ABSTRACT

Paulette S. McFadden. GEOARCHAEOLOGICAL INVESTIGATIONS OF DUNE FORMATION AND ARTIFACT DEPOSITION AT BARBER CREEK (31PT259). (Under the direction of Dr. I. Randolph Daniel, Jr.) Department of Anthropology, March, 2009.

The stratified prehistoric site at Barber Creek, located on a relict sand dune in eastern North Carolina, has the potential to offer important insights into the previously poorly understood chronologies and typologies of the coastal plain region of the state. This study investigated how and when the dune formed, and how this formation relates to occupation and artifact deposition. Several lines of evidence were used in this study, including artifact analysis, sedimentology and geomorphology, ground penetrating radar (GPR), and a suite of radiocarbon and optically stimulated luminescence (OSL) dates. The evidence suggests that after 12,900 years ago, aeolian sediments accumulated on the elevated landform, after which time Archaic groups occupied the site. Sometime after 9,000 years ago, it appears that human occupation decreased and is associated with an increase in aeolian sedimentation. Sometime before 2,400 years ago, Middle and Late Archaic, and later Woodland groups reoccupied the now stabilized land form and remained until sometime after around 1,000 years ago.

ii

GEOARCHAEOLOGICAL INVESTIGATIONS OF DUNE FORMATION AND ARTIFACT DEPOSITION AT BARBER CREEK (31PT259)

A Thesis

Presented to

The Faculty of the Department of Anthropology

East Carolina University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts in Anthropology

by

Paulette S. McFadden

April, 2009

GEOARCHAEOLOGICAL INVESTIGATIONS OF DUNE FORMATION AND ARTIFACT DEPOSITION AT BARBER CREEK (31PT259)

by

Paulette S. McFadden

APPROVED BY: DIRECTOR OF THESIS _____

Dr. I. Randolph Daniel, Jr.

COMMITTEE MEMBER _____

Dr. Robert L. Bunger

COMMITTEE MEMBER _____

Dr. Heidi M. Luchsinger

COMMITTEE MEMBER _____

Dr. Holly F. Mathews

COMMITTEE MEMBER

Dr. Christopher R. Moore

CHAIR OF THE DEPARTMENT OF ANTHROPOLOGY

Dr. Linda D. Wolfe

DEAN OF THE GRADUATE SCHOOL

Dr. Paul Gemperline

ACKNOWLEDGEMENTS

First and foremost, I owe a great debt of gratitude to my advisor and mentor, Dr. I. Randolph Daniel, who inspired in me an intense interest in the early hunter-gatherers who lived in the Southeastern United States. I have learned a great deal under his tutelage and will forever be in his debt. During the process of investigating and writing this thesis, he has offered patient guidance, encouragement, and expertise, not to mention superior editorial advice. Thank you Dr. Daniel.

Christopher Moore deserves much gratitude as well. Even before beginning this process, he spent a great deal of time introducing me to the geological methods that were used in this investigation. His continued support, in the form of suggested lines of evidence to explore and guidance with regard to interpretation, has been invaluable.

It would be remiss of me to overlook the important role that my family has played in the completion of this thesis. My husband has offered unlimited support and has been a continued source of motivation for me, encouraging me to continue on even when I was ready to give up. Additionally, my parents have been exceptionally supportive and enthusiastic in my endeavor. I also want to thank Jo Phipps for her loyal friendship and for helping me through the rough spots.

I would also like to thank my committee members. Dr. Robert Bunger, who has offered a healthy supply of moral support; Dr. Holly Matthews, who taught me that writing is more than just stringing words together; and Dr. Heidi Luchsinger, who has offered invaluable geoarchaeological advice. Of course, many of the Anthropology department faculty members, too many to mention individually (although I certainly would like to), have played a very important role in my education and deserve thanks. Lastly, I would like to thank Christine Chitwood and Jonathan Smith, for their assistance in collecting data, and the Geology and Anthropology departments for the use of their labs and materials.

TABLE OF CONTENTS

LIST OF FIGURES	ix
LIST OF TABLES	X
CHAPTER 1: INTRODUCTION	1
Prehistory of North Carolina	2
Aeolian Dunes	5
Research Problem	6
Data Sample	7
Barber Creek	9
Previous Archaeology	. 10
Geoarchaeological Investigations at Barber Creek	. 11
Tar River Survey	. 12
CHAPTER 2: GEOLOGICAL ANALYSIS	. 15
Sedimentology and Aeolian Dunes	. 15
Archaeology and Aeolian Dunes	
Geological Methods	. 20
Geological Results	. 24
Sand Fraction Percentages	. 24
Grain Size Parameters	. 28
CHAPTER 3: FEATURES AND ARTIFACTS	. 33
Unit Excavations	. 33
Features	. 33
Feature 1	. 34
Feature 3	. 34
Feature 4	. 35
Feature 6	. 36
Artifact Classification	. 36
Size Class	. 36
Lithic Raw Material	. 38
Quartz	. 38
Metavolcanic	. 38
Quartzite	. 38
Orthoquartzite	. 38
Chert	. 39
Syenite	. 39
Siltstone	. 39
Indeterminate	
Miscellaneous Fossil	. 40
Lithic Types	. 40
Projectile Point	. 41

Biface	43
Endscraper	45
Blade	
Grinding Stone/Anvil	
Hammerstone	
Cobble/Pebble	
Flaked Cobble/Pebble	
Tabular Rock	
Flakes	
Ceramic Artifacts	
Deep Creek	
Hanover	
Mount Pleasant	
CHAPTER 4: DISCUSSION	64
Stratigraphy and Site Formation	64
Grain Size Analysis	
Chronometric Dates	
Artifact Analysis	
Debitage	
Ceramics	
CHAPTER 5: CONCLUSIONS	
Suggestions for Further Research	
REFERENCES CITED	
APPENDIX A: LITHIC TYPOLOGY	
APPENDIX B: CERAMIC TYPOLOGY	106
APPENDIX C: NON-ARTIFACT TYPOLOGY	107
APPENDIX D: DRY SIEVE PARTICLE SIZE DATA	108
APPENDIX E: LIGHIC ARTIFACTS	111
APPENDIX F: CERAMIC ARTIFACTS	

LIST OF FIGURES

1.	Figure 1.1 Topographic Map Showing the Location of the Excavated Units, Location of Auger and Soil Samples, and the GPR Transect
2.	Figure 1.2 Location of the Barber Creek Site9
3.	Figure 1.3 Backplot of the E445 Trench with Artifact Densities and Grain Size Analysis
4.	Figure 2.1 Examples of Patterns Seen in Mean Grain Size Graph17
5.	Figure 2.2 Photos of Soil Sample Collection and Profile with OSL Tubes21
6.	Figure 2.3 Dry Sieve Process
7.	Figure 2.4 Grain Size parameters for N435 E421 Auger Samples28
8.	Figure 2.5 Grain Size Parameters for N445 E430 Soil Samples29
9.	Figure 2.6 Grain Size Parameters for N456 E426 Auger Samples
10	. Figure 2.7 Grain Size Parameters for N466 E426 Auger Samples
11	. Figure 2.8 Grain Size Parameters for N476 E426 Auger Samples
12	. Figure 3.1 Feature 1
13	. Figure 3.2 Feature 335
14	. Figure 3.3 Feature 4
15	. Figure 3.4 Examples of Size Classes of Flakes and Pottery Sherds
16	. Figure 3.5 Projectile Points42
17	. Figure 3.6 Bifaces44
18	. Figure 3.7 Biface Fragments45
19	. Figure 3.8 Endscrapers47
20	. Figure 3.9 Chert Blade48
21	. Figure 3.10 Syenite Grinding Stone Fragment and Syenite Anvil

22. Figure 3.11 Hammerstone
23. Figure 3.12 Examples of Cobble Fragments
24. Figure 3.13 Cobble Refits
25. Figure 3.14 Flaked Cobbles
26. Figure 3.15 Histogram of Distribution of Flakes by Level
27. Figure 3.16 Histogram of Distribution of Debitage Raw Material54
28. Figure 3.17 Examples of Cord-Marked Pottery
29. Figure 3.18 Examples of Net-Impressed Pottery
30. Figure 3.19 Examples of Fabric-Impressed, Plain, and Simple-Stamped Pottery
31. Figure 3.20 Reconstructed Base of a Hanover II Pot
32. Figure 4.1 Mean Grain Size and Sorting for N445 E430 Soil Samples65
33. Figure 4.2 Lamallae Below 1 Meter
34. Figure 4.3 GPR Transect with Mean Grain Size Charts of Soil Samples68
35. Figure 4.4 Mean Grain Size and Sorting Synthesis
36. Figure 4.5 Bivariate Plots for N445 E430 Soil Samples70
37. Figure 4.6 Artifact Frequencies by Level75
38. Figure 4.7 Mean Grain Size and Chronometric Dates
39. Figure 4.8 Backplot of N445 E430 with Stone Tools and OSL Dates83
40. Figure 4.9 Backplot of N454 E432 and N456 E432 with Stone Tools
41. Figure 4.10 Backplot of N441 E432, N443 E432, and N445 E432 with Stone Tools

LIST OF TABLES

1.	Table 1.1	Dataset
2.	Table 2.1	Sieve Size Used for Particle Size Analysis
3.	Table 2.2	Sand Fraction Percentages for N445 E430 Soil Samples24
4.	Table 2.3	Sand Fraction Percentages for N435 E421 Auger Samples25
5.	Table 2.4	Sand Fraction Percentages for N456 E426 Auger Samples26
6.	Table 2.5	Sand Fraction Percentages for N466 E426 Auger Samples26
7.	Table 2.6	Sand Fraction Percentages for N476 E426 Auger Samples27
8.	Table 3.1	Size Classes in Millimeters
9.	Table 3.2	Size Class Distribution of Stone Artifacts
10.	Table 3.3	Size Class Distribution of Ceramic Artifacts37
11.	Table 3.4	Raw Material Distribution of Stone Artifacts40
12.	Table 3.5	Stone Artifact Types41
13.	Table 3.6	Distribution of Debitage Raw Material54
14.	Table 3.7	Distribution of Ceramic Types56
15.	Table 4.1	Cali bared Radiocarbon Dates73
16.	Table 4.2	OSL Dates73
17.	Table 4.3	Distribution of Lithic Raw Material by Level
18.	Table 4.4	Distribution of Lithic Artifacts with Cortex88
19.	Table 4.5	Distribution of Flakes by Unit
20.	Table 4.6	Distribution of Lithic Raw Material by Unit89
21.	Table 4.7	Distribution of Ceramic Types by Level90
22.	Table 4.8	Distribution of Ceramic Surface Treatments by Level

CHAPTER ONE - INTRODUCTION

The early culture history of the Coastal Plain of North Carolina is poorly understood due to a lack of stratigraphically intact sites that predate the Late Woodland period (Daniel 2008). The Barber Creek site (31PT 259) near Greenville, North Carolina, is situated on an elevated landform, called a relict dune, and is one of the few known stratified sites with multiple occupations in North Carolina's coastal plain. It contains cultural materials ranging from the Early Archaic through the Late Woodland periods (Daniel 2002) and will provide much needed information that will refine the culturehistory of the Coastal Plain region. Because of the lack of stratified sites, much of the current framework of chronology and typology is borrowed from the Piedmont. Ultimately, however, the cultural-historic sequence of this region needs to be considered on its own terms (Daniel et. al. 2008)

Phelps (1983) introduced a preliminary model for the culture-history of the North Carolina coastal plain with the qualification that the model needed to be tested. Excavations at Barber Creek suggest the site contains data appropriate for testing Phelp's model, but an understanding of site formation processes is critical to interpreting the stratified sequence at Barber Creek (I. Randolph Daniel, personal communication 2008). The goal of this research project was to create a chronology for the formation of the Barber Creek site in order to understand the chronology and typology of its human occupations. This was accomplished using multiple lines of evidence, including sedimentology, radiocarbon and optically stimulated luminescence (OSL) dates, ground penetrating radar (GPR), and artifact analysis. Even though our current understanding of the prehistory of the coastal plain relies heavily on work conducted in the Piedmont, it is important to have a basic understanding of what is known about the prehistory of the region in order to understand the context in which Barber Creek fits. In this chapter, I will give a brief overview of the Paleoindian, Archaic and Woodland periods in North Carolina. I will discuss studies that have been conducted at other sites comparable to Barber Creek that are located on similar landforms. Lastly, I will discuss the Barber Creek site, including its environmental setting, previous archaeological work and previous geoarchaeological investigations. Chapter two will discuss the geological analysis, including methods and results from the investigation. Chapter three will discuss features and artifacts, chapter four will provide a detailed discussion of the evidence, and chapter 5 will summarize the conclusions. *Prehistory of North Carolina*

The earliest inhabitants of North America used distinctive, fluted, lanceolate shaped projectile points, which are the hallmark of the Paleoindian Period from ca. 9500 B.C. to ca. 7900 B.C. (Ward and Davis 1999). In North Carolina, late Pleistocene groups moved across the landscape and, because they were highly versatile and mobile, adapted quickly to changing environments (Tankersley 1998). The Paleoindian toolkit reflected the versatility and mobility of these groups. Small tools and multiuse tools were easier to carry, which was important because the desired knappable stone was only available in certain locations (Daniel 2007). Because of a lack of quarry sites in the coastal plain, it is not surprising that the majority of Paleoindian artifacts has been found in the Piedmont where the desirable rhyolite and metavolcanic stone is available (Daniel 1997). However, some Paleoindian groups did make their home in the coastal plain region, as indicated by the distribution of fluted points found in major river valleys (Daniel 1997). Toward the end of the Paleoindian Period, variations in point form indicate groups became more regionalized in their settlement patterns (Daniel 1997).

The transition from the Paleoindian period to the Archaic period (8000 B.C. – 1000 B.C.) coincides with the transition from the Pleistocene to the Holocene in the southeast (Ellis et al 1998). In addition to climate change, by the end of the Pleistocene, the megafauna, including the mammoth and mastodon, became extinct (Ward and Davis 1999), causing a shift in settlement and subsistence patterns that would be the hallmarks of the Archaic period (Ward and Davis 1999).

Like the Paleoindian period, projectile points characterize the Archaic period (8000 B.C. – 1000 B.C.) in North Carolina. Palmer Corner Notched and Kirk Corner Notched projectile points are associated with the Early Archaic; Stanley Stemmed, Morrow Mountain Stemmed, and lanceolate shaped Guilford points are associated with the Middle Archaic; and finally, Savannah River points are associated with the Late Archaic (Ward and Davis 1999).

Ellis, et al. (1998) suggest that during the Archaic, there is a shift toward the use of more local raw materials, most of which are coarse grained materials collected from secondary sources. Daniel (2001) additionally argues that settlement strategies were tied to locations where Early Archaic groups could obtain knappable stone with which to make tools. During seasonal rounds, groups would collect materials appropriate for tool manufacture at quarry sites, carrying these materials with them as they moved across the landscape. Archaic peoples in the coastal plane left an ephemeral signature in the archaeological record and most information about these groups has come from surface collections (Ward and Davis 1999).

In the variable environment of the early Holocene, small, mobile groups of Early Archaic (8000 B.C. – 6000 B.C.) hunter-gatherers scattered across the landscape, aggregating periodically at locations near rivers. With the megafauna gone, these groups focused on collecting plant foods, such as hickory nuts, and hunting smaller game like white tailed deer (Ward and Davis 1999). Phelps (1983) has identified two types of Early Archaic sites in the coastal plain: base camps, with are located near stream confluences, and temporary resource procurement sites, which were variously located where particular resources could be exploited.

The Middle Archaic (6000 B.C. – 3000 B.C.) in the coastal plain is characterized by an increase in sites, which slightly outnumber both the Early Archaic and the Late Archaic (Ward and Davis 1999). By the Late Archaic (3000 B.C. – 1000 B.C), climatic conditions had stabilized and populations increased. Groups became more sedentary, living most, or possibly all of their lives in areas that were rich in food resources with access to dependable raw material sources (Ward and Davis 1999). During this time, there is a shift in settlements patterns with more settlements being located at the mouths of major rivers and away from upland tributary streams (Ward and Davis 1999). By the end of the Archaic, sedentary groups began to practice horticulture and soon the advent of pottery marked the beginning of the Woodland period (Ward and Davis 1999). The Woodland period (1000 B.C. – A.D. 1650) is characterized by three hallmarks: pottery making, sedentary villages, and horticulture (Ward and Davis 1999). The practices that characterize the Early Woodland (1000 B.C. – A.D. 300) represent a gradual change from the Late Archaic, and despite the evidence of sedentism, represented by the presence of pottery, the stone artifacts found at Early Woodland sites show a continued reliance on hunting and gathering (Ward and Davis 1999). The sedentary villages of the Early Woodland set the stage for the creation of distinct regional cultures in the Middle Woodland (A.D. 300 - 800).

Middle Woodland groups adapted to their particular environments and incorporated their own histories into their cultures (Ward and Davis 1999). Archaeologically, the transition from Early to Middle Woodland periods is marked by changes in pottery styles. The changes from the Middle Woodland to the Late Woodland (A.D. 800 – 1650) are marked by changes in pottery styles and a greater reliance on agriculture. Beans and corn had become the staple crops by A.D. 1200 (Ward and Davis 1999). The Late Woodland ends with the influx of European settlers and the beginning of the Contact period.

Aeolian Dunes

The Barber Creek site is situated on a distinctive elevated landform known as an aeolian dune (e.g. Seramur 2002). These types of dunes built up by the accretion of aeolian (wind-borne) sediments atop braidbar or levee deposits. They are filled-in crescent, U-shaped, or linear dunes that formed along rivers and large creeks. The source for the aeolian sediments is the floodplain, where sediments are deposited by the river

then picked up from exposed areas by the wind to be dropped on the building landforms. Because the landforms border the areas where the sediments are picked up, they are called source bordering dunes. Aeolian dunes in the southeastern United States formed thousands of years ago during or following an episode of major glaciation, with some forming after 15,000 years ago, then sometime before 3,000 years ago, these dunes stopped forming and became inactive, or relict (Markewich and Markewich 1994). Aeolian dunes, because of the formation processes at work, have the potential to preserve stratified archaeological remains (Moore 2009), which presents the opportunity to test Phelps' model for the Coastal Plain culture history.

Research Problem

New archaeological and geological data from Barber Creek can be used to ascertain when the relict dune formed and how those processes relate to human occupation and artifact deposition. Of significance is the identification of buried living surfaces at Barber Creek, which will give important chronological information about the early inhabitants of the North Carolina coastal plain. Additionally, Barber Creek could be used as a model for understanding other similar archaeological sites in the Coastal Plain.

As discussed previously, geological investigations at Barber Creek have proposed that the site is situated on a relict dune that resulted from aeolian sand deposition over thousands of years. Previous research suggests that the archaeological remains found at Barber Creek are stratigraphically intact and contain the preserved record of human occupation at the site from the Early Archaic through the Woodland periods. Sedimentological investigations suggest that site formation can be chronologically identified by correlating grain size data with archaeological data and absolute dates. The following research problem utilizes previous work at Barber Creek along with new archaeological and geoarchaeological investigations to focus on site formation and occupation of Barber Creek.

Research Problem: Geoarchaeology: site formation and chronology. How was the Barber Creek site formed and what is the chronology of both the formation and the occupations of the site? Previous geoarchaeological investigations suggest that the Barber Creek relict dune began to form sometime before the Early Archaic period (ca. 8500-10,000 BP), evidenced by at least a meter of culturally sterile sand beneath the last artifact bearing levels (Daniel 2007). To date, the working hypothesis of the dune's formation is that aeolian sands were deposited over a preexisting elevated landform that had built up from fluvial sediments. Periods of dune stability appear to have coincided with human occupation; with the material remains of these occupations being stratigraphically preserved (Moore 2008).

Additional geoarchaeological investigations are needed to test this hypothesis and create a better understanding of the formation processes that preserved the stratigraphic sequence at Barber Creek, with the ultimate goal of refining the culture history of the coastal plain in North Carolina.

Data Sample. The data sample for this project consists of all artifacts from six, 2-meterby-2-meter units, piece-plotted artifacts and sediment samples from an additional unit, auger samples from four additional locations transecting the landform at 10 meter

intervals, and ground penetrating radar data collected on this same transect (Table 1.1 and Figure 1.1). As discussed earlier, radiocarbon dates were obtained from the N454 E432 unit in 2000 and will be used in conjunction with the other archaeological and sedimentological data for this investigation.

Unit	Year Collected	Data Used
N441 E432	2000	Artifacts
N443 E432	2000	Artifacts
N445 E432	2000	Artifacts
N447 E432	2000	Artifacts
N454 E432	2000	Artifacts and charcoal for radiocarbon dating
N456 E432	2003	Artifacts
N445 E430	2008	Piece-plotted artifacts, sediment samples (Series
N435 E421	2008	Auger sample (Series #1)
N456 E426	2008	Auger Sample (Series #3)
N466 E426	2008	Auger Sample (Series #4)
N476 E426	2008	Auger Sample (Series #5)

Table 1.1. Dataset.

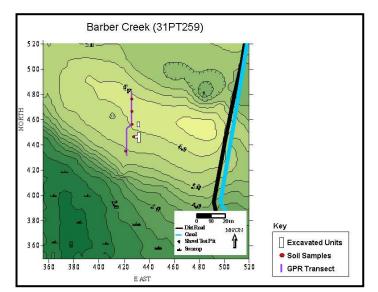


Figure 1.1. Topographic map showing the location of the excavated units, location of auger and sediment samples, and the GPR transect.

Barber Creek

The Barber Creek site is located along the banks of Barber Creek, a tributary of the Tar River, near Greenville, North Carolina, in the state's coastal plain region (Figure 1.2). The site is situated on a characteristically relict sand dune that has a steep lee slope and a gentle stoss slope. The Northwest trending landform is 50 meters wide and 140 meters long and rises two meters above the floodplain of the Tar River. It parallels the northern bank of Barber Creek, about 2000 meters southeast of the Barber Creek and Tar River confluence (Seramur 2002). With the exception of a canal that was cut through the eastern edge of the site, this heavily wooded area has experienced virtually no modern disturbance (Daniel 2002).

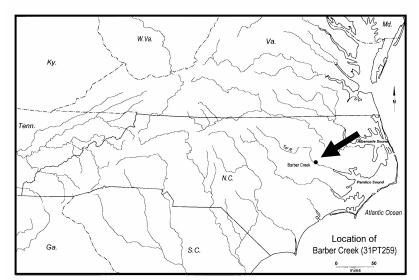


Figure 1.2. Location of the Barber Creek site (Adapted from Daniel 2002).

Previous Archaeology

Phelps (1976) conducted a shovel test survey for the Greenville Utilities Commission ahead of planned construction activities in association with the Greenville Waste Treatment Plant. As a result of these shovel tests, he discovered artifacts dating to the Early Archaic at the Barber Creek site and recommended that the site be excavated prior to the construction of an outfall line from the plant because it was "undisturbed, intact and contain[ed] information of significance for this locality and region" (Phelps 1977:19). Additionally, Phelps recommended the site for addition to the National Register of Historic Places (Phelps 1977). The outfall canal was constructed, but in an area that did not negatively impact the main prehistoric site at Barber Creek and no further excavations were performed until 2000.

In 2000, Dr. Randolph Daniel, of East Carolina University, began extensive excavations at Barber Creek. The goal of the 2000 field season was to identify the site boundaries and to evaluate the integrity of the stratigraphy of the site (Daniel 2000; Daniel et. al. 2008; Potts 2004). These goals were achieved through shovel testing to identify boundaries and trench excavation to investigate stratigraphy. The trench excavation recovered ceramic and lithic remains ranging from Late Woodland through Early Archaic, with a possible older component characterized by two end scrapers that were recovered from levels below artifacts that were diagnostically Early Archaic (Daniel 2000). Using charcoal found in the various levels of the trench during excavations, Daniel was able to obtain radiocarbon dates (Table 1.2). Additional excavations have been performed each summer with the exception of the summer of 2001. Potts (2004) used data collected from the shovel tests performed in 2000 to investigate the spatial distribution of stone reduction activities at the site and to ascertain the nature of the reductions. She concluded that stone reduction activity included core reduction and the creation of unifacial tools using both local and non-local materials. Additionally, she used spatial analysis to determine that there were temporal differences in activity areas, with Archaic period activities taking place mostly in the northern area of the ridge and Woodland period activities taking place to the south of the ridge.

Martin (2004) used ceramics collected from the Parker site in Edgecombe County and from two test units at Barber Creek to refine the definition of the Deep Creek ceramic type and test the model originally proposed by Phelps (1983) for Deep Creek phases. He specifically focused on surface treatment and temper as a means to define the type and tested the three phase model using seriation. Martin (2004) determined that the predominant surface treatment of Deep Creek sherds in the lower ceramic bearing levels was cord-marked and represented Phelps' Deep Creek I series. Cord-marked surface treatments decline in the upper levels while the frequency of net-impressed sherds increased, suggesting a transition to the Deep Creek II series. No Deep Creek III ceramics were evident in the data. While his findings were consistent with Phelps' Deep Creek series model, Martin (2004) suggests that future excavations at Barber Creek could yield data to further test the proposed Deep Creek phases.

Geoarchaeological Investigations at Barber Creek

Previous investigations at Barber Creek included limited geological testing. Seramur (2002) conducted sedimentological analyses of sediment samples from the 11

Barber Creek ridge and compared them to samples taken from the floodplain and terrace adjacent to the site. The analysis of these samples showed a marked morphological difference, with the sample from the ridge having characteristics of aeolian transported sediments as opposed to the fluvial sediments found in the floodplain and terrace areas (Daniel, Seramur, Potts and Jorgenson 2008:6). Electron microscopy revealed differences in the individual grains of sand from both samples. The alluvial sands have characteristic v-shaped and crescent-shaped depressions on well-rounded surfaces. In contrast, the sand from the ridge has conchoidal fractures on very angular shaped grains. The aeolian sands are different because the wind causes sand grains to impact one another with more energy than does water, causing breakage and fracturing rather than small depressions on the rounded surface (Daniel et. al. 2008).

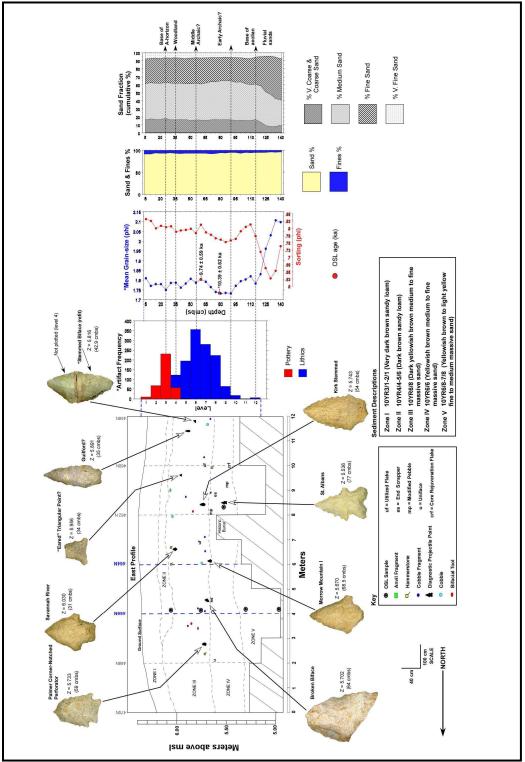
Tar River Survey

Moore (2009) recently conducted extensive research on relict dunes in the Tar River Basin of eastern North Carolina. He suggests that relict aeolian dunes appear to present optimal conditions for the preservation of stratigraphically intact cultural deposits. His study included geoarchaeological investigations at Barber Creek and his sedimentological investigations suggest that site formation processes can be chronologically sequenced by correlating grain size data with archaeological data and absolute dates.

Moore (2009) collected sediment samples at 5 centimeter intervals from the N445/N443 trench that was excavated in 2005/6 for particle size analysis. He was able to correlate the changing mean grain size with increased artifact densities, and most

importantly, with diagnostic artifacts that can be assigned to specific timeframes (Moore 2008). He suggests that there were several periods of long term stability on the landform, during which the site was occupied by humans. These occupations are vertically separated between early, middle, and late Holocene archaeological components. His backplot of the 2005-2006 Barber Creek trench (Figure 1.3) reveals some interesting correlations between changing mean grain size and artifact densities, suggesting distinct periods of human occupation.

Moore's (2009) investigations at Barber Creek showed that sedimentology in conjunction with archaeological data could provide information about how and when the Barber Creek dune formed and could be useful in determining the chronology of occupations. While his data were limited to only one small part of the site, there are interesting aspects of Moore's findings from which specific comparisons can be drawn. Specifically, anomalies in mean grain size and sorting that appear to correlate with spikes in artifact densities may represent periods of dune stability and human occupation in the Archaic and Woodland periods respectively. Additional geoarchaeological investigations, using a larger data set from a different location at the site, will provide a more complete picture of the site formation and occupation chronologies.





CHAPTER TWO – GEOLOGICAL ANALYSIS

This chapter will discuss sedimentological and archaeological investigations of aeolian dunes in the southeastern United States as a way to introduce the reader to the methods used and results of the geological investigations at Barber Creek.

Sedimentology and Aeolian Dunes

At aeolian dune sites, particle size analysis can be used as a line of evidence to investigate how the sediments were deposited, the type of environment that existed upon deposition, and determine post-depositional processes. When used with archaeological evidence, particle size analysis can be a useful tool in identifying buried human occupation surfaces (Brooks, Taylor and Grant 1996). Specific methodology will be fully discussed later in this chapter; however, it is necessary to give a short overview of particle size analysis beforehand so that the reader can better understand how it relates to this research project.

Particle size analysis evaluates the grain size of sediments using an arbitrary numeric scale, called phi (Φ). Sediment samples are sorted into size classes by phi and each of these classes are weighed. By averaging the weights of the size classes, the mean grain size can be determined. Mean grain sizes in phi are arranged into progressively smaller sediments, so that the larger the phi the smaller the grain size. This investigation only considered the sand fraction, which ranges from gravel at -1 Φ to very fine-grained sediment at 4 Φ (Blott & Pye 2001).

Mean grain size can be graphically displayed, creating meaningful patterns from which inferences about depositional mechanisms can be made. Below are three examples of patterns that can be indicative of specific depositional and post-depositional processes (Figure 2.1a-c). Figure 2.1a depicts a pattern that is indicative of graded beds of sediments that were deposited by overbank flooding. As these deposits are brought in, the coarsest, heaviest sediments will settle first, followed by progressively finer, lighter sediments. In some cases, these finer, lighter sediments are topped by lamellae, a thin lens of very fine mud and oxides, which will be discussed later. The pattern of this type of depositional event is a repetition of coarse sediments followed by fine sediments in sequence. These sediments, which are called fluvial sediments because they are carried and deposited by water, will be coarser overall, having a smaller phi, than aeolian sediments (Leigh 1998).

Figure 2.1b is indicative of undisturbed aeolian deposition. Aeolian sediments are more uniformly medium sand, while fluvial sediments can be much more variable. Aeolian sediments tend to become either coarser or finer as elevation increases. These coarsening or fining events create a distinctive repetitive pattern when mean grain size is graphically displayed (Clement, Grunden and Joyce 2005). In the case of this example, there is a peak in coarseness with progressively finer sediments as elevation increases, then another peak in coarseness with more progressively finer sediments atop. Notice that the coarse to fine pattern in Graph a is more compressed than the pattern in Graph b, representing a difference in the spatial aspect of the depositional events. Additionally, the sediments in Graph a are more coarse, having a lower phi than those in Graph b.

Figure 2.1c is indicative of what can be interpreted as anthropogenic disturbance. Sudden, erratic shifts in mean grain size that look very similar to the patterns seen in a

16

plowzone are strongly suggestive of buried human occupation surfaces when taken in context with archaeological evidence (Brooks, Taylor and Grant 1996).

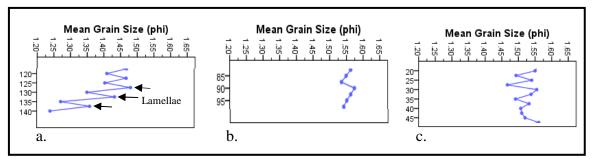


Figure 2.1. a) example of changes in mean grain size from coarse to fine, coarse to fine in areas where lamellae are present. b) Repetitive pattern of gradual grain size changes from coarse to fine indicative of undisturbed sediments. c) Erratic changes in mean grain size indicative of anthropogenic soil disturbance.

Particle size analysis yields other useful information in addition to mean grain size. Sorting is a measure of the degree to which the sediments are uniform in grain size, or how closely the individual grain sizes cluster around the mean. A well sorted sample will be mostly grains of around the same size while a poorly sorted sample will have sediments of widely varying sizes. The mean grain size may be the same for two samples, but they can consist of very different size classes of sediments. Like mean grain size, sorting is measured in phi, with the sample becoming less well sorted as the number increases. So for instance, 0 to $.35\Phi$ is a very well sorted samples while 4.0 Φ and above would be very poorly sorted (Blott and Pye 2001).

Studies of inland aeolian dunes in the southeast show that they have a very similar sedimentology. They are 1 to 7 meters high and composed mostly of medium-grained quartz aeolian sand with an average particle size of 1.0 to 1.68 phi (0.5 mm to slightly larger than .25 mm). Additionally, the aeolian sediments that make up these dunes tend to be better sorted than fluvial sediments and they contain less than 10% silts and clays,

called fines (Leigh 1998). The aeolian dunes in the Southeast have a distinctive parabolic shape that is indicative of aeolian sands that have been picked up from areas where fluvial sediments have been exposed, called bare source areas. These sediments were transported by unidirectional winds and trapped on the building landforms by moderate to high vegetation cover (Ivester and Leigh 2003).

Some depositional events leave distinctive signatures in the stratigraphy that can be correlated with particle size analysis to identify episodes of dune formation. Larsen and Schuldenrein (1990) investigated a site in the Haw River floodplain in North Carolina, partly focusing on thin lenses of reddish-brown sediments of oxides and clays, called lamellae. They suggest that overbank flooding created graded beds and as ground water moved down through the profile, it slowed as it moved from the coarse material to the fine material. This process caused oxides and muds to accumulate into lamellae. As discussed earlier, in addition to the observable lamellae, particle size analysis can identify these coarse to fine variations in the sediments and help identify these depositional events to help create a chronology of site formation.

Particle size analysis can also be used to identify larger stratigraphic units in the soil column. Keith Seramur (2004) investigated a sandy site in Harnett County, North Carolina with the goal of assessing and reconstructing the sedimentary processes that formed the site during the Holocene. As part of his study, Seramur used bivariate plots of mean grain size with sorting and mean grain size with skewness (the degree to which a sediment sample is skewed toward the fine or coarse end of the scale). The graphs clearly showed a clustering of samples by depth, which corresponded with different

18

depositional processes, for instance, fluvial deposition versus aeolian deposition. Similar bivariate plots are used here to help identify stratigraphic units and determine depositional processes at Barber Creek.

Archaeology and Aeolian Dunes

There is some precedence for the use of sedimentology in conjunction with archaeological evidence to create chronologies of site formation and to identify buried occupation surfaces. Ge et. al. (1993) argue that there is a relationship between the sedimentary matrix and artifact distributions at occupation levels. Human activity leaves a signature in the sedimentary structure of the landscape, and this signature can be identified. After investigating an aeolian dune with the stratified remains of thousands of years of occupations, Brooks, Taylor and Grant (1996), argue that it is possible to identify buried living surfaces in an aeolian dune by using sedimentology. They identified an area where there were erratic fluctuations in mean grain size that were similar to the mean grain size variations in the plowzone, which they interpret as anthropogenic disturbances, or occupation surfaces (Brooks, Taylor, and Grant 1996).

Clement, Grunden and Joyce (2005) investigated a sandy coastal plain site at Ft. Jackson in South Carolina and also used sedimentology in conjunction with archaeological evidence to identify buried occupation surfaces. They suggest that, since very small artifacts can be displaced, sometimes significantly, through human activity in sandy soils, particle size analysis can be used in conjunction with artifact density modes to identify buried occupation surfaces when the archaeological data alone is ambiguous. Larger artifacts are less likely to be displaced due to post depositional or human forces, and therefore, can also be used to identify buried living surfaces as well as being important time markers in the case of diagnostic artifacts (Clement, Grunden, and Joyce 2005).

Geological Methods

A total of 104 sediment samples were collected at Barber Creek. Fifty-five samples from the profile of unit N445 E430 were collected at 2.5 centimeter intervals, from 5 centimeters below surface (cmbs) to 140 cmbs, using a trowel (Figure 2.2a). Forty-nine additional samples were collected, using a bucket auger, from four locations along a north/south transect of the dune. This transect was chosen because it included the sediment samples collected from the profile of unit N445 E430 and it provided a crossection of the dune from the stoss to the lee side. The interval for the auger samples was 10 centimeters, from 15 cmbs to 135 cmbs, with the exception of the sample from N435 E421. Due to the dry conditions of the sediments in this area, the samples from 55 and 75 cmbs fell out of the auger prior to collection, rendering them unusable. Each sample was bagged separately and labeled. OSL samples were collected at 20, 40, 60, 80, 100, 120, 130 and 140 cmbs (Figure 2.2b).

Ground penetrating radar (GPR) data were collected using a SIR 3000 GPR unit made by Geophysical Survey Systems, Inc. The transect began at N424 E421, continued straight to N447 E421, doglegged between the corners of two diagonally placed units that had been previously excavated, and continued on along the E426 line to end at N478 E426 (Figure 1.1). The GPR unit was set to a vertical depth of 2.58 meters below surface and automatically placed a marker on the data readout every 2 meters horizontally.

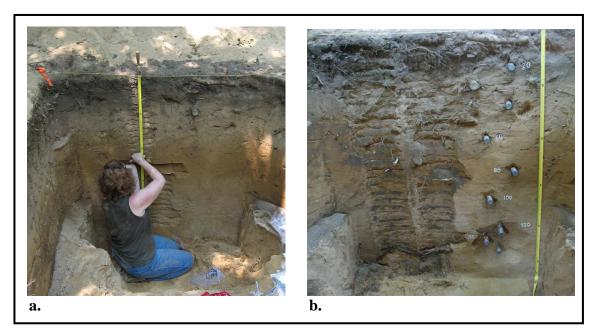


Figure 2.2. a.) Sediment samples were collected at 2.5 cm intervals. b.) Profile of Unit N445 E430 after sediment samples were collected (on left side) with OSL tubes prior to extraction (on right side).

Particle size analysis was conducted in the East Carolina University Geology Department's Sedimentology Laboratory using the dry sieve method (Figure 2.3). Bags containing sediment samples were left open for several days prior to processing to allow moisture to evaporate from the sediments. Just prior to processing, each sample was poured onto a paper plate and placed under heat lamps to remove any residual moisture from the sediments. Samples were stirred to minimize any sorting during storage, and biological materials, such as root hairs, sticks, and leaves, were removed.

