
SUPPLEMENTAL REPORT

**EXTENDED PHASE II ARCHAEOLOGICAL TESTING
OF SITE 7NC-G-150
THE EISENBREY WETLAND SITE**

New Castle County, Delaware

**Parent Agreement No. 729-1
Statewide Archaeological Resource Project**

Prepared For:

THE DELAWARE DEPARTMENT OF TRANSPORTATION

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Washington, D.C.**

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ABSTRACT

The Cultural Resource Group of Louis Berger & Associates, Inc. (LBA), has conducted extended Phase II archaeological investigations of prehistoric Site 7NC-G-150 (the Eisenbrey Wetland Site), located within the right-of-way of the proposed Eisenbrey Wetland Replacement Area. The Eisenbrey Wetland right-of-way is located on the northern bank of Drawyer Creek, adjacent to the proposed SR 1 corridor, and about 250 meters (800 feet) east of U.S. Route 13. The extended Phase II investigations were conducted for the Delaware Department of Transportation, Division of Highways (DelDOT), in compliance with Section 106 of the Historic Preservation Act and other federal and state historic preservation mandates.

Initial Phase II archaeological testing of Site 7NC-G-150 was carried out by LBA in 1995. However, it was agreed by LBA, DelDOT, and the Delaware State Historic Preservation Office (DESHPO) that insufficient information had been obtained during the initial Phase II testing to determine whether the site is eligible for listing in the National Register of Historic Places. Extended Phase II testing, including the use of a backhoe to remove substantial blocks of plowzone from the site, was therefore undertaken in July 1996. As a result of these investigations, it appears that the site is not eligible for listing in the National Register. No further work is recommended on the Eisenbrey Wetland Site.

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I. INTRODUCTION

The Cultural Resource Group of Louis Berger & Associates, Inc. (LBA), has conducted extended Phase II archaeological investigations of prehistoric Site 7NC-G-150 (the Eisenbrey Wetland Site), located adjacent to the Delaware State Route 1 (SR 1) corridor, within the right-of-way of the proposed Eisenbrey Wetland Replacement Area. The Eisenbrey Wetland right-of-way is located on the northern bank of Drawyer Creek, and about 250 meters (800 feet) east of U.S. Route 13 (Figure 1). The extended Phase II investigations were conducted for the Delaware Department of Transportation, Division of Highways (DelDOT), in compliance with Section 106 of the Historic Preservation Act and other federal and state historic preservation mandates.

The Eisenbrey Wetland Site was a moderate-density prehistoric scatter, predominantly composed of lithic debitage, that occupied all of the Eisenbrey Wetland Replacement Area. The site was located on the northern bank of Drawyer Creek, on a finger of land bounded on the south by the tidal marsh along the creek, on the east by a tidal tributary of the creek, and on the west by a ravine. The site measured approximately 140 meters east to west by 70 meters north to south. In this area, Drawyer Creek has been tidal for approximately 2,000 to 3,000 years (Kraft 1977). Before then, the Drawyer Creek valley would have been a freshwater stream and floodplain complex.

Initial Phase II testing of Site 7NC-G-150 was carried out by LBA in September and October, 1995. The Phase II fieldwork included the excavation of 37 1x1-meter test units. This testing resulted in the recovery of 1,260 prehistoric artifacts, all but 107 of them from plowed contexts. One possible cultural feature was identified. Diagnostic artifacts included contracting-stemmed projectile points dating to the Woodland I period, and small potsherds. After the conclusion of the Phase II testing, discussions about the eligibility of the site for listing in the National Register of Historic Places took place among representatives of LBA, DelDOT, and the Delaware State Historic Preservation Office (DESHPO). During these consultations, it was agreed that insufficient information had been obtained to determine if the site was eligible for listing in the National Register. In particular, it was thought that cultural features might be present in subsoil contexts that could be exposed by removal of the plowzone in portions of the site, and that substantial blocks of plowzone ought to be removed to search for such features. LBA therefore undertook extended Phase II testing of the Eisenbrey Wetland Site in July 1996.

