Nestle Waters Extension Waterswallows Lane, Buxton

Post-excavation Assessment and Updated Project Design

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Summary

Wessex Archaeology was commissioned by Nestlé Waters to carry out a programme of archaeological investigations, namely: walkover survey, test pitting and strip, map and sample excavation, on a 4.4 ha parcel of land at Waterswallows Lane, Buxton, Derbyshire. The works were carried out to mitigate the effects on the archaeological resource of the extension of the Nestlé Waters bottling plant and distribution facility. The site was located immediately east of the existing bottling plant, the construction of which in 2011 had exposed significant Mesolithic and Neolithic archaeological remains.

During the current works, approximately 35 cut features were recorded, although many are of doubtful archaeological provenance. Remains include a dispersed scatter of undated pits/postholes, spreads and linear features. Proposed post-medieval remains include a quarry pit, ring-shaped features probably associated with stock feeders, and field boundaries. All but three features were artefactually sterile. Two flint-bearing features corresponded with a concentration of lithics findspots, and lay in the western part of the site, that is, in close proximity to the significant Mesolithic and Neolithic archaeological remains that had been exposed in 2011 in association with the construction of the existing bottling plant.

The lithic assemblage from the current works comprises a total of 48 artefacts mainly collected from the topsoil (following initial turf stripping), and the interface between the topsoil and the undisturbed natural sub-stratum (following further machining). The assemblage is predominantly composed of debitage, however, it includes a naturally backed knife and two partial miscellaneous retouched lithics. In addition to this, some of the general debitage shows signs of having been utilised. Six cores used for the production of blanks were found. The assemblage mostly comprises flint, with lesser amounts of chert.

The only other finds were three very small scraps of unstratified animal bone (total weight 1 g), which are unidentifiable to species. Ten bulk sediment samples were taken, although the assemblages of environmental remains were small and of little significance.

Overall, the remains found within the current works appear to represent activity on the fringe of the more significant site excavated in 2011.

This post-excavation assessment describes the archaeological results and presents the results of the initial assessment of the palaeoenvironmental remains, and full analysis of the lithic assemblage. Due to the nature of the remains, there are no recommendations for further analysis. It is recommended the summary of the works be presented in the *Derbyshire Archaeological Journal*, and the archive be deposited at an appropriate local museum. Furthermore, it is hoped that any publication arising from the 2011 investigations on the original bottling plant include mention of the results uncovered during its expansion.

Acknowledgements

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The fieldwork was directed by Paula Whittaker, with the assistance of Alvaro Mora-Ottomano, Sarah Pedziwiatr, Ged Callaghan, Matt Tooke, Max Higgins, Sam Birchall, Jonathan Landless and Nick Woodward. Alvaro Mora-Ottomano analysed the lithics; Lorraine Mepham assessed the other finds. The environmental samples were processed by Liz Chambers, Callum Bruce, Gwen Naylor, Ifigenia Klopa and Mary Marshall. The flots were sorted by Nicki Mulhall and assessed by Inés López-Dóriga. This report was written by Patrick Daniel and Emily Eastwood and edited by Andrew Norton. The project was managed by Andrew Norton on behalf of Wessex Archaeology.

Nestlé Waters Extension, Waterswallows Lane, Buxton

Post-excavation Assessment and Updated Project Design

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology was commissioned by Nestlé Waters ('the client') to carry out a programme of archaeological investigations, namely: walkover survey, test pitting and strip, map and sample excavation, on a 4.4 ha parcel of land at Waterswallows Lane, Buxton, Derbyshire centred on NGR 408110 375500 ('the Site'; Fig. 1).

1.1.2 The work was carried out as a condition of planning permission, granted by High Peak Borough Council LPA (HPK/2017/0673) for an extension of the Nestlé Waters bottling plant and distribution facility. Full permission for the development was granted by High Peak Borough Council 27 April 2018, subject to a number of conditions. Condition 11 states:

- *a) No development shall take place until a Written Scheme of Investigation for archaeological work has been submitted to and approved by the local planning authority in writing, and until any pre-start element of the approved scheme has been completed to the written satisfaction of the local planning authority. The scheme shall include an assessment of significance and research questions; and*
- *The programme and methodology of site investigation and recording*
- *The programme for post investigation assessment*
- *Provision to be made for analysis of the site investigation and recording*
- *Provision to be made for publication and dissemination of the analysis and records of the site investigation*
- *Provision to be made for archive deposition of the analysis and records of the site investigation*
- *Nomination of a competent person or persons/organization to undertake the works set out within the Written Scheme of Investigation*
- *b) No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition (a)*
- *c) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the archaeological Written Scheme of Investigation approved under condition*
- *(d) and the provision to be made for analysis, publication and dissemination of results and archive deposition has been secured.*

- *Reason: To record likely archaeological deposits and to accord with Policy EQ7 of the High Peak Local Plan 2016.*

1.1.3 The fieldwork was the final stage in a programme of archaeological works, which had included an archaeological assessment of the heritage effects of the proposed extension of the bottling plant and distribution facility (APS 2017).

1.1.4 The fieldwork was undertaken in accordance with a written scheme of investigation (WSI), which detailed the aims, methodologies and standards to be employed, for both the fieldwork and the post-excavation work (Wessex Archaeology 2018). Sarah Whiteley, Development Control Archaeologist for Derbyshire County Council (DCC), approved the WSI, on behalf of High Peak Borough Council, prior to fieldwork commencing. The excavation was undertaken between 6th June and 10th July 2018.

1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the fieldwork, and assess their potential to address the research aims outlined in the WSI. Where appropriate, to recommend a programme of further analysis work, and outline the resources needed, to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

1.3 Location, topography and geology

1.3.1 The Site is 3 km to the north-east of Buxton and is bounded by Waterswallows Lane and the existing bottling plant to the west, farmland to the north and east and a recycling centre off Waterswallows Road to the south.

1.3.2 Existing ground levels are at *c.* 337 m OD. The Site descends gently to the south and east.

1.3.3 The underlying geology is mapped as predominantly Bee Low Limestone Formation with Lower Miler's Dale Lava in the south. No superficial deposits are recorded (British Geological Survey online viewer).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background was reviewed in a prior archaeological assessment (APS 2017) and the results are summarised below.

2.2 Archaeological and historical context

Prehistoric

2.2.1 Mesolithic and Neolithic activity in close proximity to the Site is evinced by the results of the 2011 ArcHeritage investigations (ArcHeritage 2013). However, the excavation of 200 test pits on land on the opposite side of Waterswallows Lane from the bottling plant recovered only two worked artefacts of flint and chert, indicating that the site examined in 2011 does not extend to the west (ArcHeritage 2016).

2.2.2 Few other prehistoric sites are recorded in the vicinity of the Site, although the important Neolithic settlement at Lismore Fields lies 3.5 km to the south-west, on relatively low ground adjacent to the River Wye.

Romano-British

2.2.3 Two Roman roads, now largely followed by modern roads, are located to the north and west of the site. One which ran between Buxton and Glossop is located approximately 400 m to the west and the other which ran from Buxton to a fort at Brough was located approximately 350 m to the north.

Medieval to post-medieval

2.2.4 There is very little information recorded in the HER for early medieval and medieval activity in the area. However, there are several recorded entries of post-medieval date and these are summarised below.

2.2.5 The former Sheffield to Buxton Turnpike Road, which dates back to 1758 and is now followed by Waterswallows Road, is located approximately 180 m to the south. However, the vast majority of the post-medieval entries on the HER refer to farmsteads and agricultural outfarms/buildings. The closest is the site of agricultural buildings directly to the west of the Site, which were presumably associated with Breezemount Farm. In addition, three 19th-century limekilns are recorded around the Site with the closest approximately 525 m to the south-east.

2.3 Previous works related to the development

Archaeological evaluation and excavation (2011)

2.3.1 The most significant archaeological investigation that has been carried out in the area was an archaeological evaluation and excavation which took place in 2011 prior to the construction of the existing Nestlé Waters facility (ArcHeritage 2013).

2.3.2 Significant Mesolithic and Neolithic archaeological remains were identified. The Mesolithic material included a small spread of chert and an area of small pits and postholes. The Neolithic remains included: postholes forming a possible longhouse and associated pits and postholes; a scatter of flint next to a linear feature; early Neolithic carinated pottery. Radiocarbon testing dated the building and surrounding features to the first quarter of the fourth millennium BC (ArcHeritage 2013).

Watching brief (2011–2)

2.3.3 An archaeological watching brief was undertaken in 2011 and 2012 during the excavation of a pipeline from Nunsfield Farm to Waterswallows Road. Although the pipeline crossed the Buxton to Glossop Roman road, the investigation did not identify any significant archaeological remains (Wessex Archaeology 2012).

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The general aims of the excavation, as stated in the WSI (Wessex Archaeology 2018) and in compliance with the CIfA's *Standard and guidance for archaeological excavation* (CIfA 2014a), were:

- to examine the archaeological resource within a given area or site within a framework of defined research objectives;
- to seek a better understanding of the resource;
- to compile a lasting record of the resource; and

- to analyse and interpret the results of the excavation, and disseminate them.

3.2 Research objectives

3.2.1 Following consideration of the archaeological potential of the Site, the East Midlands Regional Research Framework (Cooper 2006) and the Updated East Midlands Regional Research Framework (Knight *et al.* 2012) the research objectives of the excavation defined in the WSI (Wessex Archaeology 2018) were to:

- determine the nature and extent of potential Mesolithic flint and chert scatters;
- identify further evidence for Neolithic activity;
- shed further light on the transition from the Late Mesolithic to the Early Neolithic;
- place the results of the work in context with the previous excavation and surrounding region.

