Caribou Knob (XMH-00917) Site Report: Analysis of Artifacts Excavated between 2002-2017

XMH-917 primary excavation area with CEMML excavator Katherine Mullken, June 2016

UNIVERSITY OF MICHIGAN

Caribou Knob (XMH-00917) Site Report: Analysis of Artifacts Excavated between 2002-2017

Briana N. Doering, M.A.; Julie A. Esdale, Ph.D., RPA; and Senna Catenacci

Prepared by:

Museum of Anthropological Archaeology
University of Michigan
Ann Arbor, MI

Prepared for:

Elizabeth A. Cook
Cultural Resources Manager
Directorate of Public Works
U.S. Army Garrison Alaska

August 2019

Table of Contents

List of Figures

List of Tables

Introduction

This report details the archaeological investigations and analysis completed at Caribou Knob (XMH-00917) located in the Jarvis Creek Archaeological District on the Donnelly Training Area (DTA), Fort Wainwright, Alaska (Figure 1). This report provides all information concerning archaeological investigations since Phase I and II testing of the site was reported in 2013 (Robertson et al. 2013). Here, we will summarize the site's discovery, initial testing, subsequent investigations, and results of an analysis of all lithic material recovered through testing.

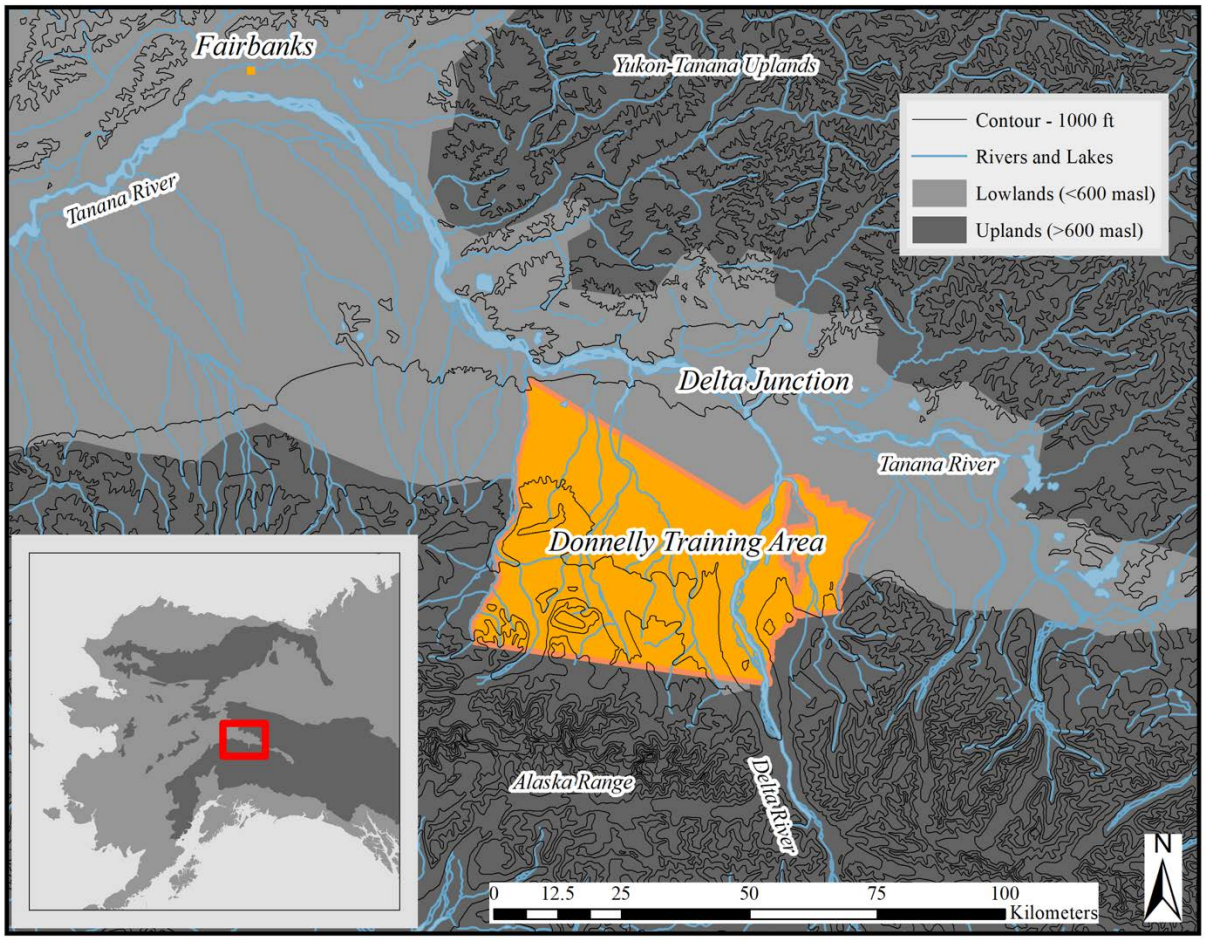

Figure 1 Overview of the Donnelly Training Area, Ft. Wainwright, central Alaska

Caribou Knob was first identified by Colorado State University's Center for Environmental Management of Military Lands (CEMML) archaeologists during mitigation for the US Army's construction of the Battle Area Complex (BAX) in the eastern half of the DTA. The United States Army Alaska (USARAK) began a project to create the BAX in 2002. This project required archaeological consultation and assessment within the DTA to identify areas of potential effect (APE) under the proposed project. Further archaeological investigations were

undertaken within the APE in 2008 and 2009 after USARAK and USAG Alaska undertook further development of the BAX.

Initial survey and sub-surface testing of BAX APE were conducted following procedures defined in USAG Alaska's archaeological methodology report (Robertson et al. 2007) and in USAG Alaska's 2008 Integrated Cultural Resources Management Plan (ICRMP) for archaeological survey, and USARAK's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009 for data recovery (Robertson 2009). Where archaeological sites were identified within the project's APE, evaluative testing was conducted to determine eligibility for listing on the National Register of Historic Places (NRHP), based on National Register Criteria detailed in 36 CFR § 79, and pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR § 800).

Surveys and testing during this project were conducted by USAG Alaska and CEMML archaeologists. Archaeological field crews conducted surveys of areas potentially impacted, both directly and indirectly, by proposed undertakings. An archaeological crew of 35 conducted data recovery work in the DTA in 2009 under direct supervision of archaeologists meeting the professional standards outlined in the Secretary of the Interior's "Professional Qualifications Standards" as defined in 36 CFR § 61 Appendix A (Robertson et al. 2013). The Caribou Knob site was identified during these surveys.

Setting

Caribou Knob is situated within Fort Wainwright training lands (Figure 2). Caribou Knob is located within the eastern portion of the DTA, within the BAX and the Jarvis Creek Archaeological District, south of Delta Junction, Alaska. This training area encompasses approximately 51,590 acres of public land.

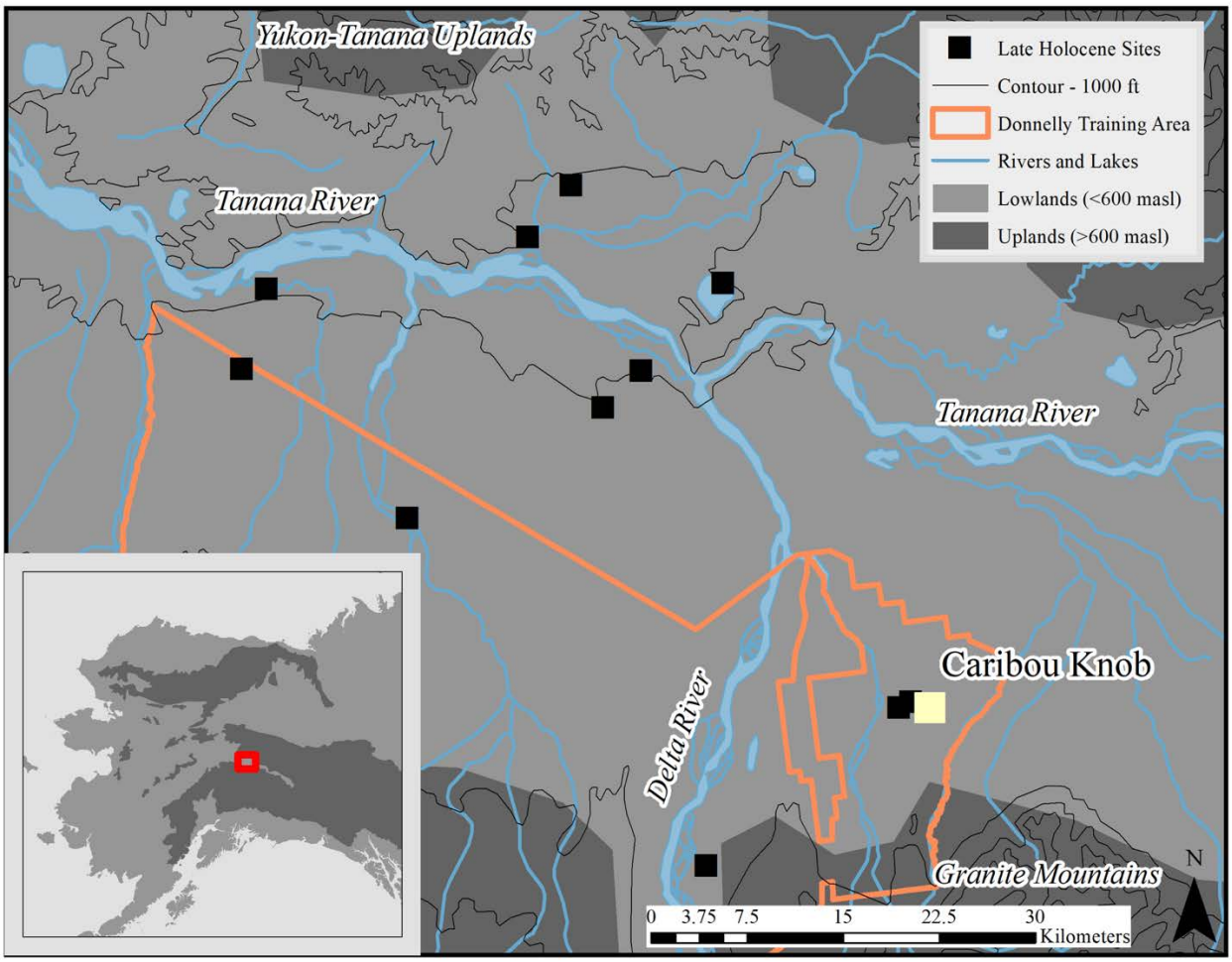

Figure 2 Overview of Donnelly Training Area and Caribou Knob

Caribou Knob is located on a small rise overlooking a small seasonal lake to the west and sits at an elevation of 450 masl (AHRS 2018). Today, the site offers poor visibility of the surrounding area due to dense black spruce and poplar stands on the landform. Without this brush, the site would likely offer a view of the Granite Mountains at the foot of the Alaska Range to the southeast and the Yukon-Tanana Uplands to the north. This site is in a productive ecological zone that borders upland tundra and lowland forest ecoregions, yielding a diverse array of plant and animal species in the site's immediate vicinity (Gallant et al. 1995).

