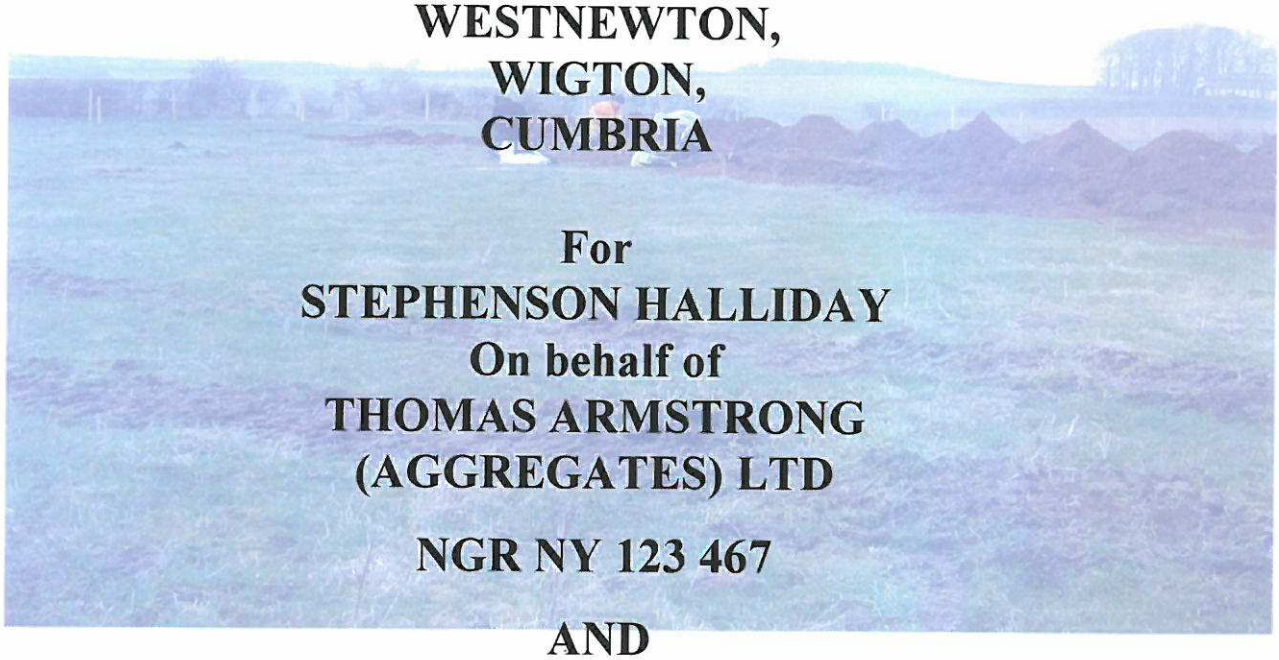
NPA LIB COPY.

NORTH PENNINES ARCHAEOLOGY LTD

Client Report No. 309/06

REPORT ON A TARGETED ARCHAEOLOGICAL FIELD EVALUATION AT OVERBY QUARRY, WESTNEWTON, WIGTON, CUMBRIA



For STEPHENSON HALLIDAY On behalf of THOMAS ARMSTRONG (AGGREGATES) LTD

NGR NY 123 467

AND

NY 127 473

Gareth Davies BA, MA
North Pennines Archaeology Ltd
Nenthead Mines Heritage Centre
Nenthead
Alston
Cumbria CA9 3PD
Tel: (01434) 382045
Fax: (01434) 382294
Mobile: 07979617882
Email: g.davies@nparchaeology.co.uk

28 April 2006

North Pennines Archaeology Ltd is a wholly owned company of North Pennines Heritage Trust
Company Registration No. 4847034 VAT Registration No. 817 2284 31

CONTENTS

Page

LIST OF FIGURES, PLATES AND TABLES

NON-TECHNICAL SUMMARY

In March 2006, North Pennines Archaeology Ltd undertook a targeted archaeological field evaluation on land at Overby Quarry, Westnewton, Wigton, a site approximately 24ha in extent. This work was requested by Cumbria County Council Historic Environment Service in advance of a planning application for a proposed scheme of aggregates extraction which would affect an area considered to have a very high archaeological potential, as identified by a previous desk-based assessment (Davies, G 2006, *Archaeological Desk Based Assessment, Walkover and Geophysical Survey for a Proposed Quarry Extension at Overby Quarry, Westnewton, NPA report CP/215/05A*).

The results of the desk-based assessment indicated that the potential for sub-surface archaeological remains dating to the prehistoric period was extremely high. Existing evidence within the proposed extraction areas includes a single findspot of Neolithic/Bronze Age worked flint recovered during the North West Wetland Survey (Hodgkinson *et al*, 2000), and the existence of numerous cropmark features throughout the proposed extraction area. These undated cropmarks were first identified in 1975 (Higham and Jones 1975) and seem to represent the multi-phase remains of fields, settlement foci and possibly ritual sites dating to the prehistoric period.

The field evaluation consisted of the excavation of four linear trial trenches, measuring 31m x 1.6m. The trenches were positioned to adequately sample areas of features identified by aerial photography by Higham and Jones in 1975, and NPA Ltd in 2006 as part of the assessment at NY 1254 4750. These were deemed to be features of 'particular archaeological interest' (Parsons 2006). The main aim was to provide a predictive model of surviving archaeological remains detailing their *character*, *condition*, and *significance*, which would enable the Overby quarry extension planning application to proceed in a highly informed way.

The targeted evaluation trenches at Overby Quarry successfully located four archaeological features and two possible archaeological features. It is probable that the undated features, namely a field boundary (**[208]/[213]/[202]/[218]**), a post-hole (**[206]**) and a pit (**[224]**) confirm the presence of prehistoric settlement and agricultural related activites within both the targeted areas at Overby quarry, but it must be stated that only a very small sample of the potential archaeological evidence has been considered during this targeted evaluation.

On the evidence of this targeted evaluation, it can be suggested that the cropmarks identified by aerial photography in 1975 may have been poorly transcribed and plotted but are now relocated. In some cases the cropmarks may indeed represent buried archaeological features, but in some cases the may also represent natural spreads of deep subsoil.

A possible pit feature **[228]**, identified during more accurate plotting of the aerial photographs by NPA Ltd, is heavily truncated. If this feature does indeed represent the prehistoric sub-surface archaeological horizon, then it might be extrapolated that any archaeological features in the southern half of the proposed extraction area will have been severely damaged by plough truncation since 1975. A potentially similar set of preservation conditions exists 2km to the west of Overby at New Cowper Quarry and it is worth noting that at New Cowper Quarry, the excavation of severely plough truncated sub-surface archaeological features has produced some excellent results (Davies, forthcoming). It is with a consideration of this potential that future planning decisions at Overby quarry should proceed.

NON-TECHNICAL SUMMARY

A single sample was taken for radiocarbon dating (deposit **[225]**) unfortunately due to the timescale involved in obtaining the results it has not been possible to include the results in this report. It is hoped to add the information as an addendum to this report as soon as possible.

ACKNOWLEDGEMENTS

North Pennines Archaeology Ltd would like to thank Nick Edwards of Stephenson Halliday for commissioning the project, and for his assistance throughout the fieldwork. Thanks are also extended to Frank Harkness (Armstrongs Ltd.) and Davey Harrison (Harrison Ltd) for arranging access to the proposed extraction areas.

North Pennines Archaeology would also like to extend their thanks to Jo Mackintosh of the Cumbria Historic Environment Record (HER) and Jeremy Parsons, Assistant Archaeologist, Cumbria County Council, Historic Environment Service, for their help during this project.

The targeted evaluation was directed by Gareth Davies. The fieldwork was carried out by Gareth Davies, Mark Dodd, Kevin Mounsey and Jennifer Kinsman. Additional fieldwork and metal detecting was kindly undertaken by Alan James. The report was written by Gareth Davies. Illustrations and initial stratigraphic text were undertaken by Mark Dodd. Artefact processing was undertaken by Kevin Mounsey. Processing analysis and quantification of the artefact assemblage was undertaken by Jo Beaty. Patricia Crompton wrote the environmental report. The project was managed by Frank Giecco, Technical Director for NPA Ltd. The report was edited by Matt Town.

1 INTRODUCTION AND LOCATION

1.1 In March 2006, North Pennines Archaeology Ltd, commissioned by Stephenson Halliday, undertook a targeted archaeological field evaluation on land at Overby Quarry, Westnewton, Wigton, ahead of a proposed scheme for a 24 hectare extension to the quarry.

1.2 The proposed site is located immediately to the east of Overby (NGR NY 123 467 and NY 127 473). The 24ha site at Overby is the subject of a proposed planning application for mineral extraction. An archaeological desk-based assessment (Davies, 2006) has shown that the proposed scheme affects an area considered to have a very high archaeological potential. Because of the site's archaeological potential, Jeremy Parsons, the Assistant Archaeologist at Cumbria County Council Historic Environment Service (CCCHES), advised that the applicant provide additional information concerning the character, condition, and significance of two areas considered to have the highest archaeological potential on the proposed site, based on the aerial photographic evidence (see Fig 1).

1.3 The proposed extraction area is situated within the modern civil parish of Holme St Cuthbert, east of Silloth and is bounded by Overby Farm to the west and Hards Farm to the south (NY 123 467 and NY 127 473). This area falls within the North Cumbrian Plain; a relatively low lying area (below c. 200m AOD) located to the north and west of the Lake District Massif.

1.4 The evaluation area is within a landscape zone known as the Abbeytown Ridge. The Abbeytown Ridge is a relatively narrow tract of land stretching from Salta Moss at the western extent of the north-west Cumbrian coastal plain, to Wedholme Flow, some 20km to the north-east. The Abbeytown Ridge reaches heights of c.40m AOD and forms a significant topographic feature, defining the southern boundary of the Solway Plain (Hodgkinson *et al* 2000).

1.5 The proposed extraction area is an undulating area of low ridges, and is currently used as predominantly pasture, with some arable. The land immediately south of the assessment area is dominated by pasture. This is typical of the landuse on the Abbeytown Ridge. The land-use has not changed significantly since 1997 when much of the area was surveyed as part of the English Heritage funded North West Wetlands Survey (Hodgkinson *et al* 2000, 85).