4 METHODS

4.1 Introduction

4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2018) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The methods employed are summarised below.

4.1.2 The excavation area was divided in two with Area 1 to the south and Area 2 to the north.

4.1.3 The methods across both areas were the same, and included three separate stages (fieldwalking, test pitting and excavation) as detailed below.

4.2 Setting out

General

4.2.1 The excavation areas were set out using a Leica GNSS connected to Leica's SmartNet service in the approximate position of that stipulated in the WSI (Fig. 1). The locations of excavated areas were tied in to the Ordnance Survey (OS) National Grid and Ordnance Datum (OD) (Newlyn), as defined by OSGM15 and OSTN15.

4.3 Fieldwalking

General

4.3.1 The turf was removed from each area using a 360º tracked excavator equipped with a toothless bucket under the constant supervision and instruction of the monitoring archaeologist to a depth of c. 50 mm. The areas were then fieldwalked according to the methodology set out in the WSI.

4.4 Test pitting

General

4.4.1 Following the initial fieldwalking exercise, a total of 121 test pits were hand-dug across the Site to prospect for further artefactual material. The test pits measured approximately 0.3 x 0.3 m and were dug to the upper surface of the geological substrate, which generally lay some 0.2 m below the stripped surface. In Area 1, the test pits were dug on a star-shaped pattern based on a 10 x 10 m grid located over fieldwalking findspots. Additional test pits

were excavated on a star-shaped grid pattern and centred on each additional test pit find. The test pits were supplemented, in the northern part of the area, by test pit A, which measured 2 x 2 m. This lay 'off' the test pit grid and was dug due to the presence of surface lithics. A total of 106 test pits were dug in Area 1. Within Area 2, 15 test pits were dug on a star-shaped pattern based on a 10 x 10 m grid located over fieldwalking findspots.

4.5 Excavation

General

4.5.1 Following the identification and recovery of the flint scatters in the topsoil the remaining overburden was excavated using a 360º tracked excavator equipped with a toothless bucket. Machine excavation was under the constant supervision and instruction of the monitoring archaeologist, and proceeded in level spits of approximately 50–200 mm until either the archaeological horizon or the natural geology was exposed. Where necessary, the surface of archaeological deposits was cleaned by hand.

4.5.2 Mechanical excavation was followed by a second phase of fieldwalking as per Section 4.3 above.

4.5.3 Where necessary, the surface of archaeological deposits was cleaned by hand to aid visual definition. A sample of archaeological features and deposits identified were hand-excavated, sufficient to address the aims of the excavation. A sample of natural features such as tree-throw holes was also investigated.

4.5.4 Spoil derived from both machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval. A metal detector was also used. Where found, artefacts were collected and bagged by context. All artefacts from excavated contexts were retained.

Recording

4.5.5 All archaeological features and deposits were recorded using Wessex Archaeology's *pro forma* recording system. A complete drawn record of excavated features and deposits was made including both plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections), and tied to the Ordnance Survey (OS) National Grid. The Ordnance Datum (OD: Newlyn) heights of all principal features were calculated, and levels added to plans and section drawings.

4.5.6 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features in relation to the OS National Grid as defined by OSGM15 and OSTN15, with a three-dimensional accuracy of at least 50 mm.

4.5.7 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.6 Artefactual and environmental strategies

General

4.6.1 Appropriate strategies for the recovery, processing and assessment of artefacts and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2018). The treatment of artefacts and environmental remains was in general accordance with: *Guidance for the collection, documentation, conservation and research of*

archaeological materials (CIfA 2014b) and *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011).

4.7 Monitoring

4.7.1 Sarah Whiteley, Development Control Archaeologist monitored the excavation on behalf of High Peak Borough Council. Site visits occurred on 5 and 12 June and 2 July, with a visit from Steve Baker, Derby and Derbyshire Development Control Archaeologist, on 21 June. Any variations to the WSI, if required to better address the project aims, were agreed in advance with both the client and Sarah Whiteley.

5 STRATIGRAPHIC RESULTS

5.1 Introduction

Summary of archaeological features and deposits

5.1.1 The Site comprised two fields divided by a stone wall, which was left *in situ* during the fieldwork (Fig. 1). The field to the south of the wall was termed Area 1, with that to the north called Area 2.

5.1.2 The course of a rising water main defined the north-eastern edge of Area 2; Area 2 was also crossed by a water pipe supplying water to the bottling plant. The area to the north of the water mains was termed Area 2a and included an L-shaped area of 0.08 ha in the approximate location of a water mains diversion (Fig. 1).

5.1.3 Approximately 35 cut features were recorded on the Site, although many are of doubtful archaeological provenance. Remains include a dispersed scatter of undated pits/postholes, spreads and a linear feature. Proposed post-medieval features include a quarry pit, ring-shaped features probably associated with stock feeders, and field boundaries. All but three features were artefactually sterile. Two flint-bearing features corresponded with a concentration of lithics findspots, and lay in the north-western corner of Area 1, that is, in close proximity to the site investigated by ArcHeritage in 2011. These features appear to mark the eastward edge of the archaeologically detectable evidence of the core of that site.

5.1.4 Area 2a and the northerly part of Area 2 were devoid of archaeological or natural features. The natural geology was much stonier in this area and it is likely that any historic natural features were shallower than those to the west, and as such did not leave evidence in the underlying geology. Similarly the eastern and southern parts of Area 1 were devoid of natural features, which may be due to the more compacted clay-rich natural geology in this part of the Site.

Methods of stratigraphic assessment and quantity of data

5.1.5 All hand written and drawn records from the excavation have been collated, checked for consistency and stratigraphic relationships. Key data has been transcribed into an Access database.

5.1.6 **Table 1** (below) provides a quantification of the records from the excavation.

Table 1 Quantification of excavation records

Type	Quantity
Context records	95
Context registers	4
Graphics (A4 and A3)	35
Graphics (A1)	0
Graphics registers	2
Environmental sample registers	1
Object registers	2
Digital photographs	421
Photographic registers	13

5.2 Soil sequence and natural deposits

5.2.1 The natural substrate presented as a bright and clean yellow/orange clay (003) with areas of dark brownish purple sandy clay (004). This was overlaid with an orange/beige clay silt subsoil/interface horizon (002: typically 0.1 m thick), which was sealed by a thin (0.18 m deep) dark brown silt loam topsoil. This supported pasture at the time of excavation.

5.3 Fieldwalking

5.3.1 Following machine-removal of turf from the Site, the stripped surface was fieldwalked for the recovery of artefacts. This was carried according to the methodology outlined in the WSI, apart from the procedure for locating findspots, which was carried out according to an enhanced methodology: rather than locating finds by the start of the 'run' in which they were located, each find was individually numbered, and located using the GPS, with the individual Small Find (SF) number linked to the findspot within the survey data. Following this initial fieldwalking, the remainder of the overburden was removed by machine, and the Site was again fieldwalked.

5.3.2 The results of the fieldwalking are shown in Figure 2. The lithic assemblage comprises a total of 48 pieces, of which 42 are worked, all mainly collected from the topsoil. Over three quarters of the assemblage was flint, with the remainder chert. There was a general spread of lithics in Area 1, with a noticeable concentration of material in its north-western corner. Very few artefacts were encountered in Area 2, although these were again more numerous in the western part of the Site.

5.4 Test pitting

5.4.1 No artefacts were collected during excavation of the main array of test pits in Area 1 or 2, although five lithic finds were recovered from test pit A in Area 1. The positions of the test pits are also shown on Figure 2.

5.5 Excavated features

5.5.1 Approximately 35 cut features were recorded on the Site. Many are of doubtful archaeological provenance due to one or a number of factors, namely:

- artefactual sterility;
- amorphous form in plan;
- homogeneous/non-humic fill

- diffuse edges; and,
- no resemblance with the confirmed anthropogenic features recorded during the 2011 ArcHeritage investigations.

5.5.2 Those features of greatest archaeological potential are described below, moving from north to south down the Site. A detailed summary of the forms and fills of all features is presented in Appendix 1. Unless indicated otherwise, all features were artefactually sterile.

5.5.3 An east–west aligned row of three postholes (074, 076 and 078) was found in the south-eastern part of Area 2 (Fig. 5.11–13; Pl. 1). The features were closely set, at less than 1 m intervals. The features were 0.2 m in diameter and 0.04–0.19 m deep, and contained mid-greyish brown silt. A further pair of postholes (058: 0.98 x 0.75 x 0.09 m and 060: 1.3 x 0.62 x 0.13 m), also filled with a mid-greyish brown silt and together aligned east–west, lay 12 m to the south (Fig. 5.7–8). Following the projected course of the alignment of these features 12 m to the east, a third feature was recorded (084: 0.5 x 0.41 x 0.17 m). This contained a dark greyish brown sandy silt, which had been disturbed by burrowing or root action (Fig. 5.15).

5.5.4 A 7 m-long, sausage-shaped feature (062 = 064: max 1.05 x 0.38 m; Fig. 5.10) lay in the south-eastern part of Area 1. It contained a dark greyish brown sandy silt.

