



Briggle Beck Pipeline, Cumbria

Evaluation and Watching Brief



Oxford Archaeology North

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United Utilities

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60702 32628

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SUMMARY

United Utilities proposed the construction of a *c* 1.5km pipeline from Langwathby (NGR NY 56483 34255) to Winskill (NGR NY 57822 34865), with an additional *c* 4km section heading south-eastwards (NGR NY 57115 34357 to NY 60702 32628). Following the results of a rapid archaeological desk-based research and a walkover survey (OA North 2008) the Cumbria County Council Planning Archaeologist recommended that a programme of archaeological works be carried out for the proposed pipeline route. This comprised evaluation trenching within Field 3, where a large area of sub-circular cropmarks had been observed, and in addition, an archaeological watching brief along those sections of the pipeline easement subject to topsoil stripping. The subsequent fieldwork took place in June 2011.

The evaluation trenching comprised four 30m long trenches located along the easement within Field 3. Of these, Trench 3 was targeted to investigate a depression present in the field. The evaluation of this trench revealed a tree-bole, a gully and a posthole. Trenches 1, 2 and 4 were located along the easement within the field and of these, trenches 1 and 2 contained three small postholes. Nothing of archaeological interest was observed in Trench 4.

The watching brief was conducted on the site of the Winskill compound and within a number of fields along the easement. A total of three pits and one tree-bole were recorded in Fields 1 and 2, no archaeology was observed within the remainder of the fields.

None of the features exposed are closely dateable. All of the features appear to relate to agricultural practice. No further archaeological work is recommended.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to KMI for facilitating the site work.

Becky Wegiel undertook the evaluation, assisted by Vickie Jamieson. Andrew Frudd maintained the watching brief. Becky Wegiel wrote the report and Mark Tidmarsh produced the illustrations. Alison Plummer managed the project, and also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 United Utilities proposed the construction of a pipeline in the vicinity of the villages of Langwathby and Winskill, approximately 8km to the north-east of Penrith (Fig 1). The total length of the pipeline is approximately 5km. Following the results of rapid archaeological desk-based research and a walkover survey of the proposed pipeline route (OA North 2008), the Planning Archaeologist at Cumbria County Council (CCC) requested a further programme of archaeological works. This included evaluation trenching of Field 3 (field numbers relate to the walkover gazetteer in the 2008 report), and a watching brief during topsoil stripping activities along the easement and in areas of previously undisturbed ground.
- 1.1.2 This report sets out the results of the evaluation trenching and watching brief in the form of a short document. It should be read in conjunction with the OA North 2008 research and walkover survey report, which provides an historical and archaeological context for the pipeline route.

2. METHODOLOGY

2.1 INTRODUCTION

2.1.1 A project design (*Appendix 1*) was submitted by OA North in response to a request for from the Planning Archaeologist at CCC for an evaluation and watching brief on those areas which were directly impacted by the construction of the pipeline. The project design was adhered to in full, and the work was consistent with the relevant IfA and English Heritage guidelines (Institute for Archaeologists 2008a, 2008b, 2010; English Heritage 2006).

2.2 EVALUATION TRENCHING

2.2.1 The topsoil was removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. This deposit was cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest were investigated and recorded

2.2.2 All trenches were excavated in a stratigraphical manner. Trenches were located by use of a differential Global Positioning System (dGPS), and altitude information has been established with respect to Ordnance Survey Datum.

2.2.3 All information identified in the course of the site works was recorded stratigraphically, using a system adapted from that used by the former Centre for Archaeology of English Heritage, with an accompanying pictorial record (plans, sections, and monochrome contacts/digital photographs). Primary records were available for inspection at all times.

2.2.4 Results of all field investigations were recorded on *pro forma* context sheets. The site archive includes both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts were recorded using the same system, and will be handled and stored according to standard practice (following current Institute for Archaeologists guidelines).

2.3 WATCHING BRIEF

2.3.1 A permanent archaeological presence was maintained during groundworks within fields 1 to 4, 10 to 14 and 24. These were targeted as being sections of previously undisturbed ground and, therefore deemed to have archaeological potential. The purpose was to identify, investigate and record any archaeological remains encountered.

2.3.2 A daily record of the nature, extent and depths of groundworks was maintained throughout the duration of the project. All archaeological contexts were recorded on OA North's *pro-forma* sheets, using a system based on that

of the English Heritage former Centre for Archaeology. A monochrome and digital photographic record was maintained throughout.