1.6 The solid geology underlying the evaluation area consists of Triassic Sherwood Sandstone, with Triassic Mudstone present to the north (Dunham 1969). The solid geology is masked by a drift geology of Devensian tills of the Clifton and Brickfield Associations. The predominating Clifton soil type is seasonally waterlogged (Hodgkinson *et al* 2000, 85).

1.7 This targeted evaluation report provides the additional information required by CCCHES concerning the *character, condition,* and *significance* of the archaeological remains at Overby Quarry.

2 AIMS AND METHODOLOGY

2.1 The work undertaken consisted of the excavation of four trial trenches.

2.2 Project Design

2.2.1 A project design was prepared in response to a brief prepared by Cumbria County Council Historic Environment Service for an archaeological field evaluation. This included a detailed specification of works to be carried out, which consisted of the excavation of trial trenches and a programme of post excavation and reporting. The post excavation reporting was required to include specific recommendations on the potential for the further study of the environmental data (including pollen, plant macrofossils and mollusca remains), faunal remains and soil micromorphology from the site. These recommendations form Section 5 of this report.

2.3 Desk-Based Assessment

2.3.1 A desk-based assessment was not required as part of this targeted archaeological evaluation. It is recommended that this targeted evaluation report should be read in conjunction with North Pennines Archaeology client report, '*Archaeological Desk Based Assessment, Walkover and Geophysical Survey for a Proposed Quarry Extension at Overby Quarry, Westnewton*' (Davies, G 2006). For convenience, a brief summary of this desk-based assessment is provided as Section 3 of this report.

2.4 Visual Site Inspection

2.4.1 A visual site inspection was undertaken prior to the commencement of fieldwork, which found neither hazards to health or safety nor any constraints to undertaking fieldwork.

2.4.2 The walkover survey undertaken as part of the above mentioned desk-based assessment (Davies 2006) identified the evaluated field as a mixture of arable crop (southern half) and pasture (northern half). This cropping regime had not changed at the time of the targeted evaluation. The field slopes steeply from south to north .

2.5 Field Evaluation

2.5.1 The field evaluation consisted of the excavation of four linear trial trenches, measuring 30m x 1.2m, and positioned to adequately sample the sites identified by aerial photography, and interpreted in 1975 (Higham and Jones 1975). Deposits and features of archaeological interest identified within the trenches were investigated and recorded in order to provide a predictive model of surviving archaeological remains detailing their *character, condition,* and *significance*.

2.5.2 In summary, the main objectives of the evaluation were:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these were they are 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.

2.5.3 The trenches were mechanically excavated by a JCB 3CX excavator equipped with a toothless ditching bucket, under archaeological supervision, to the natural substrate. The trenches were then manually cleaned and any putative archaeological features were investigated.

2.5.4 Photography was undertaken using Canon EOS 100 and EOS 300V Single Lens Reflex (SLR) cameras. A photographic record was made using digital photography, 200 ISO Colour Print and Colour Slide film.

2.5.5 The trenches were located and surveyed-in using a Trimble 3605 Total Station instrument, and tied in to the Ordnance Survey National grid.

2.5.6 All work was undertaken in accordance with the Institute of Field Archaeologists Standards and Guidance for Archaeological Field Evaluations (IFA 1994).

2.6 Project Archive

2.6.1 The full archive has been produced to a professional standard in accordance with the current English Heritage guidelines set out in the Management of Archaeological Projects (English Heritage, 2nd Ed. 1991). The archive will be deposited within an appropriate repository and a copy of the report given to the County Historic Environment Record, where viewing will be available on request. The archive can be accessed under the unique project identifier NPA 06 OQ-A.

3 ARCHAEOLOGICAL BACKGROUND

3.1 In February 2006, North Pennines Archaeology Ltd was commissioned by Stephenson Halliday to undertake an archaeological desk study, walkover survey and pilot geophysical survey in advance of proposed mineral extraction at Overby quarry (Davies 2006).

3.2 This study involved the examination of all pertinent documents and cartographic sources held in the County Records Office in Carlisle, and the consultation of the Historic Environment Record (HER) of Cumbria County Council based in Kendal. In addition, a number of published sources were consulted to provide background information, including the Cumbria North West Wetland Survey (NWWS, Hodgkinson *et al* 2000) and several relevant excavation reports.

3.3 The desk-based assessment located 25 sites from the HER and 16 NWWS findspots within the assessment area (defined as a 4²km rectangle centred on the proposed extraction sites). Within the proposed extraction area at Overby, 3 HER sites were located. The relevant sites are listed below:

HER Numb.	Description of entry	Type of site	Period	Grid Reference
3243	Tarns Field System, Settlement, Holme Abbey	Cropmark	Unknown	E312600 N547600
3244	Hards Quarry Field System, Holme Abbey	Cropmark	Unknown	E312700, N547400
3245	Hards Quarry Field System	Cropmark	Unknown	E312900 N547200

Table 1: HER sites at Overby Quarry

3.4 As Table 1 above shows, cropmark features are located in the proposed extraction area. These features, of probable prehistoric date, were originally identified by aerial photography in the 1970's (Higham and Jones 1975, see Fig 1).

3.5 A walkover survey carried out as part of the desk-based assessment, mostly over fields presently in use as pasture, identified no archaeological features (Davies 2006, 29).

3.6 A pilot geophysical survey in the northeast of Overby Quarry experimented with a range of mapping techniques, but had limited success. An area of active magnetic response was located corresponding to areas where cropmarks had previously been identified (Bartlett in Davies 2006, 30-33).

3.7 The results of the desk-based assessment (Davies 2006) indicated that the potential for sub-surface archaeological remains dating to the Roman, early medieval and medieval periods to be located within the proposed extraction area was low, although some prehistoric activity may have continued into the Romano-British period.

3.8 The results of the desk-based assessment (Davies 2006) indicated that the potential for sub-surface archaeological remains dating to the prehistoric period was extremely high. As detailed above, existing evidence within the proposed extraction area includes a single piece of Neolithic/Bronze Age worked flint recovered during the North West Wetland Survey, and numerous cropmark features throughout the proposed extraction area. These undated cropmarks seem to represent the multi-phase remains of fields, settlement foci and possibly ritual sites dating to the prehistoric period. Furthermore, the morphology of recently excavated features at New Cowper Farm, two kilometres to the west of Overby quarry, suggests that some of the cropmark features may be as early as Neolithic or Bronze Age in date (Davies, forthcoming).

3.9 The interpreted cropmarks, after Higham and Jones (1975) are presented in Figure 1. Figure 1 shows that the eastern proposed extraction for Overby quarry would remove a number of undated cropmarks indicative of archaeological features. Of particular interest is the area to the southern extent of the proposed extraction area, where features originally interpreted in 1975 as an annex to a large co-axial field system, have been re-identified as a possible sub-circular enclosure, with associated small boundaries and possible ring-ditches. The morphology of this enclosure is similar to prehistoric enclosures identified by Bewley (1994) and attributed to the later prehistoric period. However, excavations in 1998 by the Carlisle Archaeological Unit at Scotby Road, Durranhill, Carlisle (McCarthy, unpublished), and have suggested that this type of sub-circular enclosure could actually date to the Bronze Age or Neolithic periods. These cropmarks are the target of Trenches 3 and 4 in the present evaluation.

3.10 At the northern extent of the extraction area a cluster of cropmark features identified in 1975 appear to represent a settlement focus, possibly of prehistoric date. This identification corresponds well with the topography as identified during NPA walkover survey (Davies 2006). These features were not re-plotted during the NPA reinterpretation exercise as they coincided with the periphery of the photographs frame and were apparently similar to other anomalies that could possibly represent natural geological features. However, it was noted that in this case the 1975 interpretation should be taken into account in future planning decisions. These cropmarks are the target of Trenches 1 and 2 in the present evaluation.

4 RESULTS

4.1 Trench 1

4.1.1 Trench 1 was 37m long by 2m wide and orientated northwest-southeast (Fig 2). The trench was located on a plateau at the northern extent of the evaluated field at the base of a slope leading down the northern side of the Abbeytown ridge.

4.1.2 The northwest extent of Trench 1 was located in correspondence with the trench location agreed in the project design (Davies 2006b). The southeast extent of the evaluation trench was extended south-east by 6m using the evaluation contingency (as recommended in the CCCHES brief (Parsons, 2006).

4.1.3 The trench was opened by a mechanical excavator to a maximum depth of 0.2m exposing the natural substrate. The natural geology **[201]** was mid orangey-brown sand. Extending 11m south east of the northwest extent of Trench 1, the natural sands were fine-grained. Towards the southeast extent of the trench, these natural sands were overlain by a natural colluvium, which was a mixed with sandy silt and contained frequent stone inclusions.

4.1.4 Following machine excavation, the trench was fully hand-cleaned and a number of potential archaeological features were observed cutting into the natural geology, **[201]**. The features were then investigated and recorded (see Fig 4).

4.1.5 The most significant feature was a linear ditch cutting into the natural substrate **[201]**. This ditch was aligned on a broadly northwest-southeast orientation and was observed over a distance of at least 18.7m in length, although it extended beyond the limits of the excavation. This feature was excavated by hand, within five separate slots (**[202]**, **[208]**, **[213]**, **[216]** and **[218]**) in order to understand the nature of the deposits contained within it. These slots are described as they appear from northwest to southeast along the length of the ditch.

4.1.6 The first of the slots excavated within the ditch was 0.5m in length and revealed the cut of the ditch **[208]** to be 0.2m in depth. The full width and profile was not fully revealed as the ditch continued beyond the limits of the excavation at this point. However, a U-shape profile was indicated, with moderately steeply sloping sides. The primary fill **[209]** was a mid grey, fine sandy silt with occasional pebble inclusions that appeared to have rapidly filled the ditch to a depth of 0.03m after initial excavation. The main fill of the ditch overlying this primary silting event was **[210]**, a light orange-yellow-brown fine sand, with occasional pebbles that also appeared to have accumulated rapidly.

4.1.7 Fills **[209]/[210]** identified at the northwest extent of the northwest-southeast orientated ditch, **[208],** were distinctly different to those noted elsewhere along the length of the ditch. More specifically, they were suggestive of more rapidly deposited fills with less demineralisation than elsewhere. This suggests that the northwest extent of the ditch may have been subjected to re-cutting at a later date, this is only to be seen within the northernmost 4.7m of the ditch.