5.5.5 A pair of features was investigated in the north-western corner of Area 1, where they corresponded with a concentration of findspots of struck lithics. Pit 025 measured 0.45 m in diameter and was 0.12 m deep (Fig. 5.4; Pl. 2). It contained a single fill of mid-greyish brown clayish silt. A sub-circular patch of similar material (023/024: 1.53 x 0.8 x 0.05 m; Fig. 5.3; Pl. 3) lay 1.5 m to the south-east and was found to contain a flint bladelet (SF 47), although nothing of note was found in the environmental sample from the deposit. A pit or natural feature (005: 0.66 m diam. x 0.34 m) lay 23 m to the south (Fig. 5.1). The feature contained mid-greyish brown sandy clay (ie, similar material to the features just described) and lay near the concentration of findspots of struck lithics, but supplied no further artefactual material.

5.5.6 A north-west to south-east aligned feature extended for 22 m near the western Site limit. Numbered 013 = 015 = 017, the feature was 0.45–0.51 m wide by up to 0.26 m deep (Fig. 5.2; Pl. 4). It contained a brownish yellow clay very similar to the natural, but of a slightly different hue and texture. The date and provenance of this feature are unknown; it does not conform to the template of the current field boundaries (themselves little changed since the production of the 1880 25-inch Ordnance Survey Map), possibly hinting that it may be of some antiquity. A possible offshoot (039) was recorded on its southern side, but proved very vague and hard to follow. Another shallow pit-like feature of dubious archaeological provenance (007) lay to the west of feature 039.

Post-medieval features

5.5.7 A number of features were of probable post-medieval origin.

5.5.8 An ENE–WSW aligned feature (073 = 081: 0.8 x 0.5 m) extended for 11.7 m into the Site from the north-western limit of excavation (Fig. 5.14; Pl. 5). It was cut through subsoil 002 and contained a single brownish grey silty clay fill. Due to its stratigraphic relationship with the subsoil and the fact that its orientation is the same as current field divisions, it is thought to be a relatively recent boundary feature. Samples from this feature were rich in

uncharred seeds and water-flea egg cases, but their good preservation also suggests a modern date.

5.5.9 Approximately 83 m along the projected course of ditch 073 = 081, a shallow sub-rectangular feature (088: 0.71 x 0.55 x 0.05 m) was recorded. This may be associated with the same boundary as that marked by the ditch. A charred hazel nutshell was found in the environmental sample taken from feature 088.

5.5.10 A row of four shallow postholes or divots (050, 052, 054 and 086) shared the north-west to south-east alignment of a buried water pipe some 5 m to the north-east and may be associated with its construction. The features were 0.2–0.38 m in diameter and 0.05–0.1 m deep.

5.5.11 A north-west to south-east aligned area of disturbance (066: 4.5 x 0.9 x 0.3 m) ran at right angles to a current field boundary wall (separating Areas 1 and 2) and was aligned on a gap within the wall (Fig. 5.9). A similar, though longer, feature (068 = 070: 1 x 0.2 m) lay 3 m to the east, with the pair together possibly representing wheel ruts or other erosion associated with use of the gatehole. Both contained mid-greyish brown silt.

5.5.12 Approximately 30 m to the west, a fairly large feature had its sides partially formed by *in situ* bedrock, the presence of which may account for the formation of the feature (092: 1.75 x 1.45 x 0.61 m; Pl. 6). It contained a mid–dark brown loam.

5.5.13 A 4 m-diameter pit, 043, was uncovered in the central/northern part of Area 1. It was found to be 0.85 m deep and filled with a succession of five brown sandy/silty loams with lenses of limestone rubble (Fig. 5.6; Pl. 7). It had reached the limestone substrate and has been interpreted as a quarry pit. A nodule of flint (SF48), possibly imported to the Site in prehistory, was found in the upper reaches of the feature.

5.5.14 Two ring-shaped features were exposed in Area 1. The first (030 = 032) had an internal diameter of 3.5 m and was defined by a continuous ditch that was 0.5 m wide, 0.18 m deep and filled with a dark brown silty loam similar to the topsoil (Fig. 5.5; Pl. 8). It had been cut through the subsoil and is likely to represent the former presence of a stock feeder. The second ring-shaped feature was of similar size, fill and appearance; it lay 95 m to the north of 030 = 032 and was not formally investigated due to its presumed modernity.

5.5.15 A row of four postholes shared the NNW–SSE alignment of the current field boundaries and may represent a fenceline of relatively modern date. Two of the postholes were investigated: 027 (0.42 diam. x 0.3 m) and 019 (1.5 x 0.76 x 0.46 m). Both contained a silty dark brown fill (Pl. 9).

5.5.16 Finally, areas of made ground containing limestone and modern debris were noted in parts of the Site and are likely related to the initial construction of bottling plant.

6 ARTEFACTUAL EVIDENCE

6.1 Lithics analysis

Introduction

6.1.1 A total of 50 stone artefacts were retrieved from the Site, however, two pieces initially assigned as worked stones (SF 29 and 40) were subsequently identified as being natural unworked local stones which do not constitute part of this analysis. The lithics comprise a total of 48 artefacts which were mainly collected from the topsoil, following initial turf

stripping, and the interface between the topsoil and the undisturbed natural sub-stratum. Six pieces are unworked brown flint chunks/lumps, some with white cortical coverage, which have been severely damaged after primary post-deposition/discard. Subsequent to the damage produced, the pieces have lost apparent knapping attributes to establish a genuine anthropogenic origin thus the chunks are not included in the following analysis. Nevertheless, they may have previously been worked lithics such as cores, core-tools or large flakes brought to the Site as this raw material does not occur naturally in this area.

Method

6.1.2 The assemblage was subjected to metrical and attribute analysis. A range of attributes was recorded following standard systems (eg, Inizan, Roche and Tixier 1992) to explore knapping technology. These relate to the characteristics of technological category, tool type, portion, reduction sequence, raw material, colour, condition, type of butt, thermal alteration, post-depositional breakage, retouch, wear, scar direction, type of bulb, and blank termination. The assemblage was examined under a x10 magnification hand lens. Dimensions were measured in millimetres, and were divided into L (length): the distance between the proximal and distal ends; W (width): the maximum distance between the two sides of the artefact measured perpendicular to the length; and T (thickness): the maximum thickness of the artefact perpendicular to the length. A limited number of attributes, regarded as significant, were recorded amongst the micro-debitage and chunk categories. Cores were recorded using Clark's typologies (Clark *et al*. 1960).

Assemblage

6.1.3 The worked lithic assemblage consists of 42 worked pieces divided into 3 bladelets, 5 blades, 20 fakes, 3 chips, 3 irregular chunky/waste flakes, 6 cores, 1 spall and 1 nodule (Table 2). The majority of the lithics were identified during the topsoil stripping monitoring and subsequent test pit survey and fieldwalking survey which yielded a total of 30 lithic artefacts (71.4%) within context 001. Additional surface find collection was undertaken over the interface between the topsoil and the undisturbed natural sub-stratum (context 002 and 004) producing 10 artefacts (23.8%). The finds were surveyed and plotted on plans according to their location and spatial stratigraphy (Fig. 2). An additional single lithic artefact was recovered from the fill (047) of a quarry pit, and another one from context (024) which was subsequently interpreted as a spread. A selection of noteworthy artefacts is shown within the report (Fig. 6–7).

Table 2 Frequency of lithic artefact types

Type	Number	Percentage
Bladelet	3	7.14
Blade	5	11.9
Flake	20	47.6
Chip	3	7.14
Irregular debitage	3	7.14
Core	6	14.28
Spall	1	2.3
Nodule	1	2.3

Table 3 Reduction sequence

	Bladelet	Blade	Flake	Core	Chunk/Spall/Chip	Total
Primary			2			2
Secondary		3	5	1	3	12
Tertiary	3	2	13	5	4	27
Total	3	5	20	6	7	42

Table 4 Portion of artefacts (excluding cores)

	Bladelet	Blade	Flake	Total
Proximal	2		2	4
Medial		1	2	3
Distal			10	10
Whole	1	4	6	11

Table 5 Type of butt (when present)

	Bladelet	Blade	Flake	Total
Cortical				
Plain/Flat	2	1		3
Facetted		4		4
Dihedral				
Punctiform	1			1
Winged			2	2

Raw material and condition

6.1.4 The assemblage is characterised by a considerable raw material variability although the most common material is flint (83.33%), followed by chert (16.67%). The flint was of good quality and varied in colour from opaque grey and light grey with variable texture, to semi-translucent brown grey and dark brown flint. Garton (1994, 324) has suggested that translucent grey brown flint used in the Peak District may have been derived from tills and gravels to the east of the Pennines.

6.1.5 Dorsal coverage of cortex is found amongst 13 pieces, which relates mainly to the secondary stage in the reduction sequence. The cortex was mainly orangey and relatively thin in section. It had a solid matrix, which was often pitted and abraded and larger areas tended to have a rounded profile. These attributes indicate the raw materials were water-worn pebbles and cobbles derived from river terrace gravels or glacio-fluvial sheet deposits. The precise location of the sources(s) has not been identified but may lie in the gravels Doncaster and/or Humberside (Gaunt and Girling 1996, 191; McEvoy *et al.* 2005) or the till deposits of eastern Yorkshire (Brooks 2001).

6.1.6 The chert artefacts are mostly of fine grained high quality black type although there are also two pieces of poor quality with a coarse grained texture varying in colour from opaque dark grey to beige. The poor quality dark grey type is similar to the unworked chert frequently found within the topsoil of the Site and adjacent areas. The source of the fine grained black chert may originate from the local limestone plateau outcrops (Manby 1963; Hind 1998; Evans *et al.* 2007).