Background

Prehistoric Context

Central Alaska has been continuously inhabited for at least 14,000 years (Goebel and Potter 2016), and material culture preserved on Fort Wainwright's cantonment and training lands offer extensive evidence of this continuum of human activity within its training lands. The Tanana Valley was ice-free during the earliest periods of human occupation of the region and provided a corridor connecting the Bering Land Bridge and eastern Asia to North America (Arnold 2006). Archaeologists believe that small bands of nomadic peoples colonized Alaska and the rest of the continent through this ice-free corridor ca. 14,000 years ago. Persistent evidence of human existence in central Alaska documents history from the late Pleistocene to the arrival of European traders in the late 1810s, the Klondike Gold Rush of the late 19th and early 20th centuries, and the military development of the region during the mid-20th century. Fort Wainwright's cantonment and training lands comprise a vast and consequently little-explored region with high archaeological potential.

After the initial colonization, archaeologists generally divide central Alaska's prehistory into three broad cultural traditions: Paleoarctic (12,000-6,000 years ago[1]), the Northern Archaic (6,000-1,000 years ago), and the Athabaskan (1,300-800 years ago; Potter 2016). XMH-00917 dates to the liminal phase between the Northern Archaic tradition and the Athabaskan tradition and therefore offers a unique perspective on this period of behavioral change. Archaeological materials from each of these cultures are generally limited to faunal remains, hearths, and lithic artifacts, such as projectile points, cutting tools, scrapers, and waste flakes from tool manufacturing.

The Northern Archaic began between 7200 and 6000 cal BP during a mid-Holocene period of warmer, wetter conditions that coincided with forestation and paludification (marsh formation) in the region (Potter 2016; Mason and Bigelow 2008; Esdale 2008; Dixon 1985; Dumond 1980). During the Northern Archaic, diet breadth was narrow; available faunal data from several sites dated to this period indicate an upland subsistence strategy focused on terrestrial mammals, particularly caribou (Blong 2016; Potter et al. 2011; Krasinski and Yesner 2008; Potter 2008; Holmes 2001). Data also indicate high mobility, with little evidence of storage, fishing, or repeated occupations at excavated Northern Archaic hunting camps (Blong 2016; Esdale 2008; Potter 2008). These data suggest that Northern Archaic groups followed a highly mobile subsistence strategy dependent on terrestrial mammals, particularly caribou, until the late Holocene. Several well-dated mid-Holocene sites are found in DTA near Caribou Knob, including Banjo Lake (XMH-00874), Delta River Overlook (XMH-00297), and XMH-00915

[1] All dates are given in calendar years before present.

(Esdale et al. 2015; Holmes 2001; Robertson et al. 2013). Faunal and lithic material found at these sites are consistent with those found throughout the region (Robertson et al. 2013).

Archaeologists have argued that several important behavioral changes to Northern Archaic subsistence and mobility occurred during the late Holocene (Holmes 2008; Potter 2016; Workman 1979), a period characterized by relatively stable climatic conditions (Kaufman et al. 2004; Anderson et al. 2003). According to available faunal data, groups in the region relied upon a much broader range of resources by 1000 years cal BP, including hare, fish, and waterfowl, in addition to caribou and moose (Holmes 2008; Potter 2008; Shinkwin 1979; Osgood 1937). Additionally, a significant decrease in mobility is suggested by evidence for storage (birch-lined pits; De Laguna 1947), semi- permanent dwellings (subterranean house pits; (Holmes 2008; Potter 2008; Thomas 2003), and strategically positioned, serially reoccupied seasonal hunting or fishing camps (Potter 2016; Shinkwin 1979; Holmes 1986). Finally, pottery has been found in association with larger seasonal encampments—interpreted as early village sites (De Laguna 1947; Rainey 1940). Ice patch finds from the central Yukon have led some archaeologists to suggest that the bow and arrow replaced atlatl and dart technology during the late Holocene (Hare et al. 2012; Holmes 2008). However, conclusive evidence for bow and arrow technology has yet to be found in stratified contexts in the study region. Nonetheless, archaeologists conclude based on available data that mobility decreased and diets broadened between 2000 and 1000 years ago, changes that have not yet been systematically evaluated using data recovered from the entire region. Caribou Knob represents one of the few sites on Fort Wainwright's training lands with a radiocarbon-dated late Holocene component, and thus has important potential to illustrate the timing and nature of late Holocene behavioral changes.

Previous Work on Fort Wainwright

Archaeologists have documented over 700 archaeological sites, one traditional cultural property, and six archaeological districts on Fort Wainwright and its training lands. At least 72 sites are eligible for the National Register of Historic Places, with over 500 whose eligibility has yet to be determined. Of the eligible or non-evaluated sits, seven are historic and 591 are prehistoric.

Fredrick Hadley West undertook the first archaeological investigations of what is now known as the DTA in the 1960s. His research was focused on the first Americans and the initial colonization of Alaska. During the 1970s, archaeologists conducted several surveys of the area for the Bureau of Land Management following the Army's initial land withdrawal (Rabich and Reger 1977; Bacon and Holmes 1980; Holmes 1979; Bacon 1978). CEMML and Northern Land Use Research Alaska, LLC began systematic surveys in advance of Army training and development under Section 106 requirements in 2002 that CEMML has continued into the present (Carlson et al. 2017; Esdale et al. 2017a, 2017b, 2016, 2015b, 2015c, 2014, 2013, 2012a, 2012b, and 2012c; Esdale and McLaren 2014, 2013; Esdale and Pelto 2017; Esdale and

Robertson 2007; Espenshade 2010; Gaines 2009; Gaines et al. 2010a, 2010b; Hedman et al. 2003; Johnson and Bozarth 2008; Marshall 2007; Potter 2005; Potter et al. 2007; Raymond-Yakoubian and Robertson 2006; Raymond-Yakoubian and Robertson 2005; Robertson et al. 2004, 2006, 2007, 2008, 2009a, 2009b, 2013). These surveys have filled out the inventory of prehistoric resources in the area, led to the development of several archaeological districts, and begun to contribute to the regional picture of prehistoric lifeways from late Pleistocene to contact times.

Within the DTA, archaeological surveys have identified 475 archaeological sites, 54 of which are eligible for the National Register and an additional 354 whose eligibility has not yet been determined. Only four historic sites have been identified in the DTA. The Donnelly Ridge Archaeological District (XMH-00388) encompasses Denali Complex sites (first identified by Frederick West) to the south and west of Donnelly Dome. Two new prehistoric districts were identified in 2016, east and west of Jarvis Creek: the Jarvis Creek Archaeological District (XMH-01553) and the Heart among the Glaciers Archaeological District (XMH-01552; Carlson et al. 2017). Future archaeological studies in DTA will concentrate on completing survey of 100% of the land in DTA East, conducting DOEs on archaeological sites in high traffic areas, and exploring parts of DTA West that are opening for military training activities.

Caribou Knob (XMH-00917)

History of Archaeological Investigations

Caribou Knob was identified in June 2002 based on the recovery of two lithic flakes from the surface of the site. Between 2008 and 2009, archaeologists conducted subsurface testing at the site to determine the size and site boundaries. This entailed the excavation of 23 shovel test pits, each approximately 30-50 cm in diameter, and six 1 x 1m test excavations (Figure 3). Only one shovel test and three of the test units produced archaeological remains, but a hearth and a dense concentration of lithic material was identified in one test unit. Over 2,600 bone fragments and 330 lithic tools and debris were collected during these excavations (UA2011-297).

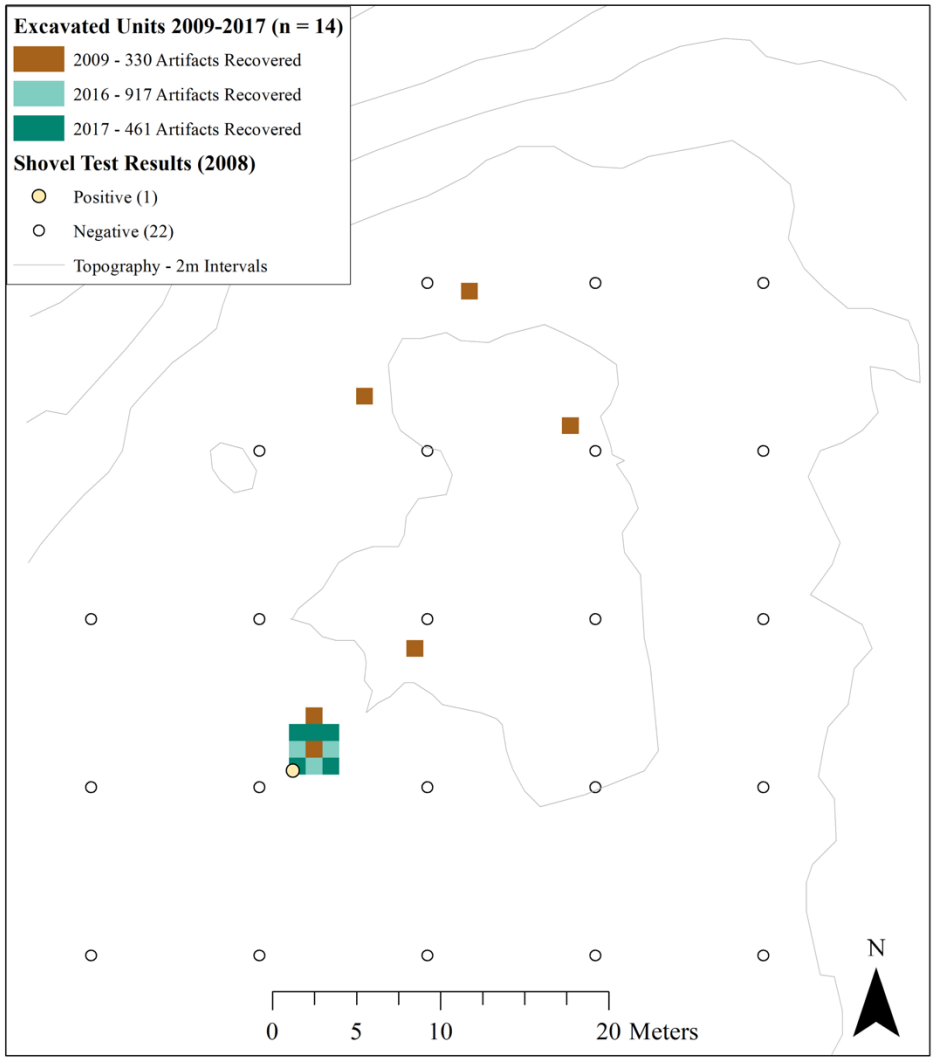

Figure 3 Overview of excavations at Caribou Knob (2008-2017)

CEMML archaeologists returned to Caribou Knob in 2016 to recover additional archaeological material from the central hearth area. During these excavations, three additional 1 x 1m tests resulted in an additional 917 pieces of lithic debris (UA2016-137). No additional hearth material was recovered during these excavations. In 2017, five additional 1 x 1m units were excavated to produce a 3 x 3m grid around the hearth recovered from the site. These units produced an additional 461 lithic artifacts (UA2017-093).

Excavation methodologies remained consistent during the three seasons of excavation completed between 2009 and 2017. Each 1 x 1m unit was excavated in arbitrary 5cm levels by 50 x 50cm quadrants (Figure 4). Through this excavation strategy, approximately 10% of the total site area was excavated. Diagnostic materials were three-point provenienced and all material was screened through 1/8th inch hardware cloth. During excavation, charcoal samples were collected for chronological control, and strata were sampled and recorded for geoarchaeological analysis. Artifacts were catalogued according to University of Alaska Fairbanks Museum of the North guidelines either at an archaeological lab on Fort Wainwright, Alaska or at the University of Michigan Museum of Anthropological Archaeology in Ann Arbor, Michigan.

Figure 4 Allie Pelto uncovering a flake scatter (represented by toothpicks) in N497 E98, which lies immediately south of the previously excavated hearth feature.