Approximately 80 grams of sediments were initially removed from each sample for processing, with the exact weight of the sample being recorded on the particle size data sheet (Appendix D). Each sample was poured into a beaker with deionized water and placed in a sonicating unit for one hour to facilitate separation of fine clays and silts (fines) from larger sediments. The sample was then poured into a 63 micron sieve that would allow the fines to wash out of the sample when rinsed with water, but retain the sediments necessary for processing. The washed sample was placed under a heat lamp and allowed to completely dry before being weighed again. The difference between the initial weight and the weight after washing represents the weight of the fines. Each dried sample was poured into a series of sieves that were mechanically agitated in a ROTAP machine for 10 minutes to sort the sand grains into size classes by phi (Table 2.1, Figure 2.3). The resulting size class weights were recorded on a particle size data sheet (Appendix D). These weights were then input into GRADISTAT (Blott & Pye 2001:1237), a particle size distribution analysis software package.

able 2.1. Sieve sizes us	sed for particle size analysi
Phi	Microns
-1.5	2800
-1.0	2000
-0.5	1400
0.0	1000
0.5	710
1.0	500
1.5	355
2.0	250
2.5	180
3.0	125
3.5	90
4.0	63
<4.0	<63

Table 2.1. Sieve sizes used for particle size analysis



Figure 2.3. a) Sediment samples drying in bags. b) Sediment samples in sonicating unit. c) Washing sample to remove fines. d) Sieves in the Rotap machine. e) Sample being removed from sieve. f) Sediment sample being weighed.

Geological Results

Data from the grain size analyses were charted using specific parameters so that the geomorphology of the dune could be better understood and changes in trends by depth could be identified. For the purposes of this study, only the sand fraction of each sediment sample was used, with percentages for very fine gravel (-1.0 phi), very coarse sand (-0.5 to 0 phi), coarse sand (0.5 to 1.0 phi), medium sand (1.5 to 2.0 phi), fine sand (2.5 to 3.0 phi), and very fine sand calculated (3.5 to 4.0 phi). From the sand fraction percentages, grain size parameter charts were created that provided a visual representation of changes in the composition of the sediments by depth (Figures 2.4 – 2.8). Certain information, specifically, mean grain size and sorting, along with the sand fraction percentiles, gives insight into the processes that created the land form. In addition, when taken in context with archaeological data, these charts help to reveal a chronology of deposition and occupation.

Depth (cm)	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
5	0.02	2.39	21.90	47.41	21.19	7.10
7.5	0.33	1.97	22.57	46.15	21.74	7.57
10	0.00	1.81	22.00	47.73	22.15	6.32
12.5	0.00	2.26	21.34	46.70	22.10	7.59
15	0.11	1.91	23.02	47.54	21.07	6.46
17.5	0.05	2.04	22.37	47.92	20.74	6.93
20	0.07	2.29	22.29	48.07	20.41	6.94
22.5	0.04	2.15	23.76	49.80	18.80	5.49
25	0.12	1.65	23.10	48.85	19.95	6.45
27.5	0.12	2.67	23.93	48.48	19.30	5.62
30	0.06	1.75	22.82	48.23	20.25	6.96
32.5	0.00	1.91	23.08	48.62	19.90	6.49
35	0.07	2.63	23.51	48.66	19.68	5.52
37.5	0.07	2.04	23.49	48.18	20.14	6.15
40	0.10	2.43	23.66	48.43	19.34	6.14

Table 2.2. Sand fraction percentages for N445 E430 sediment samples.

Depth	Very Fine	Very Coarse				Very Fine
(cm)	Gravel	Sand	Coarse Sand	Medium Sand	Fine Sand	Sand
10.5	0.02	2.40	22.65	10.00	10.40	< 1. 7
42.5	0.02	2.49	23.65	48.22	19.49	6.15
45	0.00	2.11	23.61	48.62	19.74	5.92
47.5	0.01	2.22	21.59	48.63	20.73	6.83
50	0.96	2.56	23.47	48.82	19.51	5.65
52.5	0.11	2.09	23.18	48.49	20.40	5.84
55	0.02	1.78	23.08	48.63	20.36	6.14
57.5	0.07	2.36	21.89	47.89	21.06	6.80
60	0.00	2.13	22.98	48.41	20.23	6.25
62.5	0.09	2.70	23.53	48.44	19.44	5.90
65	0.07	2.56	24.39	48.56	19.59	4.90
67.5	0.07	2.62	23.08	48.05	20.05	6.20
70	0.12	2.81	23.94	48.19	19.32	5.73
72.5	0.13	2.38	23.53	47.35	20.81	5.93
75	0.09	2.22	24.06	47.80	19.95	5.96
77.5	0.06	2.26	23.23	48.15	19.91	6.45
80	0.12	2.83	24.16	47.56	19.22	6.23
82.5	0.06	2.36	21.55	47.99	20.66	7.43
85	0.24	2.37	22.54	47.31	20.87	6.91
87.5	0.05	2.56	23.21	46.97	19.99	7.27
90	0.44	2.15	21.36	47.06	21.83	7.60
92.5	0.04	2.02	23.03	46.61	20.84	7.50
95	0.12	2.34	22.54	46.56	20.93	7.62
97.5	0.09	2.08	24.37	45.93	20.16	7.46
100	0.02	2.18	22.28	46.21	21.36	7.97
102.5	0.04	2.74	23.77	45.44	20.23	7.83
105	0.07	2.80	25.17	47.04	18.83	6.16
107.5	0.00	2.92	24.23	46.04	19.80	7.02
110	0.15	2.54	25.80	47.85	18.56	5.25
112.5	0.08	2.25	25.57	46.46	19.31	6.41
115	0.02	2.89	28.29	47.28	17.23	4.31
117.5	0.00	2.96	25.73	46.55	19.15	5.61
120	0.07	2.67	27.44	48.61	17.77	3.50
122.5	0.08	2.39	26.40	47.07	19.14	5.00
125	0.03	2.80	26.10	50.33	17.35	3.42
127.5	0.08	2.66	23.95	48.86	19.32	5.21
130	0.02	2.26	27.09	54.23	14.54	1.88
132.5	0.14	1.95	24.82	53.37	17.11	2.75
135	0.06	2.52	30.96	53.76	11.56	1.20
137.5	0.07	2.13	25.01	56.51	14.40	1.95
140	0.05	2.50	31.40	56.54	8.87	0.70

Table 2.2. Sand fraction percentages for N445 E430 sediment samples (cont.).

Depth (cm)	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
15	0.05	3.64	19.86	38.64	29.92	7.95
25	0.19	4.13	17.78	37.60	32.02	8.47
35	0.16	4.43	17.92	35.82	33.39	8.44
45	0.48	4.56	16.08	34.50	35.27	9.59
65	1.26	6.95	19.27	35.90	31.20	6.68
85	0.49	10.47	23.78	38.13	24.46	3.16
105	0.27	5.41	16.81	31.80	37.36	8.62
115	0.20	2.74	11.32	31.64	47.40	6.91
125	0.46	4.48	14.08	34.38	43.07	3.99
135	0.23	4.68	22.09	45.90	25.33	2.00

Table 2.3. Sand fraction percentages for N435 E421 auger sample.

Table 2.4. Sand fraction percentages for N456 E426 auger sample.

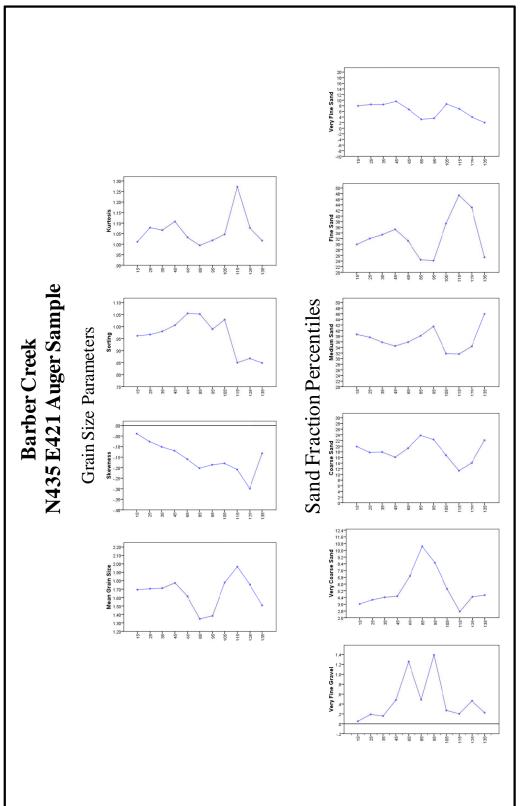
Depth (cm)	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
15	0.00	1.55	21.08	44.21	25.62	7.55
25	0.00	1.29	22.75	46.04	23.18	6.74
35	0.01	1.40	18.00	46.32	26.32	7.97
45	0.07	1.46	17.24	45.62	27.50	8.17
55	0.03	1.31	16.95	44.82	28.27	8.65
65	0.13	1.45	17.31	44.79	27.92	8.54
75	0.02	1.51	20.61	45.16	25.98	6.74
85	0.06	1.81	22.14	45.52	24.84	5.69
95	0.09	1.98	21.18	46.86	24.66	5.31
105	0.02	2.24	23.65	44.38	24.95	4.78
115	0.00	2.85	22.61	40.74	27.91	5.89
125	0.08	2.29	17.45	40.76	30.08	9.42
135	0.10	6.14	26.00	42.58	20.06	5.21

Depth (cm)	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
15	0.00	1.17	16.45	46.84	28.40	7.14
25	0.04	1.47	17.57	46.85	27.26	6.86
35	0.05	1.25	17.05	47.31	27.56	6.82
45	0.06	1.43	18.12	47.70	26.61	6.14
55	0.09	0.96	15.97	47.49	28.23	7.35
65	0.00	1.19	20.05	46.56	26.93	5.27
75	0.00	1.09	18.59	46.29	27.91	6.11
85	0.00	1.18	19.69	47.29	26.58	5.26
95	0.00	1.22	20.00	47.24	26.07	5.47
105	0.00	1.15	20.91	47.91	24.88	5.16
115	0.00	0.99	16.60	47.71	28.06	6.63
125	0.00	1.36	22.40	43.38	26.88	5.98
135	0.00	1.96	23.52	40.82	26.29	7.41

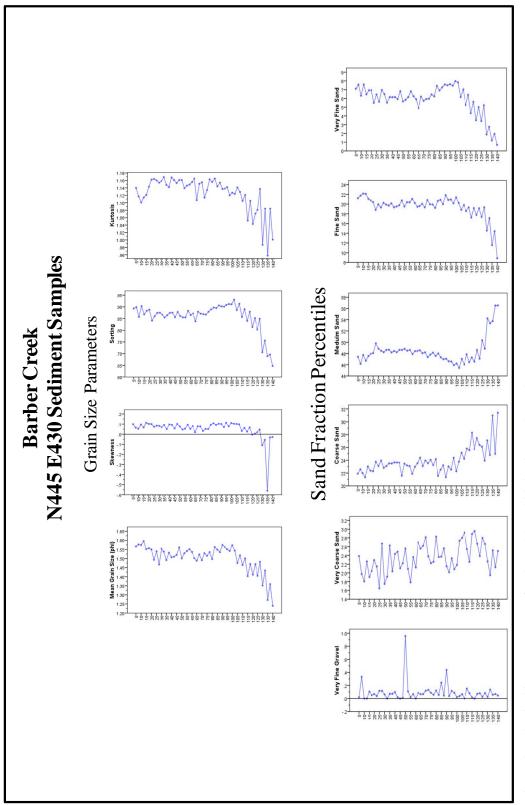
Table 2.5. Sand fraction percentages for N466 E426 auger sample.

Table 2.6. Sand fraction percentages for N476 E426 auger sample.

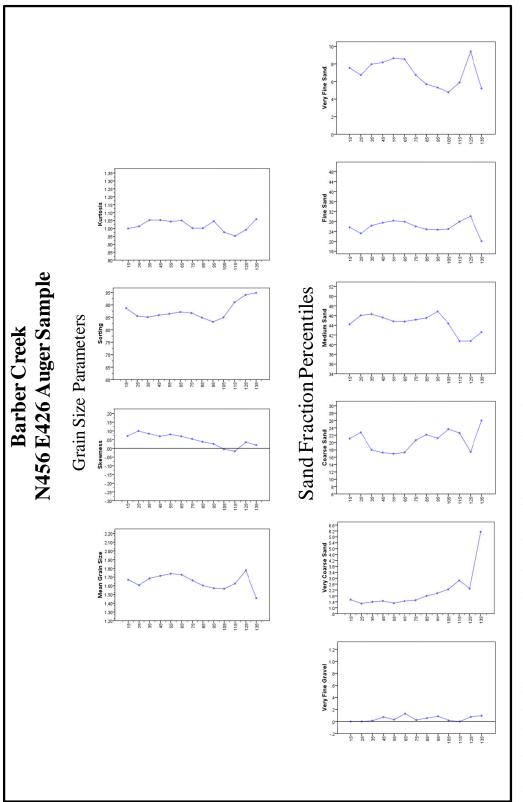
Depth (cm)	Very Fine Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand
15	0.04	1.56	13.18	44.17	32.35	8.74
25	0.02	1.69	13.24	44.45	33.14	7.49
35	0.06	1.84	12.30	42.50	34.99	8.38
45	0.11	1.40	11.63	47.19	32.90	6.87
55	0.27	1.05	10.76	47.19	34.05	6.95
65	0.02	0.95	9.95	45.19	36.37	7.54
75	0.00	0.65	9.33	43.97	38.71	7.34
85	0.13	0.64	8.27	43.21	40.34	7.54
95	0.01	1.22	7.89	37.16	46.37	7.36
105	0.08	2.27	10.63	42.30	41.03	3.77
115	0.09	1.44	8.10	40.48	47.23	2.74
125	0.02	1.55	12.50	35.41	44.02	6.50
135	0.04	4.00	28.56	39.95	22.79	4.70



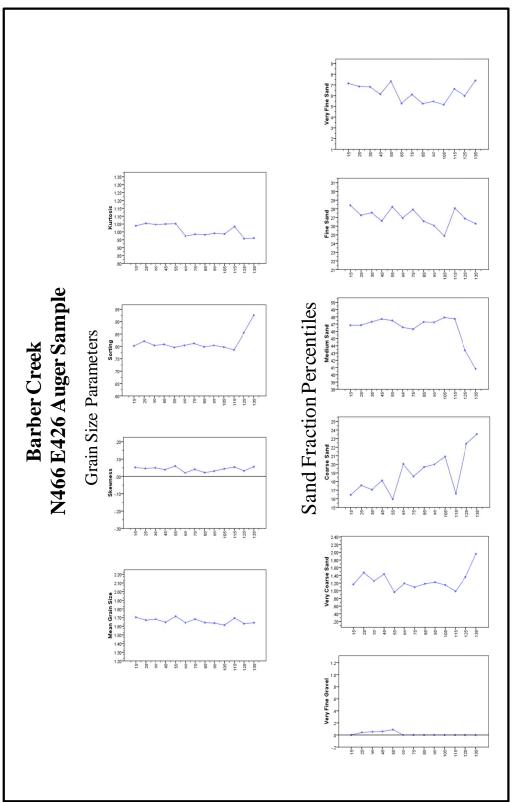




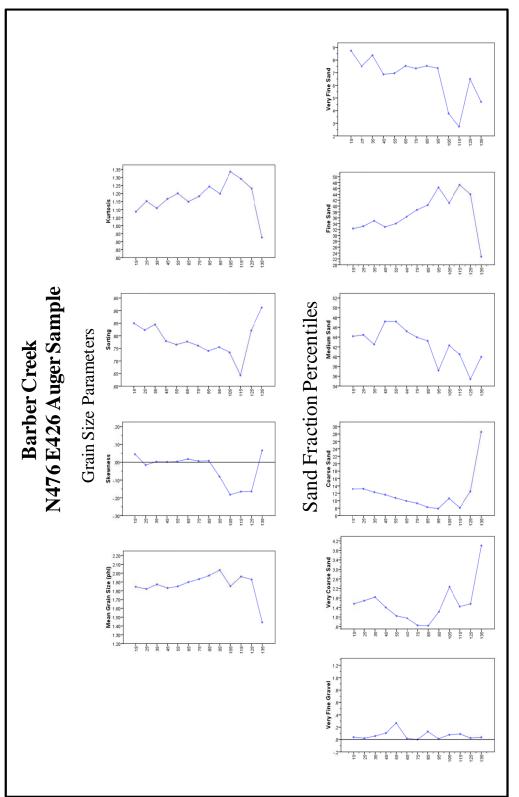


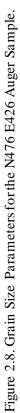












CHAPTER 3 – FEATURES AND ARTIFACTS

The first part of this chapter will outline excavation methods and discuss four features that were identified in the field. The latter portion of this chapter will outline the laboratory methods and typology used for artifact analysis and discusses the lithic and ceramic artifacts recovered during excavations.

Unit Excavations

Standard archaeological methods were used in unit excavation. Units were designated by their southeastern corner coordinate and line level datums were used for vertical control. Units were excavated in arbitrary 10 centimeter levels using flat shovels and trowels. Fill from each level was screened using ¼ inch and 1/8 inch mesh and all artifacts bagged by provenience. Larger artifacts, such as cobbles or hammerstones, and diagnostic artifacts, such as projectile points or large clusters of pottery, were piece-plotted horizontally and vertically. Charcoal suitable for use in radiocarbon dating was placed in vials.

Features

Four features were identified and excavated separately using trowels, spoons, and brushes. Each feature was described, sketched, mapped and photographed in plan view. The feature was then cross-sectioned and excavated in profile. The profile was mapped and photographed, after which the remaining portion of the feature was completely excavated. All artifacts recovered from the feature fill were bagged separately from general level excavations. *Feature 1.* Feature 1 was identified in the northwest corner of level 3 in unit N454 E432. It measured roughly 89 cm by 82 cm and consisted of two fill zones. Zone 2 was a dark yellowish brown sand mottled with lighter yellowish brown sand that surrounded a darker inner area, designated zone 1, that was black, fine to medium sand mottled with yellowish brown sand. In profile, the feature had a basin shaped area bottom approximately 15 centimeters deep. Flotation samples were collected from each zone. The feature fill contained small pieces of charcoal and bone, two small flakes, six small unidentifiable sherds, and two Deep Creek sherds. Given the size and shape, this feature has tentatively been identified as a Woodland Period hearth (Figure 3.1).



Figure 3.1. Feature 1 planview and pedestaled, bisected, and excavated.

Feature 3. Feature 3 was identified as a roughly circular dark stain measuring approximately 35 cm by 36 cm by 7 cm deep with diffuse borders. It was located in the southeastern quadrant of level 3 in unit N454 E432 and contained gray, fine to medium sand. Chunks of charcoal and two small bone fragments were present in the fill, along with 1 Deep Creek, cord-marked sherd. The cultural nature of Feature 3 remains

uncertain. Although it may represent a small Woodland pit, like Feature 1, its shallow depth and its diffuse edges makes a positive identification difficult (Feature 3.2).



Figure 3.2. Feature 3 planview and west half excavated.

Feature 4. Feature 4 was identified in level 6 at the center portion of the western half of unit N443 E432. The edges of this feature were also very diffuse, making the boundaries difficult to identify. Excavation revealed a basin shaped profile approximately 18 cm at its deepest point. With the exception of two small flakes, no artifacts were found in the fill. This feature was interpreted to represent the remnants of a tap root (Figure 3.3).



Figure 3.3. Feature 4 excavated.

Feature 6. Feature 6 appeared in the central portion of the western half of level 10 in unit N443 E432. It appears to have been a stain left from a tap root. The fill was screened and 2 small flakes were recovered. Like Feature 4, Feature 6 was interpreted to be the remnants of a tap root.

Artifact Classification

All artifacts were sorted, catalogued, and analyzed in the East Carolina University Archaeology Laboratory (Appendices A-C). Lithics and ceramics were sorted separately according to class. Other materials included historic artifacts and ecofacts such as charcoal and bone.

Size Class.

Lithics and ceramics were sorted into size classes (Table 3.1 and Figure 3.4) using four U.S.A. Standard Testing Sieves of decreasing mesh sizes. Size class four made up the largest percentage of the lithic artifact assemblage, followed by size class three, size class two, and finally size class one, which was the smallest percentage (Table 3.2). Size class two represented the largest percentage of the ceramic assemblage, followed by size class three, then size class one. Size class four constituted the smallest percentage of the ceramic assemblage (Table 3.3).

 Table 3.1. Size classes in mm.

 Size Class

 Mash Size

Size Class	Mesh Size
1	25 mm
2	12.5 mm
3	6.3 mm
4	2.8 mm

Size Class	Frequency	Percent
1	13	1.2
2	68	6.2
3	192	17.5
4	823	75.1
Total	1096	100.0

Table 3.2. Size Class Distribution of Stone Artifacts.

Table 3.3. Size Class Distribution of Ceramics.

Size Class	Frequency	Percent
1	144	8.9
2	806	49.5
3	627	38.5
4	50	3.1
Total	1627	100.0

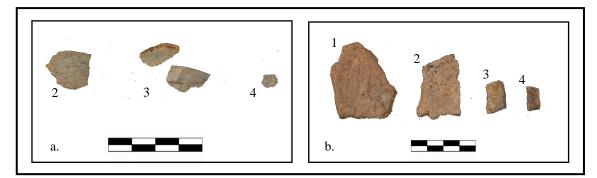


Figure 3.4. a.) Examples of size class 2, 3, and 4 flakes. b.) Examples of size class 1, 2, 3, and 4 potsherds

All artifacts, after being categorized, were counted and weighed and the information was recorded on the appropriate data sheet (Appendix E & F) then entered into a Microsoft Excel spreadsheet. Lithic and ceramic spreadsheets were imported into a statistical package for social sciences (SPSS) for statistical analysis.

Raw Material

A total of 1096 lithic artifacts were sorted into seven general raw material catagories: chert, metavolcanic, orthoquartzite, quartz, quartzite, syenite, and indeterminate (Table 3.4).

Quartz. Quartz stone dominates the raw material in this dataset, representing 46.4% (n=508) of the assemblage. Quartz is a variably milky white to clear, glassy stone readily available in the Coastal Plain of North Carolina. At Barber Creek, quartz was easily obtained from the river in the form of cobbles (Daniel 1998; Daniel et. al. 2008). Tools made with the milky white material appear to be crudely flaked in contrast to the clear variety, which has a much better concoidal fracture (Daniel 1998).

Metavolcanic. The metavolcanic classification is a broad category containing metamorphosed igneous stone artifacts, which includes rhyolitic tuffs and flows (Daniel 1998). Metavolcanic stone outcrops in the Piedmont of North Carolina and is likely the primary source of this material, with river cobbles providing secondary sources along Coastal Plain rivers (Daniel, et. al. 2008). Metavolcanic stone is the second largest class, making up 26.9% (n=295) of the raw materials from this assemblage.

Quartzite. Quartzite is a very hard metamorphosed sandstone that contains a high percentage of quartz (Huggett 2007:416). This stone has a good concoidal fracture and would have been available at Barber Creek in the form of river cobbles (Daniel et. al. 2008). Quartzite represents 16.6% (n=182) of the stone raw material.

Orthoquartzite. Orthoquartzite contains small grains of quartz sand cemented together with silica (Novick 1978; Upchurch 1984) and is found in both the Piedmont and

the Coastal Plain of North Carolina (Daniel 2001). This raw material makes up 3.6% (*n*=40) of the assemblage.

Chert. Chert is a highly siliceous cryptocrystalline rock form that includes a graycolored chert (Phelps 1983) and a tan-colored stone of unknown origin, but likely originated outside the state (Daniel 1998; Daniel et. al. 2008). This material is found in much smaller quantities at only 1.9% (n=21) of the assemblage.

Syenite. Syenite is a locally available, granite-like crystalline rock that contains very little quartz. It is a durable material that resists heat and weathering but has a poor conchoidal fracture (Fenton and Fenton 2003). Ten syenite artifacts were found in this assemblage, comprising only .9% of the total.

Siltstone. Siltstone is a sedimentary rock composed of very fine quartz and clay minerals that settle into thin layers and rarely create formations (Huggett 2007). This low quality, soft stone is not normally appropriate for the manufacture of tools. One artifact (.1%), a crude biface, of this material was recovered.

Indeterminate. The indeterminate category includes lithic materials that could not be classified and represents 3.4% (*n*=37) of the dataset.

Raw Material	Frequency	Percent
Chert	21	1.9
Indeterminate	37	3.4
Metavolcanic	295	26.9
Orthoquartzite	40	3.6
Quartz	508	46.4
Quartzite	182	16.6
Misc. Fossil	1	.1
Siltstone	1	.1
Syenite	10	.9
Total	1096	100.0

Table 3.4. Raw Material Distribution of Stone Artifacts.

Miscellaneous Fossils

A broken megalodon tooth was recovered during excavation. It is not clear if the tooth fragment is an artifact, however, it is likely that it was transported onto the ridge by humans and therefore is included in the dataset.

Lithic Types

Lithic artifacts were classified by type (Appendix A), which includes bifaces, blades, cobbles, endscrapers, flakes, flaked cobbles, hammerstones, projectile points, scrapers, tabular fragments, utilized/retouched flakes, and other (Table 3.5). Lithic artifact types are briefly described in Appendix A.

Туре	Frequency	Percent
Biface	3	.3
Biface Fragment	2	.2
Bifurcate Point	1	.1
Blade	1	.1
Cobble	2	.2
Cobble Fragment	14	1.3
Endscraper	5	.5
Flake	1056	96.4
Flaked Cobble	2	.2
Flaked Pebble	3	.3
Grinding Stone Fragment	1	.1
Hammerstone	1	.1
Misc. Fossil	1	.1
Point Stem	1	.1
Tabular Fragment	2	.2
Woodland Point	1	.1
Total	1096	100.0

Table 3.5. Stone Artifact Types.

Projectile Points. Projectile points were classified by type. Two points and one stem fragment were recovered; a metavolcanic bifurcate point (Figure 3.5a), a quartz woodland point (Figure 3.5b), and a small metavolcanic point stem (Figure 3.5c). The metavolcanic point was recovered from level 7 at 66-69 cmbs. It is a well thinned, 32 mm long and 26 mm wide triangular blade with one shoulder and the tip broken. The broken tip may be an impact fracture. The base has a broad shallow notch that results in a bi-lobed appearance that is reminiscent of either a MacCorkle Stemmed or St. Albans point type (Coe 1964). Because the point is under the minimum length parameters for the

MacCorkle Stemmed type, it is classed as a St. Albans. The St. Albans point type is named for its type site in St. Albans, Virginia (Broyles 1971).

The second quartz Woodland period point was recovered from level 2 (10-20 cmbs). It is 27 mm long and 14mm wide. It has a thick, relatively short blade and appears to have a very small rudimentary stem, however, the break between the blade and the base is not very distinct. Currently it does not fit into any cultural-historic point type for North Carolina. The closest typological comparison is the Randolph type (Coe 1964). This classification is problematic however because Coe (1964) dates the Randolph type to the 18th century and this point was recovered in association with Early Woodland Deep Creek pottery.

The small stem fragment was recovered from level 4 (30-40 cmbs). This small fragment, 15 mm long and 12 mm wide, very closely resembles the stems on four other Woodland points found in levels 2, 3, and 4 at other areas of the site. Therefore, it is tentatively classified as the stem of an unidentified Woodland period point.

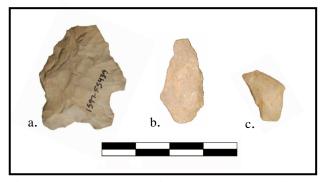


Figure 3.5. a) St. Albans point (FS# 439), b) Woodland period stemmed point (FS# 659), and c) metavolcanic stem of a Woodland period point (FS# 406).

Biface. Three crude bifaces were identified in the assemblage and are distinguished by flaking along both faces that reduces the thickness of the stone while creating a sharp edge. Bifacial flaking results in an undulating pattern along the edge of the tool. One biface (Figure 3.6a), recovered from level 4, is of an indeterminate, chalky material. It appears to be the basal portion of a biface with a lateral fracture and measures 43 mm by 38 mm. It is still very thick, 19 mm, at the center portion where cortex remains. Given the thickness and crude flaking, this biface most likely broke during the early stages of manufacture. It may have some flaking on the broken surface, but it is so weathered that it is difficult to be sure.

The second biface (Figure 3.6b), found at the bottom of level 9 at about 90 cmbs, appears to be a portion of a larger biface manufactured from orthoquartzite. It is 43 mm long and 44 mm wide and is fairly well thinned to 10 mm thick. There is bifacial flaking around all of the edges, although these appear to be due to primary manufacture since there does not appear to be much in the way of finishing flaking.

The third biface (Figure 3.6c), recovered from level 8 at about 72 cmbs, is vaguely reminiscent of a squat Morrow Mountain made on a flat thin piece of tabular siltstone. It is 38 mm long, 30 mm wide, and thinned to 7 mm. To the extent that it is bifaced, the flaking is limited to the very edges of the piece. Flake scars extend only a short distance, a few millimeters, from the edge all the way around the perimeter of the point, including the stem. Given its resemblance to a Morrow Mountain and its provenience, this biface could be Archaic. However, it is arguable if it is even intended to be a point; it may just be an attempt to make a point, or perhaps it was an attempt to shape something as a handheld tool rather than a point.

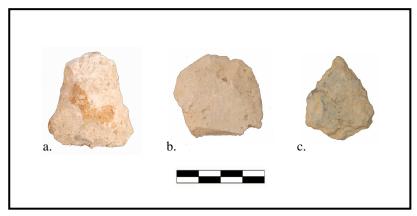


Figure 3.6. a) biface of indeterminate raw material (FS# 355), b) orthoquartzite biface (FS# 3148), and c) siltstone biface (FS# 1785).

Two additional biface fragments were recovered during excavation. The first is a quartz biface fragment (Figure 3.7a), 26mm long and 25mm wide, that was recovered from level 7 at 60-67 cmbs. It appears to be an attempt at bifacing a small thin pebble. It has cortex along most of one lateral edge and a lateral snap across the width of the pebble. There is evidence of some bifacing around one end and one lateral edge. This piece probably broke as a result of thinning attempts.

The second fragment (Figure 3.7b), found in level 4 around 40 cmbs, appears to be the tip of a biface, most likely broken during manufacture. This metavolcanic specimen measures 29mm long and 40mm wide, is planoconvex in crossection, and has a lateral break that is not due to use.



Figure 3.7. A) quartz biface (FS# 774) and b) metavolcanic biface fragment (FS# 3074).

Endscraper. Endscrapers are characterized by the flaking or retouching of either the distal or proximal end of a large flake, creating a convex working edge or bit (Daniel 1998). Three Type I (e.g. Daniel 1998) endscrapers were found in the lower levels of the excavated units used for this project. Type I endscrapers have been associated with both Paleoindian and Early Archaic time periods (Daniel 1998). One of these is a small quartz endscraper (Figure 3.8a), recovered at 99 cmbs, that measures 20 mm long and 16 mm wide. It has a small hafting notch on one lateral edge of the proximal end (Coe 1964). An additional attribute of interest on this type I endscraper is the presence of a graver spur (Daniel 1998), located at the juncture of one lateral edge and the bit end of the piece. Another of the endscrapers is manufactured from a metavolcanic material called rhyolite (Figure 3.8b). It is the bit end of a type I endscraper that was found very close to the quartz endscraper at 98 cmbs. It is 18 mm long and 23 mm wide and has a classic lateral snap, suggesting that this was a hafted scraper broken during use. The retouch is confined to the bit edge with minimal retouch along the lateral edges. There is noticeable edge wear indicative of hide working. The last type I scraper is a quartzite endscraper (Figure 3.8c) that was recovered from Level 8 at 79 cmbs. It is 27 mm long and 24 mm

wide. The lateral edges of this scraper tapper back to a striking platform and the rounded edge of the bit end exhibits small flaking all around, making the bit concave. This scraper exhibits the diagnostic planoconvex shape in cross-section and drop-like morphology in plan view of a Type Ib endscraper (Daniel 1998).

Another possible endscraper was recovered in level 7 (60-70 cmbs). It appears at first glance to be a reworked flake, however, the striking platform is gone and it appears to be thinned where the platform would have been. There is obvious retouch along one lateral edge that is reminiscent of the kind of retouch seen on endscrapers. This piece is tentatively classed as the proximal, or butt, end of an endscraper (Figure 3.8d).

An additional orthoquartzite scraper (Figure 3.8e) was recovered from level 8 at 74 cmbs. This specimen is fundamentally different from the Type I scrapers described above. This scraper is almost as long as it is wide, measuring 43 mm long and 44 mm wide, and exhibits steep unifacial retouch along the lateral edges. The bit has been broken off at the distal end, perhaps from use. Diagnostically, this scraper more closely resembles a handheld, Type IV endscraper (Daniel 1998).

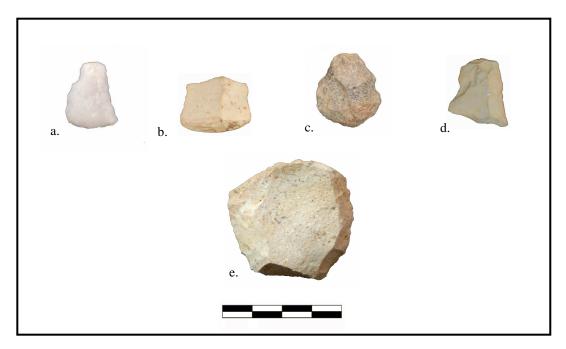


Figure 3.8. a) Quart endscrapers (FS# 604), b) bit end of metavolcanic endscraper (FS# 603), c) quartzite endscraper (FS# 3131), d) butt end of metavolcanic endscraper (FS# 535), and e) orthoquartzite endscraper (FS# 1808).

Blade. A blade is defined as a thin flake that is removed from a core and that is roughly twice as long as it is wide. One chert blade, 33mm long and 16mm wide, was recovered from level 7 at 60-67 cmbs (Figure 15). It has all the classic attributes of a small blade with parallel edges, a clearly present platform, and two lateral dorsal ridges (e.g. Crabtree 1982). Opposite the platform, the blade terminates in a classic hinge fracture. One lateral edge of the blade exhibits a 10mm range of microflaking and an additional 5mm area of rounding below, suggestive of use wear.



Figure 3.9. Chert Blade (FS# 774).

Grinding Stone/Anvil. Two large chunks of Syenite were recovered from the site, one classed as a grinding stone fragment and the other as an anvil. The grinding stone fragment (Figure 3.10a), found at 64 cmbs, is a 47mm thick, tabular, blocky piece that is 89 mm long by 58mm wide. One flat surface feels very smooth and has a slight basin shaped depression that is reminiscent of a classic grinding stone (e.g. Daniel 1998). The opposite side is not as smooth and two of the edges are broken. This piece most likely represents one corner of a broken grinding stone. The other chunk of Syenite (Figure 3.10b) is a subrectangular tabular piece with rounded corners that measures 88mm long and 62mm wide. While there is no clear evidence of utilization, it can be inferred that the piece was carried up to the site and the flat surfaces possibly used as some sort of anvil.

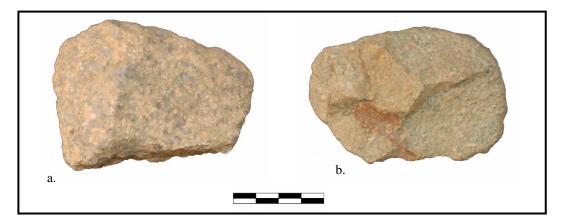


Figure 3.10. a) Syenite Grinding Stone Fragment (FS# 3106) and b) possible syenite anvil (FS# 3306).

Hammerstone. One hammerstone (Figure 3.11), a large elongated cobble, 136mm long and 54mm wide, found in level 6 (50-60 cmbs). This cobble has a regular pattern of pitting over the whole surface that is suggestive of weathering. However, both edges of the cobble have irregular percussion pitting cause by battering indicative of use as a billet or hammerstone.



Figure 3.11. Hammerstone (FS#711).

Cobble/Pebble. A cobble is any water-rounded, un-worked stone that is larger than 25mm in size. Two cobbles are present in the assemblage and although no evidence of modification or use could be detected, they are nevertheless counted as artifacts because it is assumed that these items were carried to their present locations by humans. Additionally, 11 cobble fragments were found, several of which refit with other cobble fragments from the same provenience. Of interest are two quartz cobble fragments (Figure 3.13a) that were recovered from level 5, at about 11 centimeters apart in elevation and about a meter apart horizontally. When refit, the cobble fragments measure 74mm long and range from 29-31 mm in width. Five small pieces of an indeterminate chalky raw material were recovered that fit together, making an almost complete cobble (Figure 3.13b). Three of the five pieces were found in level 4 and 2 were recovered from level 6. It is unclear if the breakage is due to human activity or natural processes; however, since the material is not suitable for tool manufacture, and no apparent flaking is present, it is assumed it is not the product of cultural activity.

A pebble is any rounded, unworked stone that is smaller than 25mm in size. While unmodified pebbles are not considered artifacts, any that were recovered were sorted, counted, and recorded.

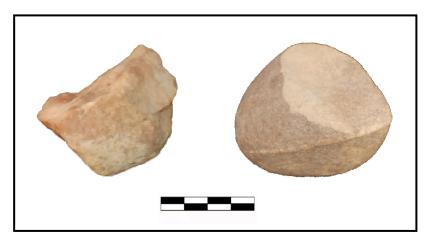


Figure 3.12. Cobble Fragments recovered at Barber Creek.

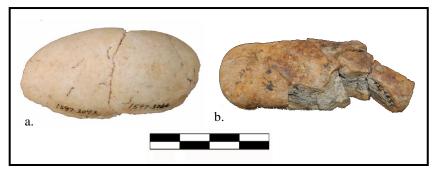


Figure 3.13. a) Quartz cobble refit (FS#3043 and 3066) b) Indeterminate material cobble refit (FS# 355 and FS#397).

Flaked cobble/ Pebble. The artifact assemblage contains two flaked cobbles and three flaked pebbles. A flaked cobble is any water-rounded stone larger than 25mm that has more than one intentionally removed flake. Similarly, a flaked pebble has no more than one intentionally removed flake, but is smaller than 25mm. Two flaked cobbles were recovered from the units. The first is a quartz cobble (Figure 3.14a) that measures 43mm long and 31 mm wide. It was recovered from level 7 (60-70 cmbs). One end of the cobble has flakes removed resulting in a slightly sinuous edge. Cortex remains on three-fourths of the cobble. It is unclear if this was to be used as is, or if further reduction was intended. Usewear analysis would be needed to determine if this flaked cobble was used in its current form. The second flaked cobble (Figure 3.14b) is a Syenite piece that was recovered from level 5 (40-50 cmbs). This chunk of stone is 30 mm long and 42 mm wide and is roughly triangular in shape with one flat edge. While the stone is very grainy and rough, the flat edge is smooth with possible areas of striation, suggesting that this piece could have been used as an abrader.

