

TENDLEY QUARRY, BRIGHAM, CUMBRIA



**ARCHAEOLOGICAL
EVALUATION REPORT
CP. No: 1504/11
07/10/2011**



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Quality Assurance

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by NP Archaeology Ltd on the preparation of reports.

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SUMMARY

NP Archaeology Ltd were commissioned by Tarmac Ltd/Tendley Quarries Ltd to undertake a trial trench archaeological evaluation at Tendley Quarry, Brigham, Cockermouth, Cumbria (centred on NY 089 284). This work follows a planning application (Planning Application No. 2/03/9034) for an expansion to the existing quarry area. Cumbria County Council's Historic Environment Service (CCCHES) granted planning consent for the development, on the condition that an archaeological evaluation be undertaken at the site. The work is required as the site lies close to the location where a number of early Christian inhumation burials were found, and one of the suggested routes of a Roman road runs nearby, as well as there being evidence for prehistoric activity in the area.

The trial trench evaluation was undertaken over three days between the 06/09/2011 and 08/09/2011. The trial trench evaluation involved the excavation of eighteen trenches, totalling 1050m² of excavation, comprising a 5% sample of the development area. No archaeological remains were noted.

As this archaeological evaluation was conducted as part of a condition in association with the expansion of the quarry, no further work is deemed necessary. However, given the high archaeological potential of the area, it is recommended that any future work be subject to a programme of archaeological investigation.

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The archaeological evaluation was undertaken by Damion Churchill, Miranda Haigh Charles Rickaby and Sue Thompson. The report was written by Miranda Haigh and the drawings were produced by Matthew Town. The project was managed by Matthew Town, Project Manager for NPA Ltd. The report was edited by Martin Railton, Project Manager for NPA Ltd.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In September 2011, NP Archaeology Ltd were invited by Tarmac Ltd/Tendley Quarries Ltd to undertake an archaeological evaluation at Tendley Quarry, Brigham, Cockermouth, Cumbria (NGR NY 089 284), in advance of limestone extraction at the site. The area around Tendley Quarry is considered to have significant potential for the survival of archaeological remains associated with prehistoric, Roman and early Medieval settlement and land use. As a result, Cumbria County Council's Historic Environment Service requested a programme of archaeological investigation to be undertaken during each phase of proposed quarry expansion to assess the archaeological nature and potential of the site. This is in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16) and its successor, Planning Policy Statement 5 (PPS5) (DCLG 2010).
- 1.1.2 The study area comprised one field of pastoral land to the west of the existing quarry, measuring 2.1ha in total.
- 1.1.3 This report outlines the trial trench evaluation work undertaken on-site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological works.

2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design was submitted by NP Archaeology Ltd in response to a request by Tarmac Ltd/Tendley Quarries Ltd, for an archaeological field evaluation of the study area. Following acceptance of the project design by Cumbria County Council's Historic Environment Service, NP Archaeology Ltd was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), English Heritage guidelines and generally accepted best practice.

2.2 THE TRIAL TRENCH EVALUATION

2.2.1 The evaluation consisted of the excavation of 18 trenches covering 1050 m² of the proposed 21,000m² extraction area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity, the evaluation trenches being located to provide an extensive sample of the area. All work was conducted according to the recommendations of the Institute for Archaeologists (2008).

2.2.2 In summary, the main objectives of the field evaluation were:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed;
- to establish the character of those features in terms of cuts, soil matrices and interfaces;
- to recover artefactual material, especially that useful for dating purposes;
- to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.

2.2.3 Turf and topsoil was removed by mechanical excavator under close archaeological supervision. The trial trenches were subsequently cleaned by hand and possible features were investigated and recorded according to the NP Archaeology Ltd standard procedure as set out in the Excavation Manual (Giecco 2003).

2.2.4 No finds were encountered.

2.2.5 All deposits encountered were deemed unsuitable for environmental sampling, and therefore no samples were retained.

- 2.2.6 The 18 evaluation trenches were scheduled to be backfilled at the discretion of the client, following excavation and recording.
- 2.2.7 The fieldwork programme was followed by an assessment of the data as set out in the *Management of Archaeological Projects* (2nd Edition, 1991).