Stratigraphy, Chronology, and Soil pH

Macromorphological indicators suggest that Pleistocene glacial processes and Holocene aeolian activity likely shaped the parent material at Caribou Knob. Further, its stratigraphic context is very similar to the neighboring Banjo Lake site (Esdale et al. 2015; Figure 5, 6). The sediments at Caribou Knob can be organized into three primary stratigraphic units: glacial outwash, silts with evidence for several episodes of soil formation, and humic mat. The deepest stratigraphic unit comprised poorly sorted glacial outwash, likely derived from subglacial eskers and kames (Reger et al. 2008), and ranged in depth from 20 to 60 cm below surface within the 3 x 3 m central excavation block. In 2009, excavations recovered no archaeological materials in this stratum and all subsequent excavations were terminated at contact with this stratigraphic unit. Above this deposit lies a thick layer of silt that is further divided into five horizons with varying evidence of soil development based on color. These stratigraphic unit likely represents the succession of several coniferous boreal forests throughout Holocene (Ping et al. 2008). Cultural materials appeared within these silts, and primarily in a strong B horizon (bw) 5-10 cm below surface (Ping et al. 2008). Finally, Stratum I represents the humic mat of the organic horizon. The stratigraphic integrity of the site is such that some vertical mixing of materials may have occurred.

Figure 5 Profile of N 492 E 92 West wall

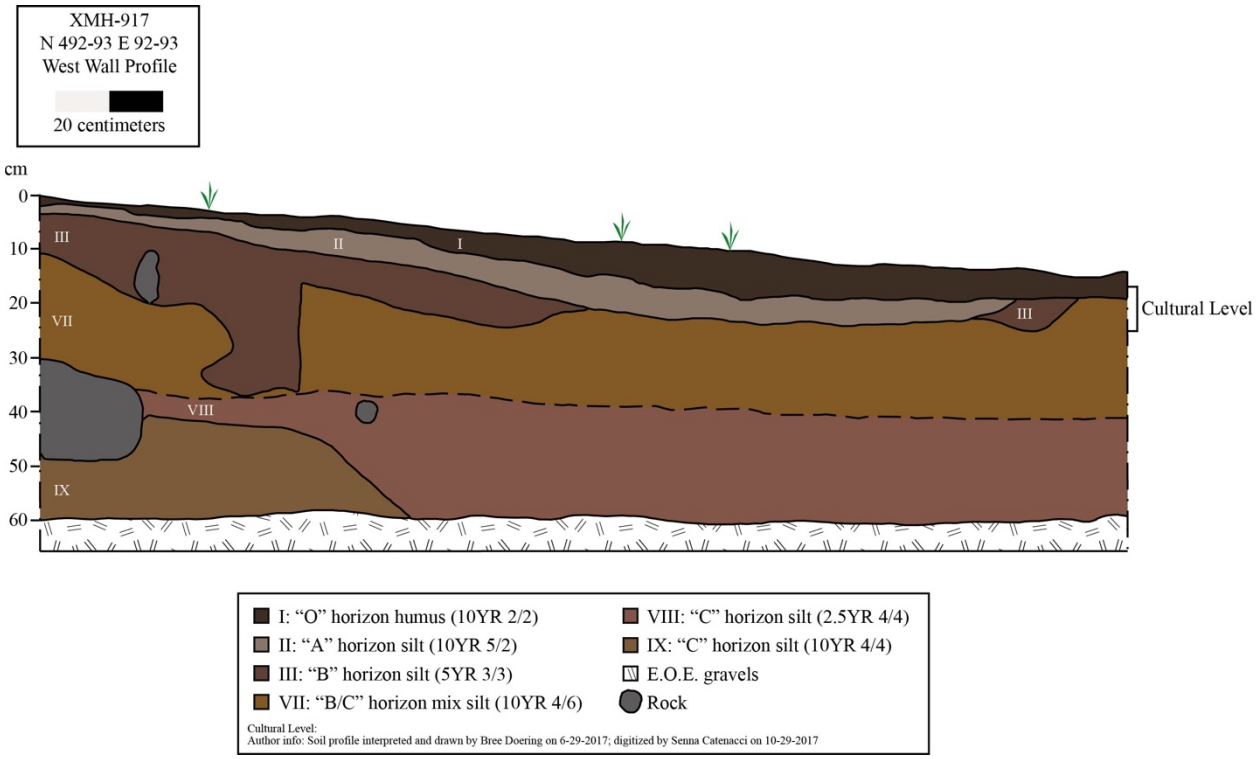

Figure 6 Stratigraphic profile at Caribou Knob

Two samples of charcoal from the hearth matrix recovered in 2009 were submitted for radiocarbon dating at Beta Analytic and yielded dates of 2010 ± 40 ^{14}C BP (Beta 271227) and 1420 ± 40 ^{14}C BP (Beta 271226). These samples suggest a late Holocene occupation of the site.

Depth Below Surface	pH 1:5 DI H2O	pH 1:5 0.1M CaCl2
5 cm	4.34	4.13
10 cm	4.86	4.43
15 cm	4.94	4.27

Table 1 Soil pH results from the west wall of N493 E93

The soil pH at Caribou Knob was tested by Matt Ferderbar of the Cold Regions Research and Engineering Library, Fort Wainwright, Alaska. These results show that the soil is most acidic at 5 cm below surface and remains relatively acidic throughout the profile (Table 1).

Archaeologists have associated the lack of faunal materials at Alaskan archaeological sites with acidic soils unique to coniferous boreal forests (Yesner 2001, Ping et al. 2008). Previous research has shown that faunal remains are best preserved in neutral (pH = 7) or slightly alkaline (pH = 7.5-8) soil environments (Nicholson 1996). In contrast, acidic soils with a pH of 3.5-4.5 provide

the worst environment for faunal preservation. The soil pH sampled from Caribou Knob falls well within this range, yet over 2,000 bone fragments were recovered in a feature at Caribou Knob despite the soil pH. Researchers have suggested that acidic soils may limit the growth of destructive microbes, and this may be the case at Caribou Knob (Manifold 2012).

Faunal Analysis

Methods

Analysis of faunal remains consisted of a count and a general interpretation of composition based on faunal size. Further identification to genus level and a traditional assessment of faunal composition was not due to the fragmentary and friable nature of the remains recovered.

Results

Nine additional bone fragments were recovered during 2016-2017 seasons (Table 2). However, these remains along with the 4050 bone fragments recovered during initial excavations were unidentifiable because they were too fragmentary and/or calcified. While these remains were not identifiable to genus level, a general analysis based on element size suggests that they represent a mix of medium- to large-bodied mammal remains, such as moose or caribou, and small mammal remains, such as hare. These remains were tightly confined to the hearth food processing area, and their fragmentary nature suggests that bone marrow extraction and processing took place during the site's late Holocene occupation.

Faunal Type	**<1 cm^2**	**>1 cm^2**	**Total**
Calcined bone	4059	0	4059
Non calcined bone	0	0	0

Table 2 Faunal sizes excavated at Caribou Knob

Lithic Analysis

Methods

The Caribou Knob assemblage contains one tci-tho (Figure 7), one unifacial scraper fragment and 1695 pieces of lithic debris, including both shatter and intact debitage, made on at least seven raw material types. All excavated lithic materials were analyzed at the University of Michigan Museum of Anthropological Archaeology following widely-practiced identification methods (Esdale 2009; Andrefsky 2005).

Figure 7 A large tci-tho found associated with hearth materials during initial excavations

The analysis of lithic debitage took place in three general phases. First, materials were counted, weighed, and cleaned with a soft brush when necessary. The raw material of each piece was identified through a visual analysis. Second, lithic pieces with an intact bulb of percussion, platform, and terminating edge were counted and separated for additional analysis. These pieces of debitage were individually weighed and assigned a size class on a base two scale, beginning at 1 cm^2. Next, these pieces were assessed individually for presence of cortex, heat treatment, and use-wear. Finally, each piece was assigned one of thirteen production phase categories following

Esdale (2009). General production phase categories distinguished between early reduction, bifacial reduction, unifacial reduction, and microblade reduction. Early reduction flakes were further separated into primary decortication (> 50% cortex), secondary decortication (10-50% cortex), and interior flakes (0-10% cortex). Debitage related to bifacial reduction was separated into early thinning, late thinning, alternate, edge preparation, and bifacial pressure flakes. Microblade reduction debitage were distinguished into core face rejuvenation flakes, platform rejuvenation flakes, linear flakes, and core tablets.

The results of this debitage analysis were further considered for spatial relationships between tool and raw material types present in the assemblage. As a single component site, spatial data associated with the recovered artifacts from the Caribou Knob site was considered only in the horizontal plane. These two-dimensional spatial data were input into ArcGIS Desktop 10.6 in a raster format and evaluated using a *k*-means cluster analysis to distinguish clusters of tool production within the central activity area. The results of this analysis will be considered further below.

Results

The debitage analysis conducted on this assemblage suggests that a variety of formal tools were produced and/or utilized at the site, including unifacial tools, microblades, and extensive evidence for bifacial production. Of the lithic material present, 566 pieces were determined to be complete debitage (i.e., pieces of debris with an intact platform and identifiable bulb of percussion) (Table 3). Evidence from this debitage analysis reveals several interesting patterns within the reduction sequence at Caribou Knob that further contextualizes the two tools in the assemblage. Specifically, the assemblage is oriented towards late stage reduction and retouch of bifacial tools with limited evidence for microblade and unifacial technology.

Material	Early Reduction					Bifacial Reduction						
	Primary Decortication	Secondary Decortication	Interior	*n*	*%*	Early Thinning	Late Thinning	Alternate	Edge Preparation	Bifacial Pressure	*n*	*%*
Black chert	4	4	15	19	42.2	7	110	38	64	147	366	70.9
Brown chert									1		1	0.2
Chalcedony		3	1	4	8.9	1	2	3		1	7	1.4
Grey chert		3	3	6	13.3	2	9	2	6	15	34	6.6
Jasper		5	1	6	13.3	1	2	2	3	2	10	1.9
Red chert		3	7	10	22.2	2	24	3	26	35	90	17.4
Rhyolite							1	1	1	5	8	1.6
Total	**4**	**14**	**27**	**45**	**8.0**	**13**	**148**	**49**	**101**	**205**	**516**	**91.2**

Material	Microblade Reduction				Unifacial Reduction			
	Core Tablet	Linear Flake	*n*	*%*	Unifacial Pressure	*n*	**%**	**Total**
Black chert					1	1	33.3	**386**
Brown chert								**1**
Chalcedony								**11**
Grey chert								**40**
Jasper								**10**
Red chert	1	1	2	100.0	2	2	66.7	**104**
Rhyolite								**8**
Total	**1**	**1**	**2**	**0.4**	**3**	**3**	**0.5**	**566**

Table 3 Debitage types at Caribou Knob sorted by raw material

Size and weight

Artifacts within the Caribou Knob assemblage are small on average. Over half of all pieces of complete debitage are smaller than 1 cm^2 (n = 358) and these have an average weight of 0.05 g. Artifacts measuring 2 cm^2 had an average weight of 0.28 g and comprised 33.0 % of the total debitage assemblage. Finally, artifacts measuring larger than 4 cm^2 comprised only 3.7 %of the total assemblage and weighed an average of 2.6 g. Combined with additional results (below), this suggests that Caribou Knob was oriented towards late stage tool production or retouch as opposed to initial reduction or the manufacture of tool blanks.

Raw materials

A visual analysis of color, grain size, and luster revealed at least 13 individual cobbles or material types used at this site. Of these, there were six sub-categories of sedimentary chert, jasper or chalcedony, one sub-category of volcanic material. Within these sub-categories, eight pieces of jasper debitage had evidence for heat treatment, such as potlidding, heat fracturing, and/or change in coloration, and an additional 119 pieces of shatter (i.e., flakes with no platform) showed demonstrable evidence for heat treatment. The close proximity of the hearth to these artifacts suggests that they were heat-treated on site.