This report describes the extended Phase II testing of Site 7NC-G-150, and is intended to serve as a supplement to *Phase I and II Archaeological Studies in the Proposed SR 1 Corridor, Scott Run to Pine Tree Corners, New Castle County, Delaware* (Bedell et al. 1997). Therefore, this report does not include a full description of the Phase I and Phase II studies, a research design, detailed descriptions of field and laboratory methods, an environmental background, a narrative of Delaware prehistory, or a discussion of other archaeological studies in the area. For this information, readers are referred to the main report.

Fieldwork for the extended Phase II testing was carried out between July 22 and August 16, 1995. The project manager was Charles H. LeeDecker. The principal investigator was John

Bedell. The field supervisor was Mark Whitby. The field crew consisted of Michael Barnes, Teresa Brannon, Amy Freyberger, Alex Gall, Doug Tilly, and Lee Weber. This report was prepared by John Bedell.

II. EXTENDED PHASE II TESTING

A. METHODOLOGY

The Phase II evaluation established that most of the prehistoric artifacts on the site were concentrated in three areas, designated Loci 1, 2, and 3. The main purposes of the extended Phase II testing were to search for and test additional prehistoric features on the upper terrace, in Loci 1 and 2, and further investigate the slopewash deposits in the lower terrace, in Locus 3. In Loci 1 and 2, additional test units were excavated in the plowzone to obtain a sample of artifacts from plowed contexts. A backhoe was then used to remove the plowzone from substantial blocks in both loci, and the exposed subsoil was then troweled to search for features. Identified features were then tested to determine if they were cultural or natural. The locations of several test units were re-established after the stripping and were continued into the subsoil (Figure 2).

In Locus 3, on the lower terrace, five additional test units were excavated to investigate the slopewash deposits and determine if any intact, artifact-bearing soils were present beneath them. Testing was concentrated around Phase II Test Unit 24, which had yielded 84 artifacts.

B. FINDINGS

1. *Locus 1*

Fifteen test units were excavated in Locus 1 during the extended Phase II testing, in addition to the six units excavated during the initial Phase II (see Figure 2). The artifact counts in the additional test units were not high. Only 150 artifacts were recovered during the extended Phase II testing, consisting of one possible hammerstone, one nondiagnostic projectile point fragment, and 148 pieces of debitage. Although eight test units were excavated 10 centimeters into the plowzone in this phase, only three prehistoric artifacts, all flakes, were recovered from the subplowzone strata. A total of 438 prehistoric artifacts were recovered from the locus during the Phase I, Phase II, and extended Phase II testing, as shown in Table 1.

Within Locus 1, the plowzone was stripped from an area measuring 10x22 meters. Since no features or areas of high artifact density had been identified during the Phase II testing, the stripping was carried out at the southern end of the locus, where a Phase I shovel test recovered eight artifacts from below the plowzone, suggesting a possible feature. No cultural features were identified. In some parts of this area, the gravels of the Columbia Formation were exposed directly below the plowzone, suggesting that Locus 1 had seen substantial erosion.

2. *Locus 2*

Nineteen test units were excavated in Locus 2 during the extended Phase II testing. A total of 272 prehistoric artifacts were recovered from these units, including six small, nondiagnostic potsherds and a small, untyped, side-notched projectile point. The remainder of the artifacts were