2.3 THE ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the specification, and in line with current UKIC (1990) and English Heritage Guidelines (1991) and according to the Archaeological Archives Forum recommendations (Brown 2007). The archive will be deposited within Tullie House Museum, with copies of the report sent to the County Historic Environment Record at Kendal in Cumbria, available upon request. The archive can be accessed under the unique project identifier NPA11, TQC-B, CP 1504/11.
- 2.3.2 NP Archaeology and CCCHES support the **Online Access to the Index of Archaeological Investigations (OASIS)** project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by NP Archaeology, as a part of this national project.

3 BACKGROUND

3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 Tendley Quarry is located in the north-west of Cumbria between Brigham and Eaglesfield, approximately 2.5km southwest of Cockermouth within the district of Allerdale. The area is within a narrow belt of country known as the West Cumbrian Coastal Plain which is situated between the Irish Sea to the west and the high fells of the Lake District to the east (Countryside Commission 1998). The site lies at a height of approximately 116m – 121m AOD and is positioned within an open agricultural landscape close to the rivers Derwent and Cocker.
- 3.1.2 The underlying geology of the site is comprised of Carboniferous Limestone overlain by large areas of boulder clay (glacial till) (Countryside Commission 1998). The overlying soils are of typical brown earths.
- 3.1.3 The area of the proposed works is situated across one agricultural enclosure, to the west of the large limestone quarry.

3.2 HISTORICAL CONTEXT

- 3.2.1 This historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area.
- 3.2.2 Although there is evidence for prehistoric occupation throughout Cumbria from the Upper Palaeolithic onwards (Young 2002), there is no definitive evidence for prehistoric activity within the immediate vicinity of the study area. However, the wider area around the site contains a series of cropmarks (HER nos: 4714, 5122, 13552, & 13563) and finds (e.g. HER nos 810, 1057, 1060 & 17812) which are indicative of prehistoric activity.
- 3.2.3 During the Roman period, there was a heavy military presence in Cumbria, and there is considerable evidence for Roman military activity around the study area during this period, most notably the Roman fort at Papcastle. Numerous military roads also traversed the Cumbrian countryside. One of the suggested routes of the Roman road between the settlements at Papcastle and Ravenglass crosses Tendley Hill (HER 1036) and there are early documentary accounts indicating that a section of it had been uncovered during quarrying.
- 3.2.4 The early medieval period is demonstrated by the discovery of a number of inhumation burials in the vicinity of Tendley Hill. Most of the burials contained no artefacts and it has been suggested that these remains represent an early Christian cemetery that was subsequently reused in the

Viking period. However, one of the burials did contain a sword which has been dated to the 10th century (HER nos. 1059 & 11617).

3.2.5 The post-medieval period usage of the study area appears to have been predominantly agricultural, with limestone quarrying being conducted within the area from at least the 19th century onwards.

3.3 PREVIOUS WORK

3.3.1 Several previous archaeological investigations have taken place close to the study area. These include;

- a rapid archaeological desk-based assessment conducted by Headland Archaeology in 2001 (Conolly & Carter 2001),
- three geophysical surveys conducted by Archaeological Services WYAS (Gidman & Webb 2007, Watson 2008 and Webb 2003),
- a programme of trial trenching conducted by Oxford Archaeology North in 2007 (OAN 2007),
- a programme of trial trenching conducted by NP Archaeology in 2009 (Jackson 2009).

3.3.2 No significant archaeological remains were revealed during these surveys.

4 TRIAL TRENCH EVALUATION RESULTS

4.1 INTRODUCTION

- 4.1.1 The trial trench evaluation was undertaken between the 6th September 2011 and the 8th September 2011, and comprised the excavation of 18 trenches in one field (Trenches 1-18).
- 4.1.2 The trenches all measured approximately 30m by 2m, except from Trench 1 which was cut down to 26m due to flooding at the northern end and Trench 17 which was cut down to 9.5m due to it being in the path of a chipped stone roadway.
- 4.1.3 The trenches were excavated by a tracked mechanical excavator using a toothless ditching bucket down to the level of either the first encountered archaeological deposits or the natural substrate, whichever was observed first. The trenches were subsequently cleaned by hand and recorded fully. The results are outlined below.