6.1.7 Although the majority of the lithic artefacts come from the topsoil (71.4%) and a smaller frequency from the interface between the topsoil and the natural sub-stratum (23.8%), the assemblage is generally in good condition. The assemblage includes only 18 whole pieces. The rest of them are broken and comprise 10 distal ends, 4 proximal ends and 10 medial portions. These frequencies may suggest that approximately 58% of the artefacts was discarded after breakage or suffered post-depositional damage although only four pieces contain fresh fractures that might have occurred in modern/recent times.

6.1.8 Only four pieces display signs of abrasion including three chunky flint flakes and one nodule. Patination is partially present within five artefacts. Two flint chunks display evidence of burning over the entire surfaces and one flake contains partial heat fractures including two small pot lids.

Distribution

6.1.9 The majority of the lithics retrieved were found scattered within the topsoil and the interface between the topsoil and the natural sub-stratum. It is assumed that they represent only a portion of some prehistoric activities. Post-depositional movement may have had an effect on the wider redistribution although the general condition of the assemblage may indicate that they lithics have not moved very far horizontally, and thus confirms the existence of prehistoric occupation in this locale.

6.1.10 The majority of the lithics were found within Area 1 of the Site which corresponds to the land immediately to the east of the present Nestle Water Works. Area 2 comprised several small fields with an overall 'L'-shaped configuration to the north and contiguous with Area 1. The section adjacent to Area 1 yielded a small number of lithic artefacts whereas the remaining space to the north-west of the works only produced a single flint flake. No apparent pattern was discerned from the location of the lithics, thus little can be understood in terms of distribution of specific artefacts, layout of archaeological features potentially associated with the lithics or selectivity in the disposal of the debitage.

6.1.11 Nevertheless, the majority of the lithics within Area 1 where positioned in close proximity to the Works with small clusters including four pieces within a 2 x 2 m test pit (TP A.).

Typology and technology

6.1.12 The assemblage is mostly comprised of blank pieces and debitage as well as six cores and one nodule which appears to have also been used as an *ad hoc* core-like artefact. Amongst the bladelets there is only one whole piece (SF 47) which measures 16 mm in length. The other bladelets (SF 24—Fig. 7A— and 25) have their distal end missing with a length of 29 mm and 19 mm respectively. Thus, the overall length of the bladelets yielded a mean of 21 mm. Their width varies from 8 to 9 mm. The bladelets were produced employing careful skilful techniques some of which contain parallel edges and/or ridges. The butts are mostly flat although *eraillure* and lips were present within the ventral sides. These artefacts may fall into the leptolithic category representative of Mesolithic manufacturing traditions (e.g. Laplace 1966; Butler 2005) although no diagnostic datable artefacts were encountered.

6.1.13 Four blades (SF 4, 15, 41 and 27) are whole specimens which provided a mean of approximately 40 mm in length. The overall width (including SF 5 which is a medial portion of a blade—Fig. 6B) yielded a mean of 18.4 mm. The majority of the blades have been struck from single platform cores which were prepared as indicated by the high frequency of facetted butts. While no diagnostic datable blades are present, their characteristic may be broadly assigned to the Neolithic. No obvious tool was identified within the assemblage, however, blade SF 27 (Fig. 7B) is in fact a whole naturally backed knife—

couteau à dos naturel—(Bordes 1979), whose back is cortical and originates from a rolled brown flint pebble. Although the knife was devoid of retouched areas, the cutting edge contains wear traces throughout the entire length.

6.1.14 Amongst the flakes, there are six pieces which are whole portions yielding a mean of 23.8 mm in length, and the overall width provided a mean of approximately 20 mm. The majority of the flakes correspond to general trimming with few pieces including ridge presence. Their size is unsuitable for large tools. The majority were probably produced as by-products of flake and blade production or during core preparation, and thus they can be considered as waste. Most flakes show that they have been struck from cores worked in a single direction. Butt preparation is not frequently represented. The short size of the flakes is the result of working small size nodules of flint and tablets of chert. Due to the low frequency of flakes from the primary phase of the reduction sequence, it is believed that the roughing-out of the cores took place elsewhere.

6.1.15 The six cores are divided into three flint blade/let cores (SF 2, 8B and 30) with both single and opposed platforms, one flint multiplatform core (SF 36) and two multiplatform chert cores (SF 9—Fig. 6C—and 31) with post-depositional damage. Two cores appear to be exhausted whereas the remaining ones can still produce blanks albeit small in size. The majority of the flakes/blades were removed by direct percussion. The butts are mainly plain, which indicate that the core platforms were not meticulously prepared. Deliberate retouch was probably done by direct percussion. Hard hammers seem to have been largely employed. A low frequency of lipped butts, vague point of percussion and diffuse bulbs is also present indicating that soft hammer were utilised in a smaller number of artefacts. The majority of the scar orientation of the blanks corresponds to the same axis as the striking platform confirming that single platform cores would have been largely employed.

6.1.16 Amongst the blanks, two artefacts with partial retouch were identified which fall into the miscellaneous retouched category albeit with partial retouched coverage. This classification corresponds to the debitage, which shows signs of having been deliberately retouched by percussion or pressure flaking along one or more edges, but no specific purpose can be defined from the nature of the retouch. The miscellaneous retouched pieces comprise a flint flake (SF 19) with thin partial retouch along a single ventral edge, and a chert bladelet (SF 24: Fig. 7A) with semi-abrupt partial dorsal edge retouch forming a shoulder-like form. It is likely that these pieces were utilised for cutting, scraping and similar activities and were manufactured for immediate tasks without the need for working the edges in a meticulous manner. Although of indeterminate age, these artefacts are considered likely to belong broadly to the late Mesolithic and Neolithic periods.

6.1.17 A series of utilised blanks was identified including two chert bladelets (SF 24—Fig. 7A—and 25), two flint blades (SF 15—Fig. 6D—and 41) and two flakes (SF 32 and 38). Flint and high quality chert are ideal stone for cutting or similar activities without any further retouch to the sharp edges created by knapping and these blanks exhibit traces of having been used or damaged by utilisation. This utilisation is indicated by a series of small irregular spalls which have flecked off the edges of the flakes/blades. Although the majority of the assemblage is in moderate condition, some of the edge wear could have been the result of accidents, e.g. a flake being stood on. However, the wear produced by the utilisation of these artefacts is more consistent than the irregular unsystematic removal of a number of spalls resulting from accidents.

Discussion

6.1.18 Although the assemblage is small in size and contains little diagnostic dateable artefacts, a substantial number of the analysed lithics exhibit manufacture characteristics associated with later prehistoric lithic techno-complex typology. The assemblage is predominantly composed of debitage, however, it includes a naturally backed knife and two partial miscellaneous retouched lithics. In addition to this, some of the general debitage shows signs of having been utilised. These blanks might have been employed in several occasions for the execution of some particular tasks. Six cores were found which were used for the production of blanks.

6.1.19 It is assumed that this assemblage only constitutes a small fraction of the tools and debitage used and discarded by prehistoric people in and around the Site. The majority of the assemblage may represent residual material from a settlement in the vicinity which might have formed part of a wider landscape. The occupation might have only been sporadic, but some of the activities employed may be connected with domestic specialised activities. Low density of the lithic artefacts cannot be considered as significant in the present context; however, it may be regarded as evidence for incidental landscape use, or as 'background noise' of former prehistoric occupation. Indeed, the previous excavation, carried out in the area currently occupied by the Nestle Water Works, produced significant Mesolithic and Neolithic lithic scatter as well as associated features (ArcHeritage 2013). Therefore, this assemblage may constitute liminal activity associated with the aforementioned prehistoric occupation.

6.2 Assessment of other finds

6.2.1 The only other finds were three very small scraps of animal bone (total weight 1 g) found on the surface of the stripped natural substrate (context 002), which are unidentifiable to species.

7 ENVIRONMENTAL EVIDENCE

7.1 Introduction

7.1.1 Ten bulk sediment samples were taken from a range of possible features of uncertain chronology such as pits, ditches, postholes and a treethrow, and were processed and assessed for the presence of environmental evidence.

7.2 Aims and methods

7.2.1 The purpose of this assessment is to determine the potential of the environmental remains preserved at the site to address project aims and to provide archaeobotanical data valuable for wider research frameworks.

7.2.2 The size of the samples varied between 3 and 44 litres, and on average was around 18.5 litres. The samples were processed by standard flotation methods on a Syraf-type flotation tank or by bucket flotation (waterlogged samples), the flot retained on a 0.25 mm mesh, with residues fractionated into 5.6 mm and 1 mm fractions. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots and the finer residue fractions were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of environmental remains. Different bioturbation indicators were considered, including the percentage of roots, the abundance of modern seeds and the presence of mycorrhizal fungi sclerotia (eg, *Cenococcum geophilum*) and animal remains, such as earthworm eggs and insects, which would not be preserved unless anoxic conditions prevailed on site. The preservation and nature of the

charred plant and wood charcoal remains, as well as the presence of other environmental remains such as molluscs, animal bone and insects (in cases of anoxic conditions for their preservation), was recorded.

7.2.3 Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa.