4.1.8 The next slot, **[213]** was excavated 3.5m to the southeast of **[208]** and provided a full profile along the ditch along a section 1.7m in length. Cut **[213]** measured 0.6m in width, with steeply sloping sides leading down to an irregular U-shaped base at a depth

of 0.24m. At the base of the cut, a primary silting event was represented by **[214]**, a mid grey fine sandy silt with occasional pebble inclusions totalling a depth of 0.08m. The main deposit within the cut **[215]** overlaid this primary silting, and consisted of mid orangey brown sandy silt with occasional pebble inclusions, 0.31m in depth.

4.1.9 A further 3m to the southeast along the length of the ditch, a 1.1m long section was excavated. At this position, the cut **[202]** was steep sided with a U-shape base at a depth of 0.31m, and measured a total width of 0.38m. It contained a single fill **[203]**, a mid orangey-brown, sandy silt with occasional pebble inclusions.

4.1.10 Within the fourth slot **[218]**, the ditch measured 0.7m in width and totalled a depth of 0.27m, again with steeply sloping sides and a concave base. The primary fill of this cut was **[219],** a naturally silted mid to dark orangey brown sandy silt with occasional small pebbles. This deposit was underlying a secondary fill, **[220]** consisting of mid orangey-brown, sandy silt with occasional pebbles that also appears to have naturally silted.

4.1.11 The final slot at the southeast end of the ditch was 0.7m in length and revealed a 0.04m wide cut **[216]** with moderately sloping sides and a slightly concave base 0.2m deep. Although the ditch continued further to the southeast beyond the limits of the excavation, this slot indicated that the ditch may be terminating or turning to the southwest. Unfortunately, not enough of the feature was visible to confirm either possibility. A single fill, **[217]** was identified within the 0.2m deep cut, consisting of dark grey, sandy silt, with moderate inclusions of pebbles and is suggestive of a naturally accumulated deposit.

4.1.12 No dating evidence was retrieved from northwest to southeast aligned ditch **[202]**, **[208]**, **[213]**, **[216]** and **[218],** although the demineralised nature of the majority of the fills perhaps imply a prehistoric date for this feature. The function of this ditch is unknown, but it may represent a field boundary. The ditch fills were sampled for environmental analysis.

4.1.13 Approximately 3.5m south of the northwest extent of Trench 1, a possible posthole, **[206]** was observed. Sub-circular in plan, this feature was 0.41m in diameter and 0.2m deep, with steep sides and a U-shape base. It contained a single fill, **[207],** of a mid grey sandy silt with occasional charcoal, and sub-rounded pebble inclusions. The fill **[207]** is best interpreted as a naturally silted deposit.

4.1.14 The morphology of cut **[206]** is indicative of the remains of a posthole, but the date of the feature is unknown and there was no evidence of a 'post-pipe'. Although there were no other similar features that could be associated with this posthole it is possible that it is indicating settlement activity to the west of northwest-southeast aligned ditch (**[202]**, **[208]**, **[213]**, **[216]** and **[218]**) described above.

4.1.15 The only other features observed within this trench were plough scars truncating into the natural substrate on a broadly northwest-southeast direction. These plough scars were most prominent in the central portion of the trench and upon investigation, were found to be approximately 0.35m in width, truncating into the natural geology by up to 0.07m. The fills of the plough scars were of an identical soil matrix to the topsoil/plough soil **[200]**, a friable mid-dark grey brown, sandy silt with occasional sub-rounded stones (<0.06m in diameter). The topsoil/plough soil **[200]** was observed at a maximum depth of 0.3m, overlying the archaeological features.

4.2 Trench 2

4.2.1 Trench 2 was 31m long by 2m wide and orientated in a northeast-southwest direction, perpendicular to the southeast end of Trench 1 (Fig 2). The trench was located on a plateau in the northern area of the evaluation site at the base of a slope leading down the northern side of the Abbey town ridge.

4.2.2 The trench was opened by a mechanical excavator to a maximum depth of 0.2m exposing the natural substrate. The natural geology **[212]** was a mixture of mid orangey-brown sand with a light brown-grey slightly clay sand underlying and showing through the sand in places. It seems likely that these represent a combination of both glacial and colluvial deposits forming at the base of a slope.

4.2.3 Following machine excavation, the trench was fully hand-cleaned revealing two potential archaeological features cutting into the natural geology, **[212]**. The features were then investigated and recorded (Fig 5).

4.2.4 The first of these was an irregular shaped cut, **[204],** that was located approximately 12m west of the northeast extent of Trench 2, and measured 0.9m in width and 0.35m in depth. Upon investigation, it was noted that this feature had a combination of steep, undercutting and moderately sloping sides with an undulating base. It contained a single fill **[205]**, that was a combination of mid red-brown and mid to light grey sandy silt with occasional sub-rounded stones (<0.05m in diameter).

4.2.5 The varied morphology of cut **[204]** makes interpretation quite difficult, but it is possible that it was a posthole/pit that has been subsequently disturbed by either roots or animal burrowing. This is worth consideration given that parts of the cut were quite distinct as would be expected of an archaeological feature, whilst the more irregular parts would indicate bioturbation. No dating evidence was retrieved from fill [205] and the date and function of the feature remain uncertain. Fill **[205]** was sampled for environmental analysis.

4.2.6 Less than 2m to the northeast of **[204]** was another similarly irregular feature, roughly oval in plan, it measured approximately 0.8m by 1.8m with an almost identical fill to **[205]**. However, there is little doubt about that this feature is not archaeological, and it is best interpreted as the remains of a tree bole. This feature is located as 'treebole' on Figure 5, but was not allocated context numbers.

4.2.7 The archaeological features cutting **[212]** were sealed by of 0.3m of a friable mid-dark grey brown, sandy silt topsoil/plough soil **[211]** containing occasional sub-rounded stones (<0.06m in diameter).

4.3 Trench 3

4.3.1 Trench 3 was located at the south of the evaluation area on a plateau at the top of the Abbey town ridge, immediately west of Hard's Farm (Fig 1). The trench was positioned on northeast-southwest orientation (Fig 3). The southwest end of the trench was located to correspond with the trench location as agreed in the project design (Davies 2006b). Trench 3 measured 27m in length by 2m in width, with an additional 4m x 4m area at the southwest end of the trench excavated in response to the observation of a possible curvilinear feature (discussed below) during initial machine stripping, and

uitilising the evaluation contingency (as recommended in the CCCHES brief (Parsons, 2006).

4.3.2 The trench was opened by a mechanical excavator to a maximum depth of 0.2m, exposing the natural substrate. The natural geology **[222]** was a mid brown-orange, gravelly sand and was quite different to that identified elsewhere in the other trenches.

4.3.3 Following machine excavation, the trench was fully hand-cleaned and a number of potential archaeological features were observed cutting into the natural geology, **[222]**. The features were then investigated and recorded (Fig 6). They are now described from northeast to southwest.

4.3.4 The first of these features is most likely to be glacial in origin, and was only partially observed in the northern corner of Trench 3 extending beyond the limits of the excavation. Presumably a linear feature on a north-south alignment, cut **[232]** measured at least 1m in width on a northwest-southeast axis with gently sloping sides leading down to a slightly concave base at a depth of 0.15m. It contained a single fill **[236]**, mottled mid to light grey brown, silty sand with occasional sub-rounded stones (<0.03m in diameter) that is best interpreted as a naturally accumulated deposit.

4.3.5 There is no dating evidence for cut **[232]** and it contained no charcoal within the fill **[236]**. Without observing more of the feature it is difficult to ascertain the precise nature of this feature. It is likely though that it represents a natural depression that has silted up, and may possibly relate to the cropmarks identified by aerial photography in this area.

4.3.6 Approximately 5m to the southwest of **[232],** a possible posthole or truncated pit, cut **[224]**, was observed cutting into the natural substrate. With moderately steep sides and a flattish base, this feature measured 0.53m in diameter and 0.17m in depth. It contained a single fill, **[225],** of a mid to dark brown-orange, sandy silt containing rounded pebbles (<0.05m in diameter) and moderately frequent charcoal fragments. Fill **[225]** is best interpreted as a natural accumulation of material within the cut of a potentially prehistoric feature, although there is no dating evidence to confirm this. Fill **[225]** was sampled for environmental analysis.

4.3.7 Towards the southwest extent of Trench 3 a shallow ditch feature, **[226],** was observed running in a northwest-southeast orientation. Located at the point where the additional contingency area was excavated, cut **[226]** was observed running over a distance of at least 6m, continuing beyond the limits of the excavation, with an average width of 0.45m. Excavation of this shallow ditch within two separate slots revealed steeply sloping sides with a rounded base, and a maximum depth of 0.25m (northwest) that became shallower (0.1m deep) towards the southeastern extent of the observed feature. Cut **[226]** contained a single fill **[227]**; a dark brown sandy silt that became slightly sandier with frequent rounded pebbles towards the base, indicative of a primary silting event.

4.3.8 No archaeological artefacts were recovered in association with this feature and its interpretation must be approached with caution. Despite appearing to be the truncated remains of a possible boundary/enclosure ditch, it is on exactly the same alignment as the present field boundaries and may simply be a remnant of ploughing.

4.3.9 The curvilinear feature mentioned above that prompted the additional area to be machined, is most likely to be a glacial feature rather than an archaeological feature. Following hand cleaning, this feature (cut **[230]**) was observed over a discontinuous distance of approximately 2.5m, with an average width of 0.25m. When excavated, it proved to have moderately steeply sloping sides with a slightly concave base, 0.1m in depth and contained a single fill **[231]**. The fill was a naturally accumulated mid to dark, orange-brown, gravelly silty-sand with sub-rounded stones up to 0.03m in diameter.

4.3.10 No finds were recovered from the fill of **[230]** and the unusually stoney fill indicates that this feature is most likely glacial in origin.

4.3.11 Overlying the archaeological features, the topsoil/plough soil **[221]** consisted of a dark grey-brown, sandy silt with moderately frequent inclusions of sub-rounded stones (<0.04m in diameter). This deposit was on average 0.2m in depth across the extent of Trench 3.

4.4 Trench 4

4.4.1 Trench 4 was 39m long by 2m wide and orientated in a northwest-southeast direction (Fig 3). The trench was located at the south of the evaluation area on a plateau at the top of the Abbeytown Ridge, c.6m to the southwest of Trench 3.

4.4.2 The northwest end of the trench was located in correspondence with the trench location as agreed in the project design (Davies 2006b). The southeast extent of the evaluation trench was extended by 8m in order to incorporate the evaluation contingency (as recommended in the CCCHES (Parsons, 2006).