2.4 ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the project brief/design (*Appendix 1*), and in accordance with current IfA and English Heritage guidelines (English Heritage 2006). The paper and digital archive will be deposited in the Penrith Record office on completion of the project.

3. FIELDWORK RESULTS

3.1 INTRODUCTION

- 3.1.1 Four trenches were excavated during the course of the evaluation trenching (Fig 2), targeting the possible cropmarks observed in Field 3. The trenches measured 30m in length, and 2m in width. In each trench the topsoil (0.3m thick) was removed down to the silty-sand and gravel natural geology.
- 3.1.2 The watching brief monitored all topsoil stripping activities with the fields targeted along sections of the easement as specified by the Planning Archaeologist.

3.2 EVALUATION RESULTS

- 3.2.1 Trench 1 was aligned east-north-east/west-south-west (Fig 2; Plate 1). Two postholes, **502**, measuring 0.35m in diameter and 0.17m in depth, and **504** measuring 0.28m in width and 0.1m in depth, were observed towards the centre of the trench (Fig 3). Little could be inferred as to the purpose of the postholes, and as no finds were recovered, they remain undated.
- 3.2.2 Trench 2 was aligned north-west/south-east (Fig 2; Plate 2). A posthole, **521**, measuring 0.3m in diameter and 0.1m deep was observed (Fig 3). Again, no interpretation could be offered for this feature.
- 3.2.3 Trench 3 was located in order to investigate a ridge and a depression in the field, and was aligned east-north-east/west-south-west (Fig 2; Plate 3). Towards the western end of the trench, and within the area of the depression, a tree-bole (**514**), a gully (**512**) and a posthole (**516**) were observed (Fig 3).
- 3.2.4 The kidney-shaped tree-bole, **514**, measuring 0.5m x 0.9m x 0.1m in depth (Plate 5), had very regular edges despite having been heavily disturbed by plant root action. The fill of the tree-bole, **515**, appeared to have been burnt *in situ*. To the immediate west of the tree-bole, a north/south aligned gully, **512**, was observed and measured 0.18m wide x 0.1m deep (Plate 4). This was filled with a silty deposit **513**. The gully appeared to cut the western side of the tree-bole, and is therefore a later feature. A posthole (**516**) was observed to the west of the gully and the tree-bole. It measured 0.5m x 0.15m and was filled by a silty deposit **517**. Located at the western extent of the trench was a back-filled field drain, **510**, which was of modern appearance.
- 3.2.5 Trench 4 was north-west/south-east-aligned (Plate 4). No archaeology was observed within this trench.

3.3 WATCHING BRIEF RESULTS

- 3.3.1 In each field subject to the watching brief, the silty-sand topsoil (0.3m thick) was removed down to the level of the silty-sand gravel natural. A single pit

was observed in Field 1. Pit **103** had a diameter of 0.95m and was 0.17m deep. It had been deliberately backfilled.

- 3.3.2 A pit and two tree-boles were recorded in Field 2. Pit **112** was 0.5 x 0.46 x 0.1m deep, and was probably a fire-pit (Plate 6). Approximately 0.4m to the north-west was a burnt out tree-bole **113** (0.6m diameter, 0.25m deep; Plate 6). At the south-east end of Field 2, another feature was observed. Tree-bole **108** (0.78 x 0.68 x 0.19m deep) contained no finds and was not associated with any other features. No archaeology was observed in the remainder of the fields.

4. CONCLUSION

4.1 DISCUSSION

- 4.1.1 A limited amount of archaeology was uncovered during the evaluation trenching. The tree-boles, postholes and gully show that there had been a low-level of human activity on the site at some point, including tree clearance, but this was not extensive or sustained. All of the features were undated, but closely resemble post-medieval agricultural activity. The cropmarks recorded from the aerial photograph were probably as a result of patches of differing natural and the large boulders present in the field.
- 4.1.2 The features observed during the watching brief are similar in nature to those observed during the evaluation trenching, and indicate that there was sporadic activity at the eastern end of the pipeline, which corresponds to the evaluation results. No further work is recommended.