7.3 Results

7.3.1 The flots were generally small (Appendix 3) and there were high numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material was very sparse and comprised varying degrees of preservation, including a well-preserved hazel (*Corylus avellana*) fragmented shell and a tuber, and a poorly preserved cereal (Triticeae), both of probable post-medieval chronology. Two samples with potential waterlogging were rich in uncharred seeds and water-flea (*Daphnia* sp.) egg cases, but their good preservation suggests these are modern. Variables amounts of wood charcoal from mature wood were noted and one of the samples had also residual remains of slag.

7.4 Discussion

7.4.1 The assemblages of environmental remains are small and of little significance and confirm the interpretation of the features as of dubious archaeological origin.

7.5 Further potential

7.5.1 Due to the sparsity of environmental evidence, no further work is recommended, and the samples are recommended for discard.

8 STATEMENT OF POTENTIAL

8.1 Overall discussion

8.1.1 The archaeological fieldwork was successful in meeting the stated aims and objectives, with a better understanding now gained of the Site's archaeological component. Due to the limited nature of the remains exposed it has not been possible to pursue the research objectives outlined above, although a number of points merit further discussion.

8.1.2 Overall, the remains found within the current works appear to represent activity on the fringe of the more significant site excavated in 2011 (ArcHeritage 2013). The excavation of 200 shovel test-pits to the west of the 2011 site recovered only two worked flint and chert finds (ArcHeritage 2016), with that and the current work appearing to have established the eastern and western limits of the core Mesolithic and Neolithic activity around Waterswallows Lane. It is notable that the prehistoric remains at the 2011 site span a long period of time, with lithics ranging from Mesolithic to Bronze Age recovered, and radiocarbon dates also indicating activity in the Mesolithic and the early Neolithic periods. Within the 2011 site, the pattern of features represented a 'palimpsest of remains spread over a wide landscape...the residue of a range of human activities and behaviours over several thousand years' (ArcHeritage 2013, 97). Despite the lack of an obvious natural topographic focus, a long-standing preoccupation with a very specific locale has become apparent.

8.1.3 The flint assemblages from the 2011 site and the current work are closely comparable. Both assemblages are in relatively good condition, despite deriving overwhelmingly from the topsoil. Both are dominated by flint with lesser amounts of chert, with flakes representing a similar proportion of each: approximately half.

8.2 Recommendations

8.2.1 The stratigraphy of the Site and the artefactual and environmental assemblages are well understood and require no further analysis beyond that presented here. The results of the fieldwork have little potential to contribute to the pursuit of any published research agenda (eg, English Heritage 2010; Knight *et al*. 2012), although it is hoped that the forthcoming publication alluded to in the report on the 2011 investigations (ArcHeritage 2013, 6) will be able to incorporate the results from the current Site in order to better characterise prehistoric activity across the local landscape. However, no further work is required on the project archive for the current Site.

8.2.2 The project results do not merit stand-alone publication beyond inclusion in a 'Recent Fieldwork in Derbyshire' summary in a forthcoming edition of the *Derbyshire Archaeological Journal*. It is also recommended that a copy of this report is supplied to the Derbyshire HER and uploaded to the OASIS system (see below and **Appendix 2**).

9 STORAGE AND CURATION

9.1 Museum

9.1.1 The archive resulting from the excavation is currently held at the offices of Wessex Archaeology in Sheffield. Buxton Museum has agreed in principle to accept the archive on completion of the project, under an accession code to be issued on deposition of the archive. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

9.2 Preparation of the archive

9.2.1 The archive, which includes paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Buxton Museum, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011; ADS 2013).

9.2.2 All archive elements are marked with the **site/accession code**, and a full index will be prepared. The physical archive comprises the following:

- 1 cardboard boxes or airtight plastic boxes of artefacts and ecofacts, ordered by material type
- 1 files/document cases of paper records and A3/A4 graphics

9.3 Selection policy

9.3.1 Wessex Archaeology follows national guidelines on selection and retention (SMA 1993; Brown 2011, section 4). In accordance with these, and any specific guidance prepared by the museum, a process of selection and retention will be followed so that only those artefacts or ecofacts that are considered to have potential for future study will be retained. The selection policy will be agreed with the museum, and is fully documented in the project archive.

9.3.2 In this instance, the following categories are selected to not be retained: animal bone; unworked local stone.

9.4 Security copy

9.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

9.5 OASIS

9.5.1 An OASIS online record (http://oasis.ac.uk/pages/wiki/Main) has been initiated (wessexar1-313169), with key fields and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue.

10 COPYRIGHT

10.1 Archive and report copyright

10.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act* 1988 with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations* 2003. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.

10.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

10.2 Third party data copyright

10.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of *the Copyright, Designs and Patents Act* 1988 with regard to multiple copying and electronic dissemination of such material.

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APPENDICES

Appendix 1: Context summary

Deposit	Deposit descrip.	Deposit interp.	Fill of	Feature descrip.	Feature interp.
1	Dark black brown silt loam	*topsoil*			
2	orange beige clay silt	*Subsoil*			
3	Yellow/orange clay with limestone patches	*Natural*			
4	Dark brown purple sandy clay	*Natural*			
6	Mid greyish brown sandy clay	*Fill*	5	Pit/solution hole; 0.66m dia x 0.35m deep	*Pit*
8	Mid dark brown silty clay	*Fill*	7	Sub-circular 1.2 x 0.9 x 0.16m	*Pit*
10	Very dark brown sandy silt	*Fill*	9	Oblong depression, 1.8m x 0.65m x 0.09m deep	*Natural feature*
12	Mid-light greyish brown silty clay	*Fill*	11	Sub-circular 0.6m x 0.34m x 0.1m deep	*Pit*
14	Mid yellowish brown with grey flecks	*Fill*	13	W-E orientated linear, >10m x 0.51m x 0.26m deep	*Linear*
16	Mid yellowish brown with grey flecks	*Fill*	15	W-E orientated linear, >10m x 0.45m x 0.12m deep	*Linear*
18	Mid-light yellowish orange clay	*Fill*	17	E terminus of W-E orienated linear, >10m x 0.48m x 0.08m deep	*Linear*
20	Dark brown black silty loam	*Fill*	19	Irregular oval, 1.5m x 0.76m x 0.46m deep	*Shrub bowl*
22	Light grey clay	*Fill*	21	Irregular shape, 3.1m x >1.4m x 0.53m deep	*Shrub bowl*
24	Mid greyish brown clayey silt	*Fill*	23	Sub-oval, 1.53m x 0.8m x 0.05m deep	*Natural feature/ spread*
26	Mid greyish brown clayey silt	*Fill*	25	Circular, 0.45m x 0.4m x 0.12m deep	*Pit*
28	Dark greyish brpwm clayey silt	*Fill*	27	Sub-circular, 0.42m x 0.3m x 0.3m deep	*Posthole*
29	Dark greyish brpwm clayey silt	*Fill*	27	Sub-circular, 0.42m x 0.3m x 0.3m deep	*Posthole*
31	Dark brown silty loam	*Fill*	30	Curvilinear/Circular, >9m x 0.44m x 0.1m deep	*Hayrick*
33		*Fill*	32	Curvilinear/Circular, >9m x 0.5m x 0.13m deep	*Hayrick*
36	Mid-dark brown silty clay	*Natural*			
38	Mid-light brown clay	*Fill*	37	W-E orientated linear, >15m x >0.2m x 0.26m deep	*Linear*
40	Mid-light brown clay	*Fill*	39	NE-SW orientated linear, >2m x >0.75m x 0.36m deep	*Linear*
42	Mid greyish brown sandy silt	*Fill*	41	Sub-circular, 0.25m x 0.22m x 0.07m deep	*Posthole*
44	Mid brown sandy loam	*Fill*	43	Circular, 3m diameter, 0.62m deep	*Quarry pit*
45	Mid brown sandy silt loam	*Fill*	43	Circular, 3m diameter, 0.62m deep	*Quarry pit*
46	Yellow brown silt loam	*Fill*	43	Circular, 3m diameter, 0.62m deep	*Quarry pit*
47	Dark brown sandy silt loam	*Fill*	43	Circular, 3m diameter, 0.62m deep	*Quarry pit*
48	Light yellowish brown loamy sand	*Fill*	43	Circular, 3m diameter, 0.62m deep	*Quarry pit*
49	Mid brown sandy loam	*Natural*			
51	Mid greyish brown sandy	*Fill*	50	Circular, 0.38m x 0.29m x	*Posthole*