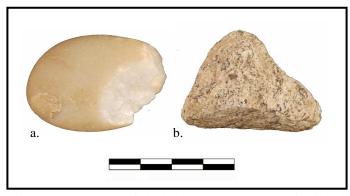


Figure 3.14. a) Quartz flaked cobble (FS# 454), Syenite flaked cobble (FS# 370).

In addition to the flaked cobbles, three pebbles were recovered from levels 4, 6, and 7. The ends of these small pebbles have been broken off, possibly due to intentional flaking. However, there appears to be no effort to use these pebbles as tools or to further work them to make a tool.

Tabular Rock. A tabular rock is a thin (tabular) rock with minimal flaking. Two tabular fragments of indeterminate raw material were recovered, one from level 4 and the other from level 6.

Flakes. Flakes make up the largest percentage, 96.6 (n=1056) of this lithic artifact assemblage. A flake is a fragment of stone that has been intentionally removed during the process of making or maintaining a tool. Flakes are recognized by a characteristic striking platform and bulb of percussion. Provenience for 1029 flakes consists of levels 1 through 11 with 6 of those being from Feature 1. The 23 remaining flakes were recovered during baulk removal and profile cleaning and thus have limited statistical benefit. Flake densities are highest at level 7 with 15.5% (n=164), level 8 with 15% (n=158), and level 5 with 14.6% (n=154) respectively, with a drop in the number of flakes recovered at level 6 to 13.4% (n=142) (Figure 3.15).

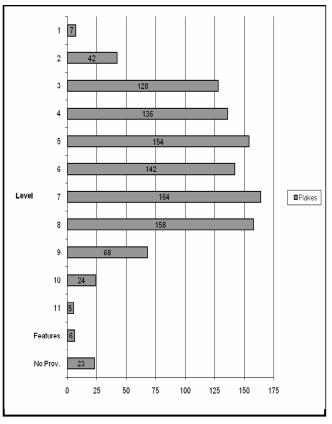


Figure 3.15. Distribution of flakes by level.

All of the raw material types previously described are represented in the flake assemblage (Table 10). Quartz (n=497) is the dominate raw material type, followed by metavolcanic (n=290), quartzite (n=177), orthoquartzite (n=38), indeterminate stone (n=27), chert (n=20), and syenite (n=7).

Raw Material	Frequency	Percent
Chert	20	1.9
Indet.	27	2.6
Metavolcanic	290	27.5
Orthoquartzite	38	3.6
Quartz	497	47.1
Quartzite	177	16.8
Syenite	7	.7
Total	1056	100.0

Table 3.6. Distribution of Debitage Raw Material.

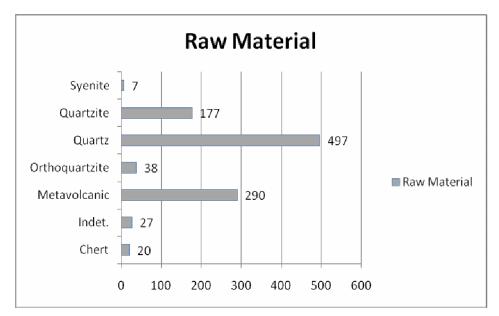


Figure 3.16. Distribution of Flakes by Raw Material.

Ceramic Artifacts

The ceramic assemblage consists of 1627 sherds, 761 of which could be categorized into types. The remaining 866 sherds were very small fragments that were unclassifiable as to type. Sherds were classified according to the conventional typology of the region (South 1976, Phelps 1983, Herbert and Mathis 1996, Herbert 2003). An indeterminate category was added for sherds that could not be classified as one of the three regional types and these sherds represent 1.1% (n=8) of the assemblage. An additional category, other, was used to classify 1 historic pottery sherd that was recovered during excavations (Table 3.7).

			ļ		ļ	ĺ			ļ	ĺ				ĺ						I
		I	Deep Creek	Creek				Hanover				Indeterminate	ate			Mc	Mount Pleasant	easant		
T ava	Cord	Cord Fabric Net Simple Cord Fabric Moded Immesced Ind Immesced Dain Modeod Immesced Ind Diain	hul	Net	Dlain	Simple	Simple Cord	Fabric	լով	Dlain	Cord	Cord Fabric Morbod Immesced Ind Disin	Ind	Dlain	Cord	Fabric Net Simple Immesced Ind Immesced Digin Stemm	Ind	Net	Disin	Simple
TCACI	MAINCU	mipressed	nIII	mbressen	гаш	quind	MAINCU	mpressen	niii	r lall	INTRI I/CCI	mipressed	nii	FIAIL	MAINCU	massardium	חוות	massardrin	FIAILI	quinc
	4	ı	1	2			ı	·	ŀ	1	ı	,	·	ı	ı	ı				ı
1	I	1	4	2	ŀ	ı	4	2	1	ı	ı		ï	ī	ı	ı	ŀ		·	ı
2	26	4	30	33	1	ı	13	51	9	1	1		ï	ī	с	1	ŀ	1	·	ı
3	126	6	32	117	1	ı	9	80	26	1	1		ï	4	5	2	1	1	5	ı
4	25	1	8	49	ŀ	1	ı	24	1	ı	ı		1	ī	5	ı	ŀ		·	1
4/5	2	1	,	1	,	1	ı	·	ï	ı	ı	·	ï	,	ı	ı	ŀ		·	ı
5	1	ı	1	6	1	1	1	1	1	ı	ı	1	ï	ı	ı	ı				ı
9	1	1	1	3	ī	1	ı	1	1	ı	ı	·	ï	ŀ	ı	ı	·	ı	·	I
8	1	ı	ī	ı	ī	1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı		·		ı
6	ı	ı	ŀ	ı	ŀ		T	2	ï	1	ı	ı	ï	·	ı	ı	·	·	·	ı
Fea. 1	1	ı	ī	1	ī	1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	·	ı	,	ı
Fea. 3	1					1	ı	·			·					·				

at Barber Creek	
Distribution at	
able 3.7. Pottery	

Deep Creek. Five-hundred, three sherds (66.1%) were classified as belonging to the Deep Creek series. Deep Creek pottery is a coarse, sand-tempered, early Woodland ware. Phelps (1983) proposed model for the Deep Creek ceramic series split it into three phases. Deep Creek I (1000 B.C. – 800 B.C) is the earliest phase and consists of predominately cord-marked surface treatments along with some net-impressed. Cord-marking is created by pressing a cord-wrapped paddle into the vessel's wet clay surface prior to firing. Often, the impression of parallel lines that is left is detailed enough that the individual twines are easily visible and detailed enough to distinguish twists in the twining (Ford and Griffin 1938; Martin 2004) (e.g. Figure 3.17a). This classification includes variations of this surface treatment, including cross-cord and twine textile impressions. Cross-cord sherds (e.g. Figure 3.17b) exhibit a second, perpendicular impression from the cord-wrapped paddle. Twine textile sherds (e.g. Figure 3.17c) have a distinctive impression that is created when the cord is wrapped with a second, thinner twine.

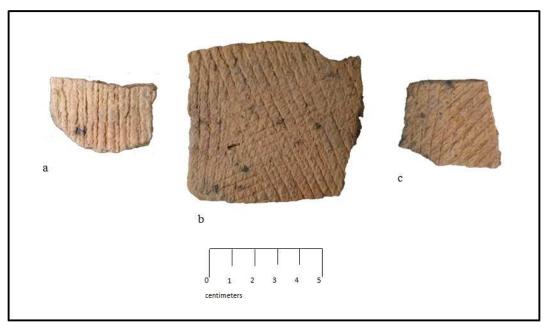


Figure 3.17. Examples of Cord-Marked Sherds. a) cord-marked, b) cross-cord, c) twine-textile.

Net-impression (Figure 3.18) was accomplished by either impressing a netwrapped paddle or a handheld section of net into the wet clay of a vessel prior to firing. This technique leaves a distinctive pattern of squares or diamonds with deep impressions at the corners representing knots (Martin 2004).

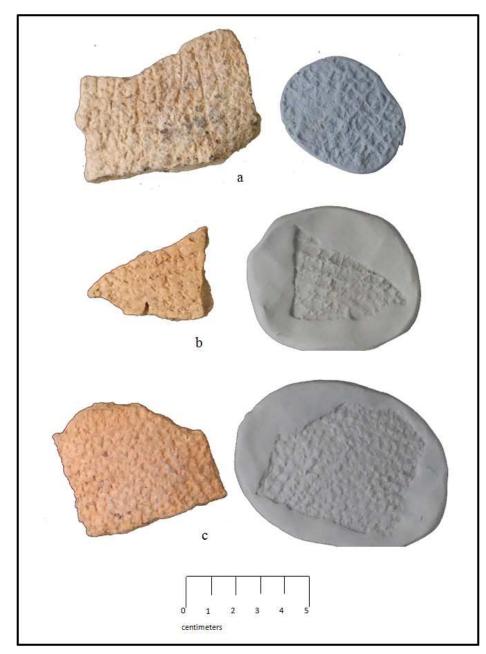


Figure 3.18. Examples of net-impressed sherds (left) and clay impressions (right).

The Deep Creek II phase, which begins about 800 B.C. and lasts for an indeterminate period, includes increased frequencies of net- and fabric-impressed surface treatments with the addition of simple stamp surface treatments. Fabric-impressed

surface treatments (e.g. Figure 3.19 a) are created by impressing a fabric-wrapped paddle into the wet clay of a pottery vessel prior to firing (Ford and Griffin 1938). The most common fabric type seen in this assemblage is a possible weft-faced textile (Herbert 1999). Simple stamping (e.g. Figure 31.9c) is accomplished by impressing a carved paddle into the wet clay of a vessel prior to firing. Linear grooves are usually the resulting pattern (Ford and Griffin 1938).

Deep Creek III represents a sharp decline in simple stamp surface treatments but the cord-, net-, and fabric impressed surface treatments continue in equal frequencies (Phelps 1983). The Deep Creek series represents the largest percentage of sherds in the ceramic assemblage at 66.1% (n=503). The most frequent surface treatment was netimpressed at 43.1% (n=217), followed by cord-marked at 37.4% (n=188). The remaining Deep Creek sherds had fabric-impressed, plain (a smooth, untreated surface, e.g. Figure 3.19b), and simple stamp surface treatments. The surface treatment of 15.3% (n=77) of the Deep Creek sherds could not be determined and these were classified as indeterminate.

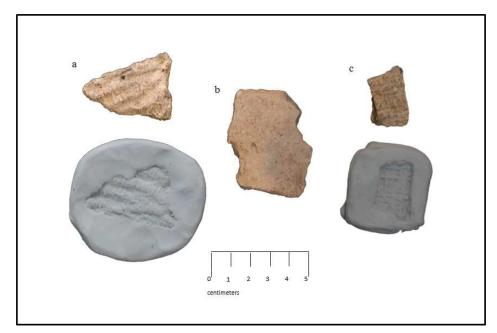


Figure 3.19. a) Fabric-impressed sherd with clay impression below, b) plain surface treatment, c) simple stamped sherd with clay impression below.

Hanover. Herbert (2003) suggests two phases for the Hanover series based on thermoluminescence (TL) dating and petrographic analysis. Hanover I has a date range of AD 400-800, making it a late Middle Woodland pottery. It is a sand tempered ware with the inclusion of small amounts of finely crushed grog. The primary surface treatments for this early phase are cord-marked, fabric-impressed, and check-stamped. Hanover II has a date range of AD 800-1400, placing it in the Late Woodland. It is primarily grog tempered with small amounts of sand. The predominate surface treatment for Hanover II is fabric-impressed (Herbert 2003:189). Hanover series pottery is the second largest type making up 29.4 % (n=224) of the ceramic assemblage. The Hanover assemblage used in this project is predominately fabric-impressed with 71.9% (n=161) of the sherds exhibiting this surface treatment. Only 10.7% (n=24) of the Hanover sherds were classified as cord-marked, while surface treatment could not be determined for 16.1% (n=36). The base of a large fabric-impressed Hanover II pot was reconstructed using 21 sherds, 19 of which were recovered from level 3 and 1 each recovered from levels 2 and 4 (Figure 3.20). All of the Hanover fabric-impressed sherds from the surrounding units and levels were pulled for comparison, and while the majority of the sherds appear to be part of the same pot, no further refits were found during a cursory examination.



Figure 3.20. Reconstruction of Fabric-Impressed Hanover pot base.

Mount Pleasant. The Mount Pleasant pottery type was believed to be contemporaneous with the Middle Woodland Hanover series; however Herbert (2003), reports absolute dates for this series as AD 903-1292 CAL, which places it in the Late Woodland. A limited number of sherds were available for his study and Herbert (2003) suggests further work is needed to create a better understanding of the temporal and spatial extent of this pottery series (Herbert 2003:188). Mount Pleasant pottery is sandtempered; however, the temper also includes larger clasts of widely varying sizes. Surface treatments include net- and fabric-impressed, cord-marked, plain and incised decorations (Herbert and Mathis 1996; Phelps 1983). Mount Pleasant comprises only 3.3% (n=25) of the ceramic assemblage. Thirteen (52%) of the Mount Pleasant sherds were cord-marked, making this the largest surface treatment classification within this series. In addition, there are 5 (20%) plain, 3 (12%) fabric-impressed, 2 (8%) netimpressed, and 1 (4%) simple stamped sherds, leaving 1 (4%) sherd that was classified as indeterminate.

CHAPTER FOUR – DISCUSSION

This chapter will outline evidence from a combination of chronometric dates, geomorphology, sedimentology, and archaeological evidence that provide a framework for the chronology of the formation and occupation of the relict dune at Barber Creek. *Stratigraphy and Site Formation*

Three distinct zones, characterized by changes in color and texture, are present in the upper 140 centimeters of deposits in the excavated units. Zone 1, extending down 25-30 centimeters, is a dark brown, medium to fine sandy loam that constitutes the O/A horizon. The uppermost portion of this zone is the O horizon, which is heavily disturbed by roots. The lower portion of the zone, the A horizon, has decreased root activity, but remains a dark brown medium to fine sandy loam. Woodland artifacts are present in this zone, with a spike in density at level 3. Zone 2, consisting of lighter brown medium sand, extends downward from 30 cmbs to approximately 1 meter below surface. It represents the lowest extent of the aeolian deposits on the dune. Artifact frequencies are highest in this zone and contain cultural remains from the Early Archaic through Woodland periods. Zone 3 begins at 100 cmbs and extends downward to, and presumably past, the 140 cmbs limit of this investigation. This zone contains light yellowish-brown medium sand that is heavily embedded with lamellae. No artifacts were recovered from this zone.

Sedimentological data supports the interpretation that the Barber Creek site is situated on a relict aeolian sand dune that formed over older fluvial sediments (Seramur 2002, Moore 2009). The close interval sediment samples from the N445 E430 trench

show a transition from alluvial sediments to aeolian sediments at about 1 meter below surface. This transition is marked by a trend toward somewhat finer sand that is slightly less well sorted. Lamellae caps alluvial deposits below 1 meter. Lamellae are a pedogenic overprint of very thin, about 5 centimeter, alluvial packages and are indicated by the alternating pattern of fine to coarse and back to fine observed in the mean grain size chart below 100 cmbs (Figure 4.1). In addition to the graphic signature of these depositional events, the lamellae was observed in the profile on-site (Figure 4.2).

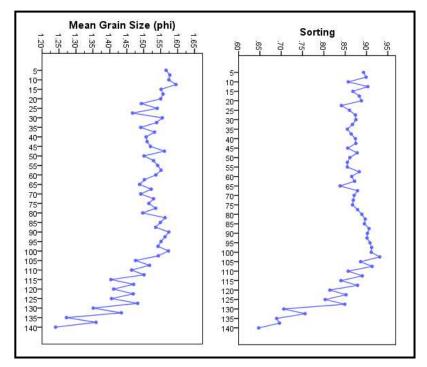


Figure 4.1. Mean grain size and sorting for the sediment samples from N445 E430 west profile. Both measures are consistent with aeolian deposition over fluvial deposition (e.g. Markewich and Markewich 1994).



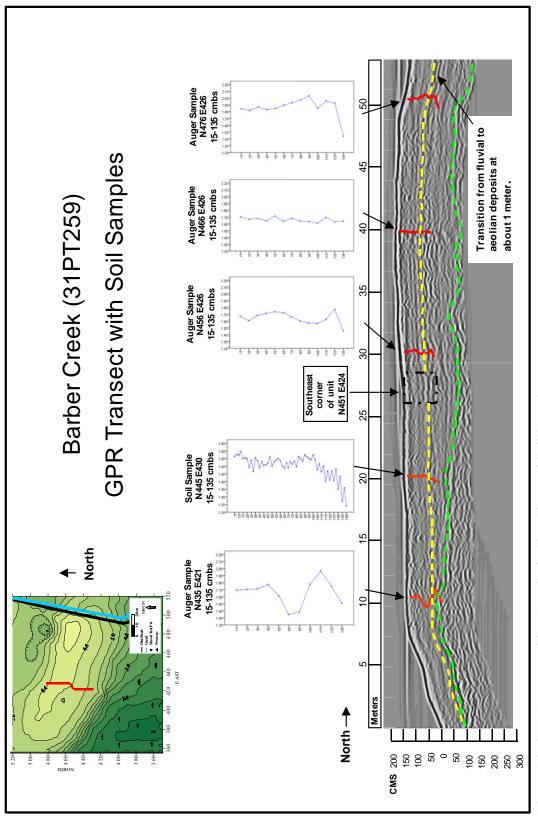
Figure 4.2. Lamellae found below 1 meter in unit N445 E430.

GPR data from a crossection of the dune, in conjunction with particle size analysis, show a uniform drape of one meter thick aeolian deposits over fluvial deposits across the site (Figure 4.3). The results of the particle size analysis from the N445 E430 sediment samples and the four additional auger samples were charted onto the GPR transect. There is a marked transition, characterized by a uniform anomaly, at about 1 meter below surface that roughly corresponds with marked changes in particle size of the various sediment samples. This transition is marked by a yellow dashed line in the graph below (Figure 4.3). A second uniform anomaly, indicated by the dashed green line is characterized by a marked change in the textural appearance of the GPR data. This marker could indicate a transition to even coarser fluvial sediments that underlie the landform. A large anomaly near the center of the transect corresponds to a 2 meter by 2 meter unit that was excavated prior to collecting the GPR data.

Two of the sediment samples deserve further discussion. The auger sample from N435 E421 has different mean grain size pattern characteristics than the other samples.

This sample was collected at a lower elevation, closer to Barber Creek, and thus represents an area that would have been subject to more frequent, higher energy inundation by water. This continued inundation resulted in a more erratic signature on the mean grain size graph that is indicative of fluvial deposits rather than aeolian. The auger sample from N466 E426 exhibits a particle size distribution that is relatively uniform all the way down the profile. When the mean grain size graph was overlaid on the GPR transect, it lined up with an anomaly. The consistency of the grain size data taken in conjunction with the anomaly in the GPR transect strongly suggests that this sample was taken from a disturbed area, which caused a mixing of the sediments and resulted in the homogeneity of the sample.

A trend toward finer and better sorted sediments with distance from Barber Creek suggests that the creek and the Tar River floodplain are the source of the deposits that make up the aeolian drape (e.g. Seramur 2002). Wind is a very effective sorting agent. Heavier sediments fall out of suspension first, so that deposits become smaller and more uniform in grain size with distance from the source (Ivester and Leigh 2003). There are two exceptions in the data to this trend. First, the sediment sample from N435 E421 represents fluvial deposition and thus is not useful for comparison. The second exception is the disturbed sample from N466 E426, which would not be expected to accurately characterize original deposition of the sediments (Figure 4.4).





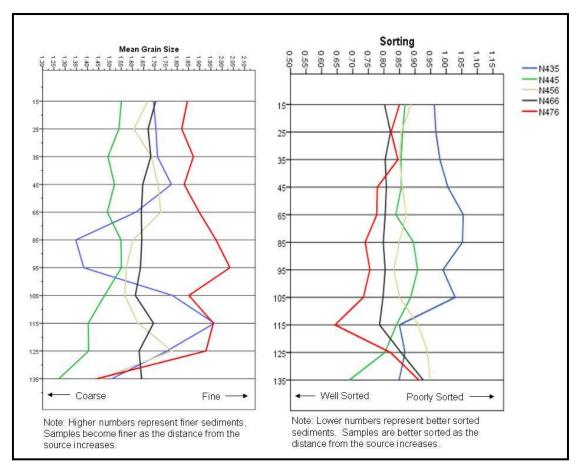


Figure 4.4. Mean grain size and sorting for sediment and auger samples.

Additional evidence comes from bivariate plots (Figure 4.5) of the samples from N445 E430, which show three distinct packets of sediment that were deposited by different mechanisms. The deepest sample is more coarse, skewed finer and better sorted than samples from higher elevations and represents fluvial deposition of sediments. The cluster of samples from 15-105 cmbs are finer, skewed coarser, and are less well sorted than deeper samples and represent aeolian deposition. The last cluster, containing samples from115 and 125 cmbs, appears to represent a transitional environment between the fluvial and the aeolian samples as it falls between the two on the plots.

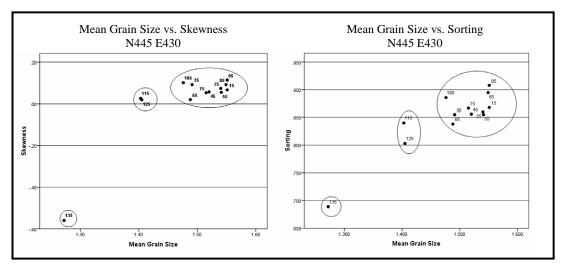


Figure 4.5. Bivariate plots for N445 E430 sediment samples.

In contrast to the samples used in this investigation, the sediments below 1 meter in Moore's (2008) sample from the E445 trench become finer. This difference is most likely due to the E445 trench being 6 centimeters higher in elevation. As the energy of water decreases, heavier sediments fall out of suspension, leaving finer, lighter sediments to be deposited elsewhere. Moore's (2008) sample most likely was elevated enough that it experienced inundation by lower energy water that deposited finer sediments, while the samples taken for this investigation were at a lower elevation that was regularly inundated with higher energy water, leaving coarser, heavier sediments.

Grain Size Analysis

The mean grain size chart that was constructed from the N445 E430 sediment samples shows patterns in mean grain size changes that occur due to depositional events or sediment disturbances (Figure 4.1). These patterns were correlated with artifact densities, chronometric dates, and GPR data to construct a geomorphic framework for site formation and a chronology of human occupation. The lowermost portion of the unit, from 100-140 cmbs, consists of bedded fluvial deposits capped by lamellae at roughly 5 centimeter intervals. Because every other sample includes these fine sediments, the resulting pattern in the mean grain size chart is an alternating sequence of fine to coarse changes in the graph. This pattern would not be visible at larger intervals of analysis (i.e. typical geologic sediment sampling). Overall, however, the samples are coarser than samples from above 1 meter.

GPR data shows a textural change at about 1 meter below surface across the site that corresponds to changes in the mean grain size graph (Figure 4.3). The graph shows at least two depositional events with sequences of fining upward, first from 82.5-87.5 cmbs, and a second sequence from 90-97.5 cmbs. These patterns show no evidence of anthropogenic disturbance; however, there are a small number of artifacts in levels 9 and 10 (80-100 cmbs).

Erratic grain size changes from 57.5-80 cmbs suggest anthropogenically disturbed deposits (e.g., Brooks, Taylor and Grant 1996). As humans lived on the dune, their activities caused a mixing of the sediments, which manifests as erratic shifts to varying degrees of mean grain size with no apparent trend toward more or less coarse sediments. An increase in artifacts, including a St. Albans bifurcate point, and chronometric dates, suggest that the dune stabilized and was more frequently occupied during the Early Archaic.

Sedimentological data suggests a period of deposition in the absence of human occupation from 52.5-57.5 cmbs in level 6. This 5 centimeter thick layer of sediment exhibits a uniform graduated pattern with a trend toward coarsening, much like the

uniform graduated patterns toward finer sediments seen in the 80-100 cmbs zone. A drop in artifact frequencies in this level additionally suggest decreased occupation of the site.

Changes in the mean grain size pattern coincide with Woodland period occupations. From 57.5 cmbs upward, the pattern returns to erratic shifts in mean grain size indicative of anthropogenic disturbance and pedogenic sorting of stable surfaces. Artifact frequencies increase and include Woodland period pottery in the upper levels. Level 3 represents the bulk of the Woodland component and the most intense occupation ever at the site. Sedimentology shows wider variations in mean grain size between samples from 20-30 cmbs, which suggests anthropogenic disturbance was prolonged and frequent. Above 20 cmbs, the changes in mean grain size are less erratic and artifact frequencies decrease significantly, indicating that the site continued to slowly accrete in the absence of any significant occupation.

Chronometric Dates

Nine radiocarbon dates were obtained from charcoal collected in unit N454 E432 during the 2000 excavations (Table 4.1). Eight OSL samples were collected from unit N445 E430 during the 2008 field season. Three of the OSL samples, 80 cmbs, 100 cmbs, and 140 cmbs, were dated (Table 4.2). These dates provide an additional line of evidence for building a chronology of site formation and occupation.

Table 4.1. Radiocarbon Dates from Barber Creek.

Beta			Radiocarbon	
Number	Context	Material	Age	² CALYBP
166236	Level 5	wood charcoal ^a	$1470\pm40~BP$	$1352 \pm 34 \text{ BP}$
188955	Level 6	wood charcoal ^a	$8950\pm40~BP$	$10,\!142\pm75~\mathrm{BP}$
166239	Level 7	hickory nut shell ^a	$8440\pm50\;BP$	$9466\pm37~BP$
150188	Level 8	wood charcoal & hickory nutshell ^b	$8940\pm70~BP$	$10{,}108\pm119\text{ BP}$
166237	Level 8	wood charcoal ^a	$9280\pm60~BP$	$10{,}470\pm92\text{ BP}$
166238	Level 10	wood charcoal ^a	$9860\pm60 \; BP$	$11,\!252\pm48~\text{BP}$
188956	Level 11	wood charcoal ^a	$10{,}500\pm50~\text{BP}$	$12{,}450\pm78\text{ BP}$
150187	Feature 1	wood charcoal ^b	$1630\pm60~BP$	$1521\pm70 \text{ BP}$
188954	Feature 24	wood charcoal ^a	$4140\pm40~BP$	$4682\pm95 \text{ BP}$

Note: Level depths are 10 cm intervals (e.g., level 5 equals 40-50 cmbs)

^aAMS date

^bRadiometric date

² Fairbanks0107 calibration curve

Table 4.2.	OSL.	Dates	from	N445	F430
1 abic 4.2.	OSL	Daies	nom	11447	L450.

Sample Number	Context	OSL Age
UW1907	80 cmbs	9.1 +/- 0.7
UW1908	100 cm	12.9 +/- 0.9
UW1909	140 cm	16.4 +/- 1.3

Note: Single grain OSL dates from Moore, 2009

An OSL date of 16.4 +/- 1.3 ka from a sample collected at 140 cmbs suggests that the site was experiencing regular inundation by water prior to the end of the Ice Age and little or no aeolian deposition was occurring. Lamellae caps the tops of discrete finingupward depositional events that contributed to build the landform, which eventually became buried by source bordering dune sediments that are primarily aeolian but with fluvial contributions in the upper meter. Radiocarbon dates and OSL dates suggest that the transition from fluvial to aeolian deposition occurred during the Younger Dryas stadial, a relatively short time period marked by a return to glaciation and cooling that occurred during the early Holocene from about 12,800 to 11,500 BP. A wood charcoal sample from level 11 and an AMS date of wood charcoal from 90-100 cmbs returned a range of dates from 11,204 to 12,528 CALYBP. An OSL date taken from 100 cmbs returned a date of 12.9 +/- 0.9. It is not until after the aeolian sediments begin to accumulate that there is evidence of human occupation on the dune.

A suite of chronometric dates, including four radiocarbon dates and one OSL date, all fall within the Early Archaic period and suggest long term site usage form 10,562 CALYBP to 9,429 CALYBP and possibly as late as 8400 BP. Charcoal samples were collected from levels 6, 7, and 8, and the OSL sample came from 80 cmbs. The two radiocarbon dates from level 8 do not overlap; however, if the landform remained stable for a long period of time, it would be expected that the charcoal samples in this level would represent a range of time rather that a fixed point in time. The OSL sample returned an age that was younger than the dates obtained from level 6 and 8, but overlaps with the date from level 7. The younger age is most likely due to the anthropogenic disturbance of the sediments in that area, which created sediment mixing and exposure after the occurrence of the events that generated the charcoal samples. When taken together, the radiocarbon dates suggest a duration of occupations during the Early Archaic of at least 1133 years, and when the youngest possible age from the OSL sample is considered, it stretches the occupation time even further to 2162 years.

One radiocarbon date was obtained from wood charcoal that was collected from level 5. The date (1352 +/- 34 CALYBP) is problematic in that it appears to be several millennia too young given its stratigraphic location and association with Early Woodland Deep Creek pottery. For this reason, this date has been disregarded when creating a chronology for the site.

Artifact Analysis

A unimodal but skewed distribution of artifacts suggest two periods of occupation at Barber Creek (Figure 4.6). A peak in artifact frequencies at level 3 represents a Woodland component. Ceramics frequencies skew the artifact distribution, nearly masking a second peak in artifact frequencies in the pre-ceramic Archaic level 7. A decrease in artifact frequencies, along with evidence from grain size analysis, suggests an indeterminate period of site abandonment between the Archaic and Woodland components.

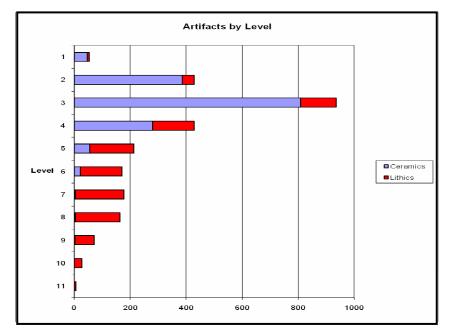


Figure 4.6. Artifact Frequencies by Level.

With the exception of 5 small flakes, no artifacts were found below 100 cmbs. Stone artifacts are present in levels from 80-100 cmbs, including 2 endscrapers of a type that are typical of late Paleoindian or Early Archaic toolkits (e.g. Daniel 1998) and a crude biface. In addition to the tools 68 flakes were recovered from level 9 and 24 from level 10. Because mean grain size changes are uniform and indicative of little or no anthropogenic disturbance and artifact densities are lower from 80-100 cmbs, it is unclear if these artifacts represent the earliest ephemeral occupation of the site, or if they were displaced due to artifact drift from upper levels.

Increased artifact densities, including stone tools and especially debitage, in levels 7 and 8 suggest more frequent occupation during the Early Archaic. Level 7 contains the highest density of lithic artifacts, specifically it has the highest flake density of the whole stratum, with 15.5% (*n*=164) of the flake assemblage represented in this level. Level 8 has almost as many flakes (*n*=158) as level 7. Eight stone tools were recovered from these two levels, including a biface fragment, a blade, the butt end of an endscraper, a type Ib endscraper, a type IV endscraper, a crude biface, and a grinding stone fragment. Of significance is the recovery of a St. Albans point from 60-69 cmbs. Chronologically, the St. Albans type is part of a bifurcated point series that is diagnostically Early Archaic, dating to sometime around 9,600 to 10, 400 CALYBP (Moore 2009). While bifurcate points are not usually identified with the coastal plain of North Carolina (since the typology of the coastal plain relies on the Piedmont), this point is one of two that have been recovered at the Barber Creek site. Another St. Albans point was recovered at 77 cmbs from the E445 trench during Moore's investigation of the site.

Overall artifact densities are lower in level 6 than in levels 7 and 8, but it appears to contain artifacts that are related to the Early Archaic occupations. Two items were piece plotted from level 6, a hammerstone that was found at 60 cmbs, and the tip of a megalodon tooth (classified as a miscellaneous fossil) from 57 cmbs. The remaining items are one cobble, two small cobble fragments that refit with additional cobble fragments from level 4 and appear to be the result of natural breakage, one pebble that may have been flaked, and one tabular fragment.

In summary, the bulk of the tools and flakes are found in level 7. Level 6 produced fewer flakes, several cobbles and pebbles that may or may not be cultural, and two piece plotted artifacts from the lower portion of the level. Few tools are present in level 8, and of the three that were recovered, two of them are in the upper portion of the level. Artifact densities drop sharply in level 9. Lastly, a range of radiocarbon dates all fall within the Early Archaic period. Given these findings, it is reasonable to assume that the heaviest Early Archaic occupation occurred in a zone that includes some portion of level 6, all of level 7, and the upper portion of level 8 and lasted as much as 2000 years.

Level 6 appears to be a transitionary level. It has cultural remains that are associated with Early Archaic occupations, but is crosscut by a thin layer of sediment accumulation in the apparent absence of human occupation, and may have artifacts associated with Middle and Late Archaic occupations in the top-most portion of the level.

Large lithic items are of limited use in determining the exact placement of the occupation boundaries within level 6 since only two were piece plotted. The previously discussed hammerstone and megalodon tooth fragment were both recovered from lower

portion of the level. In addition, one whole cobble and a tabular fragment were recovered. These items have no obvious cultural modification; however, given their size, it is likely that they were transported to the site by humans. Two small cobble fragments that refit with additional fragments from level 4 were recovered, but the chalky indeterminate raw material is not suitable for tool manufacture and it is ambiguous as to whether the breakage is natural or cultural. Finally, one small pebble was recovered that has a broken end and as with the small cobble fragments, it is difficult to determine if the breakage was intentional or if it was due to natural processes. Unfortunately, these items were not piece plotted and therefore it is impossible to determine their elevation within the level.

Debitage analysis shows a pattern of changing raw material usage in level 6. A more detailed discussion of debitage is included later in this chapter; however, it is necessary to mention a few important observations for the purposes of explaining the significance of this level. Flake densities drop to 13.4% (n=142) of the flake assemblage. Exotic raw materials, specifically chert and orthoquartzite, are either absent or present in reduced frequencies above this level. The frequency of metavolcanic raw material increases above this level and syenite appears for the first time and remains part of the debitage assemblage in upper levels. Quartz, which is present in all of the levels, drops slightly in frequency before elevating again above this level. It is obvious that exotic materials that were imported to the site fall out of favor, while locally available materials become more popular.

The suite of radiocarbon dates that are associated with the Early Archaic occupation zone, including the date from the wood charcoal in this level, suggest that the period of site abandonment occurred sometime after the youngest age of 9429 CALYBP. Determining the time of reoccupation of the site is difficult because no artifacts that are diagnostic of the Middle and Late Archaic were recovered in the units used for this project. However, several projectile points that are diagnostic of these periods were recovered elsewhere at the site, suggesting that there is a Middle and Late Archaic component.

Changes in raw material usage above level 6 coincide with the inclusion of Woodland period pottery in the assemblage. While a few sherds were found below level 6 (n=8), these isolated pottery fragments are most likely the result of bioturbation via tree roots or rodent burrows. Ceramic frequencies increase from level 6 to level 5, with a combined total of 76 sherds in these levels. The relatively small number of ceramic artifacts could suggest that they represent downward drift of artifacts from the levels above.

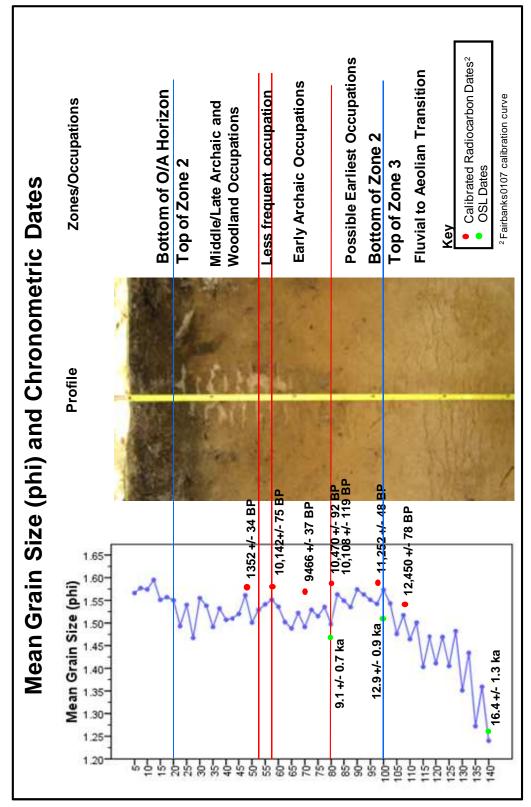
The bulk of the Woodland component was found between 20 and 40 cmbs. Lithic artifacts remain in decreasing frequencies, while pottery significantly increases and dominates the artifact assemblage above 40 cmbs. There is a continued absence of exotic raw materials, such as chert and orthoquartzite, in the lithic assemblage. Stone tools recovered include a biface, a biface fragment, a flaked pebble, a small Woodland period stemmed point, and a portion of a point stem that resembles the stems of other Woodland period points recovered elsewhere at the site. In the absence of chronometric dates, diagnostic ceramic artifacts suggest that the Woodland component dates to the earliest phase of the Early Woodland Period, sometime after 3000 BP and certainly before 2400 BP. Herbert (2003) combines Deep Creek pottery with its more southern Coastal Plain equivalent of New River pottery and suggests an Early Woodland date range of ca. 1200-400 B.C. for this series. The Deep Creek sherds in level 6 contain cord-marked, net-impressed, and fabric-impressed surface treatments, all of which are associated with Phelps' (1983) Deep Creek I designation and appears around 1000 B.C.

Level 3 contains the highest ceramic artifact frequencies, with 49.7% (*n*=808) of the pottery assemblage. Of these, 418 sherds were classified. Deep Creek is the most prevalent type, followed by Hanover. Two features, one interpreted as a Woodland hearth, and the other possibly a Woodland pit, were both identified in level 3. No radiometric dates were obtained for this level, however, the presence of Deep Creek sherds in large quantities suggests occupation by Early Woodland people.