Black chert is the dominant raw material in the assemblage and represents 68.2% of the intact debitage at Caribou Knob. Other dominant material types are red chert (18.4%) and grey chert (7.1%). Red chert was distinguished from jasper on the basis of texture and translucence, with red chert evincing a waxy, opaque texture and small grain size. Contrastingly, red or orange jasper pieces were semi-translucent with a grainy texture similar to chalcedony. The remaining raw materials (rhyolite, brown chert, jasper, and chalcedony) make up less than 10% of the debitage in the assemblage. Black chert, grey chert, and rhyolite can all be found within local drainages within 20 km of the site and there are no definitively non-local raw materials in the Caribou Knob assemblage (Esdale et al., 2015).

Early stage core reduction

Early reduction debitage, including primary decortication, secondary decortication, or interior cobble flaking, represents only 8.0% of the total debitage assemblage. Only cobble cortex was identified on primary and secondary decortication pieces, suggesting that the inhabitants of Caribou Knob gathered their raw materials from local glacial deposits or riverbeds. Further, no cobble cores or tested cobbles were recovered during excavations at Caribou Knob. Based on this assemblage, early reduction was not central to lithic production at Caribou Knob and potentially took place in nearby cobble sources.

Bifacial technology

The vast majority of debitage (91.2%) is related to bifacial production. It is impossible to determine which bifacial styles were produced at Caribou Knob because no complete bifaces or biface fragments were recovered during excavations. However, bifacial reduction was primarily related late stage reduction or re-sharpening (39.7%), followed by early (31.2%) and intermediate reduction (29.0%) of biface blanks. Given the preponderance of bifacial pressure flakes in the assemblage, it is possible that some edge preparation flakes may have been generated through re-sharpening existing bifaces. Further, the assemblage may under-represent bifacial pressure flakes due to their small size and recovery bias. Additionally, late thinning flakes are much more abundant than early thinning flakes, suggesting that biface blanks were prepared elsewhere and brought on site for the final stages of preparation and use. In terms of raw materials, black chert represents the primary tool stone used in bifacial production (70.9%), followed by red chert (17.4%). Overall, data from the intact debitage in the assemblage suggests that late stage bifacial reduction on black chert blanks was the predominant lithic activity undertaken at Caribou Knob.

Other technologies

Limited evidence for the production of microblade and unifacial technologies was recovered during excavations. One microblade core tablet and one linear flake identified during the debitage analysis indicate that microblade production occurred at the site but provides little information as to the style of microblade preparation or the use of this technology at the site. Further, two unifacial scrapers show that hide processing may have taken place at the site, and two unifacial pressure flakes identified during analysis suggest that unifacial technologies were retouched on site. All pieces of debitage related to unifacial or microblade production were made on red chert.

Debitage related to microblade and unifacial production may be limited due to collection practices or similarity to debitage produced during bifacial reduction. Both unifacial thinning flakes and linear flakes can be quite small and may have fallen through the 1/8th in. mesh used during excavations. Additionally, unifacial thinning flakes are very difficult to distinguish from bifacial thinning flakes in most cases (Esdale 2009), and some unifacial debitage may have been conflated with bifacial production and maintenance. Additional excavations at this site could recover further evidence for unifacial or microblade production that could enhance our understanding of the tool kit employed at Caribou Knob.

Distribution of artifacts

The spatial relationship between raw material and debitage type produced was considered following the formal debitage analysis to identify any specific areas of tool production within the central activity area at Caribou Knob. A series of *k*-means cluster analyses were run to determine if any logical and significant patterns existed within the assemblage. However, no compelling or significant patterns appear to exist within the data: both raw materials used and tools produced exhibit a high degree of overlap within the excavated area (Figures 8, 9). This is likely due to the small size of the excavation area. With additional excavations, particularly to the south and west of the main excavation area, clusters of tool production within this activity area may be visible. The current data do not indicate any spatial differentiation between tools produced or raw materials used at Caribou Knob.

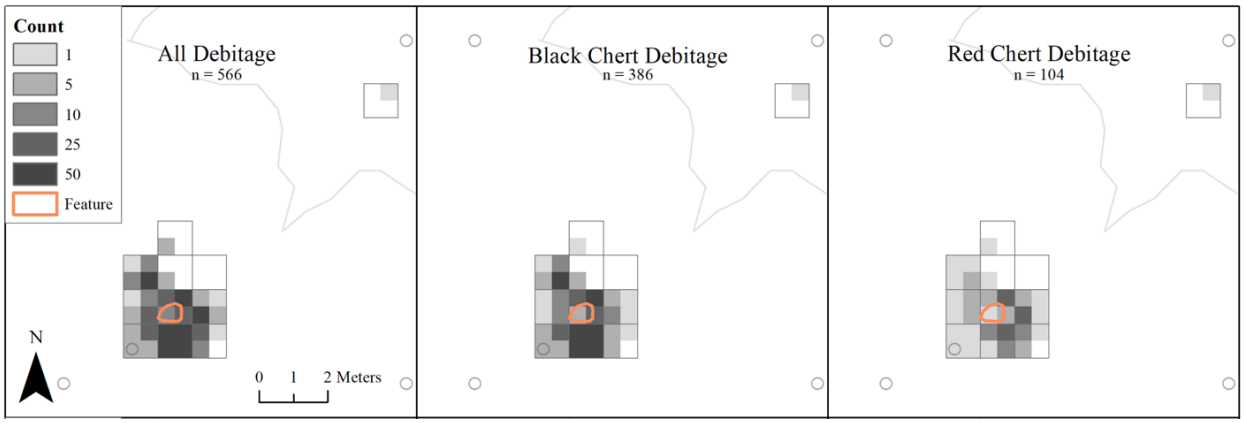

Figure 8 Distribution of debitage by common material type

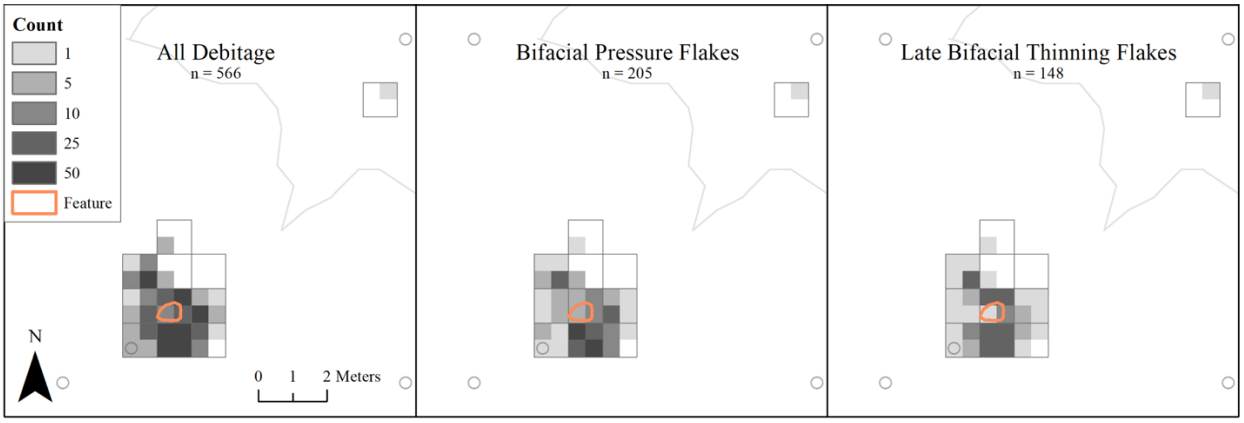

Figure 9 Distribution of debitage by common tool types

Summary and Recommendations

Archaeological investigations and laboratory analysis of Caribou Knob lithic materials reveals an assemblage oriented almost exclusively towards late-stage processing of bifaces. Lithic evidence for unifacial and microblade technology and a hearth feature demonstrate that the production of non-bifacial technology, food processing, and possibly hide processing also took place at the site. Additional excavations at this site expanding upon the 3 x 3 m excavated block could reveal patterns in the spatial organization of various activities at the site and additional faunal processing or hearth features. The data presented here complement previous research on late Holocene subsistence and demonstrate the diversity of settlement types in the region during this important period of transition. Further research on securely-dated archaeological remains, particularly those that have already been excavated, is needed to refine models of central Alaskan subsistence and mobility during the late Holocene.

References

Alaska Heritage Resource Survey. 2018. Office of History and Archaeology.

Anderson, Patricia M., Mary E. Edwards, and Linda B. Brubaker. 2003. “Results and paleoclimate implications of 35 years of paleoecological research in Alaska.” *Developments in Quaternary Sciences* 1: 427–440.

Andrefsky, William. 2005. *Lithics: Macroscopic Approaches to Analysis*. 2nd edition. Cambridge Manuals in Archaeology. Cambridge, England: Cambridge University Press.

Arnold, Thomas G. 2006. *The Ice-Free Corridor: Biogeographic Highway or Environmental Cul-de-Sac*. PhD diss., Simon Fraser University.

Bacon, Glenn. 1978. *Final Report on the Archeological Survey of the XM-1 Tank Range, Fort Greely, Alaska*. Prepared for the U.S. Army Corps of Engineers, Alaska District. Fairbanks, AK: Alaskaarctic.

Bacon, Glenn, and Charles Edgar Holmes. 1980. *Archeological Survey and Inventory of Cultural Resources at Fort Greely, Alaska, 1979*. Fairbanks, AK: Alaskaarctic.

Blong, John Christian. 2016. *Prehistoric Landscape Use in the Central Alaska Range*. PhD diss., Texas A&M University.

Carlson, E.S., Julie A. Esdale, and Joshua J. Lynch. 2017. *Archaeological Districts on Fort Wainwright.* Fort Collins, CO: Center for Environmental Management of Military Lands.

De Laguna, Frederica. 1947. *The Prehistory of Northern North America as Seen from the Yukon*. Society for American Archaeology, Menasha, Wisconsin.

Dixon, E. James. 1985. “Cultural Chronology of Central Interior Alaska”. *Arctic Anthropology*: *47–66.*

Dumond, Don E. 1980. “The Archeology of Alaska and the Peopling of America”. *Science 209(4460): 984–991*.

Esdale, Julie A. 2008. “A Current Synthesis of the Northern Archaic”. *Arctic Anthropology 45*(2): 3–38.

Esdale, Julie A. 2009. *Lithic Production Sequences and Toolkit Variability: Examples from the Middle Holocene, Northwest Alaska*. PhD diss., Brown University.

Esdale, Julie A., A. Robertson, and William Johnson. 2015. Banjo Lake: A Middle Holocene Site in the Tanana Valley. Alaska Journal of Anthropology 13(1): 35–56.

