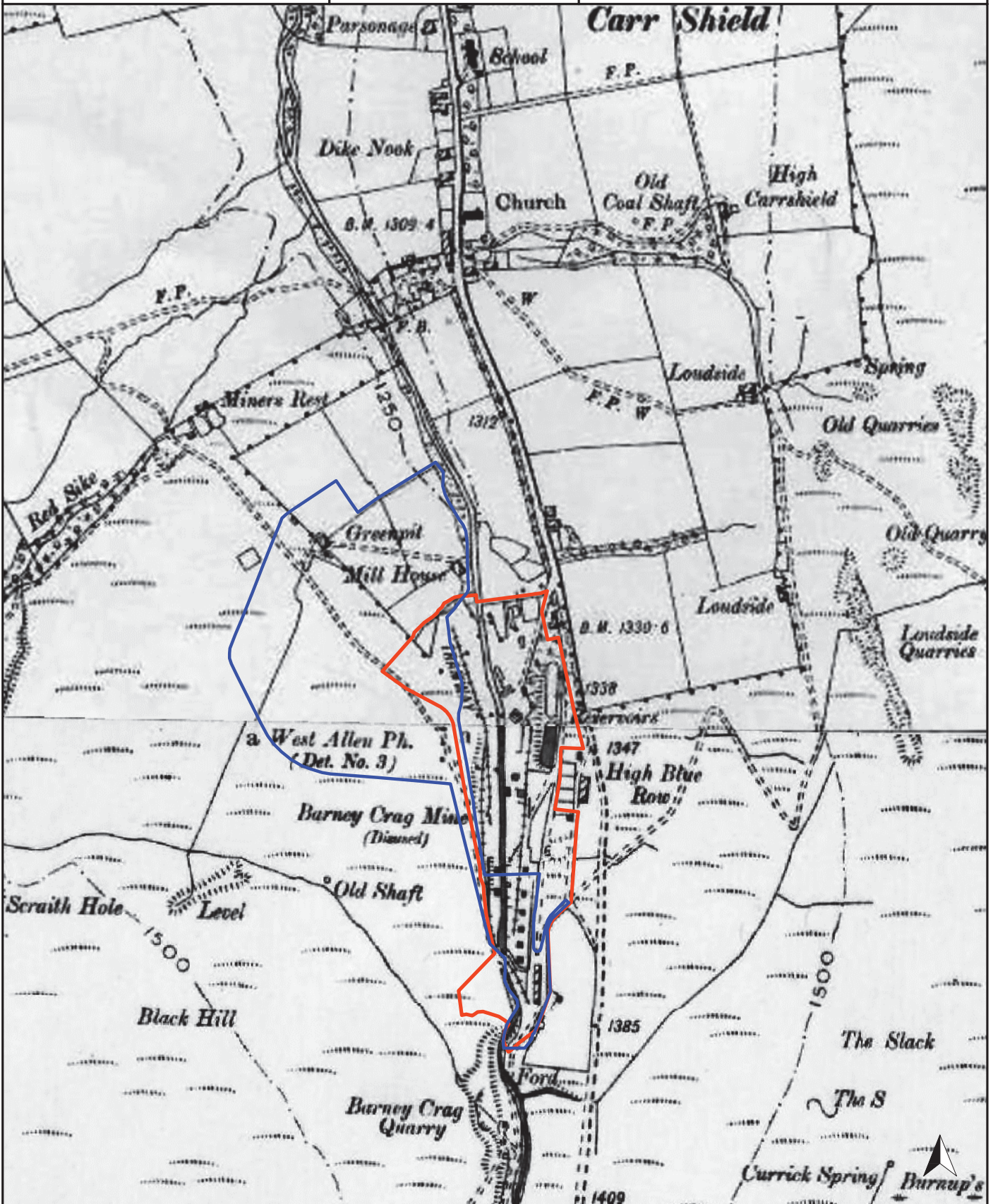



 ground investigation site boundary


 scheduled ancient monument

0 300m
scale 1:6000 for A4 plot

Figure 5: Extract from the 2nd edition
Ordnance Survey map, 1899

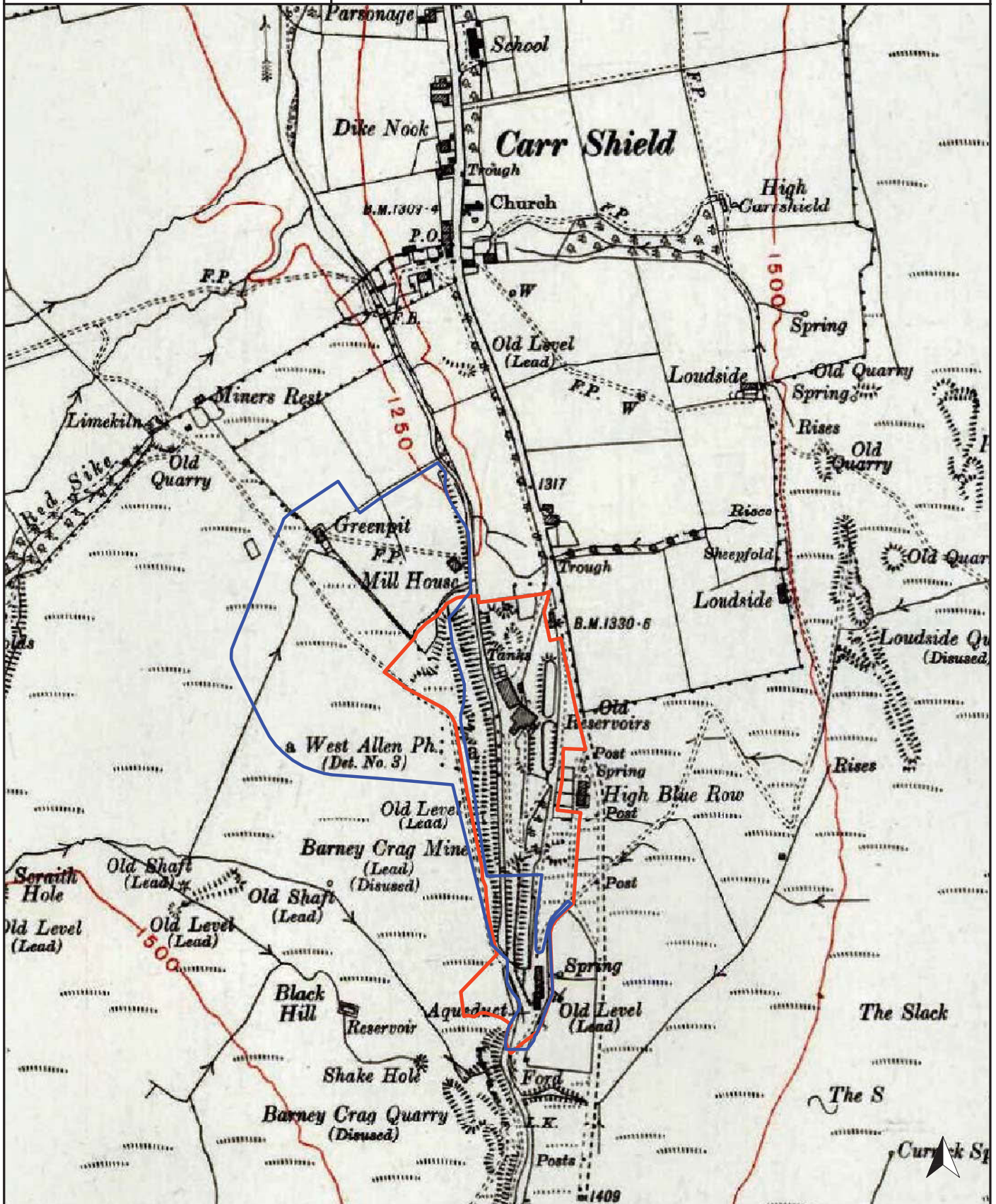



 ground investigation site boundary


 scheduled ancient monument

0  300m
scale 1:6000 for A4 plot

Figure 6: Extract from the 3rd edition Ordnance Survey map, 1924



 ground investigation site boundary

 scheduled ancient monument

0  300m
scale 1:6000 for A4 plot