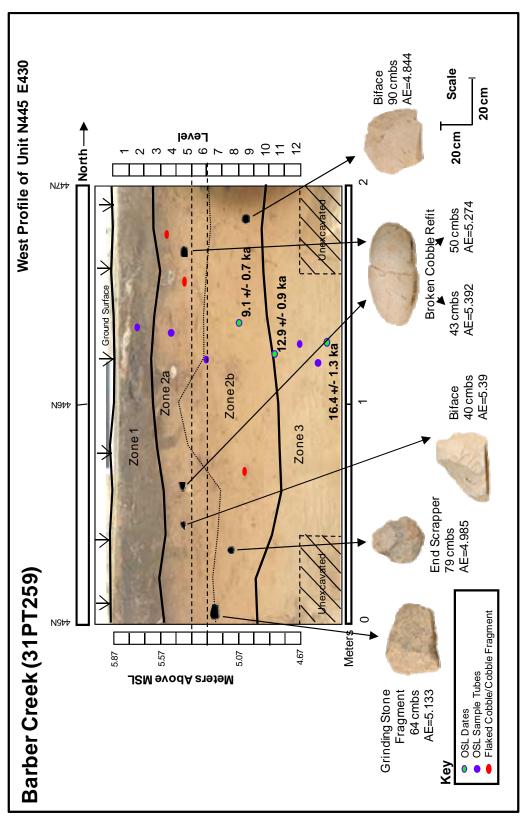
The topmost levels, from the surface to 20 cmbs, are heavily disturbed by roots and animal burrows. The lower portion, level 2, of this organic layer contains the last significant material remains of the Woodland occupants of the site. Ceramics continue to be present in level 2, but at a significantly lower density than in level 3. Three-hundred, eighty-six (23.7% of the assemblage) sherds were recovered, 171 of which could be classified. Deep Creek continues to be the most prevalent type; however, Hanover is a very close second, suggesting that Deep Creek is falling out of use. Like the ceramics, flake densities also drop significantly to 3.9% (n=42).

80

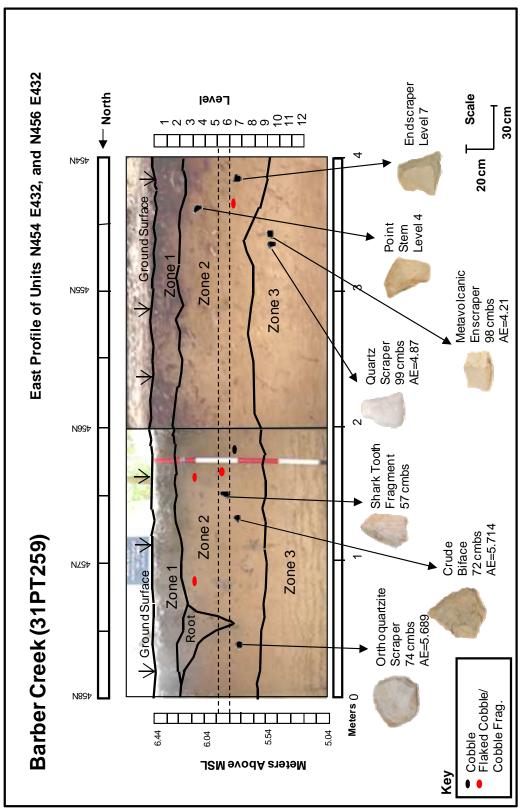
The upper portion of this zone is a heavily disturbed O-horizon that contains a few Woodland artifacts and an occasional historic artifact, such as barbed wire. Seven flakes and 46 pottery sherds, the majority of which were unidentifiable for type or surface treatment, were recovered from this level. No chronometric dates were obtained for this uppermost zone; however the presence of fabric-impressed Hanover II pottery is suggestive of continued occupation through the Late Woodland (e.g. Herbert 2003). Using Herbert's (2003) dates for Hanover II, it is possible that occupation continued at the site until sometime around AD 1300, after which the site was permanently abandoned.

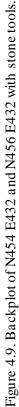


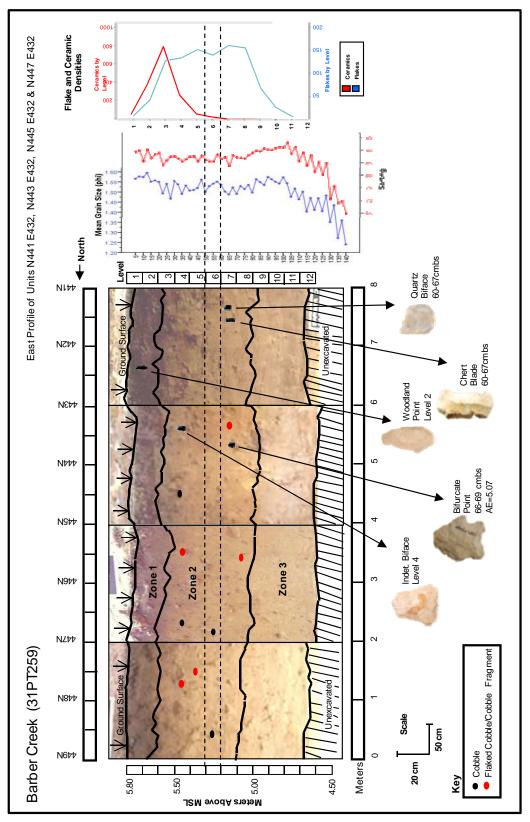














Debitage

Debitage represented the bulk of the lithic assemblage in this investigation. While debitage is not diagnostic in and of itself, some inferences can be made by analyzing the debris created during tool manufacture and maintenance activities. In this investigation, flakes were classified by size, raw material, and the presence or absence of cortex. Each of these classifications can give some information about those who created the debitage, such as movement of people or types of stone working activities being performed at the site.

A pattern of changing raw material usage from the Early Archaic to the Woodland periods emerges when raw material is cross referenced with level. The reduced frequency of chert and orthoquartzite in the upper levels suggests a shift away from the use of exotic raw materials, while an increase in metavolcanic stone in upper levels suggests almost exclusive use of locally available raw materials. (Table 4.3). Chert is totally absent from the assemblage above level 6, and with the exception of 2 flakes from the same provenience, no orthoquartzite flakes were recovered above level 5. Quartzite flake density drops significantly above level 4, suggesting that this material continued to be used but in limited quantities. There is a concurrent spike in the densities of indeterminate stone and syenite at levels 4, 5 and 6. Metavolcanic stone, in contrast, increases in the upper levels above level 6, suggesting a preference for this material. The incidence of quartz remains uniform from levels 2 through 9, suggesting it was a staple raw material throughout the occupation periods at this site.

Level	Chert	Indet.	Metavolcanic	Orthoquartzite	Quartz	Quartzite	Syenite	Total
1	-	-	1	-	5	1	-	7
2	-	-	23	-	18	-	-	41
3	-	1	56	2	62	6	1	128
4	-	8	50	-	58	19	1	136
5	-	3	50	4	73	23	1	154
6	3	6	30	12	62	26	3	142
7	7	3	34	12	75	33	-	164
8	5	2	32	6	78	35	-	158
9	3	-	9	2	38	16	-	68
10	-	3	2	-	10	9	-	24
11	1	-	1	-	2	1	-	5

Table 4.3. Distribution of Flake Raw Materials by Level.

Note: Table does not include 2 flakes from Feature 1 and 27 flakes with no provenience.

The size distribution and the relatively low frequency of the presence of cortex, the outer portion of the stone, suggests that late stage biface reduction and tool maintenance were the primary stone working activities at the site. The vast majority, 90.9% (n=996), of stone artifacts had no cortex versus only 8.9% (n=97) that still had cortex (Table 4.4). The majority of the flakes recovered are size class 4 (n=823), which constitutes 77.9% of the flake assemblage. Of this size class, 97.9% (n=806) do not have cortex. Size class 3 flakes represent 17.7% (n=187) of the total flake count, with 84.5% (n=158) of these exhibiting no cortex. There is a shift in the incidence of cortex in the size class 2 flakes, which constitute only 4.4% (n=46) of the flake assemblage. Some amount of cortex was present in 58.7% (n=27) of these larger flakes, which would suggest that some early stage reduction was taking place but on a limited scale.

Table 4.4. Distribution of Artifacts with Cortex

	Frequency	Percent		
No Cortex	996	90.9		
Cortex	97	8.9		
Total	1093	99.7		
N/A	3	.3		

Higher flake densities in the southernmost units suggest tool manufacture and maintenance activities took place closer to the creek (Table 4.5). Flake densities in the two southernmost units, N441 and N443, constitute almost half of the flake assemblage at 46.8% (n=494). There is a significant drop in flake density in the next unit, N445 E432, to only 8% (n=84), before levels rise again in the other more northerly units.

Table 4.5. Distribution of Flakes by Unit.								
Unit	Flakes	Percent						
N441 E432	233	22.1%						
N443 E432	261	24.7%						
N445 E432	84	8.0%						
N447 E432	194	18.4%						
N454 E432	144	13.6%						
N456 E432	140	13.3%						

Cross-referencing raw material with provenience reveals that the majority of the early, exotic materials are clustered in the southernmost units (Table 4.6). The majority of chert flakes, 90% (n=18), are clustered in the two southernmost units, and with the exception of 2 flakes, no chert is present in the 4 units to the north. Likewise, the majority of orthoquartzite flakes, 97.3% (n=37), are clustered in the three southernmost

units, and with the exception of 1 flake, no orthoquartzite is present in the 3 units to the north. Over half, 51% (N=148), of the metavolcanic flakes were recovered from unit N447 E432, which initially suggested one reduction activity. These flakes were found in levels 2 through 6, representing a 40 centimeter column where this material is in higher densities than in other areas. When the flakes are compared, it is obvious that while they are all metavolcanic, they are not from the same stone because of a variation in color and inclusions in the material, suggesting multiple reduction activities using metavolcanic material in this same location.

Unit	Chert	Indet.	Metavolcanic	Orthoquartzite	Quartz	Quartzite	Syenite	Total
N441 E432	7	4	9	4	162	47	-	233
N443 E432	11	6	42	29	110	62	1	261
N445 E432	-	-	36	4	34	5	5	84
N447 E432	-	6	148	-	32	7	1	194
N454 E432	-	2	45	-	60	37	-	144
N456 E432	2	9	10	-	99	19	-	140

Table 4.6. Distribution of Lithic Raw Material by Unit.

In summary, the vast majority of the lithic assemblage consisted of debitage. The majority of flakes were small and had no cortex, suggesting they were generated during late stage reduction or tool maintenance activities at the site. Exotic stone was present in the lower levels but absent from the upper levels, suggesting that later woodland occupants utilized local materials rather than ranging out to collect materials from elsewhere.

Ceramics

Woodland period artifacts were deposited during a period of long-term stability of the landform, resulting in the combination of pottery from the Early Woodland through the Late Woodland being present within the arbitrary 10 cm level from 20 to 30 cmbs. This mixing of ceramics from different time periods makes seriation difficult. However, examination of the percentages of types and surface treatments in the levels above and below level 3 suggests some temporal differences.

Cross-referencing ceramic types with level suggests that the Hanover series is a later addition to the ceramic assemblage at Barber Creek. The percentages of Deep Creek sherds is relatively uniform in level 4, with 17.2% (n=84), and level 2, with 19.2% (n=94). Likewise, there is no significant change in the frequency of the Mount Pleasant series. The consistency in the density of Deep Creek and Mount Pleasant sherds suggests that these ceramic series were used throughout the Woodland occupation at the site. In contrast, Hanover sherds increases substantially from level 4, with 11.2% (n=25), to level 2, with 31.8% (n=71) suggesting they were introduced later (Table 4.7).

Level	DC	Han	Indet.	MP	Other	Total
2	94	71	1	5	0	171
3	285	113	5	14	1	418
4	84	25	1	6	0	116

Table 4.7. Distribution of Ceramic Type by Level.

Pottery types change over time, but additionally, within each type, surface treatments change over time. Five main surface treatments were identified at Barber Creek, including cord-marked, fabric-impressed, net-impressed, simple stamped, and plain. Three surface treatments make up the bulk of the assemblage. Cord-marked pottery represents the largest surface treatment with 29.8% (n=227) of the assemblage, followed by net-impressed at 28.8% (n=219), and fabric-impressed at 23.9% (n=182). Plain, at 2% (n=15), and simple stamp, at .3% (n=2), are the least represented surface treatments at the site. The category for indeterminate sherds makes up 15.1% (n=115) of the assemblage and there is the addition of 1historic ceramic sherd. An examination of surface treatment by level within the Deep Creek type suggests cord-marked surface treatments increased over time, while the use of net-impression declined (Table 4.8).

<u> </u>					-	Simple	
Level	Cord	Fabric	Indeterminate	Net	Plain	Stamp	Total
2	26	4	30	33	1	0	94
3	126	9	32	117	1	0	285
4	25	1	8	49	0	1	84

 Table 4.8. Distribution of Deep Creek Surface Treatment by Level.

The long term stability of the Barber Creek site resulted in the mixing of cultural remains from the Early through the Late Woodland periods. However, the ceramic assemblage at Barber Creek is consistent with the expected chronological changes in pottery type, with Deep Creek sherds in greater densities below Hanover sherds. The changes in surface treatments, in contrast, do not fit Phelps' (1983) model. Phelps (1983) suggested that the earliest Deep Creek pottery, Deep Creek I, was predominately cord-marked with net-impressed increasing with the later Deep Creek II. However, net-impressed sherds decrease while cord-marked sherds increase with elevation, suggesting

the net-impressed treatment may be older. Herbert (personal communication, November 15, 2008) confirmed this finding, suggesting that his investigations have shown that netimpressed surface treatments are more prevalent in the early Deep Creek type and decline over time.

CHAPTER FIVE - CONCLUSIONS

Geological investigations using particle size analysis support earlier suggestions that the Barber Creek site is located on a relict, source bordering, aeolian dune covering older fluvial deposits. A combination of sedimentology and archaeological evidence identified distinct areas of deposition and/or periods of stability, when little or no deposition occurred, allowing for human occupation in the upper 140 centimeters of the landform. From 100-140 cmbs, the landform is heavily bedded by fluvial deposits, overprinted by lamellae. These fluvial events occurred prior to the end of the Pleistocene when the site was most likely an elevated braid bar in the Tar River braidplain. Regular inundation of the elevated braidbar by water brought in fluvial sediments that are coarser in texture than the overlying aeolian sediments that sit atop this zone. No evidence of human occupation was found in these fluvial levels.

During the early Holocene, there was a brief return to near glaciation and cooling, called the Younger Dryas. It is during this period that aeolian sediments began to accumulate at the site. Like many other inland dunes in the southeast, aeolian sediments accumulated on the Barber Creek dune and likely originated from a nearby floodplain, in this case, the Tar River Floodplain. The lowermost aeolian deposits are found 80-100 cmbs and contain evidence of the first ephemeral occupations on the landform. The presence of two endscrapers that are diagnostically associated with the Early Archaic in the lowest aeolian sediments suggests that Early Archaic hunter-gathers were probably the first visitors to the site. Geological evidence suggests two depositional events between 80 and 100 cmbs, with little or no anthropogenic disturbance, suggesting that

occupations were sparse and of limited duration. These may indicate more substantial and more rapid burial events during the Early Holocene (Moore 2009).

Sometime after 10,500 BP, occupation of the site by Early Archaic people increased significantly. This Early Archaic component, from 57.5-80 cmbs, crosscuts the arbitrary levels of 6, 7, and 8. Sedimentological evidence suggests disturbances in the sediments that are characteristic of human activity. Increased artifact frequencies confirm that occupation increased on the dune. A St. Albans bifurcated point dates the occupation in the Early Archaic. Debitage analysis shows the presence of exotic or nonlocal raw materials, suggesting that the people who used this site were mobile, collecting raw materials and importing them to the site. Given the overwhelming frequency of very small flakes, it is most likely that these exotic materials were brought in as performs or finished tools that were reworked. The Early Archaic occupations continued until around 9500 CALYBP and maybe as late as 8400 BP. After which, it appears that the site was abandoned for some period of time.

A thin layer of undisturbed sediment overlays the Early Archaic component and separates it from later occupations. Sedimentological data suggests that there is a minimum of 5 centimeters of aeolian deposits that exhibit no evidence of human activity from 52.5-57.5 cmbs. One radiocarbon date from level 6 (50-60 cmbs) returned an Early Archaic age, and is therefore not useful for the purpose of dating the depositional event, but rather is most likely associated with the underlying occupations. However, it can be assumed that this event took place sometime after 9500 CALYBP and resulted in reduced occupation of the site.

The site was reoccupied at some unknown time. No artifacts diagnostic of the Middle or Late Archaic were recovered from this area of the site. However, artifacts that are diagnostic of these periods were recovered during Moore's (2009) investigations. For this reason, it is assumed that reoccupation of the site occurred during the Middle/Late Archaic. Geological evidence and the presence of Deep Creek pottery suggests that the site was extensively occupied by the Early Woodland period, sometime after around 3000 BP, and occupation by these prehistoric people continued through the Late Woodland period. Anthropogenically disturbed sediments and increased artifact densities from 20-52.5 cmbs suggest frequent and prolonged human activity, with the bulk of the occupation in level 3. A shift in raw materials show utilization of locally available materials and little or no use of exotic materials, such as chert, suggesting that these occupants were less mobile and possibly were occupying the site for longer periods of time. Level 3 (20-30 cmbs) contains a mixture of Deep Creek pottery, which is associated with the Early Woodland, and Hanover pottery, which is associated with the Middle and Late Woodland periods. This mixing suggests that the landform was stable for a long period of time, causing a compression of the archaeological remains. However, analysis of ceramics from the levels directly above and below level 3 suggest changing trends in pottery types that are consistent with trends seen in other areas of the Coastal Plain (e.g. Herbert 2003), but exhibit changes in surface treatments that are not consistent with Phelps' (1983) model. The presence of Hanover II fabric-impressed pottery suggests occupation of the site until sometime around AD1300.

The upper 20 centimeters are the heavily disturbed, organic laden O/A-horizon. While the lower portion of this horizon is cross cut by the Woodland component, the majority consists of modern sediments and exhibits disturbance during historic times. The highest elevations of the site have clusters of historic burials and historic artifacts, such as barbed wire are present in this upper zone.

Moore's (2009) investigation of the site produced similar changes in sedimentology that indicated a change from fluvial to aeolian deposition at about 115 cmbs. He also found a drop in artifact densities that occurs at level 4 that coincides with the addition of ceramics to the assemblage. These transitions appear to be consistent with the data from this investigation. Moore's (2009) data was excavated from an area of the site that is at least 60 centimeters higher, which would account for the discrepancies in the elevations of zones of deposition and occupation.

Suggestions for further research

The initial build-up of the dune and the subsequent depositional event that caused the abandonment of the site may have been climate driven, the extent to which is unknown. The transition from fluvial deposition to aeolian at Barber Creek coincides with the Younger Dryas stadial, which suggests a relationship between the two. The depositional event from 52.5-57.5 cmbs, could also be indicative of a climate shift. At least six major climate shifts during the Holocene have been identified in paleoclimatic records, each characterized by changes in atmospheric circulations that in turn caused aridity in the tropical zones and polar cooling (Mayewski, et. al. 2004:243). These climate shifts affected the coastal plain of North Carolina by creating a variously warm and moist climate or a cool and dry climate (Adams, Maslin & Thomas 1999:8). Sedimentological and palynological data suggest the early Holocene in North Carolina was warm and wet (Goman & Leigh 2004:257), but during the middle Holocene, around 7,000 to 5,000 years ago, there was a rapid shift to a cool, arid climate before returning to the previous warm, wet conditions (Steig 1999:1485). This shift falls within the range of time that the Barber Creek site was abandoned. Additional investigations of material from Barber Creek, for instance pollen analysis, could help shed some light on changing conditions at the site. Additionally, investigations at other nearby similar sites, such as those identified by Moore (2009), could look for similar alternating zones of deposition and occupation and seek to determine if the changing conditions seen at Barber Creek were regional or simply local.

Creating a chronology of site formation and occupation was the main goal of this investigation. However, a secondary goal was to begin the process of creating a typology for the North Carolina Coastal Plain. As mentioned earlier, the typology for the Coastal Plain relies heavily on that of the Piedmont. Of interest is the discovery of at least two bifurcate points, both classified as St. Albans, in the Early Archaic occupation zone at the site. These point types are not usually associated with the North Carolina Coastal Plain. Excavations at other Coastal Plain sites could help determine if the St. Albans point type is actually more common within this region and possibly determine whether it was manufactured locally or transported from other regions.

Additional study also needs to focus on the ceramic typology in the Coastal Plain. Changes in the ceramic surface treatments of Deep Creek pottery were inconsistent with

97

the accepted model proposed by Phelps (1983). Herbert (2003) has done extensive work with North Carolina pottery and suggests that the frequencies of surface treatments observed in Deep Creek pottery from Barber Creek are consistent with temporal changes he has seen elsewhere. Additional work at nearby sites that produced this pottery type could help clarify the inconsistencies with Phelps' (1983) model.

References Cited

Adams, Jonathan, Mark Maslin, and Ellen Thomas

1999 Sudden Climate Transitions During the Quaternary. *Progress in Physical Geography* 23(1):1-36.

Anderson, John. R.

Sand Sieve Analysis. Electronic document, http://facstaff.gpc.edu/~janderso/historic/labman/sievean.htm, accessed April 1, 2008.

Blott, Simon J., and Kenneth Pye

2001 GRADISTAT: A Grain Size Distribution and Statistics Package for the Analysis Of Unconsolidated Sediments.

Brooks, Mark J., Barbara E. Taylor, and John A. Grant

1996 Carolina Bay Geoarchaeology and Holocene Landscape Evolution on the Upper Coastal Plain of South Carolina. *Geoarchaeology: An International Journal* 11(6): 481-504.

Clement, Christopher Ohm, Ramona M. Grunden, and Amy D. Joyce
 2005 Data Recovery at 38RD628 Fort Jackson, South Carolina. Archaeological
 Survey. Submitted to the South Carolina Army National Guard.

Coe, J. L.

1964 *The Formative Cultures of the Carolina Piedmont*. Transactions 54. Philadelphia: American Philosophical Society.

Crabtree, Don E.

1982 An Introduction to Flint working. Occasional Papers of the Idaho Museum of Natural History, Number 28. Second Edition.. Pocatello, Idaho.

Daniel, I. Randolph, Jr.

- 1997 North Carolina Paleoindian Point Survey. Paper presented at the 54th Annual Meeting of the Southeastern Archaeological Conference, Baton Rouge.
- 1998 Hardaway Revisited. The University of Alabama Press, Tuscaloosa.
- 2001 Stone Raw Materials Availability and Early Archaic Settlement in the Southeastern United States. *American Antiquity*, 66(2), 237-265.
- 2002 Stratified Early-Middle Holocene Remains in the North Carolina Coastal Plain. *The Archaeology of Native North Carolina: SEAC Special Publication 7*, 6-11.

- 2007 Analysis of a Paleoindian Stone Tool Assemblage from the Pasquotank Site (31PK1) in Northeastern North Carolina. *Southeastern Archaeology* 26(1):73-90.
- 2007 NSF Proposal for Geoarchaeological Investigations of Tar River Relict Dunes.
- Daniel, I. Randolph Jr., K. C. Seramur, T. L. Potts, and M. W. Jorgenson
 2008 Searching a Sand Dune: Shovel Testing the Barber Creek Site. Manuscript in Preparation.
- Fenton, Carroll Lane and Mildred Adams Fenton 2003 *The Rock Book.* Courier Dover Publications. New York.
- Ford, James A and James B. Griffin
 - 1938 Report of the Conference on Southeastern Pottery Typology. Reprinted 1960, *Newsletter of the Southeastern Archaeological Conference* 7(1):10-22.
- Ge, Thierry, Marie-Agnes Courty, Wendy Matthews, and Julia Wattez

1993 Sedimentary Formation Processes of Occupation Surfaces. In Formation Processes in Archaeological Context, edited by Paul Goldberg, David T. Nash, and Michael D. Petraglia, pp. 149-163. Monographs in World Archaeology No. 17. Prehistory Press, Madison

Gorman, Michelle and David S. Leigh

2004 Wet Early to Middle Holocene Conditions on the Upper Coastal Plain of North Carolina, USA. *Quaternary Research* 61:256-264.

Herbert, Joseph M.

- 1999 Prehistoric Pottery Taxonomy and Sequence on the Southern Coast of North Carolina. *North Carolina Archaeology* 48:37-58
- 2003 *Woodland Ceramics and Social Boundaries of Coastal North Carolina*. Ph.D. Dissertation, Department of Anthropology, University of North Carolina at Chapel Hill.

Herbert, Joseph M., and Mark A. Mathis

1996 An Appraisal and Re-evaluation of the Prehistoric Pottery Sequence of Southern Coastal North Carolina. In *Indian Pottery of the Carolinas*, edited by D. G. Anderson, pp. 136-189. Council of South Carolina Professional Archaeologists, Columbia.

Huggett, Richard John

2007 Fundamentals of Geomorphology. Routledge, New York.

Ivester, Andrew H. and David S. Leigh

2003 Riverine Dunes on the Coastal Plain of Georgia, USA. *Geomorphology* 51:289-311.

Larsen, Curtis E. and Joseph Schuldenrein

1990 Depositional History of an Archaeologically Dated Flood Plain, Haw River, North Carolina. *Geological Society of America Centennial Special* 4:161-181.

Leigh, David S.

1998 Evaluating Artifact Burial by Eolian versus Bioturbation Processes, South Carolina Sandhills, USA. *Geoarchaeology: An International Journal* 13(3): 309-330.

Leigh, David S., Srivastava, Pradeep and Brook, George A.

2004 Late Pleistocene Braided Rivers of the Atlantic Coastal Plain, USA. *Quaternary Science Reviews* 23:65-84.

Markewich, H.W. and William Markewich

1994 An Overview of Pleistocene and Holocene Inland Dunes in Georgia and the Carolina – Morphology, Distribution, Age, and Paleoclimate. Submitted to the U.S. Geological Survey, Bulletin 2069.

Martin, Tracy

2004 An Examination of Deep Creek Ceramics from the Parker Site and Barber Creek Site: Refining the Deep Creek Definition. Unpublished Master's thesis, Department of Anthropology, East Carolina University.

Mayewski, Paul A., et. al.

2004 Holocene Climate Variability. *Quaternary Research* 62:243-255.

Moore, Christopher R.

2007 Proposal to the National Science Foundation.

2009 Late Quaternary Geoarchaeology and Geochronology of Stratified Aeolian Deposits, Tar River, North Carolina. Unpublished Ph.D. Dissertation, Coastal Resources Management Ph.D. Program, East Carolina University.

Moore, Christopher, I. Randolph Daniel, Jr., Keith Seramur, David Mallinson, and Michael O'Driscoll

2008 Geoarchaeological Investigations of Stratified Holocene Aeolian Deposits along the Tar River in North Carolina. Poster presented at the 57th Annual Meeting of the Geological Society of America, Charlotte.

Phelps, David S.

- 1977 An Archaeological-Historical Study of the Proposed Waste Treatment Facility, Greenville, North Carolina Prepared for Greenville Utilities Commission and Olsen Associates, Inc. Greenville, North Carolina. On file at East Carolina University, Phelps Archaeology Laboratory.
- 1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In Prehistory of North Carolina: An Archaeological Symposium, edited by Mark A. Mathis and J.A. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.
- 1998 Cashie Series Ceramics from the Interior Coastal Plain of North Carolina, Circa AD 800-1725. Paper presented at the 55th Annual Meeting of the Southeastern Archaeological Conference, November 11-14, 1998, Greenville, South Carolina.

Potts, Tara L.

2004 Technological and Spatial Analyses of Lithic Remains from Broad Scale Testing at the Barber Creek Site (31PT259). Unpublished Master's thesis, Department of Anthropology, East Carolina University, Greenville.

Read, Dwight W.

1974 Some Comments on Typologies in Archaeology and an Outline of a Methodology. *American Antiquity*, 39(2), 216-242.

Seramur, Keith C.

- 2002 Geoarchaeology of Site 31PT259 at the Confluence of Barber Creek and the Tar River Pitt County, Greenville, North Carolina. Submitted to I Randolph Daniel, Jr., Ph.D. On File at East Carolina University.
- 2004 Geoarchaeology of Site 31HT435 Harnett County, North Carolina. Submitted to New South Associates, Federal Aid Project No. HBF-87(4).

Steig, Eric J.

1999 Mid-Holocene Climate Change. Science 286(5444):1485-1487.

South, Stanley A.

1976 An Archaeological Survey of Southeastern North Carolina. Institute of Archaeology and Anthropology Notebook 8. University of South Carolina, Columbia.

Tankersley, Kenneth B.

1998 Variation in the Early Paleoindian Economies of Late Pleistocene Eastern North America. *American Antiquity*, 63(1), 7-20.

Ward, H. Trawick, R. P. Stephen Davis, Jr.

Time Before History: The Archaeology of North Carolina. The University of North Carolina Press, Chapel Hill, NC.

Appendix A

Lithic Typology

Artifact Types

- Biface Bifacially worked stone implement (i.e. flaked on two sides)
- Biface Fragment Fragment of a bifaces (non-projectile)
- Blade
- Cobble
- Cobble Fragment Chunk of cobble with no more than one intentional flake removed
- Diagnostic Points Guilford, Morrow Mountain, Kirk Stemmed, Palmer, Etc.
- Endscrapper Formal type of unifacial scraper
- Flake Intentional flakes and shatter fragments from lithic reduction
- Flaked Cobble Cobble with multiple flakes intentionally removed
- Grinding Stone Fragment
- Hammerstone Rock used as a billet or hammer for flaking
- Point Fragment Fragment of a finished projectile point of unknown type
- Tabular Fragment Thin (tabular) rock with minimal flaking
- Utilized/Retouched Flake Flake with utilized or unifacially retouched edge(s)

Appendix A

Lithic Typology cont.

Raw Material Types

- Chert
- Indeterminate
- Metavolcanic
- Orthoquartzite
- Quartz
- Quartzite
- Syenite
- Others as needed

Appendix B

Ceramic Typology

Туре

- Deep Creek
- Hanover
- Indeterminate
- Mt. Pleasant

Surface Treatment

- Cord Impressed
- Fabric Impressed
- Indeterminate
- Net Impressed
- Plain
- Simple Stamped

Appendix C

Non-Artifact Types:

Non-Artifact Types:

- Misc. Rock Concretions and unidentified rocks
- Pebble All stream-rounded or unmodified rocks smaller than size class 1
- Cobble Size class 1 stream-rounded rocks lacking any intentional flaking or abrasion
- Other Includes anything not covered by other categories. Also includes biological materials such as bone, fossils, and charcoal

T winninddy																	
Sample	Depth- cm	Sample Wt.	Sieve Wt.	Fine wt.	Sieve Loss "	-1.0 phi "	-0.5 phi	0 phi	0.5 phi	1.0 phi	1.5 phi	2 phi	2.5 phi	3 phi	3.5 phi	4 phi	<4 phi
N435 E421	15	80.002	72.861	6.295	-0.846	0.038	0.79	1.889	4.693	9.939	11.757	16.706	13.446	8.594	3.651	2.204	6.295
N435 E421	25	80.006	73.529	6.126	-0.351	0.14	0.86	2.183	4.662	8.448	12.073	15.656	16.066	7.544	3.614	2.634	6.126
N435 E421	35	80.007	73.75	6.279	0.022	0.116	0.954	2.304	4.862	8.329	11.235	15.135	16.683	7.898	3.578	2.634	6.279
N435 E421	45	80.01	73.374	6.803	0.167	0.35	0.947	2.378	4.339	7.377	10.392	14.745	17.171	8.524	3.955	3.029	6.803
N435 E421	65	80.007	74.436	5.454	-0.117	0.926	2.026	3.093	5.241	8.945	9.726	16.704	13.769	9.204	3.066	1.853	5.454
N435 E421	85	80.009	77.415	3.849	1.255	0.37	3.281	4.655	7.003	11.018	11.384	17.516	12.37	6.167	1.669	0.727	3.849
N435 E421	95	80.008	77.558	3.101	0.651	1.055	2.306	4.162	6.973	9.967	13.396	18.065	13.726	4.574	1.758	0.925	3.101
N435 E421	105	80.007	76.419	4.08	0.492	0.205	1.603	2.497	4.828	7.9	7.929	16.147	16.678	11.612	4.396	2.132	4.08
N435 E421	115	80.009	76.98	3.624	0.595	0.154	0.686	1.4	2.82	5.806	6.889	17.228	22.451	13.68	3.66	1.611	3.624
N435 E421	125	80.007	78.228	2.358	0.579	0.359	1.223	2.243	4.101	6.785	10.397	16.173	23.229	10.057	2.398	0.684	2.358
N435 E421	135	80.003	78.78	1.369	0.146	0.177	1.042	2.629	5.843	11.487	14.153	21.861	13.259	6.611	1.252	0.32	1.369
N445 E430	5	80.02	71.878	8.521	0.379	0.015	0.365	1.34	4.573	11.085	17.203	16.691	9.471	5.679	2.646	2.431	8.521
N445 E430	7.5	80.034	69.378	10.466	-0.19	0.23	0.416	0.953	4.54	11.109	15.013	16.989	9.855	5.216	2.795	2.452	10.466
N445 E430	10	80.001	72.874	7.203	0.076	0	0.317	0.998	4.643	11.37	16.426	18.32	10.558	5.567	2.712	1.887	7.203
N445 E430	12.5	80.019	72.19	7.501	-0.328	0	0.302	1.339	4.614	10.862	17.037	16.831	9.822	6.205	2.986	2.52	7.501
N445 E430	15	80.028	73.206	7.217	0.395	0.077	0.331	1.057	4.856	11.884	16.605	17.974	10.088	5.237	2.62	2.082	7.217
N445 E430	17.5	80.065	72.954	6.833	-0.278	0.037	0.19	1.304	4.78	11.593	18.086	16.988	9.458	5.724	2.677	2.395	6.833
N445 E430	20	80.022	74.432	5.138	-0.452	0.051	0.252	1.463	5.039	11.641	18.35	17.621	9.605	5.671	2.719	2.472	5.138
N445 E430	22.5	80.011	72.199	7.535	-0.277	0.028	0.22	1.335	4.999	12.217	18.935	17.141	8.817	4.805	2.16	1.819	7.535
N445 E430	25	80.014	73.954	5.303	-0.757	0.088	0.257	0.973	5.15	12.09	17.554	18.902	9.945	4.94	2.665	2.147	5.303
N445 E430	27.5	80.011	74.959	5.709	0.657	0.087	0.402	1.58	5.378	12.384	19.47	16.506	9.53	4.793	2.259	1.913	5.709
N445 E430	30	80.013	73.486	5.225	-1.302	0.047	0.23	1.078	5.015	12.038	17.292	18.753	9.999	5.134	2.688	2.514	5.225
N445 E430	32.5	80.016	74.909	4.641	-0.466	0	0.322	1.121	5.389	12.009	17.493	19.151	10.03	4.966	2.587	2.307	4.641
N445 E430	35	80.013	74.278	5.718	-0.017	0.053	0.38	1.57	5.273	12.18	19.283	16.846	9.662	4.951	2.199	1.898	5.718
N445 E430	37.5	80.052	72.661	7.21	-0.181	0.052	0.35	1.133	5.224	11.877	16.414	18.656	9.771	4.89	2.458	2.017	7.21
N445 E430	40	80.03	74.254	6.052	0.276	0.073	0.326	1.472	5.333	12.152	18.433	17.358	9.169	5.124	2.316	2.222	6.052
N445 E430	42.5	80.036	72.942	7.517	0.423	0.014	0.295	1.507	5.281	11.864	17.852	17.112	9.052	5.081	2.323	2.138	7.517
N445 E430	45	80.032	74.134	6.099	0.201	0	0.371	1.188	5.307	12.148	17.179	18.77	9.827	4.764	2.312	2.067	6:099
N445 E430	47.5	80.016	73.562	6.408	-0.046	0.007	0.278	1.357	4.677	11.21	18.254	17.536	9.662	5.599	2.62	2.408	6.408
N445 E430	50	80.021	73.525	6.082	-0.414	0.7	0.331	1.543	5.327	11.859	18.226	17.526	9.218	5.068	2.146	1.995	6.082
N445 E430	52.5	80.068	73.906	6.345	0.183	0.081	0.351	1.189	5.208	11.862	16.926	18.78	10.093	4.931	2.389	1.913	6.345
N445 E430	55	80.004	73.796	5.699	-0.509	0.015	0.255	1.071	5.173	11.971	16.978	19.149	10.167	4.961	2.517	2.048	5.699
N445 E430	57.5	80.002	74.288	5.684	-0.03	0.05	0.319	1.434	4.986	11.274	18.275	17.292	10.101	5.538	2.738	2.311	5.684
N445 E430	60	80.018	73.581	6.748	0.311	0	0.36	1.198	5.213	11.625	16.745	18.725	9.964	4.859	2.47	2.111	6.748
N445 E430	62.5	80.026	72.965	7.621	0.56	0.063	0.352	1.599	5.34	11.679	17.865	17.176	9.057	5.004	2.211	2.059	7.621
N445 E430	65	80.06	72.797	7.896	0.633	0.048	0.486	1.359	5.489	12.103	16.527	18.496	9.67	4.455	2.099	1.432	7.896
N445 E430	67.5	80.027	72.269	8.034	0.276	0.048	0.342	1.544	5.232	11.376	17.439	17.127	9.127	5.295	2.491	1.972	8.034
N445 E430	02	80.023	72.379	8.065	0.421	0.086	0.369	1.654	5.424	11.785	17.725	16.91	8.964	4.923	2.112	2.006	8.065
N445 E430	72.5	80.041	72.613	8.037	0.609	0.095	0.359	1.353	5.342	11.575	15.814	18.233	9.983	4.984	2.456	1.81	8.037
N445 E430	75	80.034	72.71	8.105	0.781	0.063	0.349	1.249	5.424	11.867	16.385	17.97	9.603	4.735	2.25	2.034	8.105