Esdale, J.A., and A.S. Pelto. 2017. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area: Annual Report 2016*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., H.D. Hardy, J.J. Lynch, G.J. Henderson, J.K.T. Smith, W.E. McLaren, and K.S. Yeske. 2017a. *Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2015 and 2016*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., A.S. Pelto, and W.E. McLaren. 2017b. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area*. Annual Report 2016. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., A.S. Pelto, and W.E. McLaren. 2016. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2015*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, Julie A., A. Robertson, and William Johnson. 2015a. "Banjo Lake: A Middle Holocene Site in the Tanana Valley". *Alaska Journal of Anthropology 13(1): 35–56.*

Esdale, J.A., K.S. Yeske, H. D. Hardy, J. Lynch, and W.E. McLaren. 2015b. *Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2014*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., A.S. Pelto, and W.E. McLaren. 2015c. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2014*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., K.S. Yeske, H. D. Hardy, W.E. McLaren, J. Lynch, and L. Sample. 2014. *Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2013*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and W.E. McLaren. 2014. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2013*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and W.E. McLaren. 2013. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2012*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., K.S. Yeske, W.E. McLaren, H. Hardy, M.S. Sweeney, and J. Quinn. 2013. *Section 110 Report: Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2012*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., J. Quinn, K.S. Yeske, and W.E. McLaren. 2012a. *2011 Archaeological Survey and Report of CRTC Project Areas in Donnelly Training Area for the Cold Regions Test Center*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., E.P. Gaines, W.E. McLaren, and J. Quinn. 2012b. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area: Annual Report 2010 and 2011*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., E.P. Gaines, K.S. Yeske, W.E. McLaren, M. Shimel, and J.F. Kunesh. 2012c. *Section 110 Report, Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands: 2010 and 2011*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and A.C. Robertson. 2007. *Final Report: Archaeological Data Recovery for Sites XMH-00284 and XMH-00881, 33-Mile Loop Road Gravel Source Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2007*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands

Espenshade, C.T. 2010. *Archaeological Investigations, Donnelly Training Area near Delta Junction, Alaska*. Greensboro: Prepared by New South Associates. Technical Report 1922.

Gaines, E.P., H. Hardy, and H. Brown. 2010a. *Final Report: Determination of National Register Eligibility for Eleven Archaeological Sites at Fort Greely, Alaska 2010*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., K.S. Yeske, and S.J. McGowan. 2010b. *Annual Report: Cultural Resources Survey and Evaluation, Fort Wainwright, Alaska 2009*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P. 2009. *Report: Archaeological Survey and Evaluation Fort Wainwright and Fort Richardson, Alaska 2008*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gallant, Alisa L., Emily F. Binnian, James M. Omernik, and Mark B. Shasby. 1995. “Ecoregions of Alaska [map]”. Scale 1:5,000,000. *United States Geological Survey Professional Paper 1567*.

Goebel, T., and Ben A. Potter. 2016. "First Traces: Late Pleistocene Human Settlement of the Arctic." In *The Oxford Handbook of the Prehistoric Arctic,* edited by T. Max Friesen and O. K. Mason, 223-253. New York, NY: Oxford University Press.

Hare, P Gregory, Christian D Thomas, Timothy N Topper, and Ruth M Gotthardt. 2012. “The Archaeology of Yukon Ice Patches: New Artifacts, Observations, and Insights”. *Arctic 65(1): 118–135*.

Hedman, W., A. Robertson, N. Fichter, and K. Anderson. 2003. *Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2002*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Holmes, Charles E. 1979. *Archaeological Reconnaissance Report for Fort Wainwright, Fort Greely, and Fort Richardson Withdrawal Lands, Alaska*. Prepared for the 172nd Infantry Brigade. Fairbanks, AK: Alaskaarctic.

Holmes, Charles E. 2001. “Tanana River Valley Archaeology circa 14,000 to 9000 BP”. *Arctic Anthropology 38(2): 154–170.*

Holmes, Charles E. 2008. “The Taiga Period: Holocene Archaeology of the Northern Boreal Forest, Alaska”. *Alaska Journal of Anthropology 6(1–2):69-81*.

Holmes, Charles E. 1986. *Lake Minchumina Prehistory: An Archeological Analysis*. Aurora Series Volume II, Alaska Anthropological Association.

Johnson, W.C., and S.R. Bozarth. 2008. *Geoarchaeology and Environmental Reconstruction at XMH-874, Fort Wainwright Donnelly Training Area*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Kaufman, Darrell S., Thomas A. Ager, N. John Anderson, et al. 2004. “Holocene Thermal Maximum in the Western Arctic (0–180 W)”. *Quaternary Science Reviews 23(5–6): 529–560*.

Krasinski, Kathryn E., and David R. Yesner. 2008. “Late Pleistocene/Early Holocene Site Structure in Beringia: A Case Study from the Broken Mammoth Site, Interior Alaska”. *Alaska Journal of Anthropology 6(1–2): 27–42.*

Manifold, B. M. 2012. “Intrinsic and Extrinsic Factors Involved in the Preservation of Non-Adult Skeletal Remains in Archaeology and Forensic Science”. *Bulletin of the International Association for Paleodontology 6(2): 51–69.*

Mason, Owen K., and Nancy H. Bigelow. 2008. “The Crucible of Early to Mid-Holocene Climate in Northern Alaska: Does Northern Archaic Represent the People of the Spreading Forest?” *Arctic Anthropology 45(2): 39–70.*

Marshall, T. 2007. *Archaeological Survey and Evaluation: Fort Wainwright, 2006*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Nicholson, Rebecca A. 1996. “Bone Degradation, Burial Medium and Species Representation: Debunking the Myths, an Experiment-Based Approach”. *Journal of Archaeological Science 23(4): 513–533.*

Osgood, Cornelius B. 1937. *The Ethnography of the Tanaina*. Yale University Publications in Anthropology, 16. New Haven, CT: Yale University.

Ping, C. L., G. J. Michaelson, J. M. Kimble, et al. 2008. “Cryogenesis and Soil Formation along a Bioclimate Gradient in Arctic North America.” *Journal of Geophysical Research: Biogeosciences 113(G3).*

Potter, Ben A. 2016. “Holocene Prehistory of the Northwestern Subarctic”. *In The Oxford Handbook of the Prehistoric Arctic*. T. Max Friesen and O. K. Mason, eds. Pp. 537–562. New York, NY: Oxford University Press.

Potter, Ben A., Joel D. Irish, Joshua D. Reuther, Carol Gelvin-Reymiller, and Vance T. Holliday. 2011. “A Terminal Pleistocene Child Cremation and Residential Structure from Eastern Beringia.” *Science 331(6020): 1058–1062.*

Potter, Ben A. 2008. “Exploratory Models of Intersite Variability in Mid to Late Holocene Central Alaska”. *Arctic 61(4): 407–425.*

Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. 2007. *Results of the 2007 Cultural Resource Survey of Proposed Alaska Railroad Northern Rail Extension Routes, Alaska*. Fairbanks: Report submitted by Northern Land Use Research, Inc.

Potter, B.A. 2005. *Site Location Model and Survey Strategy for Cultural Resources in the Alaska Railroad Northern Rail Extension Project Area*. Fairbanks: Report submitted by Northern Land Use Research, Inc. and ICF Consulting Services, LLC.

Rabich, JC, and DR Reger 1977. "Archaeological Excavations at the Gerstle River Quarry Site." *Archaeological Survey Projects: 11–137.*
Rainey, Froelich. 1940. "Archaeological Investigation in Central Alaska." *American Antiquity 5(4): 299–308.*

Raymond-Yakoubian, J., and A. Robertson. 2006. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2005*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Raymond-Yakoubian, J., and A. Robertson. 2005. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2004*. Annual Report, Fort Collins: Center for Environmental Management of Military Lands.

Reger, R., D. Stevens, and D. Solie. 2008. *Surficial Geology of the Alaska Highway Corridor, Delta Junction to Dot Lake. Preliminary Interpretive Report*. Fairbanks: Alaska Division of Geological & Geophysical Surveys.

Robertson, A.C. 2009. U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C. 2009. *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., J. Esdale, J. Quinn III, H. Hardy, and V. Aziz. 2013. *Archaeological Data Recovery, Battle Area Complex, Donnelly Training Area, Fort Wainwright, Alaska 2009*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., J. Esdale, W.C. Johnson, S.R. Bozarth, S. McGowan, M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2009a. *Final Report: 2006-2007 Archaeological Data Recovery for Site XMH-00874 Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., S.J. Meitl, D. White, P. Gilbert, and C. Ciancibelli. 2009b. *Archaeological Survey and Evaluation: Donnelly Training Area, Fort Wainwright.* Ft. Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2008. *Archaeological Data Recovery for Site XMH-00874, Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska, 2007*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, P. Hall, S. Shirar, and C.K. Paraso. 2007. *Archaeological Survey, Evaluation, and Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2006*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., J. Raymond-Yakoubian, M. Proue, S. Shirar, J. Burr, H. Robbins, D. Cory. 2006. *Annual Report: Archaeological Survey and Evaluation, Donnelly Training Area, Fort Wainwright, Alaska, 2005.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., N. Fichter, and K. Anderson. 2004. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright 2003.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Shinkwin, Anne D. 1979. *Dakah De'nin's Village and the Dixthada Site. A Contribution to Northern Athapaskan Prehistory*. Musée National de l'Homme. Collection Mercure. Commission Archéologique Du Canada. Publications d'Archéologie. Dossier Ottawa (91): 1–197.

Thomas, C.D. 2003. Ta'TIa Mun: *An Archaeological Examination of Technology, Subsistence Economy and Trade at Tatlmain Lake, Central Yukon*. Yukon Heritage Branch Occasional Papers in Archaeology No. 13.

Workman, William B. 1979. "The Significance of Volcanism in the Prehistory of Subarctic Northwest North America." *Volcanic Activity and Human Ecology: 339–371.*

Yesner, David R. 2001. "Human dispersal into interior Alaska: antecedent conditions, mode of colonization, and adaptations." *Quaternary Science Reviews* 20 (1-3):315-327.

Appendix A.

Artifact Catalogue

Catalog Number	Field Sample #	Object Type	Lot Count	Weight (g)	Northing	Easing	Quad	Level	Depth (cmbd)
UA2011-297-0001	2468	Flake	1		93-94	494-495	SW	1	35
UA2011-297-0002	2469	Flake	1		93-94	494-495	SW	3	55
UA2011-297-0003	2674	Biface	1	731g	108-109	511-512		1	30
UA2011-297-0004	2873	Flake	1		99-100	498-499	NE	1	21
UA2011-297-0005	3063	Flake	1		96-97	513-514	NW	1	19
UA2011-297-0006	3332	Charcoal	0		93-94	492-493		1	39
UA2011-297-0007	3333	Charcoal	0		93-94	492-493		1	42
UA2011-297-0008	3334A	Flake	23		93-94	492-493	NW	1	39
UA2011-297-0009	3335	Bone frag	932		93-94	492-493		1	40
UA2011-297-0010	3336	Bone frag	785		93-94	492-493		1	40
UA2011-297-0011	3337	Bone frag	20		93-94	492-493	SW	1	39
UA2011-297-0012	3338A	Bone frag	99		93-94	492-493		1	41
UA2011-297-0013	3338B	Charcoal	0		93-94	492-493		1	41
UA2011-297-0014	3339	Flake	5		93-94	492-493	SW	1	39
UA2011-297-0015	3340	Charcoal	0		93-94	492-493		1	40
UA2011-297-0016	3341	Charcoal	0		93-94	492-493		1	41
UA2011-297-0017	3342	Charcoal	0		93-94	492-493		1	39
UA2011-297-0018	3343	Charcoal	0		93-94	492-493		1	40
UA2011-297-0019	3376	Bone frag	27		93-94	492-493	SW	1	39
UA2011-297-0020	3377	Flake	1		93-94	492-493		1	42
UA2011-297-0021	3378	Bone frag	7		93-94	492-493		1	42