5. BIBLIOGRAPHY

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6. ILLUSTRATIONS

6.1 FIGURES

Figure 1: Site Location Map

Figure 2: Plan of Evaluation and Watching Brief Areas

Figure 3: Plan of Evaluation Trenches

6.2 PLATES

Plate 1: East-north-east-facing view of Trench 1

Plate 2: South-east-facing view of Trench 2

Plate 3: East-north-east-facing view of Trench 3

Plate 4: North-west-facing view of Trench 4

Plate 5: Gully **512** and tree-bole **514**, east-facing view

Plate 6: Tree-bole **113** and pit **112**, north-east-facing view

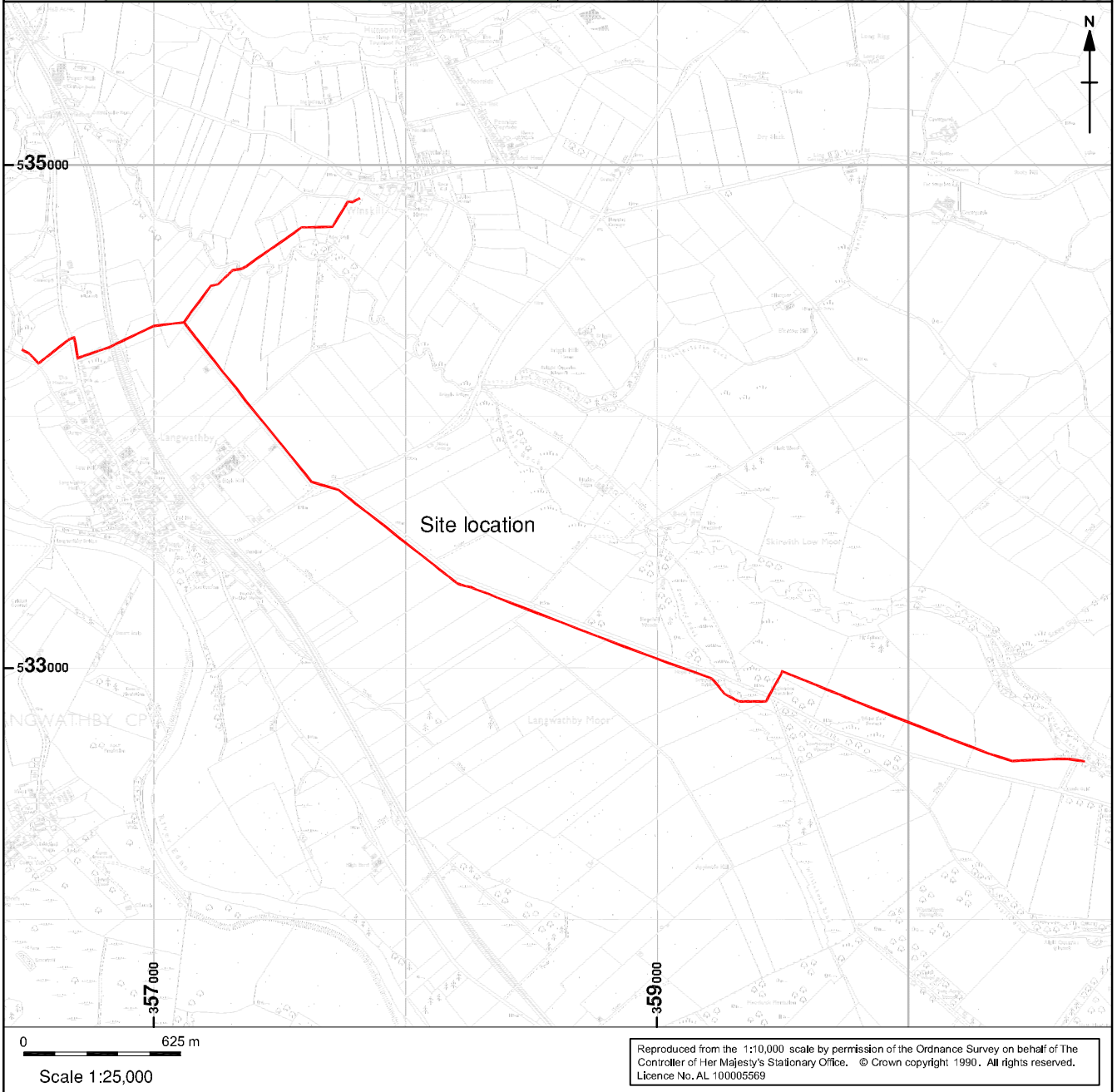
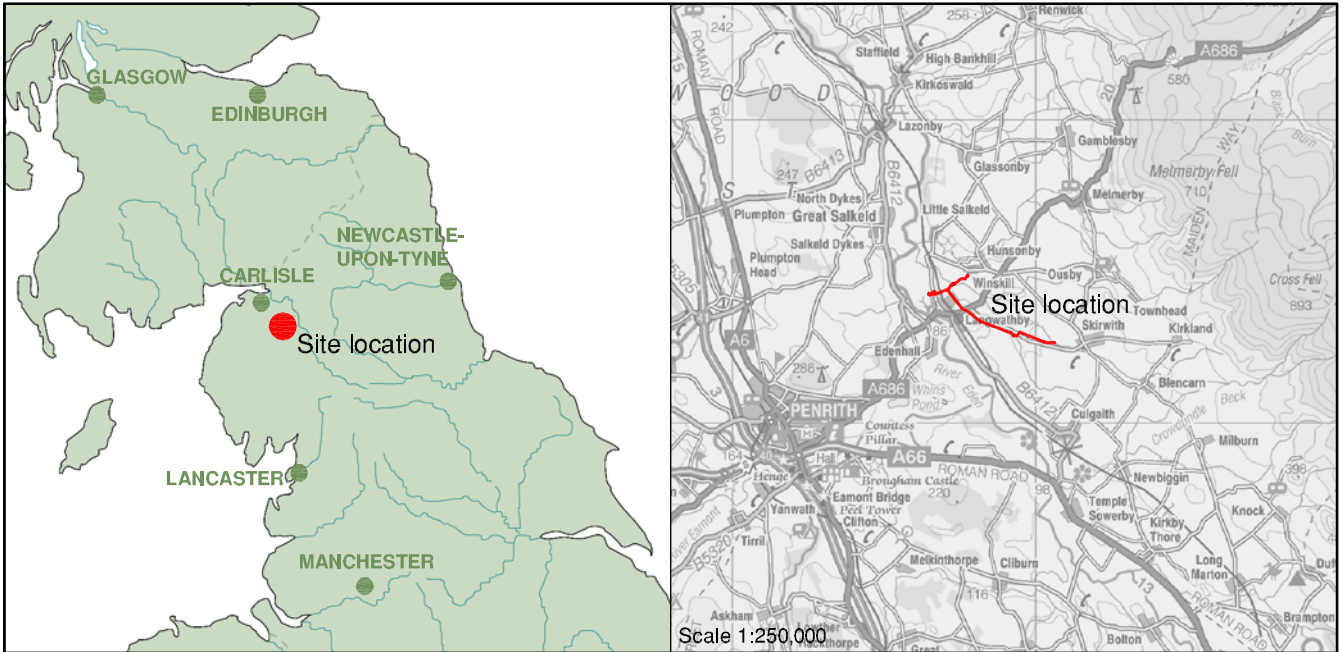