4.4.3 The trench was opened by a mechanical excavator to a maximum depth of 0.45m exposing areas of the natural substrate. The natural geology **[235]** was a mid orangey-red, fine to coarse sand with occasional gravelly patches and is markedly different to that observed in Trench 3 which is not more than 6m to the northeast of Trench 4.

4.4.4 Following machine excavation, the trench was fully hand-cleaned and a number of potential archaeological features were observed cutting into the natural geology, **[235]**. These features were then investigated and recorded (Fig 7).

4.4.5 It initially appeared that there was one substantial feature within Trench 4. The observed portion of this 'feature' appeared to represent a linear feature, approximately 7.5m in width, mainly running on a northeast to southwest orientation along the length of the trench. This feature covered nearly two thirds of the northwest portion of trench 4, extended beyond the north east and southwest limits of Trench 4, and apparently returned, running across the southeast 10m of trench on a east to west alignment.

4.4.6 Upon investigation this proved to be a deposit of subsoil **[234]** consisting of dull, mid orange-brown silty sand with occasional charcoal fragments, up to 0.4m deep. It is probable that this deposit had accumulated within depressions in the natural geology and a slot was subsequently excavated in order to ensure that it was not masking additional archaeological features. Although this deposit provided no dating evidence, it is possible that it is a natural post-gacial deposit, and it quite possibly relates to the cropmarks identified by aerial photography in this area during the 1970's.

4.4.7 Cutting into the southeast spread of deposit **[234]** was a potentially sub-oval feature **[228],** although the exact shape is uncertain, as the feature extended beyond the southwest limit of the excavation. Because the full extent of this cut could not be identified it could either represent the remains of a truncated pit or the terminus of a ditch. Approximately 1m in width and 0.1m deep, it contained a single fill **[229]** that consisted of a naturally accumulated mid grey brown, silty sand with moderate-frequent sub-rounded stones, particularly on the edge of the cut.

4.4.8 This feature was initially noted due to the discovery of a small fragment of burnt bone on its surface, however, there was a remarkably small amount of charcoal to be found within the fill itself. Furthermore, there was no dating evidence in association with cut **[228]** and its interpretation must therefore be approached with caution.

4.4.9 Overlying both feature **[228]/[229]**, and the subsoil, **[234],** was the topsoil/ plough soil **[233]**. Totalling a depth of 0.45m, this deposit consisted of mid to dark grey sandy silt with frequent sub-rounded pebbles up to 0.05m in diameter covering the trench.

5 THE FINDS

5.1 BULK FINDS

5.1.1 Metal detecting and retrieval of finds from the machine excavated soil retrieved a number of finds of post-medieval and unknown date. The only find of any potential antiquity was an undiagnostic copper alloy fragment from trench 4.

5.1.2 The table below summarises the bulk finds:

Table 2: Bulk Finds

Context	Trench	Material	Quantity	Weight (kg)	Period
U/S	1	Fe	3	0.045	Post medieval
U/S	1	coke	1	0.008	Post medieval
U/S	2	Fe	3	0.168	Post medieval
U/S	2	coke	1	0.002	Post medieval
U/S	3	Fe	6	0.112	Post medieval
U/S	4	Cu Alloy	1	0.003	Unknown
U/S	4	Fe	4	0.103	Post medieval
U/S	4	Coke	1	0.010	Post medieval

5.2 ENVIRONMENTAL REMAINS by Patricia Crompton

5.2.1 From the four trenches excavated, four contexts were sampled. The samples all came from different types of features. These whole earth samples were selected for processing in order to assess their environmental potential. This will help provide further information as to the depositional processes involved in their formation. The methodology employed required that the whole earth samples be broken down and split into their various different components. This was achieved by a combination of water washing and flotation. The recovered remains can then be assessed for content.

5.2.2 Flotation separates the organic, floating fraction of the sample from the heavier mineral and finds content of sands, silts, clays, stones, artefacts and waterlogged material. Heavy soil and sediment content measuring less than 1mm falls through the retentive mesh to settle on the bottom of the tank. Flotation produces a 'flot' and a 'residue' for examination, whilst the heavier sediment retained in the tank is discarded. The method relies purely on the variation in density of the recovered material to separate it from the soil matrix, allowing for the recovery of ecofacts and artefacts from the whole earth sample.

5.2.3 The retent, like the residue from wet sieving, will contain any larger items of bone, or artefacts. The flot or floating fraction will generally contain organic material such as plant matter, fine bones, cloth, leather and insect remains. A rapid scan at this stage will allow further recommendations to be made as to the potential for further study by entomologists or palaeobotanists, with a view to retrieving vital economic information from the samples. Favourable preservation conditions can lead to the retrieval of organic remains that may produce a valuable suite of information in respect of the depositional environment of the material, which may include anthropogenic activity, seasonality and climate and elements of the economy.

5.2.4 The contents of the samples are listed below in Tables 3 and 4.

SAMPLE NUMBER	CONTEXT NUMBER	SAMPLE SIZE (litres)	FLOT SIZE (cm^3)	RETENT SIZE (cm^3)
1	205	10	15	1000
2	203	20	15	2000
3	225	10	50	4000
4	229	10	10	3000

Table 3 Details of samples and contexts

DETAILS			RETENT FRACTION							LIGHT FRACTION													
Context	Context type	Sample number	Root material	Charred wood	Waterlogged wood	Burnt bone	Bone	Gravel	Stones	Insects	Charred wood	Root material	Charred wheat	Charred oats	Charred barley	Rumex	Chenopodium	Pale persicaria	Brassica	Dogwood	Other seeds	Spores	Woody plant parts
205	Fill	1	3	2	0	0	0	3	2	0	2	3	0	0	0	0	0	0	0	0	0	0	0
203	Fill	2	1	0	0	0	0	3	2	0	2	3	0	0	0	0	0	0	1	0	0	0	0
225	Fill	3	1	1	0	0	0	3	2	0	2	3	0	0	0	0	1	0	0	0	0	1	0
229	Fill	4	1	0	0	0	0	2	3	0	1	3	0	0	0	2	0	1	1	0	0	1	0

Table 4 Contents of flot and retent residues from samples.

Key to tables: Fill = ditch, posthole or pit fill, Nat = naturally silted feature. Contents assessed by scale of richness 0 to 3. 0 = not present, 1 = present, 2 = common, 3 = abundant.

5.2.5 **Sample 1 (Context 205):** This sample was the fill of a possible tree bole due to the fact that the fills were mixed and there was evidence of rooting. The matrix was a mixed red brown and mid grey soft sandy silt with occasional inclusions of sub rounded stones. The retent was made up of stones and gravel with a small amount of root material present. The flot contained some charred wood. There was a lot of root material and some spores. The only seeds present were a few *Chenopodium*, a common weed seed of arable land.

5.2.6 **Sample 2 (Context 203)**: This sample came from the fill of a linear ditch with a mid orange brown sandy silt and occasional inclusions of pebbles. The retent of this sample

was made up of gravel and stones with a small amount of root material. The flot contained several *Rumex* seeds and occasional pale persicaria and *Brassica* seeds. There was also a small amount of charred wood and a lot of root material with a few spores. There was nothing significant recovered from this context.

5.2.7 **Sample 3 (Context 225)**: This fill comes from a small pit or posthole. From this brown orange sandy silt with a few inclusions of rounded pebbles no finds were recovered. The retent produced stones and gravel and a small amount of charred wood. The flot yielded charred grains as barley. They were well preserved and not too distorted. Seeds of pale persicaria and *Spergula arvensis* were also present with a quantity of root material and some spores. Unfortunately there were no finds associated with this context to determine period.

5.2.8 **Sample 4 (Context 229)**:This sample came from a naturally silted feature. The soil was loosely compacted silty sand with inclusions of sub-rounded stones, particularly on the edge of the cut. The retent of this sample was made up of gravel and stones and a small amount of root material. The flot contained a few *Brassica* seeds (cabbage/radish family), some spores and a quantity of root material. There was also an amount of charred wood.

5.2.9 **Conclusion and recommendations:** A single flot sample yielded charred grain, context **[225]** the fill of a was probable atruncated pit. This charred grain was well preserved and not too distorted. It is obvious that there was some on site activity leading to the recovery of the charred grain, but it is difficult to determine what the source of this material was given the limited information retrieved from the site. The full excavation and sampling of this area will lead to a better understanding of the archaeological features relating to the periods in which they were formed and the processes that led top the deposition of the material, especially the charred grain.

5.3 CARBON DATING

5.3.1 The charred material from context **[225]** was sent for carbon dating, but the results are not available to inform this report. The results of this will help determine the period of the feature from which it was removed. The results will be added to the report as an addendum.

5.3.2 No vertebrate or mollusca remains were recovered from the site.

6 CONCLUSIONS

6.1 The field evaluation consisted of the excavation of four linear trial trenches positioned to adequately sample the sites identified by aerial photography, and interpreted in 1975 (Higham and Jones 1975).

6.2 The targeted evaluation trenches at Overby Quarry successfully located four archaeological features and two possible archaeological features. Northeast to southwest aligned ditch, cut **[208]/[213]/[202]/[218]** and post-hole, cut **[206]** (both Trench 1), were undated features, but the demineralised nature of their fills perhaps imply a prehistoric date. Truncated pit, cut **[224]** (Trench 3), was observed within a highly plough disturbed area of the evaluation, but it did contain charred grain, and may therefore represent a feature of possible prehistoric date (further interpretation must await the results of radiocarbon dating of fill **[225]**). North to south aligned linear, cut **[226]** (Trench 3), may represent a remnant of post-medieval plough related activity, but a prehistoric date cannot be entirely ruled out. Possible features disturbed post-hole **[204]** (Trench 2) and possible pit [228] (Trench 4) may also represent features of prehistoric date, but their interpretation is far from conclusive.

6.3 In summary, it is probable that undated features, namely a field boundary (**[208]/[213]/[202]/[218]**), a post-hole (**[206]**), and a pit (**[224]**), confirm the presence of prehistoric settlement and agricultural related activites within both the targeted areas at Overby quarry, but it must be stated that only a very small sample of the potential archaeological evidence has been considered during this targeted evaluation.