UA2011-297-0022	3379	Bone frag	104		93-94	492-493	NE	1	39
UA2011-297-0023	3380	Flake	2		93-94	492-493	NW	2	49
UA2011-297-0024	3381	Pebbles	4		93-94	492-493	NE	1	39
UA2011-297-0025	3382	Flake	1		93-94	492-493		1	38
UA2011-297-0026	3383	Bone frag	5		93-94	492-493		1	34
UA2011-297-0027	3384	Charcoal	0		93-94	492-493		1	38
UA2011-297-0028	3385	Flake	2		93-94	492-493		1	37
UA2011-297-0029	3398	Retouched flake	1	12.9g	93-94	492-493		1	38
UA2011-297-0030	3442	Bone frag	301		93-94	492-493	SE	1	39
UA2011-297-0031	3443	Flake	2		93-94	492-493		1	38
UA2011-297-0032	3444	Flake	3		93-94	492-493		1	39
UA2011-297-0033	3445	Charcoal	0		93-94	492-493		1	38
UA2011-297-0034	3446	Bone frag	5		93-94	492-493		1	38
UA2011-297-0035	3447	Charcoal	0		93-94	492-493		1	38
UA2011-297-0036	3448	Bone frag	154		93-94	492-493		1	39
UA2011-297-0037	3449	Flake	1		93-94	492-493		1	39
UA2011-297-0038	3450	Charcoal	0		93-94	492-493		1	38
UA2011-297-0039	3451	Bone frag	2		93-94	492-493		1	38
UA2011-297-0040	3452	Charcoal	0		93-94	492-493		1	40
UA2011-297-0041	3453	Flake	1		93-94	492-493		1	40
UA2011-297-0042	3454	Flake	1		93-94	492-493		1	38
UA2011-297-0043	3455	Flake	1		93-94	492-493		1	38
UA2011-297-0044	3456	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0045	3457	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0046	3458	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0047	3459	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0048	3460	Flake	8		93-94	492-493	SE	1	39
UA2011-297-0049	3461	Bone frag	93		93-94	492-493	SE	1	39

UA2011-297-0050	3462	Bone frag	17		93-94	492-493	SE	1	39
UA2011-297-0051	3463	Flake	3		93-94	492-493	SE	1	39
UA2011-297-0052	3464	Bone frag	211		93-94	492-493	SE	1	39
UA2011-297-0053	3465	Bone frag	3		93-94	492-493		1	36
UA2011-297-0054	3466	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0055	3467	REMOVED (rock)	1		93-94	492-493		1	43
UA2011-297-0056	3468	REMOVED (rock)	1		93-94	492-493	SE	1	39
UA2011-297-0057	3469	Bone frag	6		93-94	492-493	SE	2	49
UA2011-297-0058	3470	REMOVED (rock)	1		93-94	492-493	SE	3	59
UA2011-297-0059	3471	REMOVED (rock)	1		93-94	492-493	SE	3	59
UA2011-297-0060	3472	REMOVED (rock)	1		93-94	492-493	SE	3	59
UA2011-297-0061	3473	Bone frag	1		93-94	492-493		1	38
UA2011-297-0062	3474	Bone frag	175		93-94	492-493		1	39
UA2011-297-0063	3475	Flake	1		93-94	492-493		1	37
UA2011-297-0064	3476	Flake	1		93-94	492-493		1	39
UA2011-297-0065	3477	Flake	1		93-94	492-493		1	41
UA2011-297-0066	3478	Bone frag	3		93-94	492-493		1	39
UA2011-297-0067	3479	Flake	1		93-94	492-493		1	40
UA2011-297-0068	3480	Bone frag	36		93-94	492-493		1	39
UA2011-297-0069	3481	Bone frag	150		93-94	492-493	SW	1	39
UA2011-297-0070	3482	Flake	2		93-94	492-493	SW	1	39
UA2011-297-0071	3483	Bone frag	295		93-94	492-493	SW	1	39
UA2011-297-0072	3484	Flake	1		93-94	492-493		1	41
UA2011-297-0073	3485	Charcoal	0		93-94	492-493		1	42
UA2011-297-0074	3486	Scraper	1	1.5g	93-94	492-493		1	42
UA2011-297-0075	3487A	Flake	2		93-94	492-493	NE	1	39
UA2011-297-0076	3488	Scraper	1	5.8g	93-94	492-493		1	42
UA2011-297-0077	3489	Flake	1		93-94	492-493	NE	1	41

UA2011-297-0078	3490	Retouched flake	1	3.0g	93-94	492-493		1	38
UA2011-297-0079	3491	FCR	1		93-94	492-493		1	40
UA2011-297-0080	3492	FCR	1		93-94	492-493		1	39
UA2011-297-0081	3493	Retouched flake	1	1.6g	93-94	492-493		1	39
UA2011-297-0082	3494	Microblade	1	0.14g	93-94	492-493		1	36
UA2011-297-0083	3495	Flake	3		93-94	492-493		1	38
UA2011-297-0084	3496A	Flake	22		93-94	492-493	SE	1	37
UA2011-297-0085	3497	Bone frag	305		93-94	492-493	SE	1	37
UA2011-297-0086	3498	Bone frag	104		93-94	492-493	SW	1	39
UA2011-297-0087	3499A	Flake	181		93-94	492-493	NE	1	39
UA2011-297-0088	3500	Bone frag	175		93-94	492-493	NE	1	39
UA2011-297-0089	3501	Bone frag	26		93-94	492-493	SW	1	39
UA2011-297-0090	3502A	Flake	17		93-94	492-493	SW	1	39
UA2011-297-0091	3503A	Flake	31		93-94	492-493	NW	1	39
UA2011-297-0092	3504	Hammerstone	1	372g	93-94	492-493		2	46
UA2011-297-0093	3503B	Scraper frag	1		93-94	492-493	NW	1	39
UA2011-297-0094	3496B	Flake	1	0.07g	93-94	492-493	SE	1	37
UA2011-297-0095	3499B	Retouched flake	1	6.6g	93-94	492-493	NE	1	39
UA2011-297-0096	3499C	Flake	1	0.14g	93-94	492-493	NE	1	39
UA2011-297-0097	3334B	Rock	23		93-94	492-493	NW	1	39
UA2011-297-0098	3502B	Rock	1		93-94	492-493	SW	1	39
UA2011-407-001	1	Flake	5		STP1	STP1	STP	1	0-10cmbs
UA2011-407-002	2	Flake	1		STP1	STP1	STP	1	0-15cmbs
UA2016-137-0001	1	Flake lot	20	1	491.5	93.5	NE	1	0-5
UA2016-137-0002	2	Flake lot	1	0.1	491.9	93.92	NE	1	3
UA2016-137-0003	3	Flake lot	7	0.6	491	93	SW	1	0-5
UA2016-137-0004	4	Flake lot	1	0.3	491.66	93.66	NE	1	4
UA2016-137-0005	5	Flake lot	1	0.1	491.64	93.62	NE	1	4

UA2016-137-0006	6	Flake lot	1	0.3	491.57	93.57	NE	1	4
UA2016-137-0007	7	Flake lot	1	0.2	491.59	93.56	NE	1	4
UA2016-137-0008	8	Flake lot	1	0.05	491.43	93.39	SW	1	5
UA2016-137-0009	9	Flake lot	1	0.5	491.46	93.24	SW	1	5
UA2016-137-0010	10	Flake lot	2	0.2	491.46	93.18	SW	2	5.5
UA2016-137-0011	11	Flake lot	1	0.6	491.23	93.15	SW	1	7
UA2016-137-0012	12	Flake lot	1	0.3	491.55	93.58	NE	1	4.5
UA2016-137-0013	13	Flake lot	1	0.1	491.46	93.65	SE	1	4.5
UA2016-137-0014	14	Flake lot	1	0.1	491.65	93.61	NE	1	4
UA2016-137-0015	15	Flake lot	1	0.4	491.72	93.66	NE	1	5
UA2016-137-0016	16	Flake lot	1	0.2	491.83	93.76	NE	2	6.5
UA2016-137-0017	17	Flake lot	1	0.1	491.71	93.84	NE	2	6
UA2016-137-0018	18	Flake lot	1	0.1	491.96	93.62	NE	2	7
UA2016-137-0019	19	Soil sample	1		491.5	93	NW	1	0-5
UA2016-137-0020	20	Flake lot	1	0.05	491	93.5	SE	1	0-5
UA2016-137-0021	21	Flake lot	1	0.05	491.55	93.38	NW	1	4
UA2016-137-0022	22	Flake lot	1	0.1	491.58	93.43	NW	1	3.5
UA2016-137-0023	23	Flake lot	1	0.1	491.64	93.41	NW	1	3
UA2016-137-0024	24	Flake lot	1	0.1	491.73	93.32	NW	1	3.5
UA2016-137-0025	25	Flake lot	1	0.1	491.78	93.5	NW	1	3.5
UA2016-137-0026	26	Flake lot	1	0.1	491.5	93.59	NE	1	5
UA2016-137-0027	27	Flake lot	2	0.1	491.52	93.6	NE	1	5
UA2016-137-0028	28	Flake lot	1	0.1	491.55	93.64	NE	1	5
UA2016-137-0029	29	Flake lot	8	0.3	491.5	93	NW	1	0-5
UA2016-137-0030	30	Flake lot	1	0.05	491.49	93.44	SW	1	3.5
UA2016-137-0031	31	Flake lot	1	0.05	491.62	93.46	NW	1	4
UA2016-137-0032	32	Flake lot	2	0.5	491.55	93.47	NW	1	5
UA2016-137-0033	33	Flake lot	1	0.2	491.6	93.5	NW	1	5

UA2016-137-0034	34	Flake lot	1	0.1	491.6	93.49	NW	1	5
UA2016-137-0035	35	Flake lot	1	0.3	491.43	93.05	SW	2	8
UA2016-137-0036	36	Flake lot	1	0.1	491.32	93.14	SW	2	7
UA2016-137-0037	37	Flake lot	1	0.1	491.26	93.17	SW	2	7
UA2016-137-0038	38	Flake lot	1	0.1	491.48	93.21	SW	2	7
UA2016-137-0039	39	Flake lot	1	0.2	491.41	93.38	SW	2	6
UA2016-137-0040	40	Flake lot	1	0.1	491.73	93.67	NE	1	5
UA2016-137-0041	41	Flake lot	62	2.1	491.5	93.5	NE	2	5-10
UA2016-137-0042	42	Flake lot	77	2.7	491	93	SW	2	5-10
UA2016-137-0043	43	Flake lot	1	0.1	491.13	93.33	SW	2	7
UA2016-137-0044	44	Flake lot	1	0.2	491.24	93.46	SW	2	8
UA2016-137-0045	45	Flake lot	2	0.1	491.34	93.17	SW	2	7
UA2016-137-0046	46	Flake lot	1	0.1	491.45	93.48	SW	2	6
UA2016-137-0047	47	Flake lot	1	0.05	491.42	93.22	SW	2	6.5
UA2016-137-0048	48	Flake lot	1	0.1	491.62	93.55	NE	2	6
UA2016-137-0049	49	Flake lot	2	0.8	491.6	93.6	NE	1	5
UA2016-137-0050	50	Flake lot	1	0.05	491.51	93.62	NE	2	5.5
UA2016-137-0051	51	Flake lot	1	0.1	491.57	93.59	NE	2	6
UA2016-137-0052	52	Flake lot	1	0.2	491.62	93.53	NE	2	6
UA2016-137-0053	53	Flake lot	1	0.1	491.53	93.54	NE	1	5
UA2016-137-0054	54	Flake lot	1	0.4	491.16	93.05	SW	2	9
UA2016-137-0055	55	Flake lot	1	0.1	491.13	93.07	SW	2	9
UA2016-137-0056	56	Flake lot	1	0.2	491.4	93.18	SW	2	7
UA2016-137-0057	57	Flake lot	1	0.1	491.26	93.4	SW	2	7
UA2016-137-0058	58	Flake lot	1	0.05	491.26	93.45	SW	2	7
UA2016-137-0059	59	Flake lot	1	0.05	491.35	93.44	SW	2	7
UA2016-137-0060	60	Flake lot	1	0.1	491.37	93.35	SW	2	7
UA2016-137-0061	61	Flake lot	1	0.2	491.4	93.42	SW	2	8