Figure 1: Site Location

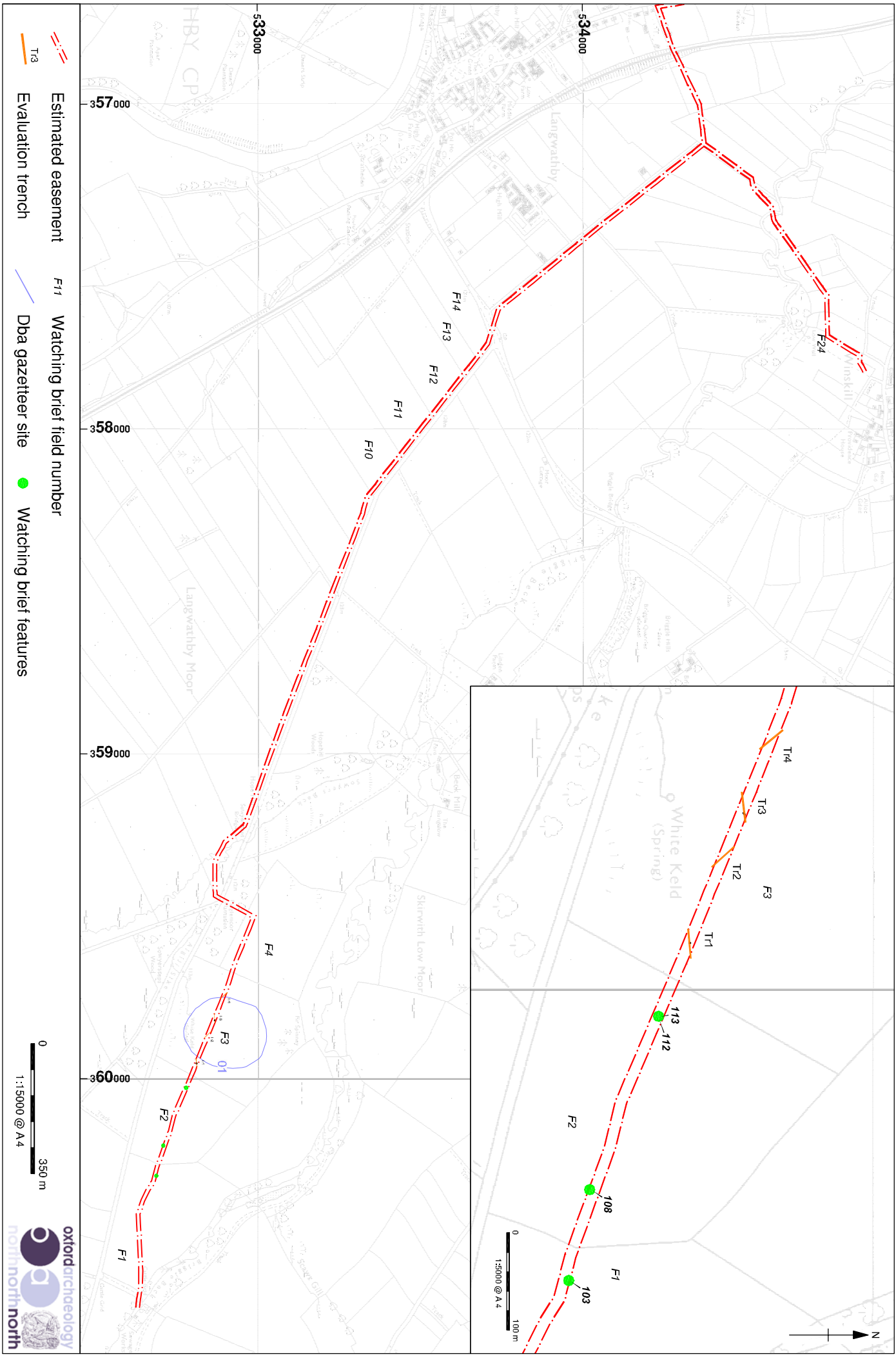


Figure 2: Plan of evaluation and watching brief areas

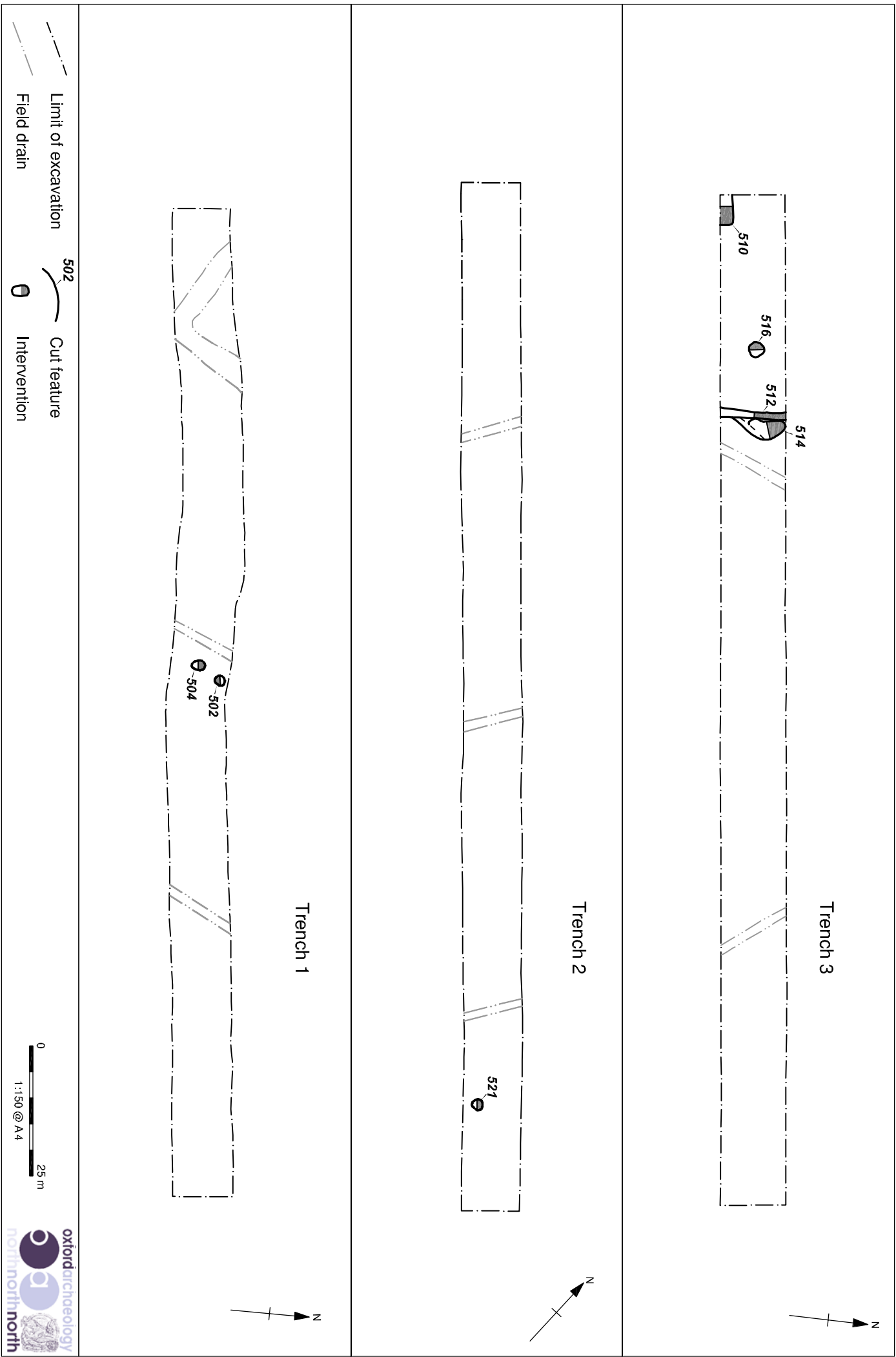


Figure 3: Plan of evaluation trenches



Plate 1: East-north-east-facing view of Trench 1



Plate 2: South-east-facing view of Trench 2



Plate 3: East-north-east-facing view of Trench 3



Plate 4: North-west-facing view of Trench 4



Plate 5: Gully 512 and tree-bole 514, east-facing view



Plate 6: Tree-bole 113 and pit 112, north-east-facing view

7. APPENDIX 1: PROJECT DESIGN

BRIGGLE BECK PIPELINE – LANGWATHBY TO WINSKILL CUMBRIA

Archaeological Evaluation and Watching Brief: Written Scheme of Investigation



Oxford Archaeology North

May 2011

United Utilities

NGR: NY 56483 34255
OA North Ref No: L10060

1. INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 Following proposals by United Utilities for the construction of a *c* 1.5km long pipeline from Langwathby (NGR NY 56483 34255) to Winskill (NGR NY 57822 34865), with a *c* 4km stretch of pipeline heading south-eastwards from it (NGR NY 57115 34357 to NY 60702 32628), the Cumbria County Council Planning Archaeologist recommended that rapid archaeological desk-based research and a walkover survey of the proposed pipeline route be undertaken. Oxford Archaeology North (OA North) was subsequently commissioned by United Utilities to undertake this work in 2008 (OA North 2008).
- 1.1.2 In total, nine sites of archaeological interest were identified within the study area from the rapid desk-based research, of which seven had been previously recorded in the Cumbria HER. Of the sites noted in the rapid desk-based research, only one was identified as being within the pipeline easement during the walkover survey - Site **01**, this was seen to exist as faint earthworks, and is within a gently sloping field cleared of stone and levelled. Some faint earthworks can be seen along the ridge. The south end of the field is marshy and uncultivated. An aerial photograph shows a large area of indeterminate sub-circular features.
- 1.1.3 Consequently, the CCHER planning Archaeologist requested Site **01** be subject to a programme of archaeological trial trenching, and that in addition, a watching brief should be maintained for those elements of the pipeline that lie outside the highway.