4.2 RESULTS

- 4.2.1 *Trench 1:* Trench 1 was located in the far northern corner of the field and was aligned north-south (Plate 1). The trench was excavated to a maximum depth of 0.4m revealing yellow/orange clayey sandy silt containing river-washed cobbles and some larger boulders (101) below c.0.40m of mid-greyish/brown silty clayey sand topsoil (100). Four modern land-drains were found, running approximately east-west across the trench.



Plate 1: Trench 1 looking northwest

- 4.2.2 **Trench 2:** Trench 2 was located toward the north-western corner of the field and was aligned northeast-southwest (Plate 2). The trench was excavated to a maximum depth of 0.34m revealing a similar yellow/orange clayey sandy silt containing gravels, river-washed cobbles and some larger boulders (201) below c.0.34m of mid-greyish/brown silty clayey sand topsoil (200). It contained five land-drains also aligned approximately east-west.
- 4.2.3 **Trench 3:** Trench 3 was located toward the north-eastern corner of the field and was aligned northwest-southeast (Plate 3). The trench was excavated to a maximum depth of 0.54m revealing a mottled yellow/pale blue sandy silt deposit containing medium sized sub-rounded cobbles and smaller sub-angular stones (302) at the south-eastern end of trench, below c.0.15m of yellow/orange clayey sandy silt containing river-washed cobbles and some larger boulders (301) and c.0.28m of mid-greyish/brown silty clayey sand topsoil (300). Three land-drains were found in this trench, two were aligned as in trenches 1 and 2, but one was aligned north-south.



Plate 2: Trench 2 looking northeast



Plate 3: Trench 3 looking southeast

4.2.4 **Trench 4:** Trench 4 was located toward the northern corner of the field and was aligned east-west (Plate 4). The trench was excavated to a maximum depth of 0.4m revealing a yellow/orange clayey sandy silt containing river-washed cobbles and some larger boulders (401) below c.0.3m of mid-greyish/brown silty clayey sand topsoil (400). It contained four land-drains all running northwest-southeast across the trench.



Plate 4: Trench 4 looking northeast

4.2.5 **Trench 5:** Trench 5 was located toward the western corner of the field and was aligned east-west (Plate 5). The trench was excavated to a maximum depth of 0.4m revealing a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (501) below c.0.36m of mid-greyish/brown silty clayey sand topsoil (500). Two possible archaeological features were identified, but investigation showed these to be natural features. As in trench 4, four land-drains all aligned northwest-southeast were uncovered in the base of this trench.

4.2.6 **Trench 6:** Trench 6 was located toward the western corner of the field and was aligned northwest-southeast (Plate 6). The trench was excavated to a maximum depth of 0.6m revealing a yellow/pale blue sandy silt deposit containing medium sized sub-rounded cobbles and smaller sub-angular stones (602) at the northeastern end, below c.0.35m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (601) and c.0.25m of mid-greyish/brown silty clayey sand topsoil (600). It contained three land-drains aligned northeast-southwest across the trench.