UA2016-137-0062	62	Flake lot	1	0.1	491.41	93.35	SW	2	7
UA2016-137-0063	63	Flake lot	1	0.1	491.64	93.51	NE	2	6
UA2016-137-0064	64	Flake lot	1	0.05	491.72	93.57	NE	2	7
UA2016-137-0065	65	Flake lot	1	0.4	491.92	93.56	NE	2	8
UA2016-137-0066	66	Flake lot	1	0.1	491.89	93.64	NE	2	7
UA2016-137-0067	67	Charcoal	1		491.78	93.59	NE	2	7
UA2016-137-0068	68	Flake lot	1	0.1	492	92.5	SE	1	3-7
UA2016-137-0069	69	Flake lot	1	0.1	492	92	SW	1	3-7
UA2016-137-0070	70	Bone	1	0.05	492.5	92.5	NE	1	3-7
UA2016-137-0071	71	Flake lot	1	0.1	491.2	93.2	SW	2	9
UA2016-137-0072	72	Flake lot	1	0.1	491.43	93.07	SW	2	8.5
UA2016-137-0073	73	Flake lot	1	0.1	491.43	93.24	SW	2	8
UA2016-137-0074	74	Flake lot	1	0.05	491.14	93.45	SW	2	8
UA2016-137-0075	75	Flake lot	1	0.1	491.18	93.45	SW	2	7.5
UA2016-137-0076	76	Flake lot	1	0.1	491.24	93.42	SW	2	7
UA2016-137-0077	77	Flake lot	1	0.3	491.27	93.39	SW	2	7.5
UA2016-137-0078	78	Flake lot	1	0.1	491.31	93.43	SW	2	7
UA2016-137-0079	79	Flake lot	1	0.3	491.34	93.35	SW	2	7
UA2016-137-0080	80	Flake lot	1	0.6	491.36	93.42	SW	2	8
UA2016-137-0081	81	Flake lot	1	0.05	491.38	93.38	SW	2	8.5
UA2016-137-0082	82	Flake lot	1	0.1	491.72	93.53	NE	2	7
UA2016-137-0083	83	Flake lot	3	2	491.96	93.52	NE	2	7
UA2016-137-0084	84	Flake lot	1	0.3	491.89	93.55	NE	2	8
UA2016-137-0085	85	Flake lot	1	0.2	491.81	93.63	NE	2	7
UA2016-137-0086	86	Flake lot	1	0.1	491.87	93.76	NE	2	9
UA2016-137-0087	87	Flake lot	1	0.05	491.96	93.91	NE	2	9
UA2016-137-0088	88	Flake lot	2	0.1	491.85	93.55	NE	2	8
UA2016-137-0089	89	Flake lot	3	0.3	491.82	93.53	NE	2	8

UA2016-137-0090	90	Flake lot	1	0.4	491.99	93.72	NE	2	10
UA2016-137-0091	91	Flake lot	1	0.4	491.86	93.71	NE	2	9
UA2016-137-0092	92	Flake lot	1	0.1	491.97	93.88	NE	2	9.5
UA2016-137-0093	93	Flake lot	1	0.05	491.85	93.52	NE	2	9
UA2016-137-0094	94	Flake lot	1	0.4	491.38	93.08	SW	2	9.5
UA2016-137-0095	95	Flake lot	1	0.1	491.15	93.44	SW	2	5
UA2016-137-0096	96	Flake lot	1	0.1	491.15	93.44	SW	2	9
UA2016-137-0097	97	Flake lot	1	0.05	491.18	93.46	SW	2	7.5
UA2016-137-0098	98	Flake lot	1	0.05	491.26	93.45	SW	2	7
UA2016-137-0099	99	Flake lot	1	0.2	491.28	93.38	SW	2	8
UA2016-137-0100	100	Flake lot	1	0.1	491.35	93.42	SW	2	8
UA2016-137-0101	101	Flake lot	1	0.05	491.36	93.39	SW	2	8
UA2016-137-0102	102	Flake lot	1	0.2	491.34	93.34	SW	2	8
UA2016-137-0103	103	Flake lot	1	0.1	491.38	93.34	SW	2	8.5
UA2016-137-0104	104	Flake lot	1	0.5	492	92	SW	2	7-12
UA2016-137-0105	105	Soil sample	1		491.79	93.36	NW	1	5
UA2016-137-0106	106	Flake lot	83	4.5	491.5	93	NW	2	5-10
UA2016-137-0107	107	Flake lot	1	0.1	491.26	93.44	SW	2	7.5
UA2016-137-0108	108	Flake lot	1	0.05	491.3	93.46	SW	2	7.5
UA2016-137-0109	109	Flake lot	1	0.1	491.31	93.44	SW	2	8
UA2016-137-0110	110	Flake lot	3	0.2	491.38	93.38	SW	2	8
UA2016-137-0111	111	Flake lot	3	0.1	491.39	93.36	SW	2	9
UA2016-137-0112	112	Flake lot	1	0.5	491.52	93.16	NW	2	6.5
UA2016-137-0113	113	Flake lot	1	0.1	491.69	93.23	NW	2	5.5
UA2016-137-0114	114	Flake lot	1	0.1	491.61	93.31	NW	2	5.5
UA2016-137-0115	115	Flake lot	1	0.1	491.75	93.32	NW	2	5
UA2016-137-0116	116	Flake lot	1	0.1	491.77	93.38	NW	2	6.5
UA2016-137-0117	117	Flake lot	1	0.1	491.81	93.43	NW	2	7

UA2016-137-0118	118	Flake lot	1	0.1	491.66	93.49	NW	2	7
UA2016-137-0119	119	Flake lot	5	1.8	492	92.5	SE	2	7-12
UA2016-137-0120	120	Flake lot	292	14.7	491	93.5	SE	2	5-10
UA2016-137-0121	121	Flake lot	1	0.2	491.53	93.23	NW	2	6
UA2016-137-0122	122	Flake lot	1	0.3	491.68	93.23	NW	2	6
UA2016-137-0123	123	Flake lot	1	0.2	491.76	93.34	NW	2	6
UA2016-137-0124	124	Flake lot	1	0.1	491.84	93.39	NW	2	7
UA2016-137-0125	125	Flake lot	1	0.2	491.68	93.49	NW	2	7
UA2016-137-0126	126	Flake lot	1	0.3	491.69	93.5	NW	2	7.5
UA2016-137-0127	127	Flake lot	1	0.2	491.64	93.22	NW	2	7
UA2016-137-0128	128	Flake lot	1	0.2	491.77	93.21	NW	2	7
UA2016-137-0129	129	Flake lot	1	0.1	491.65	93.37	NW	2	7
UA2016-137-0130	130	Flake lot	1	0.1	491.81	93.38	NW	2	7
UA2016-137-0131	131	Flake lot	1	0.1	491.88	93.47	NW	2	8.5
UA2016-137-0132	132	Flake lot	1	0.3	491.42	93.5	SW	2	6.5
UA2016-137-0133	133	Flake lot	1	0.1	491.49	93.58	SE	2	5.5
UA2016-137-0134	134	Flake lot	1	0.2	491.45	93.63	SE	2	5.5
UA2016-137-0135	135	Flake lot	1	0.05	491.47	93.68	SE	2	6
UA2016-137-0136	136	Flake lot	1	0.1	491.47	93.76	SE	2	5
UA2016-137-0137	137	Flake lot	1	0.1	491.29	93.58	SE	2	6
UA2016-137-0138	138	Flake lot	1	0.1	491.23	93.56	SE	2	5
UA2016-137-0139	139	Flake lot	2	0.2	491.16	93.63	SE	2	6
UA2016-137-0140	140	Flake lot	1	0.1	491.21	93.7	SE	2	5.5
UA2016-137-0141	141	Flake lot	1	0.05	491.2	93.74	SE	2	5.5
UA2016-137-0142	142	Flake lot	1	0.1	491.14	93.87	SE	2	5.5
UA2016-137-0143	143	Flake lot	3	0.2	492.5	92.5	NE	2	7-12
UA2016-137-0144	144	Charcoal	1	0.1	492.62	92.85	NE	2	12
UA2016-137-0145	145	Flake lot	1	0.4	492.67	92.83	NE	2	12

UA2016-137-0146	146	Flake lot	1	1.5	492.05	92.89	SE	2	12
UA2016-137-0147	147	Flake lot	1	0.2	492.11	92.84	SE	2	11
UA2016-137-0148	148	Flake lot	1	0.6	492.1	92.87	SE	2	11.5
UA2016-137-0149	149	Flake lot	1	0.1	492.34	92.76	SE	2	12
UA2016-137-0150	150	Unifacial tool frag	1	1.5	492.45	92.76	SE	2	11.5
UA2016-137-0151	151	Flake lot	1	0.8	492.62	92.93	NE	1	11
UA2016-137-0152	152	Flake lot	1	0.1	492.73	92.64	NE	2	12
UA2016-137-0153	153	Flake lot	1	0.1	492.88	92.76	NE	2	12
UA2016-137-0154	154	Flake lot	1	0.3	491.61	93.24	NW	2	8
UA2016-137-0155	155	Flake lot	1	0.2	491.68	93.04	NW	2	8.5
UA2016-137-0156	156	Flake lot	1	1.5	491.88	93.12	NW	2	8
UA2016-137-0157	157	Flake lot	1	0.1	491.75	93.24	NW	2	8
UA2016-137-0158	158	Flake lot	1	0.1	491.57	93.22	NW	2	7
UA2016-137-0159	159	Flake lot	1	0.1	491.58	93.27	NW	2	8
UA2016-137-0160	160	Flake lot	2	1.2	491.76	93.37	NW	2	8
UA2016-137-0161	161	Flake lot	1	0.1	491.81	93.4	NW	2	8
UA2016-137-0162	162	Flake lot	1	0.1	491.92	93.49	NW	2	9
UA2016-137-0163	163	Flake lot	1	0.05	491.08	93.69	SE	2	7
UA2016-137-0164	164	Flake lot	2	0.1	491.12	93.64	SE	2	6
UA2016-137-0165	165	Flake lot	1	0.2	491.14	93.67	SE	2	6
UA2016-137-0166	166	Flake lot	2	0.1	491.16	93.8	SE	2	6.5
UA2016-137-0167	167	Flake lot	2	0.1	491.18	93.73	SE	2	6
UA2016-137-0168	168	Flake lot	2	0.2	491.17	93.65	SE	2	5.5
UA2016-137-0169	169	Flake lot	1	0.1	491.27	93.64	SE	2	6
UA2016-137-0170	170	Flake lot	2	0.1	491.27	93.59	SE	2	6
UA2016-137-0171	171	Flake lot	1	0.05	491.43	93.73	SE	2	6
UA2016-137-0172	172	Flake lot	1	0.1	491.44	93.6	SE	2	7
UA2016-137-0173	173	Flake lot	1	0.05	491.41	93.49	SE	2	6