6.4 Immediately east of Overby quarry, a targeted evaluation at High House quarry (Davies 2006 b) failed to relocate a 'square enclosure' cropmark originally identified in 1975 (Higham and Jones, 1975), despite using the evaluation contingency as requested by CCCHES. It was felt that the cropmark features at High House may have originally been poorly transcribed, and may have subsequently been plotted inaccurately. This seemed plausible, given the mapping scale that Higham and Jones (1975) were working at (see Fig. 1).

6.5 During this targeted evaluation at Overby quarry, initial reactions were that a number of the targeted cropmark features, and particularly those identified in 1975, had also not been successfully relocated. However, as Figures 8 and 9 hopefully demonstrate, if the 1975 plotted cropmarks are moved 20 or 30 metres to the east, there seems to be a good correlate between the outline cropmarks and those features identified during this targeted evaluation. On Figure 8 a northeast to southwest aligned cropmark aligns well with field boundary ditch (**[208]/[213]/[202]/[218]**). However, on Figure 9 it seems that the 1975 cropmarks align well to sub-soil deposit **[232]** (Trench 3) and, most comprehensively, deposit **[234]** (Trench 4). Possible pit **[228]** (Trench 4) may also align with the more accurately plotted cropmarks interpreted by NPA Ltd (Davies 2006).

6.6 In conclusion, on the evidence of this targeted evaluation, it can be suggested that the cropmarks identified by aerial photography in 1975 may have been poorly transcribed and plotted but are now relocated. In some cases (e.g. Fig 8) the cropmarks may indeed represent buried archaeological features, but in some cases the may also represent natural spreads of deep subsoil (e.g. Fig 9).

6.7 Finally, the possible pit feature [228], identified during more accurate plotting of the aerial photographs by NPA Ltd, is heavily truncated. If this feature does indeed represent the prehistoric sub-surface archaeological horizon, then it might be extrapolated that any archaeological features in the southern half of the proposed extraction area will have been severely damaged by plough truncation since 1975 This would vastly reduce their potential for providing secure stratigraphic, artefactual and environmental data. In some cases features may have been completely truncated away between 1975 and the present day.

6.8 However, only a very small sample of the potential archaeological evidence has been considered during this targeted evaluation. A potentially similar set of preservation conditions exists 2km to the west of Overby at New Cowper Quarry and it is worth noting that at New Cowper Quarry, the excavation of severely plough truncated sub-surface archaeological features has produced some excellent results (Davies, forthcoming). It is with a consideration of this potential that future planning decisions at Overby quarry should proceed.

7 BIBLIOGRAPHY

Bewley R 1994 Prehistoric and Romano-British Settlement in the Solway Plain, Cumbria, Oxbow Monograph 36, Oxford. McCarthy M, unpublished Recent Excavation in North Cumbria, www.ucl.ac.uk/prehistoric/past/past32.html

Davies, G 2006 *Archaeological Desk Based Assessment, Walkover and Geophysical Survey for a Proposed Quarry Extension at Overby Quarry, Westnewton, NPA report CP/215/05*

Davies G 2006b *A Targeted Archaeological Evaluation at High House Quarry, NPA report CP/310/06.*

Davies G forthcoming, *Assessment Report on Phase 1 and Phase 2 of Excavation at the Northern extension of New Cowper Farm Quarry, Aspatria, Cumbria*, North Pennines Archaeology.

Dunham KC 1969 *Geological Map of the British Isles. Based on the work of the Geological Survey*, 5th ed.

English Heritage (1991) Management of Archaeological Projects *(MAP2)*. London: English Heritage.

Giecco F 2001 North Pennines Archaeology Excavation Manual, *NPA Ltd.*, Unpublished

Higham NJ and Jones GDB, 1975 '*Frontiers, forts and farmers, Cumbrian aerial survey, 1974 5*' in Archaeological Journal, 132, 16-53

Hodgkinson, D, Huckerby, E, Middleton, R and Wells, CE, 2000 The Lowland Wetlands of Cumbria, Lancaster Imprints 8, Lancaster.

IFA (1994) *Standards and Guidance for Archaeological Desk-Based Assessments*. Reading: Institute of Field Archaeologists.

McCarthy M, unpublished Recent Excavation in North Cumbria, www.ucl.ac.uk/prehistoric/past/past32.html

Parsons J, 2006 Brief for a Targeted Archaeological Evaluation at Overby Quarry, Westnewton, Wigton, Cumbria, CCHES.

8 APPENDIX 1 – LIST OF CONTEXTS

Context	Type	Trench	Description
200	Layer	1	Topsoil
201	Layer	1	Natural
202	Cut	1	Linear ditch
203	Fill	1	Fill of [202]
204	Cut	2	Tree Bole
205	Fill	2	Fill of [204]
206	Cut	1	Post hole
207	Fill	1	Fill of [206]
208	Cut	1	Linear ditch running N-S
209	Fill	1	Fill of [208] – Primary silt
210	Fill	1	Fill of [208] – Backfill
211	Layer	2	Topsoil
212	Layer	2	Natural Clay
213	Cut	1	Linear ditch running N-S
214	Fill	1	Fill of [213] – Primary silt
215	Fill	1	Fill of [213] – Backfill
216	Cut	1	Linear ditch running N-S
217	Fill	1	Fill of [216]
218	Cut	1	Linear ditch running N-S
219	Fill	1	Fill of [218] – Primary Silt
220	Fill	1	Fill of [218] – Backfill
221	Layer	3	Topsoil
222	Layer	3	Natural
223	Layer	3	Subsoil
224	Cut	3	Post hole
225	Fill	3	Fill of [224]
226	Cut	3	Linear ditch
227	Fill	3	Fill of [226]
228	Cut	4	Base of pit
229	Fill	4	Fill of [228]
230	Cut	3	Linear ditch
231	Fill	3	Fill of [230]
232	Cut	3	Depression
233	Layer	4	Topsoil
234	Layer	4	Subsoil
235	Layer	4	Natural
236	Fill	3	Fill of [232]

Table 1: Index of Contexts

9 APPENDIX 2 – ILLUSTRATIONS

Figure 1: Site Location, Main Location also Showing Cropmark Features on the Abbeytown Ridge (magenta)

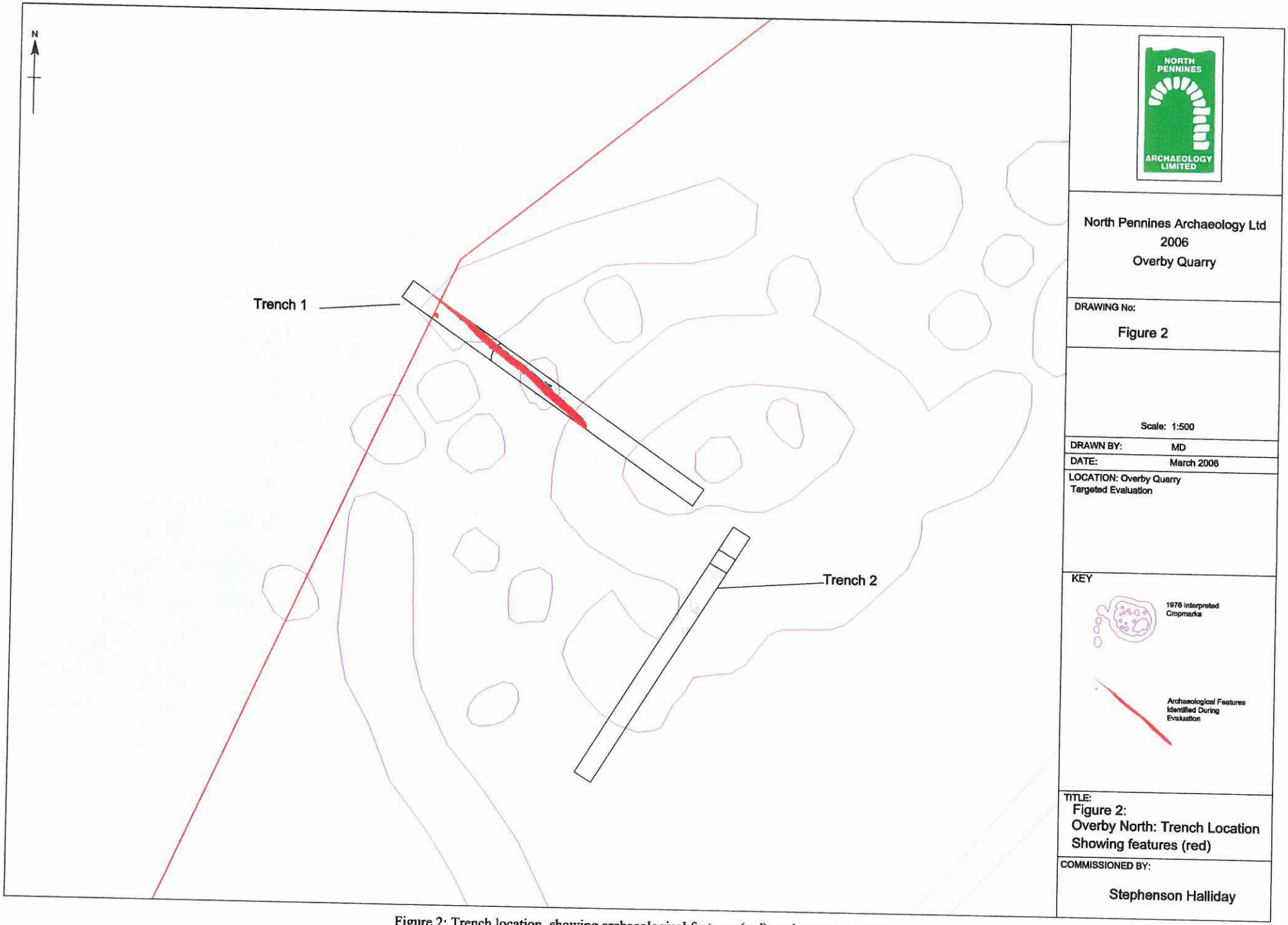
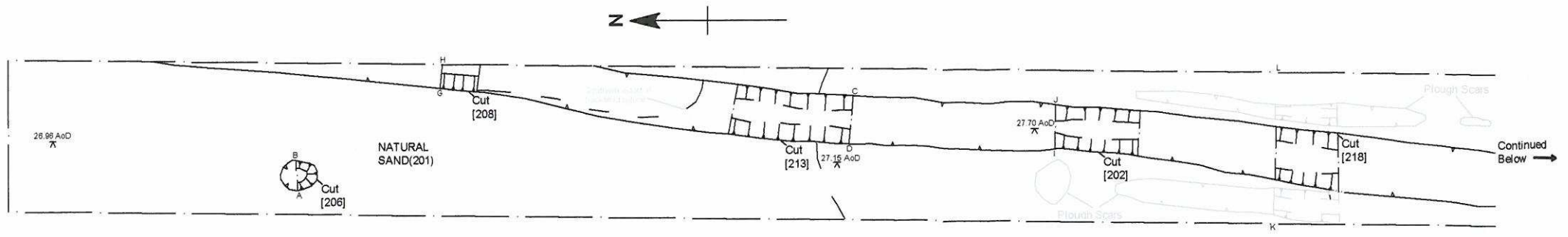
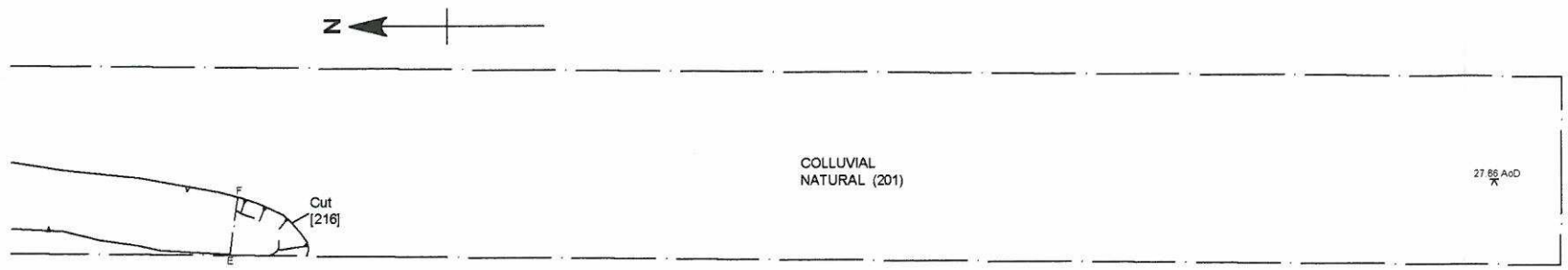