	silt			0.1m deep	
53	Mid greyish brown sandy silt	*Fill*	52	Cicular, 0.37m x 0.47m x 0.08m deep	*Posthole*
55	Mid greyish brown sandy silt	*Fill*	54		*Posthole*
57	Dark greyish brown sandy silt	*Fill*	56	Circular, 0.2m x 0.15m x 0.05m deep	*Natural Feature*
59	Mid greyish brown sandy silt	*Fill*	58	Sub-circular, 0.98m x 0.75m x 0.09m deep	*Pit*
61	Mid greyish brown sandy silt	*Fill*	60	Oval, 1.3m x 0.62m x 0.13m deep	*Pit*
63	Dark greyish brown sandy silt	*Fill*	62	NW-SE Curvilinear, 0.44m x 1.05m x 0.12m deep	*Ditch*
65	Dark greyish brown sandy silt	*Fill*	64	NE-SW Curvilinear, 1.2m x 0.57m x 0.38m deep	*Ditch*
67	Mid greyish brown sandy silt	*Fill*	66	SE-NW linear, 1m x 0.9m x 0.3m deep	*Palaeochannel*
69	Mid greyish brown sandy silt	*Fill*	68	NW-SE linear, 1m x 1.1m x 0.2m deep	*Ditch*
71	Mid greyish brown sandy silt	*Fill*	70	NW-SE linear, 1m x 0.95m x 0.15m deep	*Cut*
72	Mid brownish grey silty clay	*Fill*	73	SW-NE linear terminus, 10m x 0.8m x 0.16m deep	*Ditch*
75	Mid greyish brown sandy silt	*Fill*	74	Circular, 0.15m x 0.2m x 0.04m deep	*Posthole*
77	Mid greyish brown sandy silt	*Fill*	76	Circular, 0.15m x 0.2m x 0.04m deep	*Cut*
79	Mid greyish brown sandy silt	*Fill*	78	Circular, 0.2m diameter, 0.19m deep	*Posthole*
80	Mid brownish grey silty clay	*Fill*	81	SW-NE linear, 10m x 0.8m x 0.52m deep	*Boundary Ditch*
82	Light brownish grey silty clay	*Fill*	83	Sub-circular, 2.1m x 1.2m x 0.22m deep	*Natural Feature*
85	Dark greyish brown sandy silt	*Fill*	84	Oval, 0.5m x 0.41m x 0.17m deep	*Pit*
87	Mid greyish brown sandy silt	*Fill*	86	Circular, 0.2m diameter, 0.06m deep	*Posthole*
89	Light orange brown sandy silt	*Fill*	88	Sub-rectangular, 0.71m x 0.55m x 0.05m deep	*Pit*
91	Mid orange brown sandy silt	*Fill*	90	NW-SE linear, >20m x 1.2m x 0.16m deep	*Ditch*
93	Mid-dark brown loam	*Fill*	92	Sub-circular, 1.75m x 1.45m x 0.61m deep	*Pit*
95	Pale-mid beige brown sandy silt with grey patches	*Fill*	94	Sub-circular, 0.38m x 0.34m x 0.34m deep	*Pit*

Appendix 2: OASIS form

OASIS ID: wessexar1-313169

Project details

Project name	Nestle Waters Extension, Waterswallows Lane, Buxton, Derbyshire
Short description of the project	Wessex Archaeology carried out a programme of walkover survey, test pitting and strip, map and sample excavation, on a 4.4 ha parcel of land at Waterswallows Lane, Buxton, Derbyshire. The Site was located immediately east of the Nestle Waters bottling plant, the construction of which in 2011 had exposed significant Mesolithic and Neolithic archaeological remains. Two flint-bearing features corresponded with a concentration of lithic findspots, and lay in close proximity to the significant remains that had been exposed in 2011, but overall few remains were noted and the results appear to represent activity on the fringe of the previously known site. A total of 48 lithic artefacts, mostly in flint and the remainder in chert, were collected. These derived mainly from the topsoil.
Project dates	Start: 04-06-2018 End: 10-07-2018
Previous/future work	Yes / Not known
Any associated project reference codes	203930 - Sitecode
Any associated project reference codes	HPK/2017/0673 - Planning Application No.
Type of project	Recording project
Site status	None
Current Land use	Grassland Heathland 5 - Character undetermined
Monument type	PIT Late Prehistoric
Monument type	PIT Post Medieval
Significant Finds	LITHIC IMPLEMENT Late Prehistoric
Significant Finds	DEBITAGE Late Prehistoric
Investigation type	"""Full excavation"""
Prompt	National Planning Policy Framework - NPPF

Project location

Country	England
Site location	DERBYSHIRE HIGH PEAK BUXTON Nestle Waters Extension, Waterswallows Lane, Buxton, Derbyshire
Postcode	SK17 6AQ
Study area	4.4 Hectares
Site coordinates	SK 08112 75242 53.273824537569 -1.878341727455 53 16 25 N 001 52 42 W Point
Height OD / Depth	Min: 336.5m Max: 340m

Project creators

Name of Organisation	Wessex Archaeology
Project brief originator	Wessex Archaeology
Project design originator	Wessex archaeology
Project director/manager	Andrew Norton
Project supervisor	Paula Whittaker
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Nestle Waters

Project archives

Physical Archive recipient	Buxton Museum
Physical Contents	"Worked stone/lithics"
Digital Archive recipient	Buxton Museum
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography"
Paper Archive recipient	Buxton Museum
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet","Diary","Plan","Report","Section"

Project bibliography 1

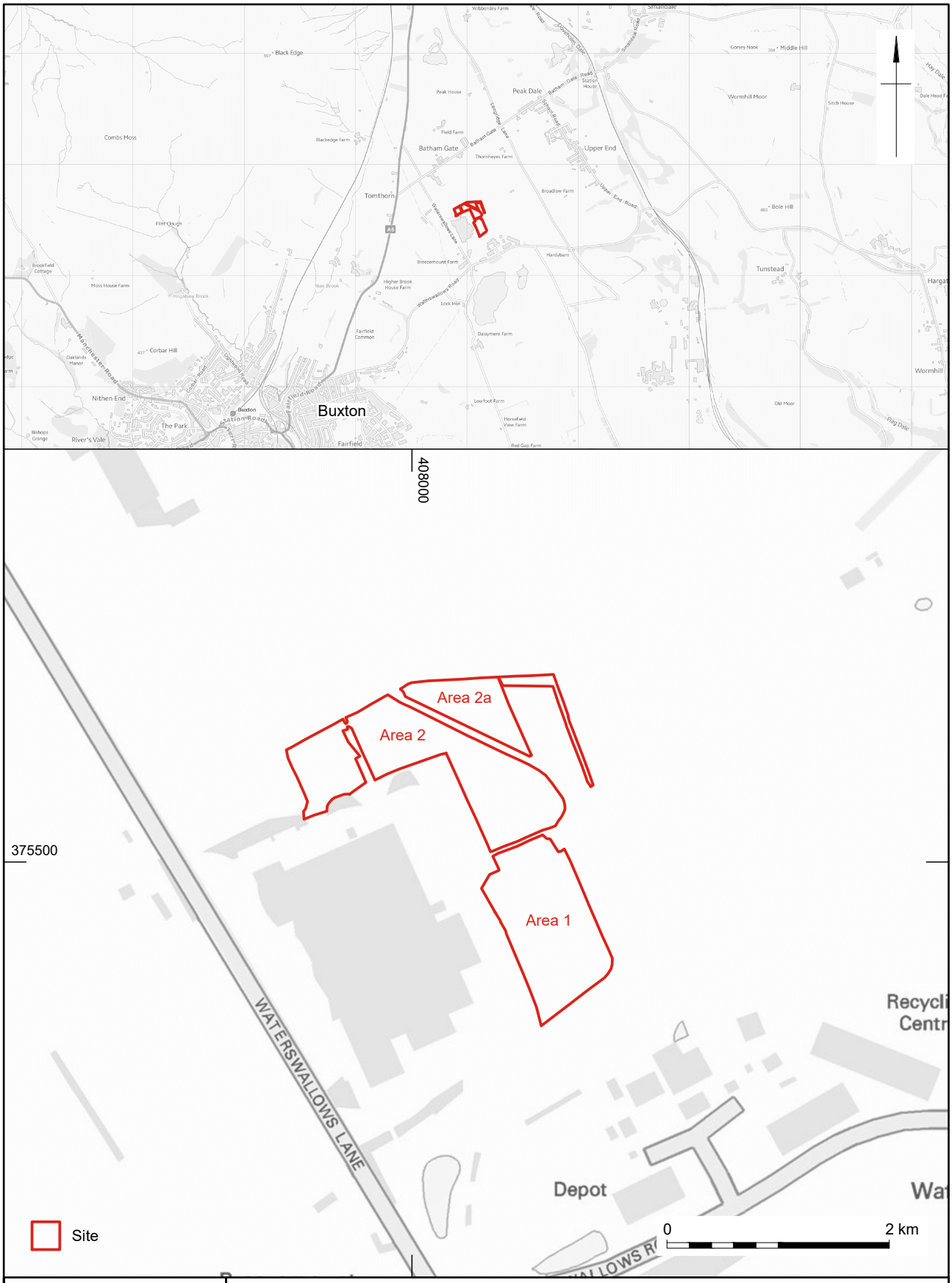
Publication type	Grey literature (unpublished document/manuscript)
Title	Nestle Waters Extension, Waterswallows Lane, Buxton: Post-excavation Assessment
Author(s)/Editor(s)	Daniel, P.
Other bibliographic details	203930.2
Date	2018
Issuer or publisher	Wessex Archaeology
Place of issue or publication	Sheffield

Description	c. 50 page A4 comb-bound report with colour plates and figures.
Entered by	Jess Irwin (j.irwin@wessexarch.co.uk)
Entered on	13 September 2018