Plate 5: Trench 5 looking east



Plate 6: Trench 6 looking southeast



Plate 7: Trench 7 looking north-northwest

- 4.2.7 **Trench 7:** Trench 7 was located in the southwestern corner of the field and was aligned north-northeast-south-southwest (Plate 7). The trench was excavated to a maximum depth of 0.6m revealing a mottled yellow/brown clayey sandy silt containing bands of gravels and small sub-angular stones (702) below c.0.10m of yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (701) and c.0.3m of mid-greyish/brown silty clayey sand topsoil (700). Trench 7 contained a stone soakaway aligned northwest-southeast, as well as two land-drains aligned east-west and northeast-southwest respectively.
- 4.2.8 **Trench 8:** Trench 8 was located toward the southwestern corner of the field and was aligned northeast-southwest (Plate 8). The trench was excavated to a maximum depth of 0.6m revealing a mottled yellow/pale blue sandy silt deposit containing medium sized sub-rounded cobbles and smaller sub-angular stones (802) below c.0.10m of a similar yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (801) and c.0.3m of mid-greyish/brown silty clayey sand topsoil (800). Trench 8 also contained a very similar stone soakaway to that in trench 7, plus a further four land-drains, two of which were aligned northwest-southeast and two running east-west approximately.
- 4.2.9 **Trench 9:** Trench 9 was located in the centre of the field and was aligned northeast-southwest (Plate 9). The trench was excavated to a maximum depth of 0.55m revealing a mottled yellow/brown sandy silt deposit containing medium sized sub-rounded cobbles and smaller sub-angular stones (902) below c.0.10m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (901) and c.0.3m of mid-greyish/brown silty clayey sand topsoil (900), similar to trench 7 and trench 8. It contained five land-drains all aligned approximately northwest-southeast.
- 4.2.10 **Trench 10:** Trench 10 was located near the centre of the field and was aligned northwest-southeast (Plate 10). The trench was excavated to a maximum depth of 0.62m revealing a mottled yellow/blue sandy silt deposit containing river washed cobbles, larger boulders and smaller sub-angular stones (1002) below an interface of c.0.14m of yellow/blue/brown mixed silty sandy clay (1003), c.0.13m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (1001) and c.0.28m of mid-greyish/brown silty clayey sand topsoil (1000). Trench 10 contained just one land-drain running northwest-southeast across the trench.
- 4.2.11 **Trench 11:** Trench 11 was located at the east of the field and was aligned north-northwest-south-southeast (Plate 11). The trench was excavated to a maximum depth of 0.65m revealing a mottled yellow/blue sandy silt deposit

containing river washed cobbles, larger boulders and smaller sub-angular stones **(1102)** below an interface of up to 0.17m of yellow/blue/brown mixed silty sandy clay **(1103)**, c.0.15m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones **(1101)** and c.0.3m of mid-greyish/brown silty clayey sand topsoil **(1100)**. Trench 11 also contained just one land-drain, aligned east-west across the trench.



Plate 8: Trench 8 looking northeast



Plate 9: Trench 9 looking northeast



Plate 10: Trench 10 looking southeast



Plate 11: Trench 11 looking southeast

4.2.12 **Trench 12:** Trench 12 was located near the centre of the field and was aligned east-west (Plate 12). The trench was excavated to a maximum depth of 0.53m revealing a mottled yellow/blue sandy silt deposit containing river washed cobbles, larger boulders and smaller sub-angular stones (**1202**) below an interface of upto 0.14m of yellow/blue/brown mixed silty sandy clay (**1203**), c.0.14m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (**1201**) and c.0.22m of mid-greyish/brown silty clayey sand topsoil (**1200**). Trench 12 contained no land-drains, but did contain two stone soakaways in the western half of the trench, both aligned northwest-southeast.

4.2.13 **Trench 13:** Trench 13 was located near the centre of the field and was aligned northwest-southeast (Plate 13). The trench was excavated to a maximum depth of 0.7m revealing a mottled yellow/blue sandy silt deposit containing river washed cobbles, larger boulders and smaller sub-angular stones (**1302**) below an interface of up to 0.15m of yellow/blue/brown mixed silty sandy clay (**1303**), c.0.25m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (**1301**) and c.0.3m of mid-greyish/brown silty clayey sand topsoil (**1300**). Two land-drains were identified at the base of the trench. One was aligned approximately north-south and the other was aligned northeast-southwest.

4.2.14 **Trench 14:** Trench 14 was located at the far south of the field and was aligned northwest-southeast (Plate 14). The trench was excavated to a maximum depth of 0.65m revealing a similar mottled yellow/blue sandy silt deposit containing river washed cobbles, larger boulders and smaller sub-

angular stones (**1402**) below an interface of upto 0.20m of yellow/blue/brown mixed silty sandy clay (**1403**), c.0.23m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (**1401**) and c.0.22m of mid-greyish/brown silty clayey sand topsoil (**1400**). Trench 14 had two land-drains on the same alignment as those in trench 13.