Data
Size
Particle
Sieve Pa
- Dry
Ω
Appendix

	Depth-	Sample	Sieve		Sieve												
Sample	сIJ	Wť.	Wt.	Fine wt.	Loss	-1.0 phi "	-0.5 phi	0 phi	0.5 phi	1.0 phi	1.5 phi	2 phi	2.5 phi	3 phi	3.5 phi	4 phi	<4 phi
N445 E430	77.5	80.021	72.65	7.715	0.344	0.042	0.407	1.223	5.403	11.387	16.175	18.619	9.459	4.929	2.446	2.216	7.715
N445 E430	80	80.019	72.451	7.79	0.222	0.088	0.392	1.648	5.573	11.859	17.687	16.623	8.741	5.121	2.358	2.139	7.79
N445 E430	82.5	80.022	73.307	6.334	-0.381	0.041	0.267	1.474	4.895	10.979	18.265	17.08	9.632	5.581	2.898	2.576	6.334
N445 E430	85	80.043	72.357	8.445	0.759	0.174	0.288	1.406	4.838	11.259	17.115	16.675	9.409	5.496	2.585	2.353	8.445
N445 E430	87.5	80.024	73.307	6.862	0.145	0.033	0.352	1.522	5.353	11.62	17.542	16.809	9.317	5.3	2.752	2.562	6.862
N445 E430	06	80.023	72.505	7.998	0.48	0.313	0.219	1.325	4.574	10.742	17.52	16.228	10.04	5.617	2.876	2.571	7.998
N445 E430	92.5	80.024	73.14	7.19	0.306	0.028	0.295	1.173	5.346	11.423	16.009	17.926	9.94	5.235	2.852	2.607	7.19
N445 E430	95	80.015	72.638	8.175	0.798	0.084	0.338	1.338	5.11	11.066	17.581	15.832	9.652	5.369	2.893	2.577	8.175
N445 E430	97.5	80.014	72.031	7.891	-0.092	0.063	0.282	1.22	5.877	11.685	15.792	17.302	9.307	5.218	2.857	2.52	7.891
N445 E430	100	80.004	73.318	6.679	-0.007	0.015	0.287	1.313	5.023	11.312	17.462	16.415	9.942	5.714	3.053	2.789	6.679
N445 E430	102.5	80.006	71.772	8.691	0.457	0.027	0.235	1.715	5.517	11.427	16.341	16.053	8.919	5.502	2.865	2.714	8.691
N445 E430	105	80.021	74.172	6.339	0.49	0.048	0.348	1.716	6.019	12.514	18.221	16.415	9.001	4.866	2.48	2.054	6.339
N445 E430	107.5	80.04	73.186	7.426	0.572	0	0.381	1.74	5.653	11.941	16.991	16.437	9.027	5.347	2.677	2.42	7.426
N445 E430	110	80.018	74.739	5.799	0.52	0.112	0.376	1.51	6.558	12.564	16.801	18.656	9.3	4.455	2.25	1.637	5.799
N445 E430	112.5	80.02	72.862	7.594	0.436	0.058	0.316	1.314	6.205	12.297	15.924	17.696	9.223	4.751	2.471	2.171	7.594
N445 E430	115	80.03	75.854	4.793	0.617	0.013	0.432	1.742	7.685	13.598	16.893	18.672	8.985	3.973	1.872	1.372	4.793
N445 E430	117.5	80.005	74.313	6.123	0.431	0	0.221	1.964	6.443	12.564	17.231	17.164	9.157	4.994	2.285	1.859	6.123
N445 E430	120	80.009	76.014	4.916	0.921	0.054	0.326	1.675	7.135	13.459	16.936	19.541	9.414	3.924	1.679	0.95	4.916
N445 E430	122.5	80.025	75.271	5.218	0.464	0.06	0.329	1.454	6.897	12.836	15.9	19.285	9.801	4.505	2.114	1.626	5.218
N445 E430	125	80.008	76.968	3.167	0.127	0.021	0.249	1.902	6.867	13.181	19.472	19.195	9.402	3.927	1.505	1.12	3.167
N445 E430	127.5	80.024	75.353	5.439	0.768	0.063	0.23	1.754	5.87	11.975	18.1	18.309	9.753	4.648	2.137	1.746	5.439
N445 E430	130	80.019	77.985	2.937	0.903	0.019	0.298	1.447	7.14	13.736	18.886	22.903	8.675	2.53	0.858	0.59	2.937
N445 E430	132.5	80.037	76.494	5.261	1.718	0.101	0.238	1.218	5.922	12.613	17.744	22.111	9.333	3.445	1.159	0.892	5.261
N445 E430	135	80.006	78.379	2.159	0.532	0.045	0.38	1.578	7.998	16.087	20.752	21.078	7.037	1.958	0.606	0.328	2.159
N445 E430	137.5	80.02	77.34	2.927	0.247	0.053	0.193	1.449	5.76	13.505	22.605	20.934	8.205	2.89	0.866	0.633	2.927
N445 E430	140	80.007	78.514	2.71	1.217	0.035	0.273	1.659	6.826	17.431	24.356	19.328	5.444	1.407	0.338	0.2	2.71
N456 E426	15	80	73.215	6.477	-0.308	0	0.194	0.942	3.792	11.704	14.936	17.569	11.202	7.633	3.582	1.969	6.477
N456 E426	25	80.006	73.418	6.451	-0.137	0	0.127	0.819	3.735	13.001	16.287	17.58	10.224	6.827	3.093	1.862	6.451
N456 E426	35	80.004	75.675	4.175	-0.154	0.01	0.172	0.887	3.357	10.291	17.211	17.906	13.3	6.655	3.545	2.495	4.175
N456 E426	45	80.007	74.856	4.873	-0.278	0.054	0.208	0.89	3.341	9.604	16.399	17.854	13.659	6.989	3.7	2.436	4.873
N456 E426	55	80.01	75.215	5.294	0.499	0.024	0.151	0.829	3.206	9.454	16.183	17.292	13.999	7.117	3.748	2.713	5.294
N456 E426	65	80.011	74.394	6.317	0.7	0.095	0.192	0.876	3.244	9.493	15.666	17.297	13.551	6.997	3.685	2.598	6.317
N456 E426	75	80.003	74.361	5.843	0.201	0.018	0.203	0.916	3.812	11.472	15.164	18.322	11.414	7.845	3.229	1.765	5.843
N456 E426	85	80.01	75.486	5.17	0.646	0.042	0.283	1.07	4.079	12.481	15.765	18.282	11.343	7.238	2.684	1.573	5.17
N456 E426	95	80.007	75.856	4.986	0.835	0.065	0.158	1.327	4.526	11.347	17.343	17.785	12.818	5.669	2.476	1.507	4.986
N456 E426	105	80.003	75.876	4.317	0.19	0.013	0.168	1.528	5.094	12.805	15.196	18.389	11.841	7.038	2.41	1.204	4.317
N456 E426	115	80.012	76.272	4.377	0.637	0	0.334	1.82	5.341	11.763	13.566	17.251	12.296	8.811	3.001	1.452	4.377
N456 E426	125	80.012	75.514	5.017	0.519	0.057	0.272	1.445	3.896	9.178	14.642	15.905	12.669	9.87	4.722	2.339	5.017
N456 E426	135	80.009	77.105	3.54	0.636	0.074	1.118	3.573	6.616	13.25	15.325	17.206	8.2	7.126	2.733	1.248	3.54

	Depth-	Sample	Sieve		Sieve												
Sample	сm	Wt.	Wt.	Fine wt.	Loss	"-1.0 phi "-0.5 phi	"-0.5 phi	0 phi	0.5 phi	1.0 phi	1.5 phi	2 phi	2.5 phi	3 phi	3.5 phi	4 phi	<4 phi
N466 E426	15	80.013	74.702	5.483	0.172	0	0.149	0.72	2.983	9.279	16.404	18.505	14.645	6.521	3.254	2.07	5.483
N466 E426	25	80.005	75.529	4.608	0.132	0.032	0.196	0.913	3.278	9.96	16.8	18.508	14.193	6.348	3.041	2.128	4.608
N466 E427	35	80.01	75.878	4.084	-0.048	0.041	0.145	0.803	3.079	9.862	16.844	19.06	14.653	6.26	3.05	2.129	4.084
N466 E428	45	80.007	75.598	4.826	0.417	0.044	0.14	0.936	3.411	10.202	17.118	18.721	14.083	5.914	2.767	1.845	4.826
N466 E429	55	80.011	75.73	4.767	0.486	0.067	0.112	0.613	2.848	9.157	16.42	19.282	14.738	6.485	3.239	2.283	4.767
N466 E430	65	80.011	75.797	4.886	0.672	0	0.163	0.733	3.525	11.539	15.804	19.171	12.968	7.262	2.703	1.257	4.886
N466 E431	75	80.003	75.154	5.815	0.966	0	0.094	0.716	3.169	10.624	15.469	18.875	13.103	7.606	2.907	1.625	5.815
N466 E432	85	80.001	75.754	4.59	0.343	0	0.142	0.75	3.437	11.413	15.914	19.75	12.832	7.21	2.74	1.223	4.59
N466 E433	95	80.004	74.984	5.359	0.339	0	0.145	0.767	3.402	11.53	15.832	19.429	12.505	6.953	2.724	1.358	5.359
N466 E434	105	80.014	74.801	5.624	0.411	0	0.111	0.743	3.435	12.119	16.371	19.268	11.832	6.674	2.469	1.368	5.624
N466 E435	115	80.005	75.659	4.991	0.645	0	0.087	0.652	2.907	9.549	16.715	19.077	14.824	6.228	2.988	1.987	4.991
N466 E436	125	80.004	76.372	3.823	0.191	0	0.111	0.924	4.222	12.843	15.176	17.874	12.553	7.926	3.012	1.54	3.823
N466 E437	135	80.007	76.706	4.308	1.007	0	0.125	1.359	5.07	12.736	14.537	16.362	11.545	8.357	3.635	1.973	4.308
N476 E426	15	80.014	75.107	4.477	-0.43	0.029	0.202	0.975	2.784	7.169	13.742	19.612	15.51	8.914	3.752	2.848	4.477
N476 E426	25	80.013	76.755	2.723	-0.535	0.016	0.284	1.02	3.138	7.091	12.103	22.242	17.136	8.469	3.493	2.298	2.723
N476 E426	35	80.006	76.201	3.521	-0.284	0.043	0.332	1.072	2.677	6.723	12.415	20.074	16.861	9.884	3.799	2.605	3.521
N476 E426	45	80.015	76.047	3.762	-0.206	0.08	0.305	0.765	2.617	6.241	12.063	23.886	16.584	8.476	3.319	1.917	3.762
N476 E426	55	80.009	76.187	3.587	-0.235	0.203	0.204	0.593	2.235	5.963	11.784	24.183	17.555	8.401	3.221	2.08	3.587
N476 E426	65	80.009	75.962	4.2	0.153	0.013	0.191	0.53	1.937	5.606	12.338	21.913	17.999	9.568	3.521	2.193	4.2
N476 E426	75	80.004	76.47	3.289	-0.245	0	0.102	0.398	1.749	5.408	11.482	22.247	19.258	10.441	3.444	2.186	3.289
N476 E426	85	80.002	77.104	3.317	0.419	0.098	0.121	0.367	1.63	4.704	9.429	23.668	20.416	10.48	3.637	2.135	3.317
N476 E426	95	80.006	77.317	2.788	0.099	0.01	0.218	0.725	1.865	4.224	8.693	20	22.147	13.653	3.823	1.86	2.788
N476 E426	105	80.002	78.086	2.019	0.103	0.06	0.513	1.255	3.219	5.064	7.921	25.04	22.144	9.83	2.035	0.902	2.019
N476 E426	115	80.003	78.563	1.64	0.2	0.069	0.365	0.764	2.34	3.999	6.58	25.117	25.892	11.09	2.074	0.073	1.64
N476 E426	125	80.027	77.992	2.247	0.212	0.019	0.296	0.913	3.585	6.139	8.168	19.371	21.869	12.362	3.566	1.492	2.247
N476 E426	135	80.005	78.194	1.798	-0.013	0.028	0.414	2.715	8.433	13.894	16.602	14.634	10.803	7.013	2.468	1.203	1.798

APPENDIX E Lithic Artifacts

Unit l	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N441 E432	1	В	1597	588	3	Flake	Metavolcanic	0	1	1	0.98	
N441 E432	1	В	1597	588	4	Other				1	0.3	1/8" Tooth Fragment
N441 E432	2	А	1597	621	2	Flake	Quartz	0	1	1	2.06	
N441 E432	2	А	1597	621	4	Flake	Quartz	0	1	1	0.08	1/8"
N441 E432	2	Α	1597	621	3	Flake	Quartz	0	1	1	0.33	
N441 E432	2	В	1597	618	3	Flake	Quartz	0	2	2	0.76	
N441 E432	2	В	1597	618	4	Flake	Quartz	0	2	2	0.37	
N441 E432	2	D	1597	627	4	Flake	Quartz	0	1	1	0.11	
N441 E432	2	D	1597	627	3	Flake	Quartz	0	3	3	1.25	
N441 E432	2		1597	659	3	Woodland Point	Quartz	0	1	1	2.57	Rudimentary Stem
N441 E432	3	А	1597	652	4	Other	Bone			6	0.33	1/8"
N441 E432	3	А	1597	652	4	Flake	Quartz	0	4	4	0.27	
N441 E432	3	А	1597	652	3	Flake	Quartzite	0	1	1	0.36	
N441 E432	3	А	1597	652	3	Flake	Quartz	0	1	1	0.93	
N441 E432	3	А	1597	652	2	Misc. Rock				1	3.09	
N441 E432	3	А	1597	652	4	Misc. Rock				1	0.28	
N441 E432	3	В	1597	646	4	Flake	Quartz	0	6	6	0.43	1/8"
N441 E432	3	В	1597	646	4	Flake	Quartz	0	1	1	0.22	
N441 E432	3	В	1597	646	3	Flake	Quartz	0	1	1	0.29	
N441 E432	3	С	1597	647	4	Flake	Quartz	0	1	1	0.05	1/8"
N441 E432	3	С	1597	647	3	Flake	Quartz	0	2	2	0.51	
N441 E432	3	D	1597	662	2	Flake	Quartz	1	0	1	4.12	
N441 E432	3	D	1597	662	3	Flake	Indet.	0	1	1	0.34	
N441 E432	3	D	1597	662	3	Flake	Quartz	1	1	2	0.65	
N441 E432	3	D	1597	662	4	Flake	Quartzite	0	1	1	0.04	
N441 E432	3	D	1597	662	4	Other	Bone			8	0.39	
N441 E432	3	D	1597	662	4	Flake	Quartz	0	13	13	0.93	
N441 E432	3	D	1597	662	2	Other	Other				7.18	Concretion
N441 E432	4	А	1597	695	3	Flake	Quartz	0	2	2	0.61	
N441 E432	4	А	1597	695	4	Other	Bone			9	0.47	1/8"
N441 E432	4	А	1597	695	4	Flake	Quartz	0	4	4	0.15	1/8"
N441 E432	4	В	1597	673	3	Flake	Metavolcanic	0	1	1	0.22	
N441 E432	4	В	1597	674	3	Flake	Quartz	0	2	2	1.8	
N441 E432	4	В	1597	674	3	Flake	Quartzite	0	2	2	0.55	
N441 E432	4	В	1597	674	4	Flake	Indet.	2	0	2	0.27	
N441 E432	4	В	1597	674	4	Flake	Quartz	0	6	6	0.51	
N441 E432	4	В	1597	674	4	Flake	Quartzite	0	4	4	0.24	
N441 E432	4	В	1597	674	4	Flake	Metavolcanic	0	1	1	0.02	
N441 E432	4	В	1597	674	4	Other	Bone			11	0.64	
N441 E432	4	С	1597	677	4	Flake	Quartz	0	1	1	0.11	
N441 E432	4	С	1597	677	4	Flake	Quartzite	0	1	1	0.08	1/8"

TI**	I.J. 6 ?	Access.	EC#	Size	T	M. ())	Cert	No-	C:	W (4 /)	C
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
1441 E432	4 C	1597	677	4	Other	Bone	0	2	6	0.22 1	/8"
V441 E432	4 C	1597	677	4	Flake Flake	Quartz	0	2	2	0.62	
1441 E432	4 D	1597	683	2		Quartz	0	1	1	2.86	(9"
1441 E432	4 D	1597	683	4	Other	Bone	0		10	0.37 1	/8
1441 E432	4 D	1597	683	4	Flake	Quartzite	0	1	1	0.12	
1441 E432	4 D	1597	683	4	Flake	Metavolcanic	0	2	2	0.14	
1441 E432	4 D	1597	683	4	Flake Flake	Quartz	0	6	6	0.53	
1441 E432	5 A 5 A	1597	719	4	Flake	Orthoquartzite	0	1	1	0.11 0.14	
1441 E432		1597	719	4	Flake	Quartzite					
V441 E432 V441 E432	5 A 5 A	1597 1597	719 719	2	Flake	Quartz Quartzite	1	0	1 2	6.09 0.61	
					Flake			2		0.01	/0"
1441 E432 1441 E432	5 A 5 A	1597 1597	719 719	4 4	Flake	Quartzite	0	2	2 1	0.11 1	
			719	4	Other	Quartz	0	1		0.05 1	
V441 E432 V441 E432	5 A 5 A	1597 1597	719	4	Pebble	Bone			1	0.02 1	
441 E432	5 B	1597	705	4	Flake	Quartz	1	7	8	0.03 1	
V441 E432	5 B			4	Flake	Metavolcanic	0	1	0		
V441 E432		1597	705	4		Quartzite		2	2	0.02 1	
V441 E432	5 B 5 B	1597 1597	705 705	4	Flake Other	Bone	0	2	2	0.12 1 0.28 1	
441 E432	5 В	1597	705	4	Flake	Quartz	0	1	1	0.28 1	/0
V441 E432	5 В		706	4	Other	Bone	0	1	2	0.41	
V441 E432	5 В	1597					0				
		1597	706	4	Flake Other	Quartzite Bone	0	1	1	0.03 0.7	
V441 E432 V441 E432	5 C 5 C	1597	712 712	4	Flake		0	1	16 1	0.7	
	5 C	1597	712	4	Flake	Quartzite	0	3	3	0.08	
1441 E432		1597				Quartz					
1441 E432	5 C	1597	712	2	Flake Flake	Quartz	02	1	1	7.36	
1441 E432	5 D	1597	715	3		Quartz	2	2		1.69	
1441 E432	5 D	1597	715	4	Other	Bone	0		4	0.36	
1441 E432	5 D	1597	715	4	Flake	Metavolcanic	0	1	1	0.13	
1441 E432	5 D	1597	715	4	Flake	Quartz	2	5	7	0.77	
1441 E432	6 A	1597 1597	751 751	3	Flake Flake	Orthoquartzite Chert	0	1	1	0.87 0.42	
1441 E432 1441 E432	6 A		751	4	Flake	Quartzite	1	2	1 2	0.42	
	6 A	1597		4							
1441 E432	6 A 6 B	1597	751 735	4	Flake Flake	Quartz	0 0	5 2	5	0.18 0.12 1	/0"
1441 E432		1597	735	4	Flake	Quartzite	0	2	2 5	0.12 1	
1441 E432	6 B	1597		4		Quartz					/0
1441 E432	6 B	1597	735	3	Flake	Quartzite	0	1	1	0.15	
1441 E432	6 B	1597	735	3	Flake	Orthoquartzite	0	1	1	0.33	
1441 E432	6 B	1597	735	3	Pebble	0	0	1	3	2.64	/0"
1441 E432	6 C	1597	743	4	Flake	Quartzite	0	1	1	0.03 1	
441 E432	6 C	1597	743	3	Other	P			1		Charcoal
441 E432	6 C	1597	743	4	Other	Bone	0	0	1	0.02 1	
441 E432	6 C	1597	743	4	Flake	Quartz	0	9	9	0.4 1	/0
441 E432	6 D	1597	745	2	Flake	Quartz	1	0	1	6.05	

¥1**	I.J. 6 '	Access.	EC#	Size	T	M-4 11	Cont	No-	C:	11/4 ()	C - (
Unit	LvL Sub		FS#	Class	Туре	Material		Cortex	Ct.	Wt.(g)	Comments
441 E432		1597	745	4	Flake	Quartzite	0	1	1	0.01	
1441 E432		1597	745	4	Flake	Quartz	0	1	1	0.16	1/8"
441 E432		1597	778	3	Flake	Quartz	0	1	1	1.01	
441 E432		1597	779	3	Flake	Quartz	1	0	1	0.17	1.01
1441 E432		1597	779	4	Flake	Quartzite	1	0	1	0.09	
1441 E432		1597	779	4	Flake	Quartz	1	3	4	0.29	
J441 E432		1597	779	4	Flake	Orthoquartzite	0	1	1	0.01	1/8"
1441 E432		1597	771	3	Flake	Metavolcanic	0	1	1	0.78	
1441 E432		1597	771	3	Flake	Quartz	0	1	1	0.52	
1441 E432		1597	771	4	Flake	Chert	0	4	4	0.43	
441 E432		1597	771	4	Flake	Quartzite	0	4	4	0.18	
441 E432		1597	771	4	Flake	Quartz	0	4	4	0.21	
1441 E432		1597	764	2	Flake	Quartzite	0	1	1		Shatter
1441 E432		1597	764	4	Flake	Metavolcanic	0	1	1	0.02	
1441 E432		1597	764	4	Flake	Quartz	0	2	2	0.07	1/8"
1441 E432	7 D	1597	770	4	Flake	Quartzite	1	0	1	0.24	
1441 E432	7 D	1597	770	4	Flake	Quartz	1	0	1	0.41	
441 E432	7 D	1597	770	4	Flake	Quartz	0	1	1	0.08	1/8"
441 E432	7 D	1597	770	3	Flake	Quartz	1	1	2	2.69	
441 E432	7 D	1597	770	3	Flake	Quartzite	1	0	1	0.66	
1441 E432	7 D	1597	770	2	Flake	Quartz	1	0	1	4.12	
1441 E432	7 D	1597	770	4	Flake	Quartzite	0	2	2	0.08	1/8"
1441 E432	7 D	1597	774	2	Biface Frag	Quartz	1	0	1	7.62	
1441 E432	7 D	1597	774	3	Blade	Chert	0	1	1	1.66	
1441 E432	8 A	1597	793	3	Pebble				1	0.93	
1441 E432	8 A	1597	793	4	Flake	Quartz	0	1	1	0.09	1/8"
441 E432	8 A	1597	793	4	Flake	Quartz	0	1	1	0.24	
441 E432	8 A	1597	793	4	Flake	Quartzite	0	2	2	0.28	
441 E432	8 B	1597	786	4	Flake	Quartz	0	1	1	0.03	1/8"
J441 E432	8 B	1597	786	3	Flake	Quartz	1	0	1	0.18	
1441 E432	8 B	1597	786	4	Flake	Quartzite	0	3	3	0.09	1/8"
1441 E432	8 B	1597	786	4	Pebble				2	0.21	1/8"
441 E432	8 C	1597	787	4	Flake	Quartz	0	1	1	0.05	1/8"
441 E432	8 C	1597	787	4	Flake	Indet.	0	1	1	0.07	1/8"
441 E432	8 C	1597	787	4	Flake	Chert	0	1	1	0.04	1/8"
1441 E432	8 C	1597	787	2	Flake	Quartz	1	0	1	8.42	
1441 E432	8 D	1597	788	4	Flake	Quartz	0	4	4	0.19	1/8"
1441 E432	8 D	1597	788	4	Flake	Quartzite	1	1	2	0.07	1/8"
1441 E432	8 D	1597	788	3	Flake	Quartzite	1	0	1	0.76	
1441 E432	8 D	1597	788	4	Flake	Quartz	0	2	2	0.41	
1441 E432	8 D	1597	788	3	Flake	Quartz	0	3	3	5	
441 E432	8 D	1597	788	2	Flake	Quartz	2	0	2	18.69	
441 E432	8 D	1597	788	2	Flake	Chert	1	0	1	4.12	
441 E432		1597	788	2	Flake	Quartzite	1	0	1	0.93	
441 E432		1597	811	4	Flake	Quartz	0	1	1	0.04	1 /0"

Unit	LvL Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N441 E432	9 B	1597	801	4	Flake	Quartz	0	2	2	0.11	1/8"
N441 E432	9 C	1597	807	4	Flake	Quartz	1	2	3	0.21	1/8"
N441 E432		1597	619	4	Flake	Quartz	0	3	3	0.08	1/8" North Wall Collapse 21-28 CMBS
N441 E432		1597	794	4	Flake	Quartzite	0	1	1	0.06	1/8" Baulk
N441 E432		1597	825	4	Flake	Quartz	0	3	3	0.15	1/8" Baulk
N441 E432		1597	835	3	Flake	Quartz	1	0	1	1.07	provenience ?
N443 E432	1 B	1597	287	4	Flake	Quartz	0	1	1	0.44	
N443 E432	1 B	1597	287	4	Flake	Quartz	0	2	2	0.4	1/8"
N443 E432	1 D	1597	283	4	Flake	Quartz	0	1	1	0.03	1/8"
N443 E432	2 A	1597	297	4	Flake	Quartz	0	1	1	0.07	1/8"
N443 E432	2 A	1597	297	4	Other	Bone			1	0.08	1/8"
N443 E432	2 B	1597	306	4	Other	Bone			14	0.95	1/8"
N443 E432	2 B	1597	306	4	Flake	Metavolcanic	0	1	1	0.11	1/8"
N443 E432	2 B	1597	306	4	Flake	Quartz	0	1	1	0.02	1/8"
N443 E432	2 D	1597	301	2	Flake	Metavolcanic	0	1	1	1.54	
N443 E432	3 A	1597	318	3	Flake	Quartz	0	1	1	0.19	
N443 E432	3 A	1597	318	4	Other	Bone			4	0.2	1/8"
N443 E432	3 A	1597	318	4	Flake	Quartz	0	1	1	0.1	
N443 E432	3 B	1597	339	3	Pebble				1	0.26	
N443 E432	3 B	1597	339	4	Other	Bone			14	0.52	1/8"
N443 E432	3 B	1597	339	3	Flake	Quartz	0	2	2	3.34	
N443 E432	3 B	1597	339	4	Flake	Metavolcanic	0	1	1	0.04	1/8"
N443 E432	3 B	1597	339	4	Flake	Quartzite	0	2	2	0.07	1/8"
N443 E432	3 B	1597	339	4	Flake	Quartz	0	2	2	0.1	1/8"
N443 E432	3 C	1597	328	4	Flake	Quartz	0	2	2	0.29	1/8"
N443 E432	3 C	1597	328	3	Flake	Quartz	0	1	1	0.7	
N443 E432	3 C	1597	328	4	Other	Bone			3	0.15	1/8"
N443 E432	3 C	1597	328	4	Flake	Orthoquartzite	0	1	1	0.18	
N443 E432	3 C	1597	328	3	Flake	Orthoquartzite	0	1	1	0.36	
N443 E432	3 D	1597	326	3	Flake	Quartz	0	1	1	0.75	
N443 E432	3 D	1597	326	4	Flake	Quartz	0	1	1	0.06	
N443 E432	3 D	1597	326	4	Other	Bone			10	0.2	1/8"
N443 E432	4 A	1597	342	1	Cobble	Indet.	1	0	1	34.71	
N443 E432	4 A	1597	342	4	Flake	Metavolcanic	0	1	1	0.15	
N443 E432	4 A	1597	342	4	Other	Bone			18	0.67	1/8"
N443 E432	4 A	1597	342	4	Flake	Quartzite	0	3	3	0.09	1/8"
N443 E432	4 A	1597	342	4	Flake	Quartz	0	1	1	0.15	1/8"
N443 E432	4 B	1597	364	4	Flake	Quartzite	0	2	2	0.08	1/8"
N443 E432	4 B	1597	364	4	Flake	Quartz	0	3	3	0.16	1/8"
N443 E432	4 B	1597	364	4	Other	Bone			3	0.07	1/8"
N443 E432	4 B	1597	364	3	Flake	Quartz	0	1	1	0.32	
N443 E432	4 C	1597	355	2	Cobble Frag	Indet.	2	0	2	10.09	Refits with FS# 397
N443 E432	4 C	1597	355	3	Cobble Frag	Indet.	1	0	1	1.03	Refits with FS# 397
N443 E432	4 C	1597	355	2	Flake	Quartz	0	1	1	4.98	Shatter?
N443 E432	4 C	1597	355	4	Other	Bone			10	0.62	1/8"

TT */		с ·	Access.	E 0."	Size	T		C (No-	C:	114 ()	a .
Unit	LvL		#	FS#	Class	Туре	Material		Cortex	Ct.	Wt.(g)	Comments
443 E432		C C	1597	355	4	Flake	Quartz	0	4	4	0.36	
443 E432		C	1597	355	4	Flake	Quartzite	0	1	1	0.02	
1443 E432	4	С	1597	355	4	Flake	Metavolcanic	0	1	1	0.07	Chalky Material with
443 E432	4	С	1597	355	1	Biface	Indet.	1	0	1	21.26	Cortex
443 E432	4	D	1597	356	4	Flake	Metavolcanic	0	1	1	0.08	1/8"
443 E432	4	D	1597	356	4	Flake	Quartz	0	3	3	0.34	1/8"
443 E432	4	D	1597	356	4	Flake	Indet.	0	2	2	0.08	1/8"
443 E432	4	D	1597	356	4	Flake	Quartzite	0	2	2	0.02	1/8"
443 E432	4	D	1597	356	4	Other	Bone			7	0.21	1/8"
443 E432	4	D	1597	356	3	Flake	Quartz	0	1	1	1.42	
443 E432	4	D	1597	356	3	Other	Indet.	3	0	3	2.02	Siltstone?
443 E432	5	А	1597	369	4	Other	Bone			3	0.08	1/8"
443 E432	5	А	1597	369	4	Flake	Quartzite	0	1	1	0.05	1/8"
443 E432	5	А	1597	369	4	Flake	Quartzite	0	1	1	0.09	
443 E432	5	В	1597	381	4	Flake	Metavolcanic	0	2	2	0.07	1/8"
443 E432	5	В	1597	381	4	Other	Bone			1	0.07	1/8"
443 E432	5	В	1597	381	4	Flake	Quartz	0	7	7	0.41	1/8"
443 E432	5	В	1597	381	4	Flake	Indet.	0	1	1	0.03	1/8" Siltstone?
443 E432	5	В	1597	381	4	Flake	Metavolcanic	0	2	2	0.07	1/8"
443 E432	5	С	1597	377	3	Other	Siltstone?	1	0	1	0.09	
443 E432	5	С	1597	377	4	Other	Bone			9	0.27	1/8"
443 E432	5	С	1597	377	4	Flake	Quartz	0	4	4	0.23	1/8"
443 E432	5	С	1597	377	4	Flake	Quartzite	0	1	1	0.04	1/8"
443 E432	5	С	1597	377	3	Flake	Indet.	0	1	1	0.17	
443 E432	5	С	1597	377	3	Flake	Indet.	0	1	1	1.07	
443 E432	5	D	1597	372	4	Other	Indet.	1	0	1	0.07	1/8" Siltstone?
443 E432	5	D	1597	372	4	Flake	Quartzite	0	1	1	0.14	1/8"
443 E432	5	D	1597	372	4	Pebble				1	0.19	1/8"
443 E432	5	D	1597	372	4	Flake	Orthoquartzite	0	1	1	0.11	
443 E432	5	D	1597	372	3	Other	Indet.	1	1	1	0.58	Siltstone?
443 E432	5	D	1597	372	3	Flake	Orthoquartzite	0	1	1	0.2	
443 E432	5	D	1597	372	3	Flake	Quartz	0	1	1	0.35	
443 E432	5	D	1597	372	4	Other	Bone			5	0.12	1/8"
443 E432	5	D	1597	372	4	Flake	Quartz	0	7	7	0.37	1/8"
443 E432	5		1597	383	4	Flake	Quartz	0	4	4	0.15	Trowel
443 E432	5		1597	383	4	Flake	Quartzite	0	1	1	0.01	Trowel
443 E432	5		1597	383	3	Flake	Orthoquartzite	0	1	1	0.44	Trowel
443 E432	6	А	1597	389	4	Other	Bone			7	0.26	1/8"
443 E432	6	A	1597	389	4	Flake	Quartzite	0	3	3	0.04	1/8"
443 E432	6	A	1597	389	4	Flake	Orthoquartzite	0	2	2	0.13	1/8"
443 E432	6	А	1597	389	4	Pebble				4	0.24	1/8"
443 E432		А	1597	389	4	Flake	Quartz	0	1	1		1/8"
443 E432	6	А	1597	389	3	Flake	Syenite	0	1	1	0.92	Shatter
443 E432		А	1597	389	3	Flake	Quartz	0	3	3		
443 E432		А	1597	389	3	Flake	Orthoquartzite	0	2	2		

T T •		Access.	1 50."	Size		N / 1	G (No-	C:		a
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
1443 E432		1597	404	4	Other	Bone	0		1	0.12	
V443 E432		1597	404	4	Flake	Quartz	0	1	1	0.03	
N443 E432		1597	404	4	Flake	Chert	0	1	1	0.02	
N443 E432		1597	397	4	Flake	Quartz	0	1	1	0.08	1/8
N443 E432		1597	397	3	Flake	Quartzite	0	2	2	1.46	
N443 E432		1597	397	3	Flake	Quatz	0	1	1	1.57	
1443 E432		1597	397	2	Cobble Frag	Indet.	2	0	2		Refits with FS# 355
V443 E432		1597	397	4	Other	Bone			3		1/8"
1443 E432		1597	397	4	Pebbles				3		1/8"
1443 E432	6 D	1597	394	3	Flake Tabular	Quartzite	0	1	1	0.31	
1443 E432	6 D	1597	394	2	Fragment	Indet.			1	2.34	
1443 E432	6 D	1597	394	4	Flake	Metavolcanic	0	2	2	0.17	
1443 E432	6 D	1597	394	4	Flake	Quartz	1	2	3	0.37	
1443 E432	6 D	1597	394	4	Flake	Orthoquartzite	0	3	3	0.25	
1443 E432	6 D	1597	394	4	Pebble				5	0.37	1/8"
1443 E432	6 D	1597	394	4	Flake	Quartzite	0	2	2	0.19	1/8"
443 E432	6 D	1597	394	4	Flake	Orthoquartzite	0	1	1	0.03	1/8"
1443 E432	6 D	1597	394	4	Flake	Quartz	0	3	3	0.05	1/8"
1443 E432	6 D	1597	394	4	Flake	Chert	0	1	1	0.02	1/8"
1443 E432	7 A	1597	432	4	Flake	Metavolcanic	0	4	4	0.15	1/8"
1443 E432	7 A	1597	432	4	Flake	Orthoquartzite	0	1	1	0.28	1/8"
1443 E432	7 A	1597	432	4	Flake	Quartz	0	3	3	0.1	1/8"
1443 E432	7 A	1597	432	4	Pebble				1	0.08	1/8"
443 E432	7 A	1597	432	4	Flake	Quartzite	0	1	1	0.03	1/8"
443 E432	7 A	1597	504	4	Flake	Metavolcanic	0	3	3	0.26	
1443 E432	7 A	1597	504	3	Flake	Quartz	1	0	1	0.66	
443 E432	7 A	1597	504	4	Flake	Metavolcanic	0	3	3	0.13	
1443 E432	7 B	1597	456	4	Pebbles				2	0.1	1/8"
1443 E432	7 B	1597	456	4	Flake	Quartz	0	7	7	0.41	1/8"
1443 E432		1597	456	4	Flake	Orthoquartzite	0	1	1	0.03	
1443 E432		1597	456	4	Flake	Quartzite	0	3	3	0.15	
1443 E432		1597	456	4	Other	Seed Pod			1	0.03	
443 E432		1597	456	3	Flake	Indet.	0	1	1	1.14	
1443 E432		1597	456	4	Flake	Metavolcanic	0	3	3	0.12	1/8"
1443 E432		1597	456	3	Flake	Quartz	0	1	1		
1443 E432		1597	450	3	Flake	Orthoquartzite	0	3	3	0.64	
1443 E432		1597	450	3	Flake	Quartz	0	1	1		Shatter
1443 E432		1597	450	3	Flake	Quartz	1	0	1		
1443 E432		1597	450	4	Pebble	Zamis	1	0	1		1/8"
1443 E432		1597	450	4	Flake	Orthoquartzite	0	2	2		1/8"
443 E432		1597	450	4	Flake	Quartz	0	3	2		1/8"
1443 E432		1597	450	4	Flake	Quartz	0	1	1		1/8"
443 E432		1597	430 439	4	Bifurcate Point	Metavolcanic	0	1	1		St. Albans
				4	Flake		0	5	5		St. Albans
443 E432		1597	447			Quartzite					
443 E432	7 D	1597	447	4	Flake	Orthoquartzite	0	1	1	0.2	

	_	~	Access.		Size	_	• 6	~	No-	<i></i>		
Unit	LvL	Sub	#	FS#	Class	Туре	Material		Cortex	Ct.	Wt.(g)	Comments
1443 E432	7	D	1597	447	4	Flake	Quartzite	0	1	1	0.13	
N443 E432		D	1597	447	3	Flake	Chert	1	0	1	1.31	
N443 E432	7	D	1597	447	3	Flake	Orthoquartzite	0	1	1	0.26	
N443 E432	7	D	1597	447	4	Flake	Metavolcanic	0	1	1	0.07	
N443 E432	7	D	1597	447	4	Flake	Chert	0	1	1	0.02	
N443 E432	7	D	1597	447	4	Flake	Orthoquartzite	0	2	2	0.11	1/8"
N443 E432	7	D	1597	454	1	Flaked Cobble	Quartz	1	0	1	32.32	
1443 E432	8	А	1597	461	4	Flake	Quartz	0	2	2	0.07	1/8"
1443 E432	8	А	1597	461	4	Pebble				2	0.18	1/8"
1443 E432	8	А	1597	461	4	Flake	Chert	0	1	1	0.06	1/8"
1443 E432	8	А	1597	461	4	Flake	Quartzite	0	2	2	0.03	1/8"
1443 E432	8	А	1597	461	4	Flake	Metavolcanic	0	6	6	0.22	1/8"
1443 E432	8	А	1597	461	4	Other	Mica			2	0.01	1/8"
N443 E432	8	А	1597	461	3	Flake	Quartzite	0	1	1	0.26	
N443 E432	8	А	1597	461	4	Flake	Quartz	0	1	1	0.14	
1443 E432	8	А	1597	461	3	Flake	Quartz	0	1	1	0.58	
N443 E432	8	в	1597	505	3	Flake	Metavolcanic	0	1	1	0.16	
N443 E432	8	в	1597	505	4	Flake	Metavolcanic	0	1	1	0.03	1/8"
N443 E432	8	С	1597	474	3	Flake	Quartzite	0	1	1	0.18	
1443 E432	8	С	1597	474	3	Flake	Metavolcanic	0	1	1	0.1	
V443 E432	8	С	1597	474	4	Flake	Quartzite	0	1	1	0.12	
N443 E432	8	С	1597	474	4	Flake	Quartz	0	1	1	0.19	
N443 E432		С	1597	474	4	Pebble				2	0.22	1/8"
N443 E432	8	С	1597	474	4	Flake	Orthoquartzite	0	2	2	0.23	
1443 E432		С	1597	474	4	Flake	Quartzite	0	2	2	0.13	
1443 E432		С	1597	474	4	Flake	Metavolcanic	0	2	2	0.09	
1443 E432		C	1597	474	4	Flake	Chert	0	1	1	0.04	
1443 E432		C	1597	474	4	Flake	Quartz	0	4	4		1/8"
1443 E432		D	1597	468	4	Flake	Quartz	0	2	2	0.09	
N443 E432		D	1597	468	4	Pebble	Quint	0	-	- 1	0.4	1,0
N443 E432		D	1597	468	3	Pebble				2	1.19	
N443 E432		D	1597	408	2	Flake	Orthoquartzite	0	1	1	2.59	
N443 E432 N443 E432		D	1597	468 468	4	Flake	Chert	0	1	1	0.05	1/8"
N443 E432		D	1597	468 468	4	Flake	Quartz	0	2	2	0.03	
N443 E432 N443 E432		D D	1597	468 468	4	Flake	Quartz Metavolcanic	0	2	2		
		D				Flake		0	5			
N443 E432			1597	468	4		Quartzite			5	0.16	1/0
N443 E432		A	1597	507	4	Flake	Orthoquartzite	0	2	2	0.29	
N443 E432		A	1597	507	4	Flake	Quartz	0	1	1		
1443 E432		A	1597	507	4	Flake	Metavolcanic	0	1	1		1./01
1443 E432		A	1597	507	4	Flake	Quartzite	0	3	3	0.06	
1443 E432		В	1597	525	4	Flake	Chert	0	2	2	0.06	
1443 E432		В	1597	525	3	Other	Charcoal			1		Charcoal
1443 E432		В	1597	525	3	Flake	Quartzite	0	1	1		
1443 E432		В	1597	525	4	Flake	Quartzite	0	3	3	0.12	
1443 E432	9	В	1597	525	4	Flake	Quartz	0	1	1	0.03	1/8"