Appendix 3: Environmental data

Table 6 Assessment of the charred plant remains and charcoal

Feature	Context	Sample	Vol (l)	Flot (ml)	Bioturbation proxies	Grain	Cereal Notes	Charred Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other	Comments (Preservation)	Uncharred Other	Invertebrates
23	24	1	4	25	90%, C	-	-	-	-	Trace in <1mm	Mature	-	-		
21	22	2	40	150	50%, A**, E, F	-	-	-	-	70ml	Mature, some iron coating	-	-		
68	69	3	44	30	90%, C, E	-	-	-	-	Trace	Mature	-	-		
70	71	4	40	120	90%, C	-	-	-	-	4ml	Mature	-	-		
78	79	5	3	10	80%, C, I	-	-	-	-	Trace in <0.5mm	Mature	-	-		
81	80	6	10	80	90%, E	-	-	-	-	Trace	Mature	-	Good	A* - Caryophyllaceae, *Ranunculus* sp., Poaceae, *Persicaria* sp., Cyperaceae, Chenopodiaceae, *Cochlearia* sp., Asteraceae, *Juncus* sp., indets	*Daphnia* egg cases, I
73	72	7	10	100	90%, E, F	-	-	-	-	Trace	Mature	Slag	Good	A - Caryophyllaceae, *Ranunculus* sp., Poaceae, Cyperaceae, Chenopodiaceae, indets	I
84	85	8	6	20	90%					Trace in <1mm	Mature		-		
88	89	9	18	50	80%, C, E, I	-	-	C	*Corylus avellana*, indet tuber	5ml	Mature	-	Fair		
94	95	10	10	60	15%, C, E	C	Triticeae	-	-	40ml	Mature	-	Poor		



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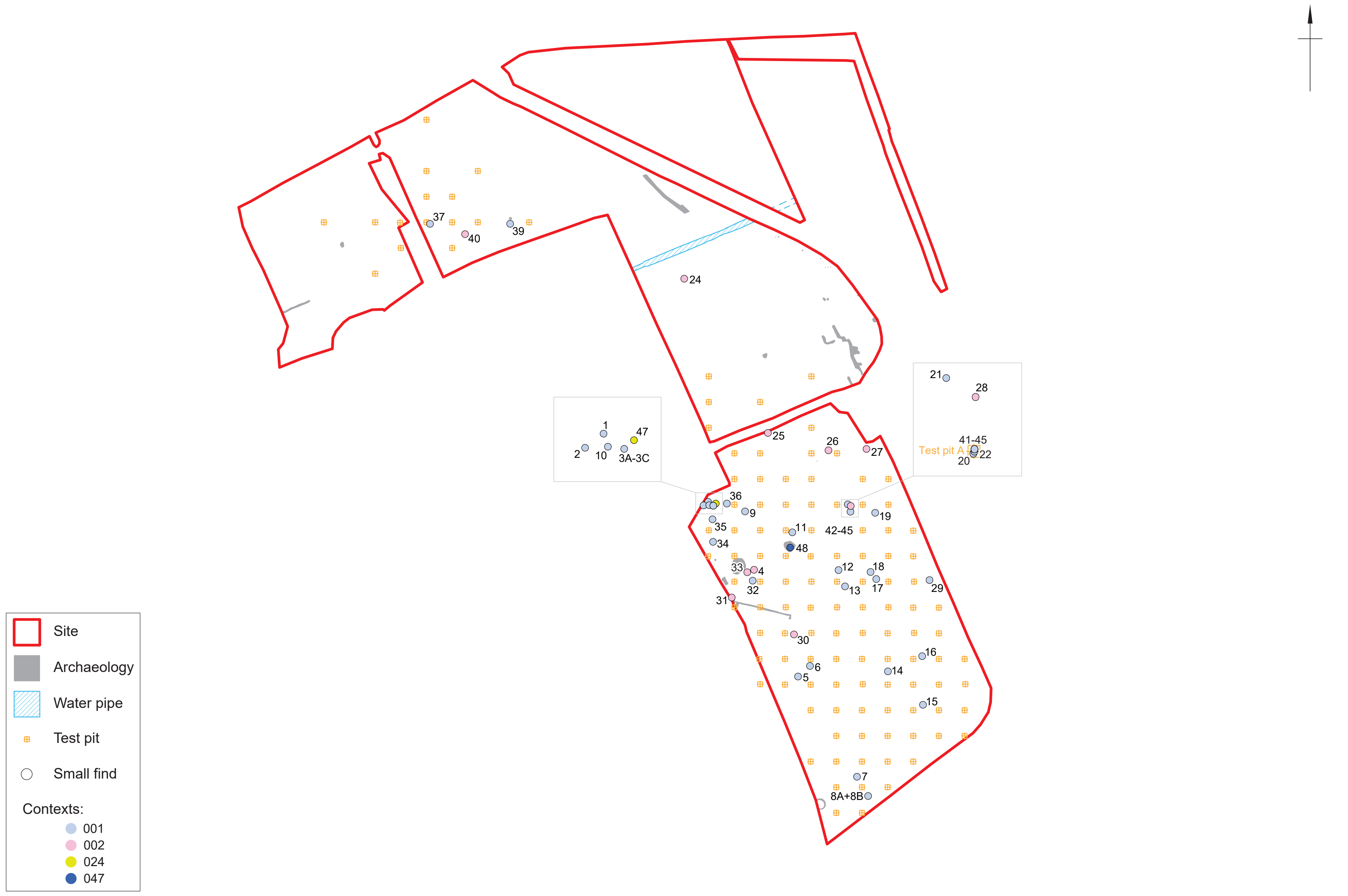
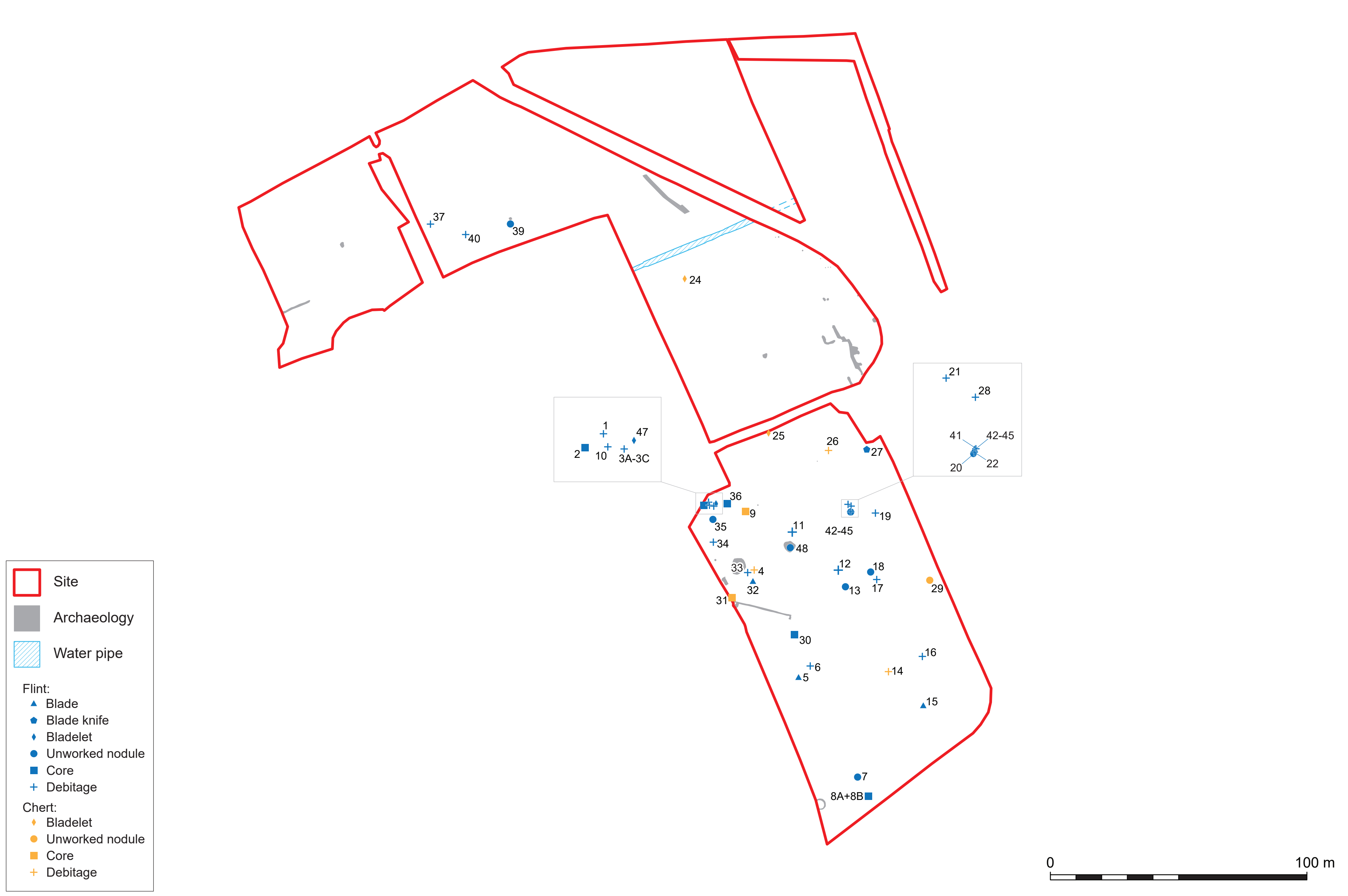
Site location