1.2 OXFORD ARCHAEOLOGY NORTH

- 1.2.1 OA North has considerable experience of working in Cumbria, having undertaken a great number of small and large scale projects throughout Northern England during the past 27 years, including work in and around Carlisle, Appleby, Kendal and Penrith. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.2.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) **registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct (1994).

2 OBJECTIVES

- 2.1 The programme of work aims to evaluate the archaeological resource and potential for further archaeological deposits, in order to determine their extent and nature of the remains that may be threatened by the proposed development. This information will be used by CCCHES to determine any requirements for

mitigation of the proposed development. The required stages to achieve these ends are as follows:

- 2.2 **Archaeological Evaluation:** to undertake evaluation trenching of *c* 5% of the easement in the field containing Site **01** to determine the quality, extent and importance of any archaeological remains on the site (in accordance with the IfA standards (1999b)).
- 2.3 **Watching Brief:** to monitor ground disturbance of areas of previously undisturbed ground.
- 2.4 **Report and Archive:** a report will be produced for the client within twelve weeks, unless a report submission deadline is agreed with the client at the time of commission. An archive will be produced to English Heritage guidelines (MAP 2 (1991)).

3 METHOD STATEMENT

3.1 ARCHAEOLOGICAL EVALUATION

- 3.1.1 The programme of trial trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, it will adequately sample the threatened available area and provide an impact assessment.
- 3.1.2 **Trenches:** the evaluation is required to examine a maximum sample of 5% of the pipeline easement as it crosses Site **01**. This corresponds to 125m², which will be investigated through the excavation of four trenches, each approximately 30m long by 2m wide. The exact configuration and location of the trenches will be established prior to the fieldwork to allow an even spread across the site whilst also targeting areas of certain development impact.
- 3.1.3 **Methodology:** any topsoil and modern overburden will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit, or to the top of the natural geology, whichever is encountered first. The topsoil and subsoil will be stored separately alongside the area of the evaluation. This deposit will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest must be investigated and recorded unless otherwise agreed by CCCHES. It is not proposed to remove alluvial deposits other than within the confines of a localised sondage (in order to record any evidence that might allow an interpretation of the deposition, the presence of buried soil horizon, or the presence of artefacts) that can be rapidly recorded and backfilled.
- 3.1.4 The trenches will not be excavated deeper than 1m to accommodate health and safety constraints, without shoring or stepping out of the trench sides. Should this be required, this may be costed as a variation to cover those resources

necessary. All trenches will be excavated in a stratigraphical manner, whether by machine or by hand. Trenches will be located by use of a total station, or gps, and altitude information will be established with respect to Ordnance Survey Datum.

- 3.1.5 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.1.6 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections, colour slides and monochrome contacts) to identify and illustrate individual features. Primary records will be available for inspection at all times. Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.
- 3.1.7 **Environmental Sampling:** environmental samples (bulk samples of 40 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis. The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, the samples would be assessed for plant macrofossils, insect, molluscs and pollen from waterlogged deposits. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good deposits are identified and will be subject to the agreement of CCCHES and the client.
- 3.1.8 Advice will also be sought as to whether a soil micromorphological study or any other analytical techniques will enhance the understanding of the site formation processes, including the amount of truncation to buried deposits and the preservation of deposits within negative features. Should this be required the costs for analysis have been provided as a contingency.
- 3.1.9 **Faunal remains:** if there is found to be the potential for discovery of bones of fish and small mammals a sieving programme will be carried out. These will be assessed as appropriate by OA North's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A

contingency has been included for the assessment of such faunal remains for analysis.

- 3.1.10 **Human Remains:** any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. CCCHES and the local Coroner will be informed immediately. If removal is essential the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations. Any delays caused by unforeseen and complex excavation of inhumations may be subject to a variation to the cost of the contract and will be agreed with the client.
- 3.1.11 **Treatment of finds:** all finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines. All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 3.1.12 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.

3.2 WATCHING BRIEF

- 3.2.1 A programme of field observation will record accurately the location, extent, and character of any surviving archaeological features and/or deposits within all easement stripping activities and ground disturbance associated with the development works. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 3.2.2 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (ie selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 3.2.3 If significant archaeological deposits or features are identified that might be affected by machine tracking or the pipe trench cutting, then the area will be

sealed off to protect it. A site meeting would be held between the interested parties (including the relevant curators and United Utilities Project Manager) to discuss use of the contingency fund to allow a rescue excavation and recording exercise to take place.