UA2016-137-0174	174	Flake lot	2	0.1	491.49	93.65	SE	2	6
UA2016-137-0175	175	Flake lot	2	0.1	491.48	93.45	SW	2	6
UA2016-137-0176	176	Flake lot	1	0.2	491.46	93.48	SW	2	6
UA2016-137-0177	177	Flake lot	1	0.1	491.36	93.38	SW	2	9
UA2016-137-0178	178	Flake lot	1	0.1	491.7	93.03	NW	2	9
UA2016-137-0179	179	Flake lot	1	0.05	491.78	93.01	NW	2	8
UA2016-137-0180	180	Flake lot	1	0.1	491.79	93.21	NW	2	9
UA2016-137-0181	181	Flake lot	1	0.1	491.97	93.06	NW	2	9
UA2016-137-0182	182	Flake lot	1	0.1	491.88	93.2	NW	2	9
UA2016-137-0183	183	Flake lot	1	0.1	491.77	93.37	NW	2	7.5
UA2016-137-0184	184	Flake lot	2	0.3	491.75	93.4	NW	2	8
UA2016-137-0185	185	Flake lot	1	0.1	491.8	93.48	NW	2	9
UA2016-137-0186	186	Flake lot	1	0.1	491.93	93.41	NW	2	9
UA2016-137-0187	187	Flake lot	3	1.7	491.75	93.38	NW	2	8
UA2016-137-0188	188	Flake lot	1	0.1	491.86	93.22	NW	2	9.5
UA2016-137-0189	189	Flake lot	1	0.1	491.8	93.26	NW	2	9
UA2016-137-0190	190	Flake lot	1	1.8	491.77	93.38	NW	2	8
UA2016-137-0191	191	Flake lot	1	0.05	491.92	93.44	NW	2	10
UA2016-137-0192	192	Flake lot	1	0.2	491.79	93.39	NW	2	9
UA2016-137-0193	193	Flake lot	1	0.1	491.81	93.17	NW	2	9.5
UA2016-137-0194	194	Flake lot	1	0.1	491.87	93.33	NW	2	10
UA2016-137-0195	195	Flake lot	1	0.1	491.12	93.83	SE	2	7
UA2016-137-0196	196	Flake lot	1	0.05	491.17	93.73	SE	2	6.5
UA2016-137-0197	197	Flake lot	2	0.1	491.16	93.65	SE	2	6
UA2016-137-0198	198	Flake lot	1	0.05	491.19	93.65	SE	2	6
UA2016-137-0199	199	Flake lot	1	0.5	491.25	93.64	SE	2	6.5
UA2016-137-0200	200	Flake lot	1	0.5	491.43	93.72	SE	2	6.5
UA2016-137-0201	201	Flake lot	1	0.05	491.47	93.63	SE	2	7

UA2016-137-0202	202	Flake lot	1	0.05	491.11	93.64	SE	2	6
UA2016-137-0203	203	Flake lot	1	0.2	491.14	93.72	SE	2	7
UA2016-137-0204	204	Flake lot	1	0.1	491.17	93.8	SE	2	7
UA2016-137-0205	205	Flake lot	1	0.1	491.16	93.74	SE	2	6.5
UA2016-137-0206	206	Flake lot	1	0.1	491.15	93.68	SE	2	6
UA2016-137-0207	207	Flake lot	1	0.05	491.18	93.63	SE	2	6
UA2016-137-0208	208	Flake lot	1	0.05	491.2	93.66	SE	2	6
UA2016-137-0209	209	Flake lot	1	0.2	491.42	93.73	SE	2	7
UA2016-137-0210	210	Flake lot	1	0.05	491.48	93.68	SE	2	7
UA2016-137-0211	211	Flake lot	1	0.2	491.47	93.64	SE	2	7
UA2016-137-0212	212	Flake lot	1	1.5	492.46	92.43	SW	2	15
UA2016-137-0213	213	Flake lot	1	0.4	491.46	93.65	SW	2	8
UA2016-137-0214	214	Flake lot	1	0.1	492.04	92.89	SE	3	13
UA2016-137-0215	215	Flake lot	13	2.2	492	92.5	SE	3	12-17
UA2016-137-0216	216	Flake lot	1	0.4	492.91	92.48	NW	3	14
UA2016-137-0217	217	Flake lot	1	0.4	491.29	93.99	SE	2	8.5
UA2016-137-0218	218	Flake lot	5	0.2	491	93	-	2	10
UA2016-137-0219	219	Flake lot	1	0.7	492.71	92.79	NE	3	14.5
UA2016-137-0220	220	Flake lot	13	1.7	492.5	92.5	NE	3	12-17
UA2016-137-0221	221	Flake lot	1	0.2	492.98	92.75	NE	3	15
UA2016-137-0222	222	Flake lot	3	0.2	492	94.5	SE	1	0-5
UA2016-137-0223	223	Flake lot	7	0.4	492.5	94	NW	1	0-5
UA2016-137-0224	224	Flake lot	3	0.1	492.5	94.5	NE	1	0-5
UA2016-137-0225	225	Flake lot	25	1	492	94	SW	1	0-5
UA2016-137-0226	226	Flake lot	1	0.5	492	94	SW	1	0-5
UA2016-137-0227	227	Flake lot	1	0.2	492.6	94.42	NW	2	5
UA2016-137-0228	228	Flake lot	1	0.4	492.42	94.3	SW	2	5.5
UA2016-137-0229	229	Flake lot	1	1.6	492.4	94.25	SW		6

UA2016-137-0230	230	Flake lot	1	0.1	492.18	94.22	SW	2	8
UA2016-137-0231	231	Flake lot	1	0.1	492.85	92.64	NE	3	15
UA2016-137-0232	232	Flake lot	2	0.3	492.84	92.6	NE	3	13
UA2016-137-0233	233	Flake lot	1	0.6	491.5	93.5	NE	3	10-15
UA2016-137-0234	234	Flake lot	26	2	492.96	92.87	NE	3	14
UA2016-137-0235	235	Flake lot	8	0.9	491.5	93	NW	3	10-15
UA2016-137-0236	236	Flake lot	1	0.4	491	93	SW	3	10-15
UA2016-137-0237	237	Flake lot	1	0.2	491.94	93.29	NW	3	15
UA2016-137-0238	238	Flake lot	9	0.8	491.31	93.76	SE	3	14
UA2016-137-0239	239	Flake lot	3	0.2	491	93.5	SE	3	10-15
UA2016-137-0240	240	Flake lot	5	0.3	492	94.5	SE	2	5-10
UA2016-137-0241	241	Flake lot	1	0.05	492.5	94.5	NE	2	5-10
UA2016-137-0242	242	Flake lot	1	0.3	492.5	94	NW	2	5-10
UA2016-137-0243	243	Flake lot	11	1.1	492.24	94.55	SE	2	9
UA2016-137-0244	244	Flake lot	1	1.3	492	94	SW	2	5-10
UA2016-137-0245	245	Flake lot	1	0.4	492	94	SW	2	5-10
UA2016-137-0246	246	Flake lot	1	0.6	492.45	94.36	SW	2	10
UA2016-137-0247	247	Flake lot	1	0.1	492.15	94.42	SW	2	9
UA2016-137-0248	248	Flake lot	1	0.1	492.43	94.19	SW	2	8
UA2016-137-0249	249	Flake lot	1	0.1	492.42	94.18	SW	2	8
UA2016-137-0250	250	Flake lot	1	0.1	492.4	94.13	SW	2	6
UA2016-137-0251	251	REMOVED	N/A	N/A	492.39	94.08	SW	2	6
UA2016-137-0252	252	Flake lot	1	0.1	492.5	92.5	NE	4	17-22
UA2016-137-0253	253	Flake lot	1	0.1	N/A	N/A	N/A	N/A	N/A
UA2016-137-0254	254	Flake lot	1	0.1	492	94	SW	3	10-15
UA2016-137-0255	255	Soil sample	1	0.5	492	94	SW	4	15-20
UA2016-137-0256	256	Soil sample	1	0.5	491	93	South Wall	4	0-20
UA2016-137-0257	257	Soil sample	1	0.5	491	93		4	0-20

UA2016-137-0258	258	Soil sample	1	0.5	491	93		4	0-20
UA2016-137-0259	259	Soil sample	1	0.5	491	93		4	0-20
UA2016-137-0260	260	Soil sample	1	0.5	491	93		4	0-20
UA2016-137-0261	261	Soil sample	1	0.5	491	93		4	0-20
UA2016-137-0262	262	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0263	263	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0264	264	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0265	265	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0266	266	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0267	267	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0268	268	Soil sample	1	0.5	492	92		4	0-50
UA2016-137-0269	225	Bone	1	0.1	492	92		4	0-50
UA2016-137-0270	243	Retouched flake	1	1.2	492	92		4	0-50
UA2017-093-0001	1	Flake	1	0.6	493	93	NE	1	0-5
UA2017-093-0002	2	Flake	2	5	493	94	NE	1	5-10
UA2017-093-0003	3	Bone	1		493	94	NW	1	5-10
UA2017-093-0004	4	Flakes	2	0.2	493	93	NW	1	0-5
UA2017-093-0005	5	Flakes	11	0.9	493	93	SE	2	5-10
UA2017-093-0006	6	Tci thos	1		493.18	93.81	SE	2	7-12
UA2017-093-0007	7	Flakes	8	0.9	493	93	SW	2	5-10
UA2017-093-0008	8	Tci thos?	1		493.2	94.39	SW	2	12-14
UA2017-093-0009	9	Flakes	1	0.1	493	93	NW	2	5-10
UA2017-093-0010	10	Flakes	1	3.2	491	94	NE	1	10-15
UA2017-093-0011	11	Flakes	3	0.3	493	93	SW	3	10-15
UA2017-093-0012	12	Flakes	25	1.5	491	94	NW	1	10-15
UA2017-093-0013	13	Flakes	11	0.2	491	94	SW	1	10-15
UA2017-093-0014	14	Flakes	3	0.4	493	93	NE	3	10-15
UA2017-093-0015	15	Flakes	2	0.1	491	94	NE	2	15-20

UA2017-093-0016	16	Flakes	6	1.1	491	94	NW	2	15-20
UA2017-093-0017	17	Flakes	15	0.7	491	94	SW	2	15-20
UA2017-093-0018	18	Flakes	22	1.2	493	92	SE	1	0-5
UA2017-093-0019	19	Flakes	9	0.6	493	92	SW	2	5-10
UA2017-093-0020	20	Flakes	43	11.2	491	92	NE	1	5-10
UA2017-093-0021	21	Flakes	4	0.2	491	92	NW	1	5-10
UA2017-093-0022	22	Flakes	1	0.7	493	92	NW	2	5-10
UA2017-093-0023	23	Flakes	2	0.2	491	92	SW	1	5-10
UA2017-093-0024	24	Flakes	190	19.9	493	92	SE	2	5-10
UA2017-093-0025	25	Flakes	7	0.7	491	92	SE	1	5-10
UA2017-093-0026	26	Flakes	1	0.2	491	92	SE	2	10-15
UA2017-093-0027	27	Flakes	3	1.4	491	92	NE	2	10-15
UA2017-093-0028	28	Flakes	7	3.1	493	92	NE	2	5-10 c,bd
UA2017-093-0029	29	Flakes	2	0.5	491	92	SW	2	10-15
UA2017-093-0030	30	Flakes	1	0.3	491	92	SE	3	15-20
UA2017-093-0031	31	Soil sample	1		491	92	SE	3	20
UA2017-093-0032	32	Flakes	6	0.2	493	92	SW	3	10-15
UA2017-093-0033	33	Flakes	1	0.1	493	92	NE	3	10-15
UA2017-093-0034	34	Flakes	60	3	493	92	SE	3	10-15
UA2017-093-0035	35	Flakes	1	0.1	493	92	SE	4	15-20
UA2017-093-0036	36	Bone	1		491	94	NW	1	10-15
UA2017-093-0037	37	Bone	1		491	92	NW	1	5-10
UA2017-093-0038	38	Microblade	1	0.1	491	92	NW	1	5-10
UA2017-093-0039	39	Bone	3		491	92	SW	1	5-10