Figure 1

A. Distribution of lithics by context



B. Distribution of lithics by type



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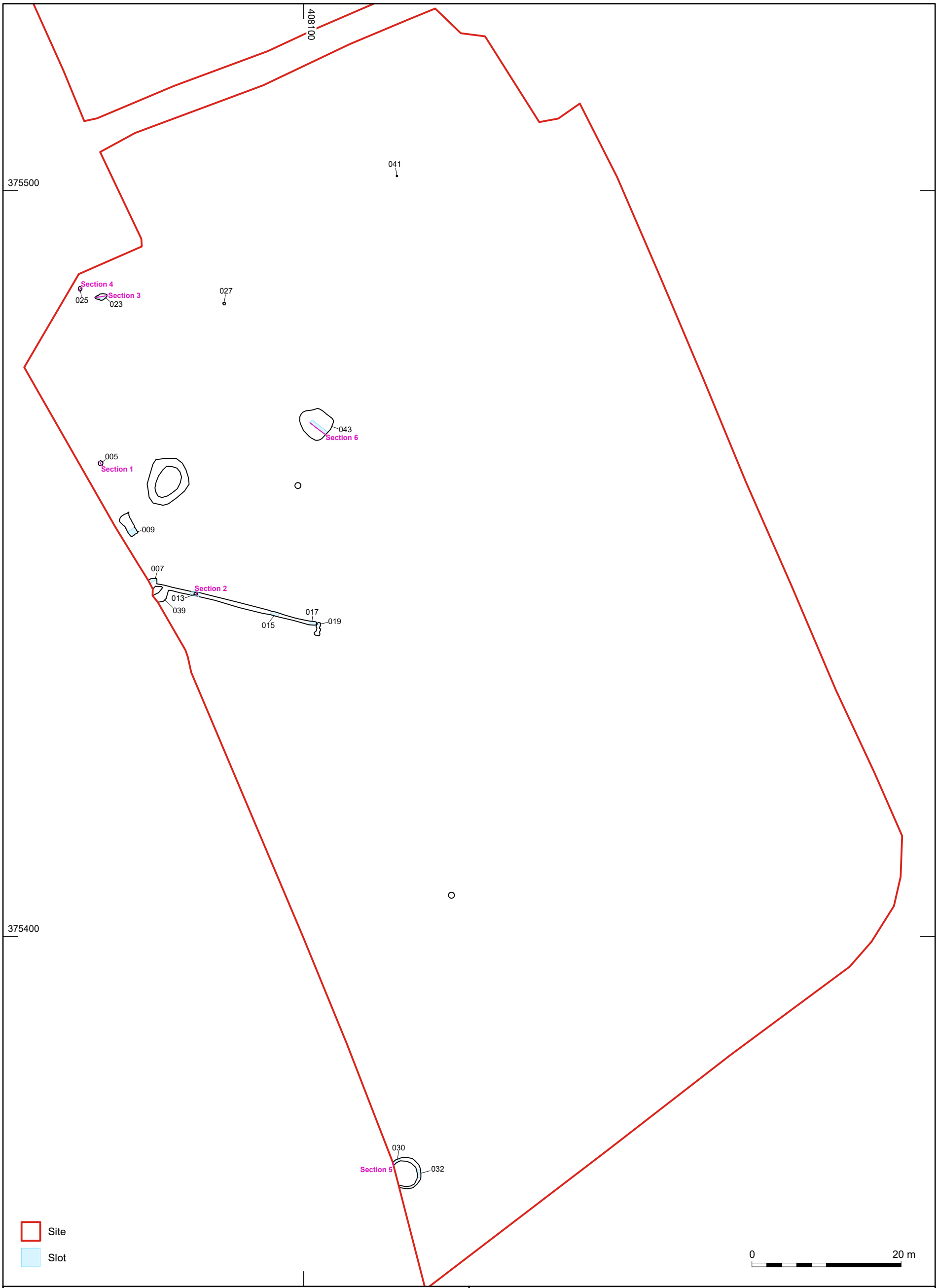
Distribution of lithics

Figure 2



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Area 1 - excavated features

Figure 3

Date:	22/08/2018	Revision Number:	0
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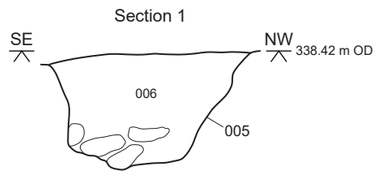
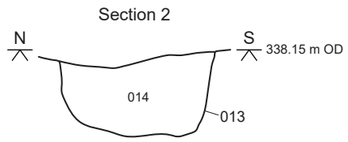
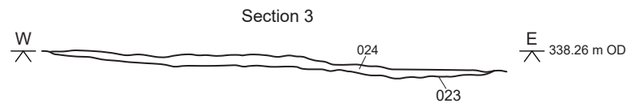
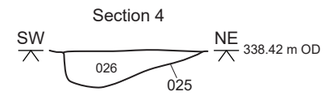
Area 2 - excavated features

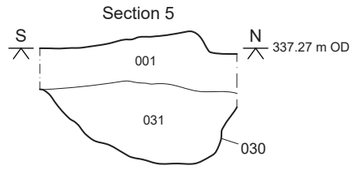
Figure 4

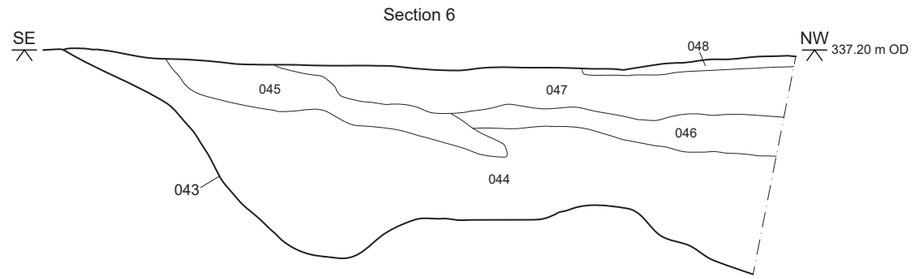


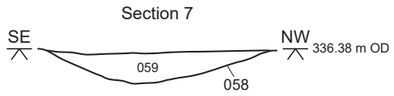


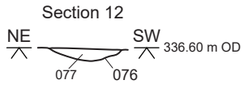


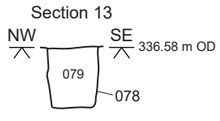


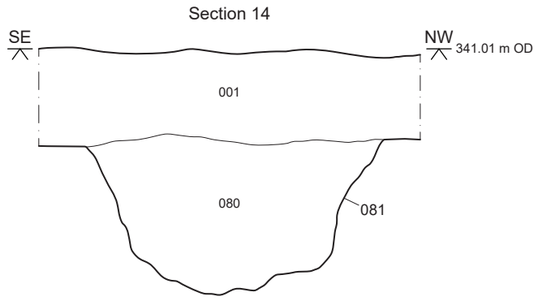


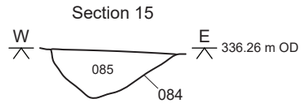


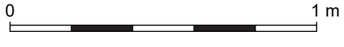












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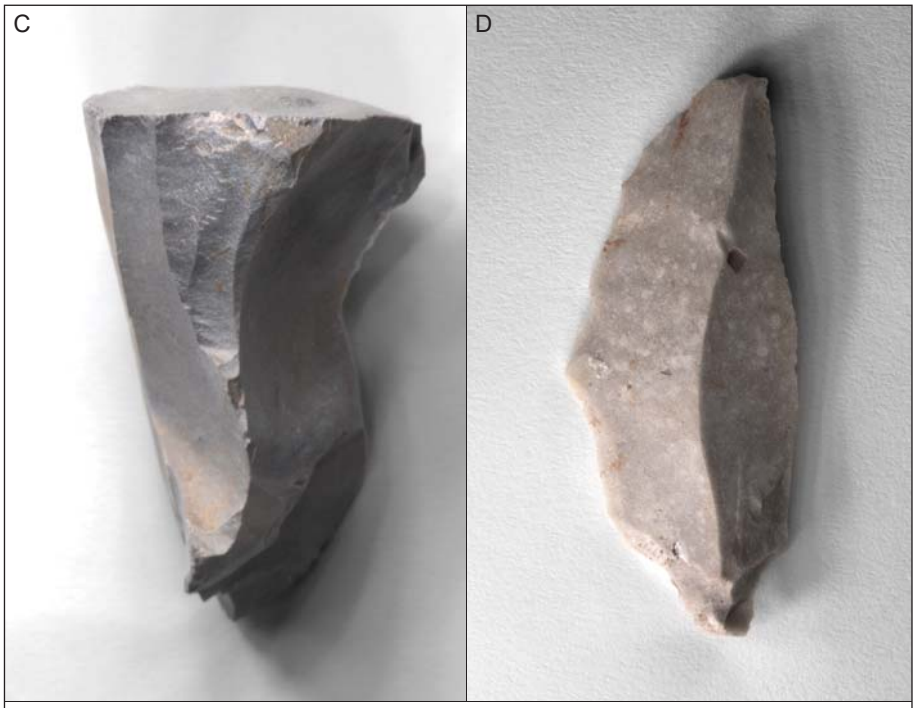
Sections

Figure 5

Small finds 2 and 5



Small Finds 9 and 15

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Figure 6

Small finds 24 and 27

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Figure 7

Plate 1: Postholes 074, 076 and 079, camera facing east

Plate 2: Pit 025, south-east facing section

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Scale:	Not to scale	Illustrator:	IA
Path:	S:\PROJECTS\203930\Graphics_Office\Rep figs\Eval\2018_08_22		

Plate 3: Spread 023/024, south-facing section

Plate 4: Feature 013 = 015 = 017 = 037, south-east facing section

Date:	28/08/2018	Revision Number:	0
Scale:	Not to scale	Illustrator:	IA
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Plate 5: Boundary 073 = 081, camera facing east

Plate 6: Feature 092, south-west facing section

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Plate 7: Quarry pit 043, north-east facing section

Plate 8: Feature 030 = 032, camera facing south-west

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Plate 9: Posthole 019, north facing section

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