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
443 E432	9	С	1597	514	4	Flake	Quartz	0	2	2	0.28	
443 E432	9	С	1597	514	4	Flake	Metavolcanic	0	1	1	0.05	
443 E432	9	С	1597	514	4	Flake	Quartzite	0	1	1	0.04	
443 E432	9	С	1597	514	3	Flake	Quartz	0	1	1	0.16	
443 E432	9	D	1597	520	4	Pebble				2	0.13	1/8"
443 E432	9	D	1597	520	4	Flake	Quartz	0	5	5	0.41	1/8"
443 E432	9	D	1597	520	4	Flake	Chert	0	1	1	0.08	1/8"
443 E432	9	D	1597	520	4	Flake	Quartzite	0	1	1	0.1	1/8"
443 E432	9	D	1597	520	4	Pebble				1	0.29	
443 E432	10	А	1597	529	4	Other	Mica			2	0.01	1/8"
443 E432	10	А	1597	529	4	Flake	Quartzite	0	1	1	0.02	1/8"
443 E432	10	С	1597	536	4	Flake	Quartz	0	1	1	0.13	1/8"
443 E432	10	D	1597	531	3	Flake	Quartzite	0	1	1	0.23	
443 E432	10	D	1597	542	4	Flake	Metavolcanic	0	1	1	0.07	1/8"
443 E432	10	D	1597	542	4	Flake	Quartz	0	1	1	0.04	1/8"
443 E432	11	А	1597	547	3	Flake	Metavolcanic	0	1	1	0.1	
443 E432	Fea 4 Fea		1597	428	4	Flake	Quartzite	0	2	2	0.01	provenience ? 1/8" Lyls 7-11 Baulk
443 E432			1597	562	4	Flake	Chert	0	1	1	0.1	Around Feature 1/8" Lvls 7-11 Baulk
443 E432	6		1597	562	4	Flake	Quartzite	0	1	1		Around Feature
443 E432			1597	569	3	Flake	Quartzite	0	1	1	0.31	1/8" East Profile Cleanup
443 E432			1597	569	4	Flake	Quartzite	0	1	1	0.05	1/8" East Profile Cleanup
443 E432 445 E430	4	A	1597 1597	569 3074	2 2	Flake Biface Frag	Quartz Metavolcanic	1 0	0	1	4.86	East Profile Cleanup Listed on bag as level 5 but found at 40 cmbs
445 E430	4	A	1597	3074	1	Cobble Frag	Quartz	1	0	1		Broken Cobble
445 E430		В	1597	3039	2	Cobble Frag	Quartz	1	0	1		Refits with FS# 3066
445 E430		C	1597	3045	2	Cobble Frag	Quartz	1	0	1		Kents with 1.5# 5000
145 E430		D	1597	3066	2	0	Quartzite	1	0	1		Refits with FS# 3043
		A	1597	3106		Cobble Frag	-	0	1	1		
445 E430 445 E430		B	1597	3131	1	Grinding Stone Endscraper	Syenite Quartzite	0	1	1		Grinding Stone Fragmen
445 E430	8 9	Ъ	1597	3131	2	Biface	Orthoquartzite	0	1	1		
445 E430	7		1597	3306	1	Anvil	Syenite	1	0	1		80 cmbs in W. profile
445 E430 445 E432	1	D	1597	543	4	Other	Bone	1	0	1	0.07	1
445 E432		A	1597	545 572	4	Other	Bone			2	0.07	1/0
445 E432		A	1597	572	4	Other	Bone			2 6	0.35	1/8"
445 E452 445 E432		B	1597	583	4	Other	Bone			27	1.49	1/0
445 E432		Б С	1597	585 576	4	Other	Bone			3	0.24	
445 E432		D		576	4	Other	Bone			3 4	0.24	1/8"
445 E432		A	1597 1597	505 596	4	flake		0	1	4	0.19	1/0
445 E432		A	1597		3 4	flake	quartz	0	1	1	0.19	
445 E432		A	1597	596 596	4	Other	quartz Bone	0	1	55	3.17	
445 E432 445 E432		A B		596 614		flake	Metavolcanic	0	8	55 8	0.78	1/8"
445 E432		в	1597 1597	614	4	flake	Metavolcanic	0	8 1	8 1		1/8"
					3			0	1	3		1/0
145 E432		B	1597	614	3	Other	Bone				0.59	1 /0"
445 E432	3	В	1597	614	4	Other	Bone			83	4.31	1/8"

T T •-		Access.	DC"	Size	T.		a :	No-	<u>a</u> :		C
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N445 E432	3 B	1597	614	4	Other	Charcoal			1	0.02	1/8"
N445 E432	3 C	1597	611	3	Flake	Syenite	0	1	1	1.79	
N445 E432	3 C	1597	611	4	Flake	Metavolcanic	0	2	2	0.39	
N445 E432	3 C	1597	611	4	Other	Bone			13	0.87	
N445 E432	3 D	1597	587	2	Flake	quartz	1	0	1	8.63	Shatter
N445 E432	3 D	1597	587	3	Flake	Metavolcanic	0	1	1	0.33	
N445 E432	3 D	1597	587	3	Other	Bone			1	0.23	
N445 E432	3 D	1597	587	4	Other	Bone			25	1.34	
N445 E432	4 A	1597	626	4	Flake	Quartzite	0	1	1	0.02	
N445 E432	4 A	1597	626	3	Flake	Quartz	0	1	1	0.55	
N445 E432	4 A	1597	626	4	Other	Bone			21	1.43	
N445 E432	4 B	1597	640	2	flake	quartz	0	1	1	13.37	
N445 E432	4 B	1597	640	2	Pebble	Indet.	1	0	1	35.03	Small Cobble
N445 E432	4 B	1597	640	2	Tabular Fragment	Indet.	0	1	1	7.76	
N445 E432	4 B	1597	640	4	flake	Metavolcanic	0	2	2	0.27	
N445 E432	4 B	1597	640	3	flake	Metavolcanic	0	2	2	0.93	
N445 E432	4 B	1597	640	4	Other	Bone			40	1.46	1/8"
N445 E432	4 C	1597	633	4	Other	Siltstone?			12	1.65	
N445 E432	4 C	1597	633	4	flake	Metavolcanic	0	1	1	0.12	
N445 E432	4 C	1597	633	4	Other	Bone			7	0.68	1/8"
N445 E432	4 D	1597	620	4	Other	Bone			20	0.66	1/8"
N445 E432	4 D	1597	620	3	Flake	Syenite	0	1	1	0.21	
N445 E432	4 D	1597	620	4	Flake	quartz	0	1	1	0.43	
N445 E432	4 D	1597	620	4	Flake	Metavolcanic	0	1	1	0.31	
N445 E432	4 D	1597	620	4	Other	Bone			2	0.1	
N445 E432	4 D	1597	620	2	Cobble Frag	quartz	1	0	1	9.14	
N445 E432	4	1597	645	3	Flake	Quartz	0	1	1	0.32	Trowling
N445 E432	4	1597	645	4	Flake	Metavolcanic	0	1	1	0.12	Trowling
	5 1		661	4	Flake	Metavolcanic	0	1	1	0.04	C
N445 E432	5 A	1597					0	1			1 /0!!
N445 E432	5 A	1597	661	4	Other	Bone			6	0.18	
N445 E432	5 B	1597	676	4	Other	Bone	0		5	0.12	1/8
N445 E432	5 C	1597	670	3	Flake	quartz	0	1	1	1.88	
N445 E432	5 C	1597	670	4	Flake	quartz	0	1	1	0.04	
N445 E432		1597	670	4	Other	Bone	~	2	5	0.13	
N445 E432		1597	651	4	flake	Metavolcanic	0	2	2	0.24	1/0"
N445 E432		1597	651	4	Other	Bone	~	1	6	0.12	1/ð"
N445 E432	5 D	1597	651	4	flake	quartz	0	1	1	0.15	
N445 E432	5 D	1597	651	2	flake	quartz	0	1	1	2.73	Possible Intentional
N445 E432	5 D	1597	651	2	pebble	quartz	1	0	1	10.58	Breakage
N445 E432	6 A	1597	698	4	Other	Bone			2	0.03	
N445 E432	6 A	1597	698	4	Flake	Metavolcanic	0	1	1	0.04	
N445 E432	6 A	1597	698	4	Flake	Syenite	0	2	2	0.54	
N445 E432	6 A	1597	698	3	Flake	Quartzite	0	1	1	1.04	
N445 E432	6 B	1597	711	1	Hammerstone	Indet.	1	0	1	396.89	****

			Access.		Size				No-			
Unit	LvL	Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N445 E432	6	В	1597	714	4	Other	Bone			1	0.01	1/8"
N445 E432	6	В	1597	714	4	Flake	Metavolcanic	0	1	1	0.3	1/8" Shatter
N445 E432	6	С	1597	704	4	Other	Bone			2	0.07	1/8"
N445 E432	6	С	1597	704	4	flake	Metavolcanic	0	1	1	0.18	
N445 E432	6	D	1597	687	3	flake	Orthoquartzite	0	1	1	0.16	
N445 E432	6	D	1597	687	3	flake	Metavolcanic	0	1	1	0.32	
N445 E432	6	D	1597	687	4	flake	Metavolcanic	0	1	1	0.22	
N445 E432	6	D	1597	687	4	flake	Quartz	0	1	1	0.06	
N445 E432	6	D	1597	687	4	flake	Orthoquartzite	0	1	1	0.07	
N445 E432	6	D	1597	687	4	Other	Charcoal			4	0.18	1/8" Nut Shell
N445 E432	6	D	1597	687	4	flake	Quartz	0	3	3	0.21	1/8"
N445 E432	6	D	1597	687	4	flake	Metavolcanic	0	2	2	0.04	1/8"
N445 E432	7	А	1597	729	2	flake	quartz	1	0	1	3.4	
N445 E432	7	В	1597	747	2	flake	Quartzite	0	1	1	5.72	
N445 E432	7	В	1597	747	3	flake	quartz	0	1	1	0.24	
N445 E432	7	в	1597	747	4	flake	quartz	0	1	1	0.02	
N445 E432	7	в	1597	747	4	flake	Quartzite	0	1	1	0.02	
N445 E432	7	В	1597	747	4	Other	Bone			2	0.03	
N445 E432	7	С	1597	736	4	Flake	Quartz	0	1	1	0.08	
N445 E432	7	С	1597	736	4	Other	Bone			7	0.2	1/8"
N445 E432		С	1597	768	1	Cobble Frag	Quartzite	1	0	1	167.75	****
N445 E432		D	1597	718	2	pebble		1	0	1	12.71	Large Pebble
N445 E432		D	1597	718	- 4	flake	Metavolcanic	0	1	1		1/8"
								0	•			1/8" Thin Mineral Frag.
N445 E432	7	D	1597	718	4	Other	Indet.			2	0.02	Not a Flake Unusually dense unknown
N445 E432	8	В	1597	782	2	Misc. Rock	Indet.	1	0	1	6.84	rock
N445 E432	8	В	1597	782	4	flake	quartz	0	1	1	0.01	1/8"
N445 E432	8	В	1597	782	4	flake	Quartzite	0	1	1	0.01	1/8"
N445 E432	8	В	1597	782	4	flake	Metavolcanic	0	1	1	0.07	1/8"
N445 E432	8	В	1597	782	4	Other	Bone			1	0.09	
N445 E432	8	В	1597	783	4	Other	Indet.			2	0.02	1/8" Thin Mineral Frag. Not a Flake
N445 E432	8	В	1597	783	4	Other	Bone			1	0.01	1/8"
N445 E432	8	В	1597	783	4	Flake	quartz	0	1	1	0.02	1/8"
N445 E432		С	1597	775	2	Flake	Quartz	1	0	1	3.2	
N445 E432		С	1597	775	3	Flake	Orthoquartzite	0	2	2	0.39	
N445 E432		D	1597	755	3	Flake	Quartz	1	0	1	0.41	
N445 E432		D	1597	755	4	Flake	Metavolcanic	0	2	2		1/8"
								-	_			Thin Mineral Frag. Not a
N445 E432	9	С	1597	812	4	Other	Indet.			1	0.02	Flake Thin Mineral Frag. Not a
N445 E432	9	D	1597	799	4	Other	Indet.			1	0.03	Flake (maybe shell)
N445 E432	9	D	1597	799	4	Other	Indet.			8	0.06	1/8" Thin Mineral Frag. Not a Flake
N445 E432		С	1597	824	4	Flake	Quartz	0	1	1	0.08	
N445 E432		D	1597	817	4	flake	quartz	0	1	1	0.18	
							-					1/8" North Wall Collapse
N445 E432			1597	665	4	Other	Bone			6	0.17	Cleanup 1/8" North Wall Collapse
N445 E432			1597	665	4	Flake	Metavolcanic	0	1	1	0.04	Cleanup

			Access.		Size				No-			
Unit	LvL	Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N445 E432			1597	681	4	Other	bone			3	0.08	1/8" Profile Clean
N445 E432			1597	681	4	Other	Charcoal			2	0.07	1/8" Profile Clean
N445 E432			1597	699	4	flake	quartz	0	1	1	0.14	1/8" Wall Collapse
N445 E432			1597	699	4	flake	Syenite	0	1	1	0.02	1/8" Wall Collapse
N445 E432			1597	699	4	Other	Charcoal			23	0.97	1/8" Wall Collapse
N445 E432			1597	699	4	Other	Charcoal			1	0.1	Wall Collapse
N445 E432			1597	699	3	flake	quartz	0	1	1	0.45	Wall Collapse
N445 E432			1597	832	3	Flake	quartz	0	2	1	0.19	1/8" Baulk Cleanup
N445 E432			1597	832	3	Other	metal			3	1.23	1/8" Baulk Cleanup
N445 E432			1597	832	4	Other	Bone			8	0.48	1/8" Baulk Cleanup
N445 E432			1597	832	3	Other	Bone			1	0.3	1/8" Baulk Cleanup
N445 E432			1597	832	4	Other	brick			1	0.13	1/8" Baulk Cleanup
N445 E432			1597	832	4	flake	quartz	0	2	2	0.17	1/8" Baulk Cleanup
N445 E432			1597	832	4	Flake	Metavolcanic	0	1	1	0.12	1/8" Baulk Cleanup
N445 E432			1597	832	4	Other	Charcoal			17	1.2	1/8" Baulk Cleanup
N445 E432			1597	833	4	Other	Charcoal			11	0.65	1/8" East Profile Cleanup
N445 E432			1597	833	4	flake	quartz	0	1	1	0.03	1/8" East Profile Cleanup
N445 E432			1597	833	4	Other	Bone			1		1/8" East Profile Cleanup
N447 E432	1	С	1597	284	4	Other	Seed Pod			1	0.19	1
N447 E432		D	1597	281	4	Other	Bone			1	0.17	
N447 E432		D	1597	281	3	Other	bone			1	0.23	
N447 E432		А	1597	292	4	Other	Charcoal			1	0.02	1/8"
N447 E432		A	1597	292	4	Flake	Quartz	0	1	1	0.06	
N447 E432		A	1597	292	4	Flake	Metavolcanic	0	4	4		1/8"
N447 E432		A	1597	292	4	Other	Bone	0		9	1.69	1/0
N447 E432		A	1597	292	3	Other	Bone			2	0.5	
N447 E432 N447 E432		A	1597	292	4	Other	Bone			73	4.06	1/8"
N447 E432		В	1597	303	4	Other	Bone			12	1.47	1/0
				303		Flake		0	1	12	0.09	
N447 E432		B	1597		4		Quartz	0	1			
N447 E432		B	1597	303	3	Other	Bone	0		17	4.82	
N447 E432		B	1597	303	4	Flake	Metavolcanic	0	1	1	0.18	1/0"
N447 E432		B	1597	303	4	Flake	Metavolcanic	0	3	3	0.14	1/8"
N447 E432		В	1597	303	3	Flake	Metavolcanic	0	4	4	0.72	
N447 E432		В	1597	303	4	Flake	Quartz	0	1	1	0.02	1/8"
N447 E432		В	1597	303	3	Flake	Quartz	0	1	1	0.25	
N447 E432		В	1597	303	4	Other	Bone			87	4.39	1/8"
N447 E432		В	1597	303	2	Flake	Metavolcanic	0	1	1	1.62	
N447 E432		В	1597	303	4	Pebble				1	0.03	
N447 E432		С	1597	314	4	Flake	Metavolcanic	0	3	3	0.14	
N447 E432	2	С	1597	314	4	Other	Bone			22	1.07	1/8"
N447 E432	2	С	1597	314	3	Other	Bone			1	0.18	
N447 E432	2	С	1597	314	3	Flake	Metavolcanic	0	1	1	0.25	
N447 E432	2	С	1597	314	4	Pebble				1	0.04	1/8"
N447 E432	2	D	1597	298	4	Other	Plastic			1	0.05	
N447 E432	2	D	1597	298	4	Flake	Metavolcanic	0	3	3	0.25	

		Access.		Size				No-			
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N447 E432	2 D	1597	298	4	Flake	Quartz	0	1	1	0.05	1/8"
N447 E432	2 D	1597	298	4	Pebble				1	0.1	1/8"
N447 E432	2 D	1597	298	4	Other	Bone			2	0.2	
N447 E432	2 D	1597	298	3	Other	Bone			3	1.44	
N447 E432	2 D	1597	298	4	Other	Bone			38		1/8"
N447 E432	2	1597	315	4	Other	Bone			51		1/8" Cleanup
N447 E432	2	1597	315	3	Other	Bone			8	2.44	1/8" Cleanup
N447 E432	3 A	1597	324	3	Other	Bone			5	2.08	
N447 E432	3 A	1597	324	4	Other	Bone			21	2.33	
N447 E432	3 A	1597	324	4	Flake	Metavolcanic	0	8	8	0.39	
N447 E432	3 A	1597	324	3	Flake	Metavolcanic	0	2	2	0.63	
N447 E432	3 A	1597	324	4	Other	Bone			105	4.64	1/8"
N447 E432	3 B	1597	332	2	Flake	Metavolcanic	0	2	2	12.12	
N447 E432	3 B	1597	332	3	Flake	Metavolcanic	0	4	4	1.6	
N447 E432	3 B	1597	332	4	Flake	Metavolcanic	0	5	5	0.31	
N447 E432	3 B	1597	332	4	Flake	Metavolcanic	0	2	2	0.33	
N447 E432	3 B	1597	332	3	Other	Bone			29	9.73	
N447 E432	3 B	1597	332	4	Other	Bone			205	11.8	1/8"
N447 E432	3 C	1597	336	4	Other	Bone			1	0.12	
N447 E432	3 C	1597	336	3	Other	Bone			2	0.6	
N447 E432	3 C	1597	336	4	Flake	Metavolcanic	0	1	1	0.04	
N447 E432	3 C	1597	336	3	Flake	Metavolcanic	1	1	2	1.15	
N447 E432	3 C	1597	336	4	Flake	Metavolcanic	0	1	1	0.05	1/8"
N447 E432	3 C	1597	336	4	Other	Bone			52	1.97	1/8"
N447 E432	3 C	1597	337	4	Flake	Metavolcanic	0	3	3	0.1	1/8" Trowel Top
N447 E432	3 C	1597	337	4	Other	Bone			1	0.25	1/8" Trowel Top
N447 E432	3 C	1597	337	4	Other	Bone			17	0.75	1/8" Trowel Top
N447 E432	3 D	1597	327	4	Flake	Metavolcanic	0	3	3	0.09	1/8"
N447 E432	3 D	1597	327	4	Flake	Quartz	0	2	2	0.1	1/8"
N447 E432	3 D	1597	327	4	Other	Bone			20	2.55	
N447 E432	3 D	1597	327	3	Flake	Metavolcanic	0	5	5	1.74	
N447 E432	3 D	1597	327	2	Pebble				1	14.21	Large Pebble
N447 E432	3 D	1597	327	3	Other	Bone			12	3.92	
N447 E432	3 D	1597	327	3	Pebble				1	2.27	
N447 E432	3 D	1597	327	4	Pebble				1	0.24	
N447 E432	3 D	1597	327	4	Other	Bone			107	5.31	1/8"
N447 E432	4 A	1597	341	4	Flake	Metavolcanic	0	4	4	0.32	
N447 E432	4 A	1597	341	4	Other	Bone			60	2.9	1/8"
N447 E432	4 A	1597	341	4	Other	Bone			10	0.61	
N447 E432	4 A	1597	341	3	Other	Bone			3	0.87	
N447 E432	4 A	1597	341	3	Flake	Metavolcanic	0	1	1	0.56	
N447 E432	4 B	1597	354	4	Other	Bone			136	6.08	1/8"
N447 E432	4 B	1597	354	4	Pebble				3	0.1	1/8"
N447 E432	4 B	1597	354	4	Flake	Quartz	0	2	2	0.08	1/8"
N447 E432	4 B	1597	354	4	Flake	Metavolcanic	0	10	10	0.48	1/8"

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
J447 E432	4	В	1597	354	4	Other	Bone			26	2.66	
1447 E432	4	в	1597	354	3	Other	Bone			6	2.65	
N447 E432	4	в	1597	354	3	Flake	Metavolcanic	0	1	1	0.45	
1447 E432	4	в	1597	354	4	Flake	Metavolcanic	0	1	1	0.29	
N447 E432	4	С	1597	344	4	Other	Bone			45	2.61	1/8"
N447 E432	4	С	1597	344	4	Flake	Metavolcanic	0	7	7	0.32	1/8"
N447 E432	4	С	1597	344	3	Other	Siltstone?			1	2.67	
1447 E432	4	С	1597	344	3	Flake	Metavolcanic	0	4	4	2.2	
J447 E432	4	С	1597	344	4	Flake	Metavolcanic	0	1	1	0.12	
1447 E432	4	D	1597	343	2	Cobble Frag	Quartzite	1	0	1	15.81	
1447 E432	4	D	1597	343	3	Pebble				1	1.17	
447 E432	4	D	1597	343	4	Other	Bone			53	3.53	1/8"
447 E432	4	D	1597	343	4	Pebble				2	0.04	1/8"
1447 E432	4	D	1597	343	4	Flake	Quartz	0	1	1	0.04	1/8"
1447 E432	4	D	1597	343	4	Flake	Metavolcanic	0	5	5	0.22	1/8"
1447 E432	5	А	1597	366	4	Flake	Metavolcanic	0	8	8	0.4	1/8"
V447 E432	5	А	1597	366	4	Other	Bone			62	3.14	1/8"
1447 E432	5	А	1597	366	3	Other	Bone			4	0.98	1/8"
1447 E432	5	А	1597	366	4	Flake	Metavolcanic	0	1	1	0.11	
J447 E432	5	А	1597	366	3	Flake	Quartzite	1	0	1	0.75	
1447 E432	5	А	1597	366	3	Flake	Quartz	0	1	1	0.21	
N447 E432	5	А	1597	366	3	Flake	Metavolcanic	1	2	3	1.76	
1447 E432		в	1597	376	1	Misc. Rock				1	76.42	Broken Rock
1447 E432		В	1597	376	2	Flake	Quartzite	0	1	1	1.25	
1447 E432		В	1597	376	2	Pebble				1		Large Pebble
J447 E432	5	В	1597	376	3	Other	Bone			1	0.51	0
J447 E432		в	1597	376	4	Other	Bone			1	0.97	
J447 E432		В	1597	376	3	Pebble				1	1.31	
J447 E432		В	1597	376	4	Flake	Quartz	0	2	2	0.11	1/8"
J447 E432		В	1597	376	4	Other	Bone			82	3.38	
1447 E432		В	1597	376	4	Pebble				1	0.11	
J447 E432		в	1597	376	3	Flake	Metavolcanic	0	4	4	1.75	
1447 E432		В	1597	376	4	Flake	Metavolcanic	0	1	1	0.12	
1447 E432		В	1597	376	4	Flake	Metavolcanic	0	9	9	0.52	1/8"
V447 E432		C	1597	382	4	Flake	Metavolcanic	0	4	4	0.25	
N447 E432		c	1597	382	4	Flake	Metavolcanic	0	1	1	0.27	
1447 E432		c	1597	382	4	Other	Bone	0	-	2	0.3	
1447 E432		c	1597	382	3	Other	Bone			2	0.48	
447 E432		c	1597	382	2	Flake	Quartz	0	1	1	5.73	Shatter
1447 E432		c	1597	382	4	Other	Bone	5		31	1.44	
1447 E432		D	1597	370	4	Flake	Metavolcanic	0	1	1	0.19	
447 E432		D	1597	370	4	Other	Bone	0	1	21	0.84	1/8"
1447 E432		D	1597	370	4	Other	Bone			21	0.62	1/0
												Possible Abrader (See not
1447 E432		D	1597	370	1	Flaked Cobble	Syenite			1	38.26	on 1-24-08)
447 E432	5	D	1597	370	4	Flake	Metavolcanic	0	1	1	0.12	

TL **	1.1 01	Access.	EQ.	Size	Ŧ		C (No-	C'	W4 ()	a
Unit	LvL Sub	#	FS#	Class	Туре	Material		Cortex	Ct.	Wt.(g)	Comments
447 E432		1597	370	2	Flake	Syenite	0	1	1	7.44	
447 E432	6 A	1597	391	4	Pebble			_	1	0.05	
447 E432		1597	391	4	Flake	Metavolcanic	0	5	5	0.09	
447 E432		1597	391	4	Flake	Quartzite	0	1	1	0.02	1/8"
447 E432		1597	391	3	Flake	Metavolcanic	0	2	2	1.65	
447 E432		1597	391	3	Flake	Quartz	0	1	1	0.4	
447 E432		1597	391	4	Other	Bone			23	0.79	1/8"
447 E432		1597	391	4	Other	Bone			3	0.47	
447 E432		1597	391	4	Flake	Metavolcanic	0	3	3	0.44	
447 E432		1597	401	4	Flake	Indet.	1	0	1	0.06	1/8"
447 E432		1597	401	4	Flake	Quartzite	0	1	1	0.13	
447 E432	6 B	1597	401	1	Cobble	Quartzite	1	0	1	52.96	
447 E432	6 B	1597	401	4	Other	Bone			10	0.48	1/8"
447 E432	6 B	1597	401	4	Flake	Quartzite	0	2	2	0.03	
447 E432	6 B	1597	401	4	Flake	Quartz	0	3	3	0.12	1/8"
447 E432	6 C	1597	405	4	Flake	Metavolcanic	0	1	1	0.18	
447 E432	6 C	1597	405	3	Flake	Metavolcanic	0	1	1	0.41	
447 E432	6 C	1597	405	3	Other	Bone			1	0.3	
447 E432	6 C	1597	405	4	Other	Bone			7	0.31	1/8"
447 E432	6 D	1597	395	4	Other	Bone			6	0.12	1/8"
447 E432	6 D	1597	395	4	Pebble				1	0.06	1/8"
447 E432	6 D	1597	395	4	Flake	Metavolcanic	0	3	3	0.37	1/8"
447 E432	6 D	1597	395	4	Other	Charcoal			3	0.01	1/8"
447 E432	7 A	1597	411	4	Flake	Metavolcanic	0	2	2	0.15	1/8"
447 E432	7 A	1597	411	4	Other	Bone			3	0.14	1/8"
447 E432	7 A	1597	411	4	Other	Bone			4	0.29	
447 E432	7 B	1597	417	4	Flake	Metavolcanic	0	1	1	0.1	1/8"
447 E432	7 B	1597	417	4	Flake	Indet.	0	2	2	0.12	1/8"
447 E432	7 B	1597	417	4	Flake	Quartz	0	2	2	0.05	1/8"
447 E432	7 B	1597	417	4	Other	Bone			6	0.09	1/8"
447 E432	7 C	1597	422	4	Other	bone			1	0.16	1/8"
447 E432	7 C	1597	422	1	Pebble				1	42.01	Large Pebble
447 E432	7 D	1597	414	3	Flake	Quartz	0	1	1	0.17	
447 E432	7 D	1597	414	4	Flake	Metavolcanic	0	2	2	0.36	
447 E432	7 D	1597	414	4	Flake	Quartz	0	1	1	0.05	
447 E432	7 D	1597	414	4	Other	Bone			3	0.07	
447 E432	7	1597	423	4	Other	Bone			7	0.1	1/8" Cleanup
447 E432	8 A	1597	431	4	Pebble				1	0.52	
447 E432	8 A	1597	431	4	Flake	Quartz	0	3	3	0.14	
447 E432	8 A	1597	431	4	Flake	Metavolcanic	0	1	1	0.04	
447 E432		1597	431	4	Other	Bone			2	0.01	1/8"
447 E432		1597	431	3	Flake	Quartz	0	2	2	0.7	
447 E432		1597	438	4	Pebble	-			1	0.06	1/8"
447 E432		1597	438	4	Flake	Metavolcanic	0	1	1	0.02	
447 E432		1597	438	3	Pebble				3	1.64	

		Access.		Size				No-			
Unit	LvL Sub		FS#	Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N447 E432	8 D	1597	437	4	Pebble				3	0.12	1/8"
N447 E432	8 D	1597	437	4	Flake	Quartz	0	1	1	0.08	1/8"
N447 E432	9 A	1597	453	4	Pebble				2	0.1	1/8"
N447 E432	9 B	1597	465	4	Other	Indet.			3	0.08	1/8" Thin Pebble Not a Flake
N447 E432	9 B	1597	465	4	Pebble				3	0.21	1/8"
N447 E432	10 A	1597	479	3	Pebble				10	9.68	
N447 E432	10 A	1597	479	3	Pebble				3	0.84	
N447 E432	10 A	1597	479	4	Other	Indet.			1	0.01	1/8" Thin Mineral Frag.Not a Flake1/8" Thin Mineral Frag.
N447 E432	10 B	1597	491	4	Other	Indet.			3	0.03	Not a Flake
N447 E432	10 C	1597	493	4	Flake	Indet.	0	3	3	0.02	1/8"
N447 E432	10 C	1597	493	4	Flake	Metavolcanic	0	1	1	0.03	1/8"
N447 E432	10 C	1597	493	4	Flake	Quartz	0	2	2	0.14	
N447 E432	10 D	1597	484	4	Pebble				1	0.04	1/8" Thin Pebble Not a Flake
N447 E432	10 D	1597	484	4	Other	Mica			1	0.01	
N447 E432	10	1597	498	4	Other	Indet.			1	0.01	1/8" Clean, Thin Mineral Frag. Not a Flake
N447 E432	10	1597	498	4	Pebble	matt			1		Clean 1/8"
N447 E432	11 A	1597	503	4	Other	Mica			2	0.01	1/8" Mica
N447 E432	11 A	1597	503	4	Other	Bone			1		1/8"
N447 E432	11 A	1597	503	4	Other	Indet.			2	0.01	1/8" Thin Mineral Frag. Not a Flake
N447 E432	11 B	1597	511	4	Other	Indet.			7	0.06	1/8" Thin Pebble Not a Flake
N447 E432	11 B	1597	511	4	Pebble	Quartz			1	0.02	1/8"
N447 E432	11 B	1597	511	3	Flake	Quartz	0	1	1	0.19	
N447 E432	11 B	1597	511	4	Flake	Quartz	0	1	1	0.16	
N447 E432	11 C	1597	516	4	Other	Indet.			1	0.02	1/8" Thin Mineral Frag. Not a Flake
N447 E432	11 C	1597	516	4	Other	Mica			2		1/8" Mica
N447 E432		1597	830	4	Other	Bone			1	0.16	Zone 1 Baulk
N447 E432		1597	831	4	Other	Bone			14	0.49	Zone 2 Baulk
N447 E432		1597	831	3	Other	Bone			1	0.31	Zone 2 Baulk
N447 E432		1597	831	4	Flake	Quartzite	0	1	1	0.3	Zone 2 Baulk
N454 E432	1 B	1597	293	4	flake	Quartzite	0	1	1	0.19	
N454 E432	2 A	1597	304	4	Other	Bone			1	0.11	
N454 E432	2 A	1597	304	4	Other	Bone			4	0.2	1/8"
N454 E432	2 C	1597	312	4	Other	Charcoal			1	0.01	
N454 E432	2 C	1597	312	4	Flake	Metavolcanic	0	1	1	0.12	
N454 E432	2 C	1597	312	4	Other	bone			7	0.39	
N454 E432	2 C	1597	312	4	Other	bone			1	0.01	1/8"
N454 E432	2 D	1597	305	4	Other	bone			3	0.57	1/8"
N454 E432	2	1597	320	3	Other	bone			1	0.4	
N454 E432	2	1597	320	4	Other	bone			7	0.56	
N454 E432	3 A	1597	331	2	pebble				1	3.93	Large Pebble
N454 E432	3 A	1597	331	3	Other	bone			3	0.72	
N454 E432	3 A	1597	331	4	Other	bone			1	0.05	
N454 E432	3 A	1597	331	3	Other	bone			1	0.44	1/8"

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N454 E432		А	1597	331	4	Other	bone			11		1/8"
N454 E432		В	1597	365	4	Other	Bone			30	1.34	
N454 E432		в	1597	365	3	flake	Quartzite	1	0	1	0.57	
N454 E432	3	в	1597	365	3	Other	Bone			2	0.43	
N454 E432	3	в	1597	365	4	pebble				5	0.5	1/8"
N454 E432	3	В	1597	365	4	flake	Quartzite	0	1	1	0.16	1/8"
N454 E432		в	1597	365	4	flake	Metavolcanic	0	1	1	0.06	1/8"
N454 E432	3	С	1597	352	4	Other	Bone			1	0.11	
N454 E432	3	С	1597	352	3	Other	Bone			2	0.88	
N454 E432		С	1597	352	4	Flake	quartz	0	1	1	0.13	1/8"
N454 E432		С	1597	352	4	flake	Metavolcanic	0	1	1	0.05	
1454 E432		С	1597	352	4	pebble				2	0.13	
1454 E432		С	1597	352	4	Other	Bone			16	0.83	
N454 E432		D	1597	350	2	pebble	_ 0.00			3	23.96	
N454 E432		D	1597	350	3	pebble				3	2.34	
V454 E432		D	1597	350	4	Other	Bone			11	0.78	1/8"
N454 E432		D	1597	350	4	Misc. Rock	Done			2	0.18	
N454 E432		D	1597	350	4	pebble				1	0.14	1/0
1454 E432		D	1597	367	4	Other	bone			2	0.14	
N454 E432		A	1597	466	3	Flake	quartz	1	0	1	0.75	
N454 E432		A	1597	466	4	Other	Bone	1	0	13	0.75	1/9"
								0	1			
N454 E432		A	1597	466	4	Flake	Metavolcanic	0	1	1	0.08	
N454 E432		A	1597	466	4	Flake	quartz	0	2	2	0.09	
1454 E432		A	1597	492	4	Other	Bone			4		1/8" West
N454 E432		В	1597	409	2	Other	Siltstone?			1	2.26	
N454 E432		В	1597	409	3	flake	quartz	0	1	1	1.62	
N454 E432		В	1597	409	3	pebble				1	1.81	
N454 E432		В	1597	409	3	flake	Quartzite	0	1	1	0.81	
1454 E432		В	1597	409	4	flake	Metavolcanic	0	1	1	0.19	
N454 E432		В	1597	409	4	Other	Bone			24	1.01	
N454 E432		В	1597	409	4	flake	quartz	0	3	3	0.23	
N454 E432		В	1597	409	4	pebble				2	0.26	
1454 E432	4	В	1597	409	4	charcoal				24	0.8	1/8"
N454 E432	4	С	1597	406	3	Point Stem	Metavolcanic	0	1	1	0.67	Woodland Point Stem
N454 E432		С	1597	406	2	pebble				2	6.33	
V454 E432	4	С	1597	406	3	pebble				3	1.18	
N454 E432	4	С	1597	406	3	Other	bone			1	0.62	
V454 E432	4	С	1597	406	4	Other	bone			1	0.12	
1454 E432	4	С	1597	406	4	Other	Charcoal			3	0.11	1/8"
1454 E432	4	С	1597	406	4	Flake	quartz	0	1	1	0.09	1/8" Shatter
1454 E432	4	С	1597	406	4	Other	bone			12	0.49	1/8"
1454 E432	4	С	1597	406	4	pebble				3	0.68	1/8"
1454 E432	4	D	1597	398	4	Flake	quartz	0	4	4	0.1	1/8"
1454 E432	4	D	1597	398	4	Other				1	0.01	1/8" Burned Seed Pod
1454 E432	4	D	1597	398	4	Other	bone			2	0.07	1/8"