4.2.15 **Trench 15:** Trench 15 was located towards the eastern corner of the field and was aligned northeast-southwest (Plate 15). The trench was excavated to a maximum depth of 0.60m revealing a mottled yellow/blue sandy silt deposit containing river washed cobbles, larger boulders and smaller sub-angular stones (**1502**) below an interface of up to 0.18m of yellow/blue/brown mixed silty sandy clay (**1503**), c.0.12m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (**1501**) and c.0.3m of mid-greyish/brown silty clayey sand topsoil (**1500**), similar to trench 13 and trench 14. Trench 15 was devoid of any land-drains or soakaways.



Plate 12: Trench 12 looking east



Plate 13: Trench 13 looking southeast



Plate 14: Trench 14 looking southeast



Plate 15: Trench 15 looking southwest

4.2.16 **Trench 16:** Trench 16 was located towards the southeastern corner of the field and was aligned northeast-southwest (Plate 16). The trench was excavated to an average depth of 1.07m revealing at least 0.4m of a mottled yellow/brown blue streaked sandy silt deposit containing river washed cobbles and smaller sub-angular stones (**1602**) below c.0.27m of a yellow/orange clayey sandy silt containing river-washed cobbles and small sub-angular stones (**1601**) and c.0.4m of mid-greyish/brown silty clayey sand topsoil (**1600**). A sondage was excavated at each end to a maximum of 1.20m deep, in order to see the natural geology (**1602**) more clearly as well as to aid drainage (Plate 17). Trench 16 was devoid of both land-drains and stone soakaways.

4.2.17 **Trench 17:** Trench 17 was located towards the southeastern corner of the field and was aligned northwest-southeast (Plate 18). The trench was excavated to a maximum depth of 1.2m revealing at least 0.5m of a compacted dark brown/black silty soil with frequent gravel and stone inclusions possible quarrying waste or related to the nearby road (**1701**) below up to 0.7m of mid-reddish grey/brown silty clayey sand topsoil (**1700**). No land-drains or soakaways were uncovered.

4.2.18 **Trench 18:** Trench 18 was located towards the southeastern corner of the field and was aligned northwest-southeast (Plate 19). The trench was excavated to a maximum depth of 0.8m revealing up to 0.64m of a compacted dark brown/black silty soil with frequent gravel and stone inclusions (**1801**), this was possibly quarrying waste or related to the nearby road as in trench 17,

below c.0.7m of mid-reddish grey/brown silty clayey sand topsoil (1800). Trench 18 was also devoid of land-drains and stone soakaways.



Plate 16: Trench 16 looking south



Plate 17: Trench 16 southeast facing section in sondage



Plate 18: Trench 17 looking northwest



Plate 19: Trench 18 looking east

4.4 ARCHAEOLOGICAL FINDS AND ENVIRONMENTAL SAMPLING

- 4.4.1 No archaeological finds were recovered, and no environmental samples were retained during the evaluation.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

- 5.1.1 A trial trench evaluation covering 2.1ha of land has been conducted within a pastoral field to the west of Tendley Quarry, covering the proposed location of the quarry expansion.
- 5.1.2 During the trial trench evaluation, 18 trenches were excavated comprising a 5% sample of the proposed 2.1ha expansion area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity, the evaluation trenches being located to provide a representative sample of the development area. All trenches were excavated down to the top of the natural substrate.
- 5.1.3 The trenches were devoid of any archaeological features or deposits, whilst Trenches 17 and 18 indicated a possible modern dump of quarry waste or waste from the building of the access road.
- 5.1.4 No artefacts were recovered and no environmental samples were taken.
- 5.1.5 The results obtained during the present evaluation, and from previous archaeological investigations suggest that the study area has not been intensively used in the past other than for agricultural purposes.

5.2 RECOMMENDATIONS

- 5.2.1 As the purpose of this archaeological field evaluation was to establish the nature and extent of below ground remains within the proposed extraction area according to the as specified by Cumbria County Council's Historic Environment Service, no further work is deemed necessary associated with the present study. However, given the significance of previous archaeological discoveries within the immediate vicinity of the study area, it is recommended that any future invasive work in the area be subject to a similar programme of archaeological investigation.

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APPENDIX 1: FIGURES