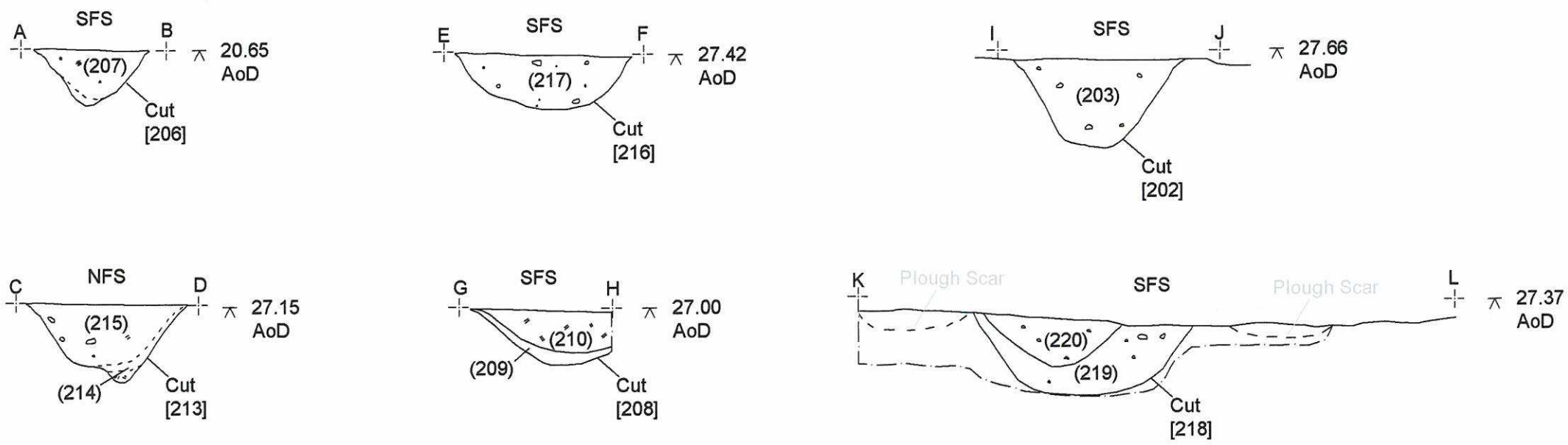
Figure 2: Trench location, showing archaeological features (red) against cropmarks (magenta)

Figure 3: Trench location, showing archaeological features (red) against cropmarks (magenta)





Scale 1:75



Scale 1:20

NORTH PENNINES ARCHAEOLOGY LIMITED

North Pennines Archaeology Ltd
2006
Overby Quarry

DRAWING No:
Figure 4

Scale As Shown

DRAWN BY: MD

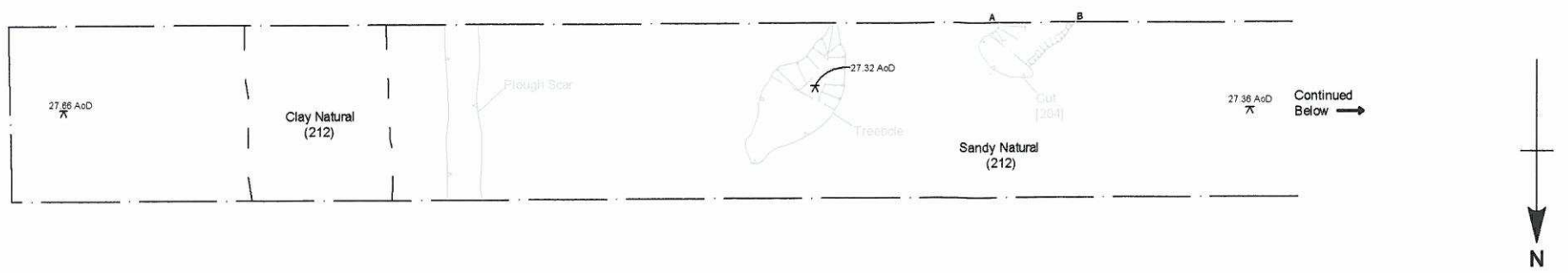
DATE: March 2006

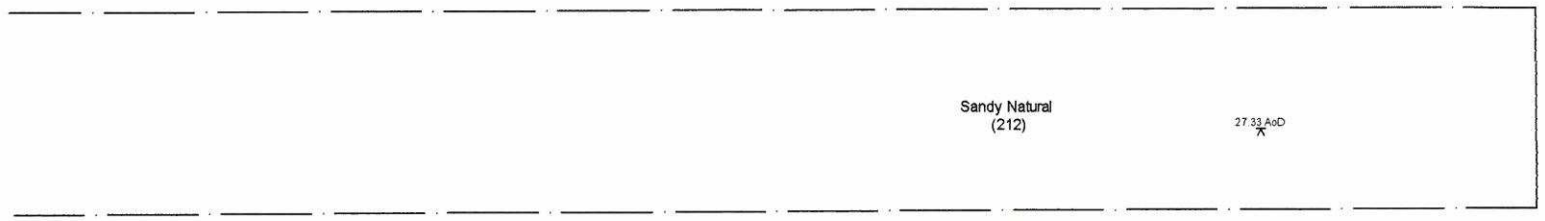
A - L Location Points for Section Drawings