		Access.		Size				No-			
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N454 E432	4 D	1597	398	4	Flake	Quartzite	0	1	1	0.02	
N454 E432	4 D	1597	398	4	pebble				3	0.33	
N454 E432	4	1597	413	4	Other	bone			2	0.17	Cleanup
N454 E432	5 A	1597	463	2	Flake	Quartzite	2	0	2	5.27	
N454 E432	5 A	1597	463	4	Flake	Metavolcanic	0	1	1	0.02	1/8"
N454 E432	5 A	1597	463	4	Flake	quartz	0	1	1	0.03	1/8"
N454 E432	5 A	1597	463	4	Other	Bone			4	0.16	1/8"
N454 E432	5 A	1597	495	4	Other	Bone			24	1.22	1/8" West
N454 E432	5 A	1597	496	4	Misc. Rock				2	0.13	1/8"
N454 E432	5 B	1597	443	4	Other	Bone			11	0.35	1/8"
N454 E432	5 B	1597	443	4	Flake	Metavolcanic	0	2	2	0.08	1/8"
N454 E432	5 B	1597	443	4	Flake	quartz	0	4	4	0.17	1/8"
N454 E432	5 B	1597	443	2	Flake	Quartzite	0	1	1	4.58	
N454 E432	5 C	1597	427	4	Other	bone			17	0.78	1/8"
N454 E432	5 C	1597	427	4	Flake	quartz	0	3	3	0.15	1/8"
N454 E432	5 C	1597	427	4	Flake	Metavolcanic	0	2	2	0.06	1/8"
N454 E432	5 C	1597	427	4	Flake	Quartzite	0	1	1	0.04	1/8"
N454 E432	5 C	1597	427	4	pebble				2	0.19	1/8"
N454 E432	5 D	1597	444	4	flake	quartz	0	1	1	0.02	1/8"
N454 E432	5 D	1597	444	4	flake	Metavolcanic	0	1	1	0.01	1/8"
N454 E432	5 D	1597	444	4	flake	Quartzite	0	1	1	0.08	1/8"
N454 E432	5 D	1597	444	4	Other	Bone			5	0.15	1/8"
N454 E432	6 A	1597	508	4	Flake	Metavolcanic	0	1	1	0.11	
N454 E432	6 B	1597	522	4	Flake	Metavolcanic	0	2	2	0.02	1/8"
N454 E432	6 B	1597	522	4	Flake	Quartzite	0	1	1	0.03	1/8"
N454 E432	6 B	1597	522	4	Other	Bone			6	0.15	1/8"
N454 E432	6 B	1597	522	4	Flake	quartz	0	6	6	0.4	1/8"
N454 E432	6 C	1597	515	2	Flake	Quartzite	2	0	2	3.49	1 Shatter
N454 E432	6 C	1597	515	2	pebble				1	1.01	
N454 E432	6 C	1597	515	4	Flake	Metavolcanic	0	2	2	0.05	1/8"
N454 E432	6 C	1597	515	4	Flake	quartz	0	1	1	0.03	1/8"
N454 E432	6 C	1597	515	4	Other	bone			2	0.06	1/8"
N454 E432	6 D	1597	509	4	Other	Bone			2	0.07	1/8"
N454 E432	6	1597	523	4	Other	Bone			7	0.01	Cleanup
N454 E432	7 A	1597	527	3	Flake	Quartzite	1	1	2	2.68	
N454 E432	7 A	1597	527	4	pebble				13	0.96	1/8"
N454 E432	7 A	1597	527	4	Flake	Metavolcanic	0	2	2	0.06	1/8"
N454 E432	7 B	1597	544	2	flake	quartz	1	0	1	21.05	Large Quartz Flake
N454 E432	7 B	1597	544	4	Flake	Metavolcanic	0	1	1	0.1	1/8"
N454 E432	7 B	1597	544	4	Flake	quartz	0	4	4	0.27	1/8"
N454 E432	7 B	1597	544	4	pebble				3	0.75	1/8"
N454 E432	7 B	1597	544	3	pebble				2	1.2	
N454 E432	7 B	1597	544	3	Flake	quartz	1	0	1	1.03	Dutt and -f - T Y
N454 E432	7 C	1597	535	2	End Scraper	Metavolcanic	0	1	1	1.96	Butt end of a Type I endscraper
N454 E432	7 C	1597	535	2	Flaked Pebble	quartz	1	0	1	10.72	

		Access.		Size				No-				
Unit	LvL Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)		Comments
454 E432	7 C	1597	535	2	pebble				1	2.21		
1454 E432	7 C	1597	535	3	flake	Quartzite	0	1	1	0.66		
1454 E432	7 C	1597	535	3	pebble				4	2.93		
1454 E432	7 C	1597	535	4	flake	Metavolcanic	0	2	2	0.05	1/8"	
1454 E432	7 C	1597	535	4	flake	Quartzite	0	2	2	0.06	1/8"	
1454 E432	7 C	1597	535	4	Other	Bone			3	0.17	1/8"	
1454 E432	7 C	1597	535	4	pebble				9	0.84	1/8"	
454 E432	7 C	1597	535	3	Misc. Rock				2	0.71		Concretion
454 E432	7 D	1597	530	4	Other	Charcoal			2	0.04	1/8"	
454 E432	7 D	1597	530	4	Flake	quartz	0	4	4	0.16	1/8"	
454 E432	7 D	1597	530	4	pebble				11	0.94	1/8"	
454 E432	7 D	1597	530	4	Other	bone			1	0.09	1/8"	
454 E432	7 D	1597	530	4	Flake	Metavolcanic	0	4	4	0.15	1/8"	
454 E432	7 D	1597	530	3	pebble				2	1.78		
454 E432	7 D	1597	530	4	Other	bone			1	0.11		
454 E432	7 D	1597	530	2	Flake	Metavolcanic	0	1	1	1.1		
454 E432	7	1597	545	3	Flake	Quartzite	0	1	1	0.3		Level Cleaning
454 E432	8 B	1597	560	2	pebble		1	0	1	15.39		Large Pebble
454 E432	8 B	1597	560	3	Flake	Quartzite	0	1	1	0.39		U
454 E432	8 B	1597	560	4	Flake	Metavolcanic	0	1	1	0.12		
454 E432	8 B	1597	560	4	pebble				1	0.4		
454 E432		1597	560	4	pebble				4	0.52	1/8"	
454 E432		1597	560	4	Other	bone			3	0.05		
454 E432		1597	560	4	Flake	Quartzite	0	1	1	0.02		
454 E432		1597	560	4	Flake	quartz	2	1	3	0.15		
454 E432		1597	560	4	Flake	Metavolcanic	0	5	5	0.19		
454 E432		1597	560	4	Flake	Indet.	0	1	1	0.09		
454 E432		1597	556	3	Flake	Metavolcanic	0	1	1	0.44	1/0	
454 E432		1597	556	4	Flake	Quartzite	0	1	1	0.11	1/8"	
454 E432		1597	556	4	Flake	quartz	0	2	2	0.11		
454 E432	8 D	1597	553	4	Flake	Quartzite	0	2	2	0.11		
454 E452 454 E432	8 D	1597	553	4	Flake	Metavolcanic	0	4	4	0.19		
454 E432 454 E432		1597		4	Flake	Metavolcanic	0	4	4	0.13	1/0	
			553									
454 E432		1597	553 553	3	Flake Flake	Metavolcanic	0	1	1	0.19	1 /0"	
454 E432		1597	553	4		quartz	0	0	6	0.56	1/ð	
454 E432		1597	553	3	pebble				5	4.18	1 /0"	
454 E432		1597	553	4	pebble		~	~	4	0.47		
454 E432		1597	567	4	Flake	quartz	0	3	3	0.11	1/8"	
454 E432		1597	585	4	Flake	Metavolcanic	0	1	1	0.06		
454 E432		1597	585	3	Flake	Quartzite	0	1	1	0.9		
454 E432		1597	585	4	Flake	Quartzite	0	2	2	0.11		
454 E432		1597	585	4	Flake	Metavolcanic	0	1	1	0.03		
454 E432		1597	585	4	pebble				7	0.75	1/8"	
454 E432		1597	578	3	pebble				1	0.49		
454 E432	9 C	1597	578	4	Other	Bone			1	0.02		

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
454 E432	9	С	1597	578	4	Flake	Metavolcanic	0	2	2	0.07	
454 E432	9	С	1597	578	4	Flake	quartz	0	1	1	0.11	1/8"
454 E432	9	D	1597	571	4	Flake	Metavolcanic	0	1	1	0.06	
454 E432	9	D	1597	571	3	pebble				2	1	
454 E432	9	D	1597	571	4	pebble				7	0.92	
454 E432	9	D	1597	571	4	Flake	quartz	0	1	1	0.26	
154 E432	9	D	1597	573	3	Flake	Quartzite	1	0	1	2.13	
454 E432	9		1597	602	4	pebble				21	1.89	1/8"
54 E432	9		1597	602	4	flake	quartz	0	2	2	0.07	1/8"
54 E432	9		1597	602	4	flake	Quartzite	0	1	1	0.06	1/8"
54 E432	9		1597	602	4	flake	Metavolcanic	0	1	1	0.05	1/8"
54 E432	10	А	1597	591	4	pebble				7	0.65	1/8"
54 E432	10	В	1597	617	4	pebble				7	0.79	1/8"
454 E432	10	В	1597	617	4	flake	Quartzite	0	2	2	0.11	1/8"
454 E432	10	В	1597	617	3	pebble				4	3.98	***** Diagonal - NT464 00
454 E432	10	С	1597	603	2	Endscraper	Metavolcanic	0	1	1	2.8	***** Piece plot N454.27 E430.56 z=4.21 97 cmbs.
454 E432	10	С	1597	604	3	Endscraper	quartz	1	0	1	1.58	End Scraper
54 E432	10	С	1597	606	4	flake	Quartzite	0	2	2	0.02	1/8"
54 E432	10	С	1597	606	4	flake	quartz	0	1	1	0.06	1/8"
54 E432	10	С	1597	606	4	pebble				4	0.53	1/8"
54 E432	10	С	1597	606	4	Other				1	0.01	1/8" Thin Mineral Frag. Not a Flake
54 E432	10	D	1597	597	4	Flake	Quartzite	0	2	2	0.02	1/8"
54 E432	10	D	1597	597	4	pebble				1	0.15	1/8"
54 E432	10	D	1597	597	4	Flake	quartz	0	1	1	0.05	1/8"
54 E432	10		1597	613	4	flake	Quartzite	0	1	1	0.1	Cleanup
54 E432	11	А	1597	629	4	pebble				8	0.59	
54 E432	11	А	1597	629	4	Other				2	0.03	1/8" Thin Mineral Frag. Not a Flake
54 E432	11	С	1597	644	4	pebble				10	0.62	1/8"
54 E432	11	D	1597	639	4	pebble				3	0.23	1/8"
154 E432	11	D	1597	639	4	flake	Quartzite	0	1	1	0.11	1/8"
54 E432	11	D	1597	639	4	Other	Charcoal			1	0.01	1/8"
154 E432	12- 14		1597	731	4	Other	Bone			1	0.04	1/8"
154 E432		А	1597	477	4	Other	Bone			8		1/8 1/8" Zone 2 East
154 E432		**	1597	462	4	pebble	DOIL			8 1	1.26	Cleanup
154 E432			1597	402	4	Other	bone			7	0.21	Fea. Cleaning
	Fea											0
154 E432	1 Fea		1597	490	3	flake	Indet.	0	1	1	0.29	Cleanup
54 E432	1		1597	490	4	flake	quartz	0	1	1	0.1	Cleanup
54 E432	Fea 1 Fea		1597	490	4	Misc. Rock				1	0.05	Cleanup
54 E432			1597	490	4	pebble				1	0.03	Cleanup
54 E432	1		1597	490	4	Other	Bone			6	0.43	1/8" Cleanup
154 E432			1597	490	4	Misc. Rock				4	0.44	1/8" Cleanup
54 E432	Fea		1597	490	4	Other	Charcoal			3	0.12	1/8" Cleanup

			Access.		Size				No-			
Unit	LvL Fea	Sub	#	FS#	Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N454 E432			1597	488	4	Other	Bone			2	0.32	Zone 2
N454 E432			1597	379	4	Other	bone			2	0.05	Fea. 3 West Half of Zone
N456 E432	1		1597	1707	2	Other				4	15.96	Wire Nails
N456 E432	1		1597	1707	3	Other	Shell			1	0.49	
N456 E432	1		1597	1707	3	flake	quartz	0	1	1	0.32	
N456 E432	1		1597	1707	3	Other	Charcoal			11	1.18	
N456 E432	1		1597	1707	4	Other	Charcoal			16	0.39	
N456 E432	2		1597	1713	4	Other	Charcoal			9	0.25	
N456 E432	2		1597	1713	3	Other	bone			1	0.27	
N456 E432	2		1597	1713	3	Other	Charcoal			2	0.24	
N456 E432	2		1597	1713	3	pebble				1	0.34	
N456 E432	3		1597	1717	3	pebble				1	0.31	
N456 E432	3		1597	1717	3	flake	quartz	0	1	1	0.77	
N456 E432	3		1597	1717	3	Other	bone			5	1.15	
N456 E432	3		1597	1717	3	Other	Charcoal			11	2.31	
N456 E432	3		1597	1717	4	flake	Metavolcanic	0	3	3	0.18	1/8"
N456 E432	3		1597	1717	4	flake	quartz	0	12	12	0.81	1/8"
N456 E432	3		1597	1717	4	pebble				171	16.66	1/8"
N456 E432	3		1597	1717	4	Misc. Rock				165	15.52	1/8"
N456 E432	3		1597	1717	4	Other	bone			92	5.06	1/8"
N456 E432	3		1597	1717	4	Other	Charcoal			1732	29.43	1/8"
N456 E432	4		1597	1721	1	Cobble Frag	quartz	1	0	1	51.09	
N456 E432	4		1597	1721	2	Flaked Pebble	quartz	1	0	1	6.58	
N456 E432	4		1597	1721	2	flake	Indet.	3	0	3	12.82	Shatter
N456 E432	4		1597	1721	2	pebble				2	10.15	
N456 E432	4		1597	1721	3	Misc. Rock				10	3.69	Concretions?
N456 E432	4		1597	1721	3	flake	Indet.	1	0	1	1.29	
N456 E432	4		1597	1721	3	pebble				3	3.57	
N456 E432	4		1597	1721	3	Other	Charcoal			1	0.07	
N456 E432	4		1597	1721	4	Misc. Rock				5	0.39	Concretions?
N456 E432	4		1597	1721	3	Other	Bone			7	2.41	1/8"
N456 E432	4		1597	1721	3	Misc. Rock				1	0.38	Concretion 1/8"
N456 E432	4		1597	1721	3	Other	Charcoal			26	3.45	1/8"
N456 E432	4		1597	1721	4	Other	Charcoal			47	3.05	1/8"
N456 E432	4		1597	1721	4	Misc. Rock				39	3.94	1/8"
N456 E432	4		1597	1721	4	Pebble				23	2.38	1/8"
N456 E432	4		1597	1721	4	Flake	Quartz	0	1	1	0.19	1/8"
N456 E432	4		1597	1721	4	Other	Charcoal			329	8.91	1/8"
N456 E432	5		1597	1728	2	Misc. Rock				2	19.16	
N456 E432	5		1597	1728	2	Flake	Quartzite	2	0	2	16.31	1 Shatter
N456 E432	5		1597	1728	2	Flake	Quartz	2	0	2	12.19	
N456 E432	5		1597	1728	2	Pebble				4	57.01	Large Pebbles
N456 E432	5		1597	1728	2	Other	Charcoal			1	0.7	
N456 E432	5		1597	1728	3	Other	Bone			1	0.39	
N456 E432	5		1597	1728	3	Pebble				1	2.55	

IIni4	T v.T	Ç.,L	Access.	FS#	Size	Tune	Matarial	Contor	No- Cortex	C+	Wt (~)	Commonto
Unit		Sub	#		Class	Туре	Material	Cortex	Cortex	Ct.	Wt.(g)	Comments
N456 E432	5		1597	1728	3	Other	Charcoal			12	1.76	
N456 E432	5		1597	1728	4	Other	Charcoal	0		228	5.28	1/8"
N456 E432	5		1597	1728	4	Flake	Metavolcanic	0	1	1	0.07	1/8"
N456 E432	5		1597	1728	4	Flake	Quartz	1	4	5	0.67	1/8" 1 Shatter
N456 E432	5		1597	1728	4	Misc. Rock				157	8.94	1/8"
N456 E432	5		1597	1728	4	Other	Bone			52	1.85	1/8"
N456 E432	5		1597	1728	4	Pebble				165	10.66	1/8"
N456 E432		A	1597	1736	3	Other	Charcoal			1	0.12	
N456 E432	6	A	1597	1736	4	Misc. Rock				28	1.44	1/8"
N456 E432	6	А	1597	1736	4	Pebble				23	1.51	1/8"
N456 E432	6	А	1597	1736	4	Other	Charcoal			87	1.95	1/8"
N456 E432	6	А	1597	1736	4	Flake	Quartz	0	1	1	0.03	1/8"
N456 E432	6	А	1597	1736	4	Flake	Quartzite	0	1	1	0.02	1/8"
N456 E432	6	В	1597	1737	2	Flake	Metavolcanic	0	1	1	1.86	
N456 E432	6	В	1597	1737	3	Flake	Quartz	2	0	2	1.76	
N456 E432	6	В	1597	1737	3	Flake	Quartzite	0	1	1	0.64	
N456 E432	6	В	1597	1737	3	Other	Charcoal			1	0.1	
N456 E432	6	В	1597	1737	3	Other	Bone			1	0.17	
N456 E432	6	В	1597	1737	3	Pebble				1	0.32	
N456 E432	6	В	1597	1737	4	Misc. Rock				19	1.55	1/8"
N456 E432	6	В	1597	1737	4	Pebble				30	2.95	1/8"
N456 E432	6	В	1597	1737	4	Other	Bone			4	0.14	1/8"
N456 E432	6	В	1597	1737	4	Other	Charcoal			91	2.11	1/8"
N456 E432	6	С	1597	1738	3	Other	Charcoal			2	0.18	*See note in journal on 5- 9-08
N456 E432	6	С	1507	1738	3	Other	Bone			1	0.12	*See note in journal on 5- 9-08
			1597								0.12	9-08
N456 E432		C C	1597	1738	3	Other	Bone			1	0.19	
N456 E432		C C	1597	1738	3	Pebble	T 1.	2		2	1.38	
N456 E432		C C	1597	1738	3	Flake	Indet.	2	1	3	2.16	
N456 E432		C C	1597	1738	2	pebble				1	3.55	1/01
N456 E432		C	1597	1738	4	pebble				46	3.46	1/8"
N456 E432		C C	1597	1738	4	Other	bone			5	0.12	1/8"
N456 E432		C	1597	1738	4	Misc. Rock	~ .			40	1.9	1/8"
N456 E432		C	1597	1738	4	Other	Charcoal			40	0.88	1/8"
N456 E432		С	1597	1738	4	Flake	Quartz	0	3	3	0.17	1/8"
N456 E432		D	1597	1739	3	Other	Charcoal			6	0.57	
N456 E432		D	1597	1739	2	Flaked Pebble	Quartz	1	0	1	10.1	Possible Flaked Pebble
N456 E432	6	D	1597	1739	4	flake	Indet.	0	2	2	0.17	1/8" 1/8" Plastic? Possibly from
N456 E432	6	D	1597	1739	4	Other				1	0.06	tennis shoes.
N456 E432	6	D	1597	1739	4	flake	Quartz	0	7	7	0.27	1/8"
N456 E432	6	D	1597	1739	4	Misc. Rock				86	4.81	1/8"
N456 E432	6	D	1597	1739	4	Other	bone			19	0.79	1/8"
N456 E432	6	D	1597	1739	4	pebble				185	11.96	1/8"
N456 E432	6	D	1597	1739	4	Other	Charcoal			229	6.77	1/8"
N456 E432		D	1597	1760	2	Misc. Fossil	Sharkstooth			1	12.43	Megalodon Tooth

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N456 E432	7	А	1597	1765	4	Misc. Rock				21	0.99	1/8"
N456 E432	7	А	1597	1765	4	Other	Charcoal			89	2.65	1/8"
N456 E432	7	А	1597	1765	4	Pebble				108	6.9	1/8"
N456 E432	7	А	1597	1765	4	Other				1	0.02	1/8" Plastic? Possibly from tennis shoes.
N456 E432		A	1597	1765	2	flake	Quartzite	1	0	1	12.53	termis shoes.
N456 E432		A	1597	1765	4	flake	Quartz	0	6	6	0.26	1/8"
N456 E432		A	1597	1765	4	flake	Quartzite	0	1	1	0.1	1/8"
N456 E432		A	1597	1765	3	flake	Chert	0	1	1	2.05	
N456 E432		А	1597	1765	3	Pebble				3	4.72	
N456 E432		В	1597	1766	4	flake	Metavolcanic	0	1	1	0.01	
N456 E432	7	В	1597	1766	4	flake	quartz	0	5	5	0.18	
N456 E432	7	В	1597	1766	3	flake	quartz	1	2	3	3.36	
N456 E432	7	В	1597	1766	4	Pebble	1			152	8.33	
N456 E432	7	В	1597	1766	4	Misc. Rock				63	3.47	
N456 E432	7	В	1597	1766	4	Other	Charcoal			217	4.85	
N456 E432	7	В	1597	1766	3	Other	Charcoal			7	0.76	
N456 E432	7	В	1597	1766	4	Other	bone			5	0.17	
N456 E432	7	С	1597	1767	4	flake	quartz	0	2	2	0.07	
N456 E432	7	С	1597	1767	4	pebble				150	8.24	
N456 E432	7	С	1597	1767	3	flake	quartz	0	1	1	0.12	
N456 E432	7	С	1597	1767	4	flake	Metavolcanic	0	1	1	0.08	
N456 E432	7	с	1597	1767	4	Other				1	0.01	1/8" Thin Mineral Frag. Not a Flake
N456 E432		c	1597	1767	4	Other	bone			3	0.03	1/8"
							bone					1/8" Plastic? Possibly from
N456 E432		С	1597	1767	4	Other				3	0.08	tennis shoes.
N456 E432		С	1597	1767	3	Misc. Rock				1	0.27	
N456 E432		С	1597	1767	3	pebble				2	1.29	
N456 E432		С	1597	1767	4	Misc. Rock				49	2.7	
N456 E432		С	1597	1767	4	Other	Charcoal			103	2.31	
N456 E432	7	С	1597	1767	3	Other	Charcoal			1	0.05	Crude bifacially worked -
N456 E432	7	С	1597	1785	2	Biface	Siltstone	0	1	1	6.02	not a point
N456 E432	7	D	1597	1768	4	pebble				163	8.95	1/8"
N456 E432	7	D	1597	1768	4	Misc. Rock				39	2.28	1/8"
N456 E432	7	D	1597	1768	4	Other	Charcoal			139	3.11	1/8"
N456 E432	7	D	1597	1768	2	Pebble				2	23.19	
N456 E432	7	D	1597	1768	3	Pebble				2	3.78	
N456 E432	7	D	1597	1768	3	Other	Charcoal			3	0.29	
N456 E432	7	D	1597	1768	4	flake	Quartzite	0	2	2	0.04	1/8"
N456 E432	7	D	1597	1768	4	flake	quartz	0	5	5	0.21	1/8" 1/8" Thin Mineral Frag.
N456 E432	7	D	1597	1768	4	Other				1	0.01	Not a Flake
N456 E432	7	D	1597	1768	4	Other	bone			4	0.14	1/8"
N456 E432	7	D	1597	1798	2	Pebble	Indet.	1	0	1	43.17	Large Pebble/Small Cobble
N456 E432		A	1597	1801	3	flake	quartz	0	1	1	0.37	200010
N456 E432		A	1597	1801	4	flake	quartz	0	1	1	0.22	
	0	**	1.571	1001	-	Other	quarte	0	1	108	0.22	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
1456 E432	8	А	1597	1801	4	Pebble				211	11.58	
N456 E432	8	А	1597	1801	4	Misc. Rock				11	0.69	
N456 E432	8	А	1597	1801	4	flake	quartz	0	9	9	0.31	
N456 E432	8	А	1597	1801	2	Other	Charcoal			1	0.43	
N456 E432	8	А	1597	1801	3	Other	Charcoal			1	0.11	
N456 E432	8	А	1597	1808	1	Endscraper	Orthoquartzite	0	1	1	30.63	Uniface, Possible Scrapper
N456 E432	8	В	1597	1802	3	Misc. Rock				1	0.29	
N456 E432	8	В	1597	1802	3	Pebble				2	0.8	
N456 E432	8	В	1597	1802	4	Other	bone			1	0.02	
N456 E432	8	В	1597	1802	4	Misc. Rock				23	1.3	
N456 E432	8	В	1597	1802	4	Pebble				210	15.75	
N456 E432	8	В	1597	1802	4	Other	Charcoal			233	6.52	
N456 E432	8	в	1597	1802	4	flake	quartz	0	5	5	0.23	
N456 E432		В	1597	1802	4	flake	Orthoquartzite	0	1	1	0.02	
N456 E432	8	В	1597	1802	3	Other	Charcoal			7	0.6	
N456 E432		С	1597	1803	4	Misc. Rock				8	0.54	1/8"
						0.1					0.1.6	1/8" Plastic? Possibly from
N456 E432		C	1597	1803	4	Other		0		2	0.16	tennis shoes.
N456 E432		C	1597	1803	4	flake	Metavolcanic	0	1	1	0.01	1/8"
N456 E432		C	1597	1803	4	flake	Quartz	0	6	6	0.39	1/8"
N456 E432		C	1597	1803	3	flake	Quartz	0	1	1	0.44	
N456 E432		С	1597	1803	4	Other	Charcoal			116	2.4	1/8"
1456 E432		С	1597	1803	4	pebble				187	10.98	1/8"
1456 E432		С	1597	1803	3	pebble				2	1.34	
1456 E432	8	С	1597	1803	3	Other	Charcoal			2	0.28	
N456 E432	8	D	1597	1804	4	pebble				285	15.6	
N456 E432	8	D	1597	1804	4	Misc. Rock				18	1.21	
N456 E432	8	D	1597	1804	3	Misc. Rock				1	0.41	
N456 E432	8	D	1597	1804	4	flake	Metavolcanic	0	1	1	0.01	1/8"
1456 E432	8	D	1597	1804	4	flake	Quartzite	0	7	7	0.25	1/8"
N456 E432	8	D	1597	1804	4	flake	quartz	0	2	2	0.04	1/8"
N456 E432	8	D	1597	1804	3	flake	Quartzite	1	0	1	0.58	
N456 E432	8	D	1597	1804	3	pebble				2	3.83	
N456 E432	8	D	1597	1804	4	Other	Charcoal			126	2.83	
1456 E432	8	D	1597	1804	3	Other	Charcoal			3	0.5	
N456 E432	9	А	1597	1829	4	Other	Charcoal			22	0.41	
N456 E432	9	А	1597	1829	4	Pebble				234	17.52	
N456 E432	9	А	1597	1829	4	flake	quartz	0	4	4	0.57	
N456 E432	9	А	1597	1829	3	Pebble				5	2.52	
N456 E432	9	А	1597	1829	3	flake	quartz	0	1	1	1.83	
1456 E432	9	В	1597	1830	4	flake	quartz	0	3	3	0.1	1/8"
V456 E432	9	В	1597	1830	4	flake	Metavolcanic	0	1	1	0.02	1/8"
1456 E432	9	В	1597	1830	4	pebble				37	4.44	1/8"
456 E432	9	В	1597	1830	4	Other	Charcoal			37	1.05	1/8"
456 E432	9	В	1597	1830	3	flake	quartz	0	1	1	0.39	
I456 E432		В	1597	1830	3	pebble	-			1	0.88	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N456 E432	9	С	1597	1831	3	pebble				4	2.85	
N456 E432		С	1597	1831	4	pebble				4	1.13	
N456 E432	9	С	1597	1831	4	Other	Charcoal			1	0.06	
N456 E432	9	С	1597	1831	4	flake	Quartzite	0	1	1	0.05	
N456 E432	9	С	1597	1831	3	flake	Quartzite	0	1	1	0.23	
N456 E432	9	С	1597	1831	4	flake	quartz	0	4	4	0.16	1/8"
N456 E432	9	С	1597	1831	4	pebble				28	2.47	1/8"
N456 E432	9	С	1597	1831	4	Other	Charcoal			47	1.29	1/8"
N456 E432	9	С	1597	1831	4	Other	Bone			3	0.04	1/8"
N456 E432	9	D	1597	1832	4	pebble				13	1.32	1/8"
N456 E432	9	D	1597	1832	3	pebble				4	2.31	
N456 E432	9	D	1597	1832	4	flake	quartz	0	2	2	0.14	1/8"
N456 E432	9	D	1597	1832	4	Other	Charcoal			14	0.34	1/8"
N456 E432	9	D	1597	1832	4	Other				3	0.05	1/8" Thin Mineral Frag. Not a Flake
N456 E432	9	D	1597	1832	4	Other				2	0.05	1/8" Plastic? Possibly from tennis shoes.
N456 E432	10		1597	1887	4	Other	Charcoal			8	0.15	1/8"
							Chareour					1/8" Thin Mineral Frag.
N456 E432	10		1597	1887	4	Other				1	0.01	Not a Flake
N456 E432	10		1597	1887	4	pebble				88	8.56	1/8"
N456 E432	10		1597	1896	4	pebble	0		0	79	7.84	1/8"
N456 E432	10		1597	1896	3	flake	Quartz	1	0	1	0.37	1/8" 1/8"
N456 E432	10	в	1597	1896	3	pebble				2	1.32	1/8 1/8" Thin Mineral Frag.
N456 E432	10	В	1597	1896	4	Other				1	0.02	Not a Flake
N456 E432	10	С	1597	1901	3	Pebble				2	0.7	1/8"
N456 E432	10	С	1597	1901	4	Pebble				619	40.1	1/8"
N456 E432	10		1597	1901	4	Other	Charcoal			6	0.11	1/8"
N456 E432	10		1597	1901	4	flake	quartz	0	1	1	0.05	1/8"
N456 E432	10		1597	1893	4	pebble				48	5.88	1/8"
N456 E432	10		1597	1893	4	Other				1	0.03	1/8" Seed Pod
N456 E432	10		1597	1893	4	Other	Charcoal			7	0.17	1/8"
N456 E432	11		1597	1907	4	Other	Charcoal			4	0.07	1/8"
N456 E432	11	А	1597	1907	4	Pebble				377	24.49	1/8" 1/8" Thin Mineral Frag.
N456 E432	11	А	1597	1907	4	Other				3	0.07	Not a Flake
N456 E432	11	А	1597	1907	4	flake	chert	0	1	1	0.08	1/8"
N456 E432	11	В	1597	1911	4	Pebble				195	12.67	1/8"
N456 E432	11	В	1597	1911	4	Other	Charcoal			1	0.02	1/8"
N456 E432	11	С	1597	1915	4	Pebble				546	35.46	1/8"
N456 E432	11	С	1597	1915	4	Other	Charcoal			5	0.12	1/8"
N456 E432	11	D	1597	1904	4	Pebble				275	17.86	1/8"
N456 E432 N456 E432	11 11		1597	1904 1904	4	Other Other	Charcoal			5 3	0.13	1/8" 1/8" Thin Mineral Frag. Not a Flake
N456 E432	11		1597 1597	1904 1904	4	Pebble				5 1	0.04 0.75	1/8"
N456 E432	11		1597	1904 1920	3 4	Other	Charcoal			1	0.75	1/8"
			1597	1920	4	Pebble	Charcoar			3		1/8"
N456 E432	12	А	1397	1920	4	reoble				3	0.25	1/0

Unit	LvL Su	Access. lb #	FS#	Size Class	Туре	Material	Cortex	No- Cortex	Ct.	Wt.(g)	Comments
N456 E432	12 B	1597	1933	4	Pebble				8	1.96	
N456 E432	12 B	1597	1933	4	Pebble				16	1.4	1/8"
N456 E432	12 B	1597	1933	4	Other	Charcoal			1	0.01	1/8"
N456 E432	12 C	1597	1929	4	Other	Charcoal			4	0.11	1/8"
N456 E432	12 C	1597	1929	4	pebble				4	0.39	1/8"
N456 E432	12 D	1597	1925	4	pebble				34	3.97	1/8"
N456 E432	12 D	1597	1925	4	Other	Charcoal			5	0.19	1/8"
N456 E432	13 A	1597	1944	4	Pebble				149	9.68	1/8"
N456 E432	13 B	1597	1956	4	Pebble				351	22.79	1/8"
N456 E432	13 B	1597	1956	4	Pebble				3	0.85	
N456 E432	13 B	1597	1956	3	pebble				2	1.22	
N456 E432	13 C	1597	1952	4	Other	Charcoal			2	0.03	1/8"
N456 E432	13 D	1597	1939	4	Pebble				598	38.8	1/8"
N456 E432	13 D	1597	1939	4	Other	Charcoal			1	0.03	1/8"
N456 E432	13 D	1597	1939	4	Other				2	0.11	1/8" Concretions, maybe iron Chunk of shatter in west
N456 E432		1597	1874	2	flake	Quartzite	1	0	1	10.81	wall cleanup
N456 E432		1597	1874	2	Pebble				1	3.61	West Wall Cleanup

APPENDIX F Ceramic Artifacts

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N441 E432	1	А	1597	595	2	Han	Indet.	1	2.62	
N441 E432	1	А	1597	595	2	DC	Indet.	1	3.2	
N441 E432	1	А	1597	595	3	Sherdlette		2	1.22	
N441 E432	1	В	1597	588	1	DC	Fabric	1	16.91	Rim Refit
N441 E432	1	В	1597	588	2	DC	Net	1	4.11	
N441 E432	1	С	1597	582	2	Han	Fabric	1	2.01	
N441 E432	1	D	1597	599	2	Sherdlette		3	6.05	
N441 E432	2	А	1597	621	2	DC	Cord	2	10.04	
N441 E432	2	А	1597	621	1	DC	Net	1	12.15	
N441 E432	2	А	1597	621	2	DC	Net	1	5.83	
N441 E432	2	А	1597	621	1	DC	Indet.	1	21.53	
N441 E432	2	А	1597	621	1	Han	Fabric	3	62.35	1 Basal sherd and 1 refit
N441 E432	2	А	1597	621	2	Han	Indet.	2	9.7	
N441 E432	2	А	1597	621	2	Sherdlette		1	4.15	
N441 E432	2	А	1597	621	3	Sherdlette		10	11.91	
N441 E432	2	В	1597	618	1	Han	Fabric	1	9.76	
N441 E432	2	В	1597	618	1	Han	Cord	1	13.7	****
N441 E432	2	В	1597	618	2	Han	Indet.	1	2.91	
N441 E432	2	В	1597	618	2	Han	Fabric	6	30.71	1 rim
N441 E432	2	в	1597	618	1	DC	Indet.	1	16.32	
N441 E432	2	В	1597	618	2	DC	Cord	1	8.98	
N441 E432	2	В	1597	618	2	DC	Indet.	1	9.88	
N441 E432	2	В	1597	618	2	DC	Net	4	25.5	
N441 E432	2	В	1597	618	2	Sherdlette		3	7.3	
N441 E432	2	В	1597	618	3	Sherdlette		10	11.72	
N441 E432	2	С	1597	605	2	DC	Indet.	1	6.98	
N441 E432	2	С	1597	605	2	Han	Cord	1	8.2	See Note from 1-30 in lab journal *****
N441 E432	2	С	1597	605	2	Sherdlette		2	3.42	
N441 E432	2	С	1597	605	3	Sherdlette		5	6.17	
N441 E432	2	D	1597	627	1	Han	Fabric	2	25.77	
N441 E432	2	D	1597	627	2	Han	Cord	1	3.44	
N441 E432	2	D	1597	627	2	Han	Fabric	7	36.22	
N441 E432	2	D	1597	627	2	DC	Net	2	11.2	
N441 E432	2	D	1597	627	1	MP	Cord	1	18.01	Cross Cord
N441 E432	2	D	1597	627	2	DC	Indet.	1	11.61	
N441 E432	2	D	1597	627	2	MP	Fabric	1	3.93	
N441 E432	2	D	1597	627	2	Sherdlette		5	10.81	
N441 E432	2	D	1597	627	3	Sherdlette		9	11.15	
N441 E432	3	А	1597	652	2	DC	Fabric	1	5.74	
N441 E432	3	А	1597	652	2	DC	Net	2	11.33	
N441 E432	3	А	1597	652	1	DC	Cord	2	59.71	1 Large Cros Cord Sherd *****
N441 E432	3	А	1597	652	2	DC	Cord	3	16.09	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N441 E432	3	А	1597	652	2	DC	Indet.	3	17.45	
N441 E432	3	А	1597	652	1	Indet.	Plain	1	19.25	
N441 E432	3	А	1597	652	2	Indet.	Plain	2	17.61	1 Rim, 1 Refit *****
N441 E432	3	А	1597	652	2	Han	Fabric	6	26.57	Refit
N441 E432	3	А	1597	652	2	Sherdlette		5	13.47	
N441 E432	3	А	1597	652	3	Sherdlette		8	8.08	
N441 E432	3	А	1597	652	4	Sherdlette		1	0.22	
N441 E432	3	В	1597	631	1	DC	Cord	1	70.72	***** Large Cross Cord Sherd
N441 E432	3	В	1597	646	2	MP	Fabric	1	5.54	
N441 E432	3	В	1597	646	2	DC	Net	1	8.53	
N441 E432	3	В	1597	646	2	DC	Cord	1	8.14	
N441 E432	3	В	1597	646	2	DC	Indet.	2	10.92	
N441 E432	3	В	1597	646	2	Han	Fabric	3	6.73	
N441 E432	3	В	1597	646	2	Han	Indet.	2	6.16	
N441 E432	3	В	1597	646	2	Sherdlette		2	7.57	
N441 E432	3	В	1597	646	3	Sherdlette		9	12.46	
N441 E432	3	С	1597	707	1	Han	Fabric	1	8.07	Refit
N441 E432	3	С	1597	647	2	Sherdlette		3	7.54	
N441 E432	3	С	1597	647	3	Sherdlette		11	19.48	
N441 E432	3	С	1597	647	1	MP	Fabric	1	23.86	
N441 E432	3	С	1597	647	1	Han	Cord	1	19.57	
N441 E432	3	С	1597	647	2	Han	Fabric	12	73.05	
N441 E432	3	С	1597	647	2	Han	Indet.	1	2.63	
N441 E432	3	С	1597	647	2	DC	Indet.	1	5.3	
N441 E432	3	С	1597	647	2	DC	Cord	4	24.6	
N441 E432	3	С	1597	647	2	DC	Net	4	28.82	
N441 E432	3	С	1597	647	2	Indet.	Plain	1	4.21	
N441 E432	3	С	1597	647	2	DC	Fabric	2	16.48	1 Rim
N441 E432	3	D	1597	662	2	Sherdlette		12	39.78	
N441 E432	3	D	1597	662	3	Sherdlette		8	12.53	
N441 E432	3	D	1597	662	2	Han	Fabric	6	37.48	
N441 E432	3	D	1597	662	1	DC	Net	2	27.68	
N441 E432	3	D	1597	662	2	DC	Cord	5	57	
N441 E432	3	D	1597	662	2	DC	Cord	1	13.93	Cross Cord
N441 E432	3	D	1597	662	2	DC	Net	5	48.22	
N441 E432	3	D	1597	662	1	Han	Fabric	2	35.04	1 Rim Refit
N441 E432	3	D	1597	662	2	DC	Fabric	1	6.11	
N441 E432	3	D	1597	662	1	DC	Cord	1	22.06	
N441 E432	4	А	1597	695	2	DC	Net	1	2.97	
N441 E432	4	А	1597	695	2	MP	Cord	3	22.11	
N441 E432	4	А	1597	695	2	Sherdlette		1	3.09	
N441 E432	4	В	1597	674	2	Han	Fabric	1	4.97	
N441 E432	4	В	1597	674	2	DC	Fabric	1	5.11	
N441 E432	4	В	1597	674	3	Sherdlette		2	1.52	
N441 E432	4	С	1597	677	2	DC	Net	2	16.64	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N441 E432	4	С	1597	677	2	DC	Indet.	1	8.96	
N441 E432	4	С	1597	677	2	DC	Cord	2	15.08	
N441 E432	4	С	1597	677	1	DC	Net	1	10.84	
N441 E432	4	С	1597	677	1	Han	Fabric	3	39.65	1 Refit
N441 E432	4	С	1597	677	2	Han	Fabric	7	33.42	
N441 E432	4	С	1597	677	2	Sherdlette		4	9.87	
N441 E432	4	С	1597	677	3	Sherdlette		5	8.1	
N441 E432	4	D	1597	683	1	DC	Net	2	30.66	1 Refit
N441 E432	4	D	1597	683	2	DC	Cord	1	8.16	
N441 E432	4	D	1597	683	2	DC	Net	4	34.59	
N441 E432	4	D	1597	683	2	Han	Fabric	1	8.65	
N441 E432	4	D	1597	683	2	Sherdlette		3	6.43	
N441 E432	4	D	1597	683	3	Sherdlette		6	10.64	
N441 E432	5	В	1597	705	2	Sherdlette		1	3.71	
N441 E432	5	С	1597	712	2	DC	Net	5	29.44	1 Rim
N441 E432	5	С	1597	712	3	Sherdlette		3	4.83	
N441 E432	5	D	1597	715	2	DC	Net	1	7.14	
N441 E432	5	D	1597	715	3	Sherdlette		1	1.63	
N441 E432	6	С	1597	743	2	DC	Indet.	1	4	
N441 E432	6	С	1597	743	2	DC	Net	3	20.44	
N441 E432	6	С	1597	743	2	DC	Fabric	1	3.04	1 Rim
N441 E432	6	С	1597	743	3	Sherdlette		1	1.19	
N441 E432	7	С	1597	764	3	Sherdlette		2	2.46	
N441 E432	8	С	1597	787	3	Sherdlette		1	1.89	
N441 E432			1597	619	2	Sherdlette		1	3.78	
N441 E432			1597	834	2	Han	Plain	1	2.32	NE Corner Baulk
N443 E432	1	А	1597	279	3	Sherdlette		1	0.71	
N443 E432	1	В	1597	287	1	Han	Cord	1	15.22	
N443 E432	1	В	1597	287	2	Han	Cord	1	5.04	
N443 E432	1	С	1597	291	3	Sherdlette		1	1.09	
N443 E432	1	D	1597	283	2	Han	Cord	1	6.84	Twine Textile
N443 E432	1	D	1597	283	3	Sherdlette		1	1.35	
N443 E432	2	А	1597	297	2	Han	Fabric	1	2.75	
N443 E432	2	А	1597	297	2	DC	Indet.	1	5.25	
N443 E432	2	А	1597	297	2	Sherdlette		2	4.19	
N443 E432	2	А	1597	297	3	Sherdlette		3	1.99	
N443 E432	2	В	1597	306	2	Indet.	Cord	1	5.76	
N443 E432	2	В	1597	306	2	DC	Indet.	2	7.65	
N443 E432	2	В	1597	306	2	DC	Net	1	4.83	
N443 E432	2	В	1597	306	1	DC	Net	3	48.57	
N443 E432	2	В	1597	306	2	Han	Fabric	4	10.83	
N443 E432	2	В	1597	306	2	Han	Cord	1	5.83	
N443 E432	2	В	1597	306	2	Sherdlette		3	6.9	
N443 E432	2	В	1597	306	3	Sherdlette		2	3.47	
N443 E432	2	С	1597	309	3	Sherdlette		2	3.37	1 Rim