3.2.4 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered. This would only be called into effect in agreement with the Client, and the County Archaeology Service, and will require a variation to costing.

3.2.5 The finds policy, environmental sampling and treatment of human remains will be undertaken as above (*Sections 3.1.7 to 3.1.12*)

3.2 REPORT

3.2.1 One bound and one unbound copy of a written synthetic report will be submitted to the client, and three copies to the Cumbria HER within twelve weeks of completion of the fieldwork, unless an alternative deadline is agreed with the client beforehand. It will present, summarise, and interpret the results of the programme detailed above in order to come to as full an understanding as possible of the archaeology of the development area. The report will include;

- a site location plan related to the national grid;
- a front cover to include the planning application number and the NGR;
- a concise, non-technical summary of the results;
- the circumstances of the project and the dates on which the fieldwork was undertaken;
- description of the methodology, including the sources consulted;
- a summary of the historical background of the study area;
- appropriate plans showing the location of the site;
- a statement, where appropriate, of the archaeological implications of the proposed development;
- monochrome and colour photographs as appropriate;
- a copy of this project design, and indications of any agreed departure from that design;
- the report will also include a complete bibliography of sources from which data has been derived, and a list of any further sources identified but not consulted ;
- plans and sections showing the positions of deposits and finds;
- an index to the project archive.

3.2.2 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project

brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

3.3 ARCHIVE

- 3.3.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with Appendix 3 of the current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991) and UKIC (1990). This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the County Record Office.

4 HEALTH AND SAFETY

- 4.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 4.2 Full regard will, of course, be given to all constraints (services etc) during the evaluation as well as to all Health and Safety considerations. OA North provides a Health and Safety Statement for all projects and maintains a Company Safety policy. As a matter of course the field team will use a Cable Avoidance Tool (CAT) prior to any excavation to test for services. However, this is only an approximate location tool. Any **information regarding services**, i.e. drawings or knowledge of live cables or services, within the study area and held with the client should be made known to the OA North project manager prior to the commencement of the evaluation.
- 4.3 A portable toilet with hand washing facilities will be provided and located on or adjacent to the site unless the client would prefer to arrange alternative facilities. This is costed as a contingency.
- 4.4 Any known contamination issues or any specific health and safety requirements on site should be made known to OA North by the client or main contractor on site to ensure all procedures can be met, and that the risk is dealt with appropriately.
- 4.5 Should areas of previously unknown contamination be encountered on site the works will be halted and a revision of the risk assessment carried out. Should it be necessary to supply additional PPE or other contamination avoidance equipment this will be costed as a variation.

5 OTHER MATTERS

5.1 ACCESS

5.1.1 Liaison for basic site access will be undertaken through the client .

5.2 REINSTATEMENT

5.2.1 It is understood that there will be no requirement for reinstatement of the ground beyond backfilling. The ground will be backfilled so that the topsoil is laid on the top, and the ground will be roughly graded with the machine.

5.3 PROJECT MONITORING

5.3.1 Whilst the work is undertaken for the client, CCCHES will be kept fully informed of the work and its results and will be notified a week in advance of the commencement of the fieldwork. Any proposed changes to the project design will be agreed with CCCHES in consultation with the client

5.4 INSURANCE

5.4.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

5.5 WORK TIMETABLE

5.5.1 *Archaeological Evaluation:* it is anticipated that this element would require four days.

5.5.2 *Watching brief:* the duration of the watching brief will be dependent upon the progress of the pipeline contractor.

5.5.3 *Report:* the final report will be submitted to the client within twelve weeks, of completion of the fieldwork unless an earlier deadline is agreed beforehand.

5.5.4 *Archive:* the archive will be deposited within six months.

5.6 STAFFING

5.6.1 The project will be under the direct management of Alison Plummer (OA North Senior Project Manager) to whom all correspondence should be addressed.

5.6.2 An OA North Project Officer or Supervisor, who will be assisted by one to three archaeologists as appropriate, will direct the Evaluation. All OA North Project Officers and Supervisors are experienced field archaeologists capable of carrying out projects of all sizes.

5.6.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Christine Howard-Davis** (OA North finds manager). Christine has extensive knowledge of finds from many periods, but particularly from the local area, being involved with the Carlisle Millennium Project.

- 5.6.4 Assessment of any palaeoenvironmental samples will be undertaken by or under the auspices of **Elizabeth Huckerby MSc** (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

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