TITLE:
Overby Quarry Targeted Evaluation
Trench 1 Plan and Sections

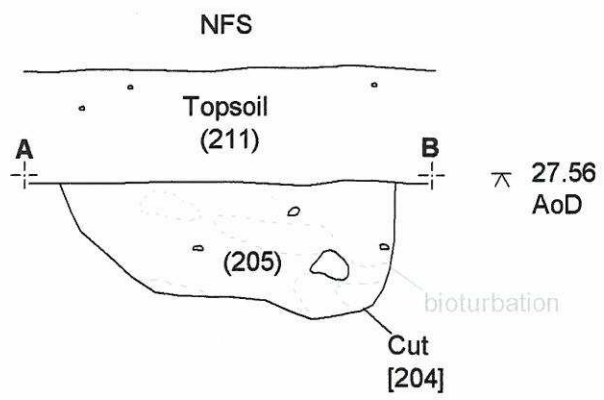
COMMISSIONED BY:
Stephenson Halliday

Figure 4 : Overby Quarry Targeted Evlauation - Trench 1 Plan and Sections





Scale 1:75



Scale 1:20

North Pennines Archaeology Ltd
2006
Overby Quarry

DRAWING No:
Figure 5

Scale As Shown

DRAWN BY: MD

DATE: March 2006

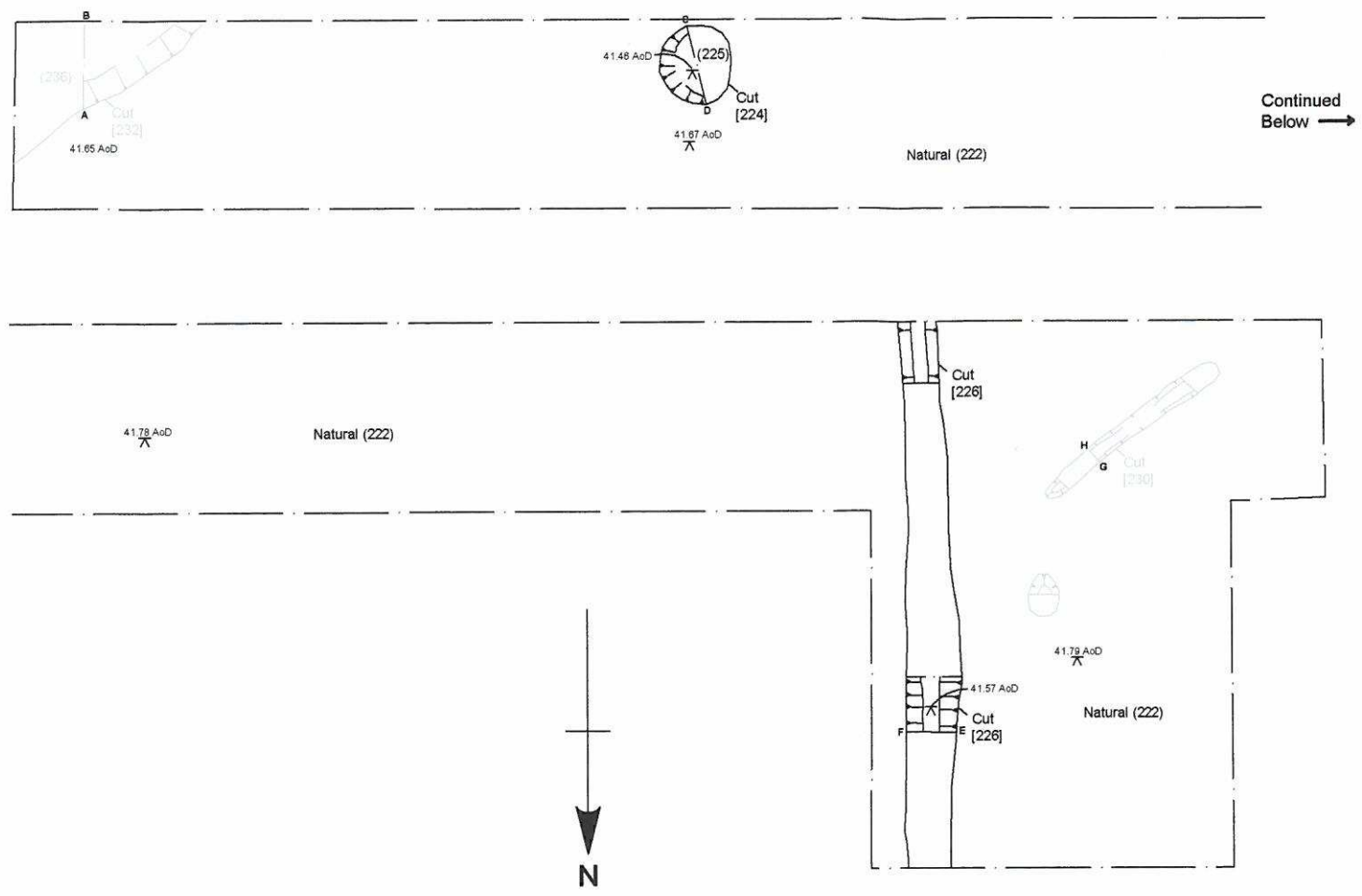
KEY

A - B Location Points for Section Drawings

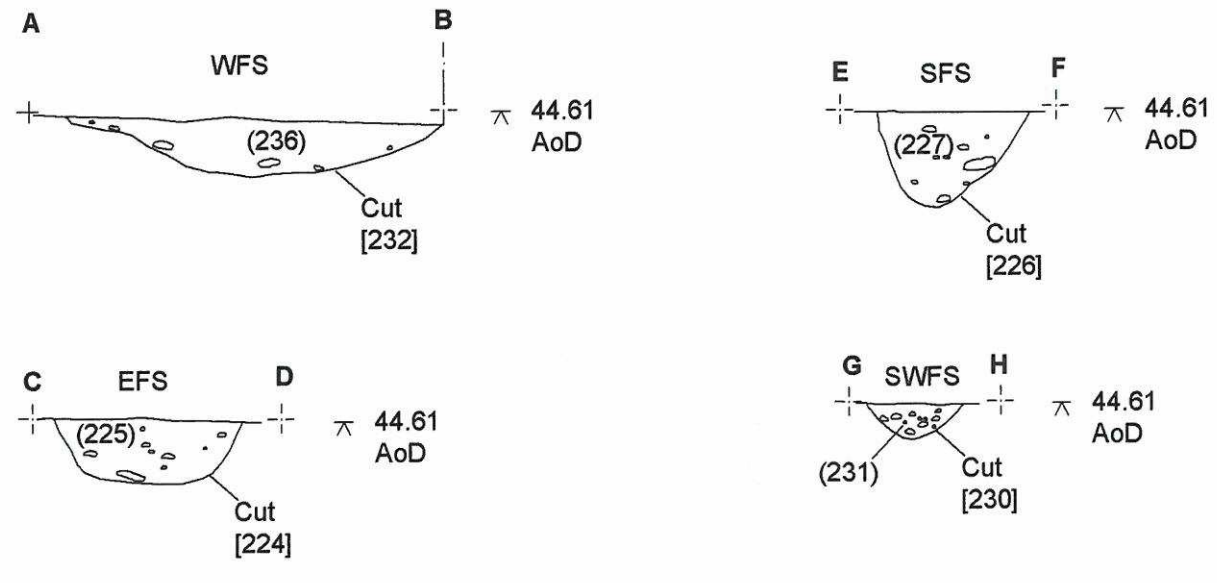
TITLE:
Overby Quarry Targeted Evaluation
Trench 2 Plan and Section

COMMISSIONED BY:
Stephenson Halliday

Figure 5: Overby Quarry Targeted Evaluation - Trench 2 Plan and Section



Scale 1:75



Scale 1:20

NORTH PENNINES ARCHAEOLOGY LIMITED

North Pennines Archaeology Ltd
2006
Overby Quarry

DRAWING No:
Figure 6

Scale As Shown

DRAWN BY: MD

DATE: March 2006

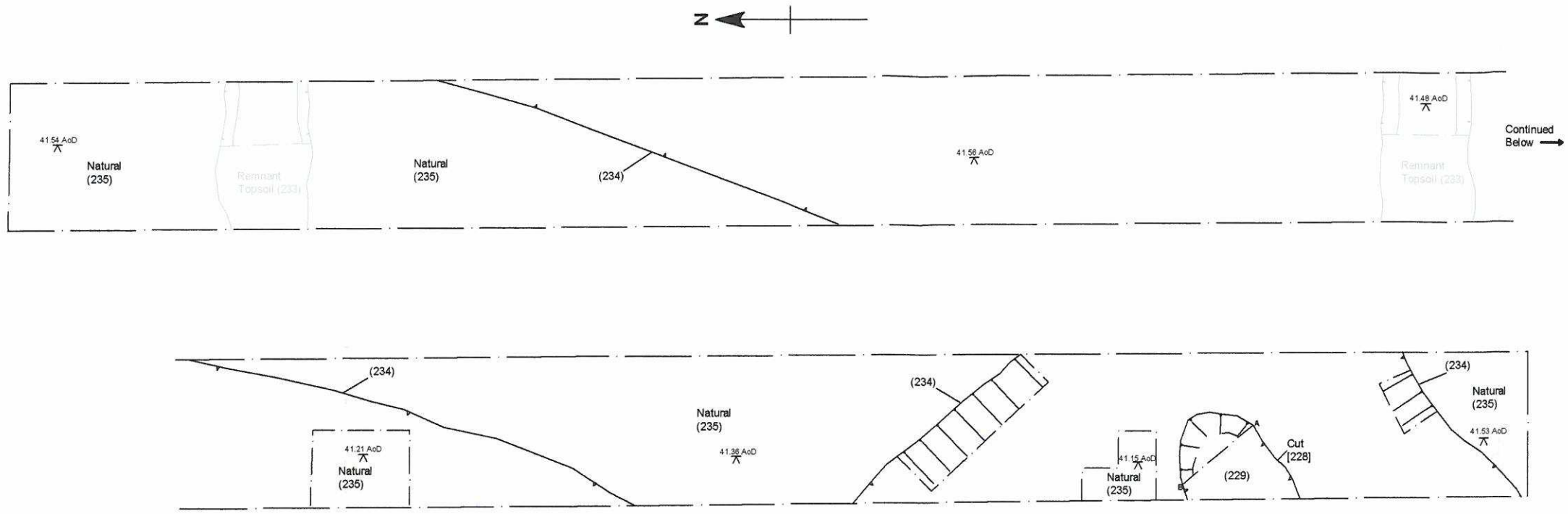
KEY

A - H Location Points for Section Drawings

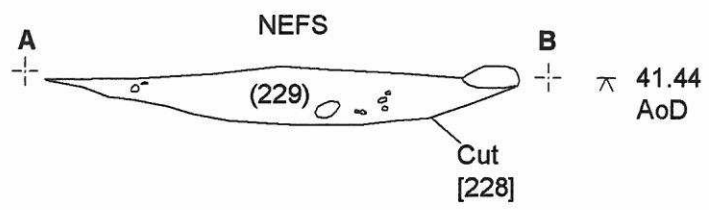
TITLE:
Overby Quarry Targeted Evaluation
Trench 3 Plan and Sections

COMMISSIONED BY:
Stephenson Halliday

Figure 6: Overby Targeted Evaluation - Trench 3 Plan and Sections



Scale 1:75



Scale 1:20

NORTH PENNINES ARCHAEOLOGY LIMITED

North Pennines Archaeology Ltd
2006
Overby Quarry

DRAWING No:
Figure 7

Scale As Shown

DRAWN BY: MD

DATE: March 2006

LOCATION:

KEY

A - B Location Points for Section Drawings

TITLE:
Overby Quarry Targeted Evaluation
Trench 4 Plan and Sections

COMMISSIONED BY:
Stephenson Halliday

Figure 7: Overby Quarry Targeted Evaluation - Trench 4 Plan and Section

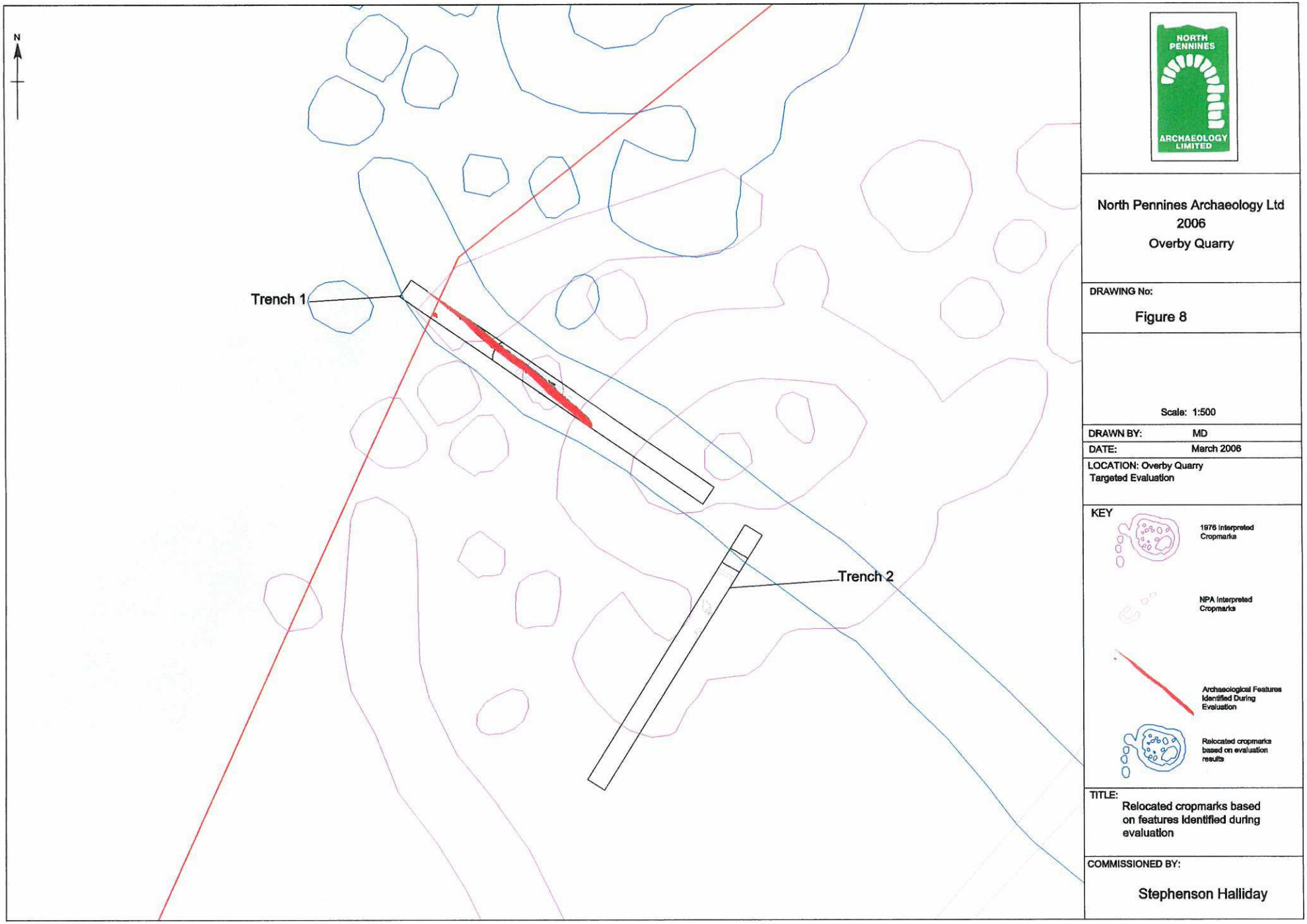


Figure 8: OVERBY NORTH: Relocated cropmarks (blue) based on features identified during evaluation (red)

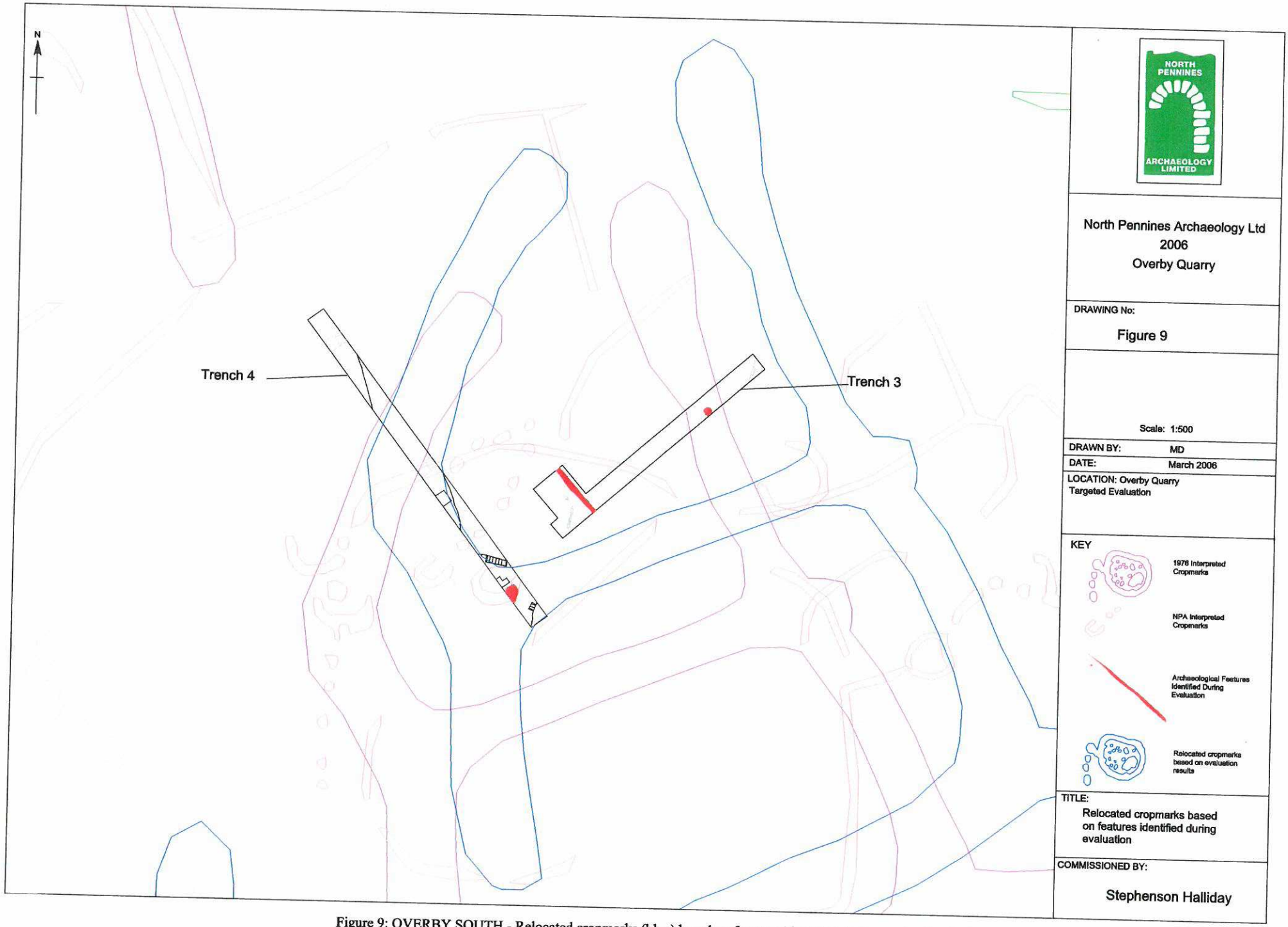


Figure 9: OVERBY SOUTH - Relocated cropmarks (blue) based on features identified during evaluation (red)

Plate 1: NE-SW aligned ditch, cut [208]/[213]/[202]/[218], Trench 1, post-excavation. Looking south.

Plate 2: post-hole, cut [206], Trench 1, post-excavation. Looking north.

Plate 3: NE-SW aligned ditch, Cut [208], Trench 1, Post-excavation. Looking North.

Plate 4: Section through NE-SW aligned ditch, cut [202], Trench 1, post-excavation. Looking north.

Plate 5: section through possible cut, cut [204], Trench 2, post-excavation. Looking South.

Plate 6: Trench 3, after cleaning, looking east.

Plate 7: eastern extent of Trench 3 after cleaning, showing N-S aligned cut [226], looking south.

Plate 8: truncated pit, cut [224], post-excavation, looking W.

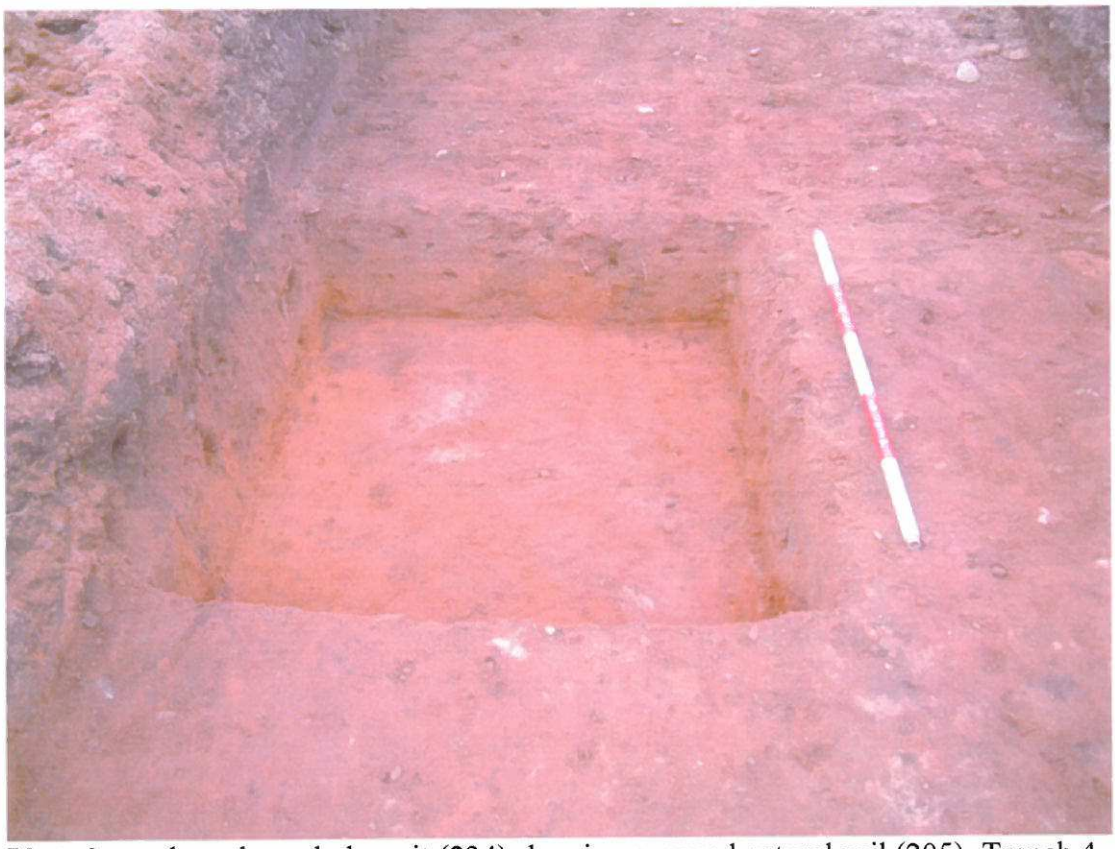


Plate 9: sondage through deposit (234) showing exposed natural soil (205), Trench 4, looking north.

Plate 10: possible pit, cut [228] post-excavation, Trench 4, looking southeast.