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N443 E432	2	D	1597	301	2	DC	Indet.	3	17.1	
N443 E432	2	D	1597	301	2	DC	Cord	4	38.91	
N443 E432	2	D	1597	301	1	Han	Fabric	2	20.22	
N443 E432	2	D	1597	301	1	Han	Cord	1	14.98	
N443 E432	2	D	1597	301	2	Han	Fabric	6	42.01	
N443 E432	2	D	1597	301	2	Han	Cord	1	7.55	
N443 E432	2	D	1597	301	2	MP	Cord	1	6.31	Cross Cord
N443 E432	2	D	1597	301	2	Sherdlette		6	18.75	
N443 E432	2	D	1597	301	3	Sherdlette		5	7.94	
N443 E432	2		1597	310	1	Han	Fabric	2	25.71	Trowel Top
N443 E432	2		1597	310	2	Han	Cord	1	3.81	Trowel Top
N443 E432	2		1597	310	2	Han	Fabric	1	6.78	Trowel Top
N443 E432	2		1597	310	2	DC	Cord	1	2.82	Trowel Top
N443 E432	2		1597	310	3	Sherdlette		4	6.3	Trowel Top
N443 E432	3	А	1597	318	3	Sherdlette		6	7.66	
N443 E432	3	А	1597	318	2	Sherdlette		5	14.4	
N443 E432	3	А	1597	318	2	Han	Fabric	2	4.92	
N443 E432	3	А	1597	318	1	DC	Cord	1	20.26	
N443 E432	3	А	1597	318	2	DC	Cord	2	12.66	
N443 E432	3	В	1597	339	1	DC	Net	3	35.02	
N443 E432	3	В	1597	339	1	DC	Cord	1	23.69	
N443 E432	3	В	1597	339	1	DC	Indet.	1	17.63	
N443 E432	3	В	1597	339	2	DC	Net	6	58.5	1 Rim
N443 E432	3	В	1597	339	2	DC	Cord	1	8.11	
N443 E432	3	В	1597	339	2	MP	Plain	4	17.39	1 Rim
N443 E432	3	В	1597	339	1	MP	Cord	1	10.85	
N443 E432	3	В	1597	339	2	Sherdlette		5	14.5	
N443 E432	3	В	1597	339	3	Sherdlette		3	4.3	
N443 E432	3	C	1597	328	2	DC	Indet.	1	5.99	
N443 E432	3	C	1597	328	2	DC	Net	1	10.59	
N443 E432	3	С	1597	328	2	DC	Cord	5	26.32	
N443 E432	3	С	1597	328	1	DC	Cord	1	28.09	1.0.
N443 E432	3	C C	1597	328	3	Han	Cord	2	3.83	1 Rim
N443 E432	3	C C	1597	328	2	Han	Fabric	3	13.37	
N443 E432 N443 E432	3	C C	1597	328	3	Han MP	Fabric Cord	1	2.19	
	3	C C	1597	328	1		Cord	1	12.83	
N443 E432		C C	1597	328	2	Sherdlette		3	6.4	
N443 E432 N443 E432	3 3	C C	1597	328 328	3 4	Sherdlette Sherdlette		8 3	10.79 0.67	
			1597							1/8" Large Refit (including 1 sherd from FS# 301 and 1 from FS# 356. See note in journal
N443 E432	3	D	1597	326	1	Han	Fabric	1	214.88	dated 2-11-08
N443 E432	3	D	1597	326	2	Sherdlette		7	19.21	1/8"
N443 E432	3	D	1597	326	3	Sherdlette	_	3	3.17	1/8"
N443 E432	3	D	1597	326	2	MP	Cord	1	5.08	1/8"

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N443 E432	3	D	1597	326	2	MP	Indet.	1	5.31	1/8"
N443 E432	3	D	1597	326	2	Han	Fabric	1	1.74	1/8"
N443 E432	3	D	1597	326	2	Han	Indet.	1	2.92	1/8"
N443 E432	3	D	1597	326	2	DC	Net	4	29.45	1/8" 1 piece possibly charred
N443 E432	3	D	1597	326	2	DC	Cord	7	44.78	1/8" 1 rim
N443 E432	3	D	1597	326	1	DC	Cord	2	31.17	1/8" Twine Textile
N443 E432	3	D	1597	326	1	DC	Cord	3	61.66	1/8" 1 refit
N443 E432	3	D	1597	326	1	DC	Indet.	1	17.37	1/8" Possibly charred
N443 E432	3	D	1597	326	2	DC	Indet.	4	26	1/8" 1 possibly charred
N443 E432	3		1597	575	1	DC	Cord	1	27.53	East Profile
N443 E432	4	А	1597	342	3	DC	Indet.	1	1.63	Rim
N443 E432	4	А	1597	342	2	DC	Net	1	9.69	
N443 E432	4	А	1597	342	1	DC	Net	1	17.72	
N443 E432	4	А	1597	342	2	Sherdlette		2	5.81	
N443 E432	4	А	1597	342	3	Sherdlette		2	0.89	
N443 E432	4	в	1597	364	2	DC	Indet.	1	5.75	
N443 E432	4	в	1597	364	3	Sherdlette		2	2.21	
N443 E432	4	в	1597	364	2	Indet.	Indet.	1	6.41	
N443 E432	4	С	1597	355	1	DC	Cord	1	55.72	Cross Cord
N443 E432	4	С	1597	355	2	DC	Cord	3	29.66	
N443 E432	4	С	1597	355	2	DC	Net	1	6.49	
N443 E432	4	С	1597	355	2	Han	Fabric	1	1.93	
N443 E432	4	С	1597	355	3	Han	Fabric	1	1.99	
N443 E432	4	С	1597	355	2	Sherdlette		1	2.77	
N443 E432	4	С	1597	355	3	Sherdlette		7	9.78	
N443 E432	4	D	1597	356	2	MP	Cord	1	6.17	Cross Cord
N443 E432	4	D	1597	356	2	Han	Fabric	1	2.77	See not in journal dated 2-12-08
N443 E432	4	D	1597	356	1	DC	Indet.	1	16.65	Possibly Charred
N443 E432	4	D	1597	356	2	DC	Net	2	13.12	
N443 E432	4	D	1597	356	2	DC	Cord	2	17.73	
N443 E432	4	D	1597	356	2	Sherdlette		4	13.31	
N443 E432	4	D	1597	356	3	Sherdlette		6	10.75	
N443 E432	5	В	1597	381	2	Sherdlette		1	1.55	
N443 E432	5	В	1597	381	3	Sherdlette		1	0.41	
N443 E432	5	С	1597	377	2	Indet.	Fabric	1	6.76	
N443 E432	5	D	1597	372	3	Sherdlette		4	3.89	
N443 E432	6	А	1597	389	3	Sherdlette		2	2.69	
N443 E432	8	С	1597	474	3	Sherdlette		1	0.53	
N445 E432	1	А	1597	549	3	Sherdlette		3	2.19	
N445 E432	1	В	1597	559	2	Han	Cord	1	1.67	
N445 E432	1	D	1597	543	2	DC	Indet.	2	4.99	
N445 E432	1	D	1597	543	3	Sherdlette		3	3.04	
N445 E432	2	А	1597	572	2	DC	Net	1	4.55	
N445 E432	2	А	1597	572	2	DC	Cord	1	5.36	
N445 E432	2	А	1597	572	1	DC	Net	1	14.92	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N445 E432	2	А	1597	572	2	Han	Fabric	1	4.36	
N445 E432	2	А	1597	572	3	Sherdlette		4	3.2	
N445 E432	2	А	1597	572	4	Sherdlette		1	0.2	
N445 E432	2	в	1597	583	1	DC	Cord	1	17.81	Base Sherd with Spiral Coil Break *****
N445 E432	2	В	1597	583	2	DC	Net	2	14.29	Dieur
N445 E432	2	В	1597	583	2	DC	Cord	1	4.48	
N445 E432	2	В	1597	583	2	DC	Indet.	4	13.19	
N445 E432	2	в	1597	583	2	Han	Indet.	1	5.28	
N445 E432	2	в	1597	583	4	Sherdlette		7	0.68	
N445 E432	2	в	1597	583	4	Sherdlette		2	0.14	1/8"
N445 E432	2	в	1597	583	3	Sherdlette		17	12.4	
N445 E432	2	С	1597	576	2	Han	Fabric	1	2.09	
N445 E432	2	С	1597	576	2	Han	Cord	1	6.91	
N445 E432	2	С	1597	576	4	Sherdlette		2	0.24	
N445 E432	2	С	1597	576	3	Sherdlette		4	4	
N445 E432	2	С	1597	576	2	Sherdlette		1	1.61	
N445 E432	2	С	1597	576	2	DC	Fabric	1	4.19	
N445 E432	2	С	1597	576	2	DC	Cord	2	10.94	
N445 E432	2	С	1597	576	2	DC	Net	4	22.03	
N445 E432	2	D	1597	565	3	Sherdlette		6	3.78	
N445 E432	2	D	1597	565	3	DC	Indet.	3	4.55	
N445 E432	2	D	1597	565	2	DC	Indet.	3	10.67	
N445 E432	2	D	1597	565	2	DC	Cord	1	3.75	
N445 E432	2	D	1597	565	2	DC	Net	2	9.86	1 Rim sherd
N445 E432	2	D	1597	565	2	DC	Cord	1	8.67	Cross Cord
N445 E432	2	D	1597	565	1	DC	Fabric	1	11.17	
N445 E432	2	D	1597	565	2	Han	Cord	4	14.32	
N445 E432	3	А	1597	596	2	DC	Cord	1	7.97	
N445 E432	3	А	1597	596	1	DC	Net	1	20.34	
N445 E432	3	А	1597	596	2	DC	Indet.	1	8.94	
N445 E432	3	А	1597	596	3	Sherdlette		10	10.28	
N445 E432	3	А	1597	596	4	Sherdlette		4	0.68	
N445 E432	3	А	1597	596	2	Sherdlette		1	3.16	
N445 E432	3	А	1597	596	2	Han	Fabric	1	3.61	
N445 E432	3	А	1597	596	2	Han	Indet.	1	2.28	
N445 E432	3	в	1597	614	2	Sherdlette		3	6.64	
N445 E432	3	в	1597	614	3	Sherdlette		6	2.5	
N445 E432	3	В	1597	614	4	Sherdlette		2	0.33	
N445 E432	3	В	1597	614	4	Sherdlette		2	0.32	
N445 E432	3	В	1597	614	3	Sherdlette		6	2.49	
N445 E432	3	В	1597	614	2	Sherdlette		3	6.61	
N445 E432	3	В	1597	614	- 1	DC	Net	1	22.45	
N445 E432	3	В	1597	614	1	DC	Cord	4	75.65	1 Rim
N445 E432	3	В	1597	614	1	DC	Cord	1	18.21	Twine Textile
N445 E432	3	В	1597	614	2	DC	Cord	7	53.04	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N445 E432	3	В	1597	614	2	DC	Indet.	1	14.23	
N445 E432	3	В	1597	614	2	DC	Net	11	75.15	
N445 E432	3	в	1597	614	3	DC	Cord	1	3.58	
N445 E432	3	в	1597	614	3	DC	Indet.	1	3.04	
N445 E432	3	в	1597	614	2	Han	Indet.	2	13.04	
N445 E432	3	С	1597	611	2	DC	Cord	4	36.16	
N445 E432	3	С	1597	611	2	DC	Plain	1	5.23	Rim
N445 E432	3	С	1597	611	2	DC	Cord	1	10.3	Twine Textile
N445 E432	3	С	1597	611	1	DC	Cord	2	40.74	
N445 E432	3	С	1597	611	2	DC	Net	3	22.08	
N445 E432	3	С	1597	611	2	Sherdlette		7	18.14	
N445 E432	3	С	1597	611	3	Sherdlette		6	6.97	
N445 E432	3	С	1597	611	3	Other	Historic Pottery	1	1.26	Staffordshire (18th C.)
N445 E432	3	D	1597	587	1	Han	Plain	1	12.91	
N445 E432	3	D	1597	587	2	Han	Indet.	1	2.62	
N445 E432	3	D	1597	587	2	Han	Cord	1	3.53	
N445 E432	3	D	1597	587	3	Sherdlette		3	3.97	
N445 E432	3	D	1597	587	2	Sherdlette		9	22.05	
N445 E432	3	D	1597	587	1	DC	Net	1	15.34	Rim
N445 E432	3	D	1597	587	1	DC	Cord	2	56.76	
N445 E432	3	D	1597	587	2	DC	Cord	7	47.67	
N445 E432	3	D	1597	587	2	DC	Indet.	2	13.88	1 Rim
N445 E432	3	D	1597	587	2	DC	Net	4	30.5	
N445 E432	3	D	1597	587	2	MP	Net	1	6.34	
N445 E432	3		1597	829	1	DC	Cord	1	17.4	Baulk Cleanup
N445 E432	4	А	1597	626	2	Sherdlette		3	7.02	
N445 E432	4	А	1597	626	3	Sherdlette		4	2.89	
N445 E432	4	В	1597	640	1	DC	Cord	1	15.02	
N445 E432	4	В	1597	640	2	DC	Cord	2	15.37	
N445 E432	4	В	1597	640	2	Sherdlette		3	8.43	
N445 E432	4	В	1597	640	3	Sherdlette		13	13.41	
N445 E432	4	С	1597	633	2	Sherdlette		2	4.39	
N445 E432	4	С	1597	633	3	Sherdlette		4	3.08	
N445 E432	4	D	1597	620	1	DC	Cord	1	13.42	
N445 E432	4	D	1597	620	2	DC	Cord	3	40.39	2 Rims
N445 E432	4	D	1597	620	2	DC	Net	2	12.13	
N445 E432	4	D	1597	620	2	Sherdlette		1	2.77	
N445 E432	4	D	1597	620	3	Sherdlette		9	6.52	
N445 E432	4	D	1597	620	4	Sherdlette		2	0.53	
N445 E432			1597	833	1	DC	Cord	2	30.94	East Profile Cleanup
N445 E432			1597	833	2	DC	Cord	2	10.77	East Profile Cleanup
N445 E432			1597	833	3	Sherdlette		3	3.8	East Profile Cleanup
N445 E432			1597	832	1	DC	Indet.	1	21.61	Baulk Cleanup
N445 E432			1597	681	1	DC	Net	1	12.04	Profile Clean
N447 E432	1	А	1597	280	2	DC	Net	1	6	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N447 E432	1	А	1597	280	3	Sherdlette		4	3.72	
N447 E432	1	В	1597	288	2	Sherdlette		2	3.88	
N447 E432	1	В	1597	288	3	Sherdlette		1	1.29	
N447 E432	1	С	1597	284	2	DC	Indet.	1	4.98	
N447 E432	1	С	1597	284	4	Sherdlette		1	0.25	
N447 E432	1	С	1597	284	3	Sherdlette		3	3.36	
N447 E432	1	D	1597	281	3	Sherdlette		1	0.37	
N447 E432	2	А	1597	292	2	Han	Fabric	1	7.06	
N447 E432	2	А	1597	292	2	Sherdlette		4	7.31	
N447 E432	2	А	1597	292	3	Sherdlette		7	4.48	
N447 E432	2	А	1597	292	3	DC	Indet.	1	2.06	
N447 E432	2	А	1597	292	2	DC	Cord	1	3.61	Twine Textile
N447 E432	2	А	1597	292	2	DC	Plain	1	5.93	
N447 E432	2	А	1597	292	2	DC	Net	1	9.97	
N447 E432	2	В	1597	303	2	DC	Net	2	9.86	
N447 E432	2	В	1597	303	2	DC	Cord	2	11.42	Twine Textile *****
N447 E432	2	В	1597	303	1	DC	Net	1	16.96	****
N447 E432	2	В	1597	303	1	DC	Cord	1	21.32	Twine Textile *****
N447 E432	2	В	1597	303	2	Sherdlette		4	8.69	
N447 E432	2	В	1597	303	3	Sherdlette		10	8.87	
N447 E432	2	В	1597	303	2	Han	Indet.	1	4.41	
N447 E432	2	В	1597	303	2	Han	Fabric	3	21.13	
N447 E432	2	В	1597	303	4	Sherdlette		4	0.45	
N447 E432	2	С	1597	314	3	Sherdlette		9	9.55	
N447 E432	2	С	1597	314	2	Sherdlette		1	2.25	
N447 E432	2	С	1597	314	2	Han	Plain	1	2.99	Rim
N447 E432	2	С	1597	314	2	Han	Fabric	1	4.28	
N447 E432	2	С	1597	314	2	DC	Cord	1	3.47	
N447 E432	2	С	1597	314	1	DC	Cord	1	13.67	
N447 E432	2	С	1597	314	2	DC	Fabric	1	4.58	
N447 E432	2	D	1597	298	4	Sherdlette		3	0.46	1/8"
N447 E432	2	D	1597	298	2	Han	Fabric	2	13.52	
N447 E432	2	D	1597	298	2	DC	Indet.	1	8.2	
N447 E432	2	D	1597	298	2	DC	Cord	2	13.98	
N447 E432	2	D	1597	298	1	MP	Net	1	31.89	?
N447 E432	2	D	1597	298	2	Sherdlette		3	6.3	
N447 E432	2	D	1597	298	3	Sherdlette		16	13.35	
N447 E432	2	D	1597	298	4	Sherdlette	<i>a</i> :	3	0.74	D CLODWIN
N447 E432	2	D	1597	347	1	MP	Cord	1	13.79	Profile SE Wall
N447 E432	2		1597	315	2	Sherdlette		1	1.87	Cleanup
N447 E432	2		1597	315	3	Sherdlette		1	0.39	Cleanup
N447 E432	2		1597	315	4	Sherdlette	F 1 ·	1	0.08	Cleanup
N447 E432	2		1597	315	2	DC	Fabric	1	15.33	Cleanup
N447 E432	2		1597	315	2	DC	Indet.	1	2.62	Cleanup
N447 E432	2		1597	315	2	DC	Cord	1	4.25	Cleanup

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N447 E432	3	А	1597	324	2	DC	Cord	1	11.14	
N447 E432	3	А	1597	324	1	DC	Fabric	1	9.68	
N447 E432	3	А	1597	324	1	DC	Net	1	74.42	Refit with rim
N447 E432	3	А	1597	324	2	DC	Fabric	1	2.91	
N447 E432	3	А	1597	324	1	DC	Cord	1	16.09	
N447 E432	3	А	1597	324	2	DC	Indet.	1	6.06	
N447 E432	3	А	1597	324	2	DC	Cord	1	5.65	
N447 E432	3	А	1597	324	2	DC	Net	1	4.6	
N447 E432	3	А	1597	324	1	MP	Cord	1	22.48	?
N447 E432	3	А	1597	324	3	Sherdlette		6	4.95	
N447 E432	3	А	1597	324	2	Sherdlette		1	2.35	
N447 E432	3	В	1597	332	3	Sherdlette		13	5.83	
N447 E432	3	В	1597	332	2	Sherdlette		1	4.18	
N447 E432	3	В	1597	332	1	DC	Cord	1	93.2	
N447 E432	3	В	1597	332	1	DC	Cord	1	29.06	Cross Cord? *****
N447 E432	3	В	1597	332	2	DC	Net	3	21.71	
N447 E432	3	В	1597	332	2	DC	Indet.	2	6.19	
N447 E432	3	В	1597	332	2	DC	Cord	3	18.94	2 pieces refit
N447 E432	3	С	1597	336	2	Han	Cord	1	8.47	Twine Textile
N447 E432	3	С	1597	336	1	DC	Fabric	1	11.64	
N447 E432	3	С	1597	336	3	DC	Fabric	1	2.45	
N447 E432	3	С	1597	336	2	DC	Cord	2	17.52	
N447 E432	3	С	1597	336	1	DC	Net	1	37.7	***** Nice Large Sherd *****
N447 E432	3	С	1597	336	3	Sherdlette		2	1.7	
N447 E432	3	С	1597	336	2	Sherdlette		3	7.62	
N447 E432	3	D	1597	327	2	Sherdlette		5	16.68	
N447 E432	3	D	1597	327	3	Sherdlette		12	13.17	
N447 E432	3	D	1597	327	1	DC	Cord	4	76.37	***** Twine Textile
N447 E432	3	D	1597	327	1	DC	Net	1	12.17	
N447 E432	3	D	1597	327	2	DC	Net	1	6.41	
N447 E432	3	D	1597	327	2	DC	Indet.	1	6.68	
N447 E432	3	D	1597	327	2	DC	Cord	1	5	Twine Textile Rim
N447 E432	3	D	1597	327	2	DC	Indet.	2	16.94	
N447 E432	3	D	1597	327	1	MP	Plain	1	11.1	
N447 E432	3	D	1597	327	2	Han	Fabric	2	14.02	
N447 E432	4	А	1597	341	3	Sherdlette		1	1.5	
N447 E432	4	А	1597	341	1	DC	Simple Stamp	1	19.42	
N447 E432	4	A	1597	341	2	DC	Net	1	10.59	
N447 E432	4	в	1597	354	2	Han	Fabric	2	7.88	
N447 E432	4	В	1597	354	3	Sherdlette		1	3.03	
N447 E432	4	В	1597	354	1	DC	Cord	1	104.9	Large refit with rim (coil break?) *****
N447 E432 N447 E432	4	ь С	1597	334 344	4	Sherdlette	Colu	1	0.39	ordax:)
N447 E432 N447 E432	4	c	1597	344	4	Sherdlette		1	2.83	
N447 E432 N447 E432	4	c	1597	344	2	Sherdlette		2	3.43	
1177 12452	4 5	В	1597	376	3	Sherdlette		1	1.59	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
1447 E432	5	D	1597	370	2	DC	Net	1	7.52	
1447 E432	5	D	1597	370	2	DC	Plain	1	4.1	
N447 E432			1597	830	3	Sherdlette		1	1.08	Zone 1 Baulk
1447 E432			1597	831	2	Sherdlette		2	6.79	Zone 2 Baulk
N454 E432	1	В	1597	293	3	Sherdlette		2	2.1	
N454 E432	1	С	1597	294	3	Sherdlette		4	2.78	
N454 E432	2	А	1597	304	3	Sherdlette		10	9.88	
1454 E432	2	А	1597	304	4	Sherdlette		1	0.15	
454 E432	2	А	1597	304	2	DC	Net	3	11.2	
N454 E432	2	А	1597	304	2	DC	Indet.	3	15.34	
N454 E432	2	А	1597	304	2	DC	Cord	1	6.88	
454 E432	2	В	1597	319	3	Sherdlette		10	4.9	
N454 E432	2	В	1597	319	2	Han	Fabric	3	10.8	
N454 E432	2	В	1597	319	3	DC	Cord	1	1.82	
N454 E432	2	В	1597	319	2	DC	Net	2	14.25	
N454 E432	2	С	1597	312	2	DC	Indet.	1	2.97	
N454 E432	2	С	1597	312	2	Han	Fabric	1	3.56	
N454 E432	2	С	1597	312	3	Sherdlette		3	3.78	
1454 E432	2	С	1597	312	2	Sherdlette		2	5.16	
N454 E432	2	D	1597	305	2	DC	Indet.	1	8.55	
1454 E432	2	D	1597	305	2	Han	Indet.	1	3.01	
1454 E432	2	D	1597	305	3	Sherdlette		2	2.77	
454 E432	2	D	1597	305	2	Sherdlette		1	1.51	
454 E432	2		1597	320	2	Sherdlette		1	2.32	Cleaning
454 E432	3	А	1597	331	2	DC	Cord	8	56.82	2 Rims
1454 E432	3	А	1597	331	1	DC	Cord	3	70.26	
1454 E432	3	А	1597	331	2	DC	Net	6	37.47	
1454 E432	3	А	1597	331	2	Sherdlette		5	12.1	
1454 E432	3	А	1597	331	3	Sherdlette		16	21.13	
N454 E432	3	А	1597	331	1	Han	Fabric	1	6.7	
N454 E432	3	А	1597	331	2	Han	Indet.	1	4.15	
1454 E432	3	А	1597	331	2	Han	Fabric	3	9.87	
N454 E432	3	В	1597	365	3	Sherdlette		15	16.44	
1454 E432	3	В	1597	365	2	Sherdlette		10	27.1	
N454 E432	3	В	1597	365	1	DC	Cord	4	157.45	1 Rim, 2 Large Sherds - Nice *****
N454 E432	3	В	1597	365	2	DC	Net	3	19.04	
N454 E432	3	В	1597	365	2	DC	Cord	2	24.84	1 Rim
N454 E432	3	В	1597	365	2	Han	Fabric	3	12.1	
1454 E432	3	В	1597	365	2	Indet.	Cord	1	3.58	
1454 E432	3	С	1597	352	2	Sherdlette		3	7.07	
N454 E432	3	С	1597	352	3	Sherdlette		18	22.54	
1454 E432	3	С	1597	352	2	DC	Cord	5	24.17	
1454 E432	3	С	1597	352	1	DC	Cord	2	30.76	1 Rim
N454 E432	3	С	1597	352	2	DC	Indet.	2	13.79	
N454 E432	3	C	1597	352	2	DC	Net	6	36.49	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N454 E432	3	С	1597	352	1	DC	Net	1	14.16	
N454 E432	3	С	1597	352	1	Han	Indet.	1	8.37	
N454 E432	3	С	1597	352	1	Han	Cord	1	10.53	
N454 E432	3	С	1597	352	1	Han	Fabric	1	9.34	1 Rim
N454 E432	3	D	1597	350	2	Sherdlette		9	29.96	
N454 E432	3	D	1597	350	3	Sherdlette		44	31.28	
N454 E432	3	D	1597	350	4	Sherdlette		4	1.03	
N454 E432	3	D	1597	350	1	MP	Cord	1	26.51	Nice Example of Mt. Pleasant
N454 E432	3	D	1597	350	1	DC	Cord	2	32.15	1 Cross Cord
N454 E432	3	D	1597	350	2	DC	Net	3	18.81	
N454 E432	3	D	1597	350	2	DC	Cord	3	14.51	
N454 E432	3	D	1597	350	2	DC	Indet.	1	4.52	
N454 E432	3	D	1597	350	1	Han	Fabric	3	47.44	
N454 E432	3	D	1597	350	2	Han	Fabric	5	17.41	
N454 E432	3	D	1597	350	2	Han	Indet.	2	6.26	
N454 E432	3	D	1597	367	3	Sherdlette		2	1.01	Troweling around Fea. 3
N454 E432	3	D	1597	367	2	DC	Cord	1	8.98	Troweling around Fea. 3
N454 E432	3	D	1597	367	2	DC	Net	1	3.33	Troweling around Fea. 3
N454 E432	4	А	1597	466	2	DC	Cord	2	8.08	U U
N454 E432	4	А	1597	466	3	DC	Net	3	7.02	
N454 E432	4	А	1597	466	2	Han	Fabric	2	2.06	
N454 E432	4	А	1597	466	3	Sherdlette		3	0.39	
N454 E432	4	А	1597	492	2	DC	Net	1	4.88	West
N454 E432	4	в	1597	409	2	Sherdlette		2	4.8	
N454 E432	4	в	1597	409	3	Sherdlette		7	7.18	
N454 E432	4	в	1597	409	4	Sherdlette		1	0.2	
N454 E432	4	в	1597	409	2	DC	Cord	1	11.67	
N454 E432	4	В	1597	409	2	DC	Net	1	4.1	
N454 E432	4	С	1597	406	2	Han	Fabric	1	6.17	
N454 E432	4	С	1597	406	2	DC	Cord	1	6.93	
N454 E432	4	С	1597	406	2	DC	Indet.	1	4.51	
N454 E432	4	С	1597	406	2	DC	Net	2	8.88	
N454 E432	4	С	1597	406	3	Sherdlette		13	12.57	
N454 E432	4	С	1597	406	2	Sherdlette		5	12.18	
N454 E432	4	Cle an	1597	413	3	Sherdlette		5	5.89	
N454 E432	4	D	1597	398	1	MP	Cord	1	10.98	
N454 E432	4	D	1597	398	3	Sherdlette		2	1.2	
N454 E432	5	A	1597	463	3	Sherdlette		2	2.91	
N454 E432	5	A	1597	495	2	DC	Net	1	3.73	West
N454 E432	5	A	1597	495	2	Sherdlette		1	1.95	West
N454 E432	5	A	1597	495	3	Sherdlette		3	3.01	West
N454 E432	5	В	1597	443	3	Sherdlette		3	3.16	
N454 E432	5	В	1597	443	2	Sherdlette		1	2.83	
N454 E432	5	C	1597	427	3	Sherdlette		11	7.63	
N454 E432	5	c	1597	427	2	DC	Cord	1	2.88	

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N454 E432	5	С	1597	427	2	DC	Indet.	1	2.77	
N454 E432	5	С	1597	427	2	DC	Net	1	3.2	
N454 E432	5	D	1597	444	1	Han	Fabric	1	9.84	
N454 E432	5	D	1597	444	3	Sherdlette		5	3.53	
N454 E432	6	А	1597	508	3	Sherdlette		3	2.81	
N454 E432	6	А	1597	508	2	Sherdlette		1	1.85	
N454 E432	6	В	1597	522	2	Han	Indet.	1	2.02	
N454 E432	6	В	1597	522	3	Sherdlette		1	1.63	
N454 E432	6	D	1597	509	2	Han	Fabric	1	3.5	Rim
N454 E432	6	D	1597	509	3	Sherdlette		1	1.93	
N454 E432	6		1597	523	3	Sherdlette		1	0.82	Cleaning
N454 E432	7	D	1597	530	3	Sherdlette		1	1.45	
N454 E432	8	D	1597	553	2	DC	Cord	1	7.38	
N454 E432	9	А	1597	568	2	Han	Fabric	1	1.36	Cleaning
N454 E432	9	С	1597	579	3	Han	Fabric	1	0.68	
N454 E432	4/5	А	1597	477	2	DC	Fabric	1	2.9	Zone 2 East
N454 E432	4/5	А	1597	477	2	DC	Cord	1	8.38	Zone 2 East
N454 E432	4/5	А	1597	477	3	Sherdlette		3	4.37	Zone 2 East
N454 E432	4/5	А	1597	477	4	Sherdlette		4	0.09	Zone 2 East
N454 E432	4/5	А	1597	478	2	DC	Net	1	3.06	Zone 1 East
N454 E432	4/5	А	1597	478	3	Sherdlette		4	4.54	Zone 1 East
N454 E432	4/5		1597	476	2	DC	Cord	1	9.98	Feature Cleaning
N454 E432	4/5		1597	476	3	Sherdlette		2	1.01	Feature Cleaning
N454 E432			1597	489	2	DC	Net	1	5.13	Feature 1, Zone 1
N454 E432			1597	488	3	Sherdlette		3	2.48	Feature 1, Zone 2
N454 E432			1597	488	2	Sherdlette		2	4.74	Feature 1, Zone 2
N454 E432			1597	490	2	DC	Cord	1	5.74	Feature 1 Cleanup, Rim
N454 E432			1597	490	3	Sherdlette		1	1.07	Feature 1 Cleanup
N454 E432			1597	379	2	DC	Cord	1	7.2	Feature 3 W. Half of Zone 1
N456 E432	1		1597	1707	2	Han	Fabric	1	4.88	
N456 E432	2		1597	1713	4	Sherdlette		1	0.19	
N456 E432	2		1597	1713	3	Sherdlette		1	1.5	
N456 E432	2		1597	1713	3	Han	Fabric	1	1.55	
N456 E432	2		1597	1713	2	Han	Cord	1	3.84	
N456 E432	2		1597	1713	2	Han	Fabric	2	9.14	
N456 E432	2		1597	1713	2	DC	Net	2	10.1	
N456 E432	2		1597	1713	2	DC	Indet.	1	2.16	
N456 E432	3		1597	1717	2	DC	Net	37	195	2 Rims
N456 E432	3		1597	1717	2	DC	Indet.	3	14.3	
N456 E432	3		1597	1717	1	DC	Cord	1	19.73	Rim
N456 E432	3		1597	1717	1	DC	Fabric	1	29.6	
N456 E432	3		1597	1717	1	Han	Indet.	1	10.92	15
N456 E432	3		1597	1717	1	DC	Indet.	2	61.17	1 Base
N456 E432	3		1597	1717	1	DC	Net	3	71.6	15
N456 E432	3		1597	1717	2	Han	Indet.	13	68.12	1 Base

Unit	LvL	Sub	Access. #	FS#	Size Class	Туре	Surface Treatment	Ct.	Wt.(g)	Comments
N456 E432	3		1597	1717	2	Sherdlette		12	24.08	
N456 E432	3		1597	1717	2	Han	Fabric	18	115.22	4 Rims
N456 E432	3		1597	1717	1	Han	Fabric	5	98.77	1 Rim
N456 E432	3		1597	1717	2	DC	Cord	7	53.25	2 rims - 1 rim refits (counted as 1 sherd), 1 Twine Textile
N456 E432			1597	1717	2	Sherdlette	Colu	45	55.25	1 sherd), 1 1 while Textile
N456 E432 N456 E432	3 4		1597	1717	3 1	DC	Net	45 5	55.1 119.35	
N456 E432	4		1597	1721	1	DC	Cord	1	119.55	Cross Cord
N456 E432	4		1597	1721	2	DC	Net	19	118.67	Closs Colu
N456 E432	4		1597	1721	2	DC	Indet.	3	13.51	
N456 E432	4		1597	1721	2	DC	Cord	3	26.97	1 Rim
							Simple			
N456 E432	4		1597	1721	2	MP	Stamp	1	5.82	***** Simple Stamp
N456 E432	4		1597	1721	2	Sherdlette		6	12.52	
N456 E432	4		1597	1721	2	Han	Indet.	1	4.02	
N456 E432	4		1597	1721	2	Han	Fabric	4	19.23	
N456 E432	4		1597	1721	3	Sherdlette		4	15.44	
N456 E432	4		1597	1721	3	Sherdlette	Indet.	6	2.56	
N456 E432 N456 E432	5 5		1597 1597	1728 1728	2 2	Han Han	Cord	1	2.66 6.17	
N456 E432 N456 E432	5 5		1597	1728	2	Han Sherdlette	Cord	1	0.17	
N456 E432	5	А	1597	1728	3	Sherdlette		1	0.78	
N456 E432 N456 E432	0 6	A B	1597	1730	3 2	Sherdlette		1	1.83	
N456 E432	6	В	1597	1737	2	Sherdlette		1	0.38	
N456 E432	6	ь С	1597	1737	2	DC	Cord	1	3.95	
N456 E432	0	C	1597	1871	2	DC	Net	1	4.72	North Wall Cleanup