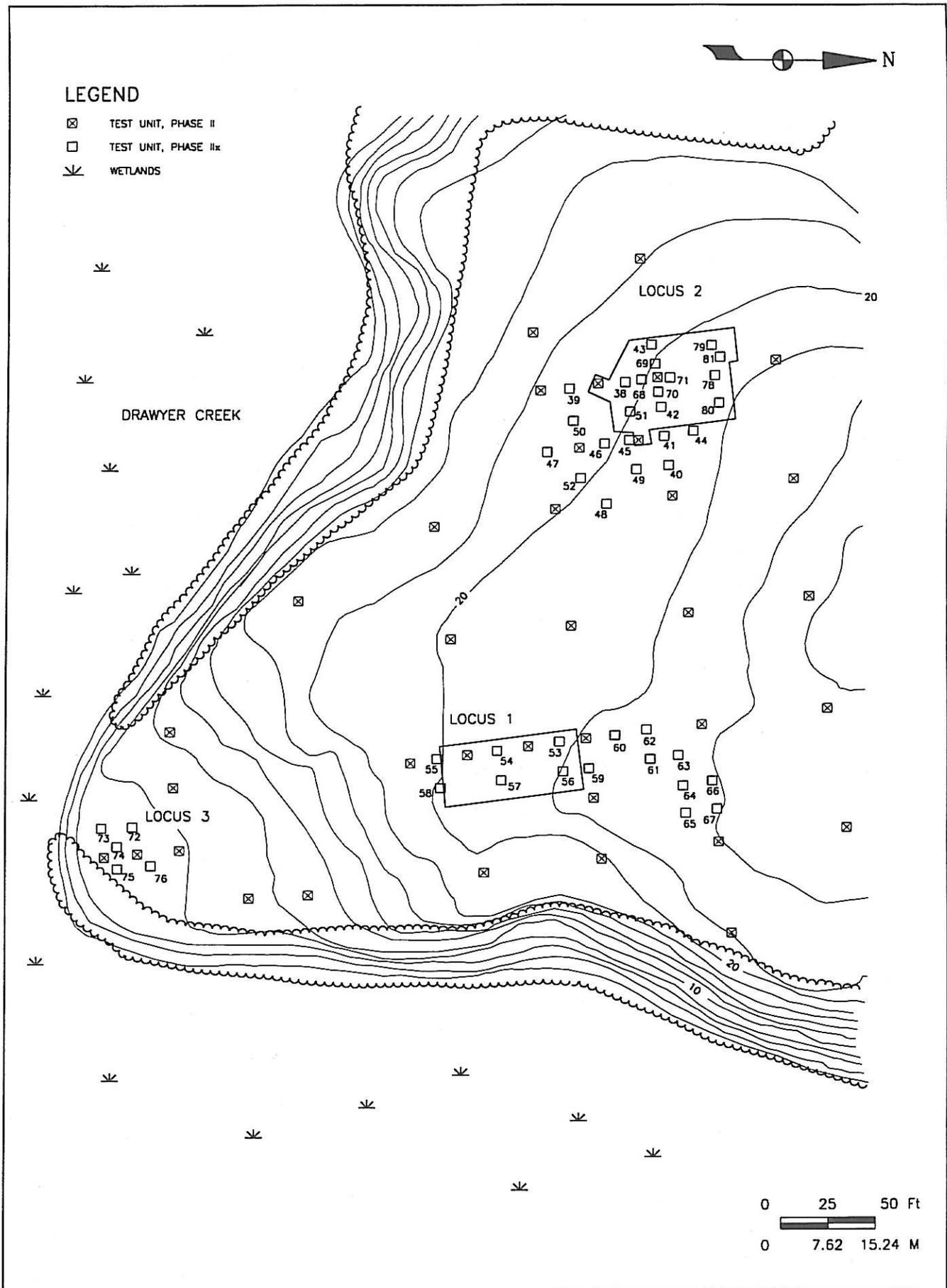


FIGURE 2: Plan of Extended Phase II Testing at Site 7NC-G-150

TABLE 1

SUMMARY OF PREHISTORIC LITHIC ASSEMBLAGE
LOCUS 1, SITE 7NC-G-150

ARTIFACT TYPE	RAW MATERIAL								TOTAL
	Chert	Jasp	Rhyo	Arg	Qrt	Qrtz	Meta	Not Assgn*	
Bifaces									
Projectile Points	.	.	.	.	2	.	.	.	2
Early-Stage Bifaces	.	1	.	.	.	.	.	.	1
Middle-Stage Bifaces	.	1	.	.	.	.	.	.	1
Late-Stage Bifaces	1	.	.	.	.	.	.	.	1
Ind. Biface Fragments	1	.	.	.	2	.	.	.	3
Unifaces									
Endscrapers	1	.	.	.	.	.	.	.	1
Utilized Flakes	.	1	.	.	.	.	.	.	1
Cores									
Freehand Cores	.	1	.	.	2	.	.	.	3
Tested Cobbles	.	.	.	.	1	.	.	.	1
Debitage									
Flake Fragments	26	28	1	.	9	24	.	.	88
Flake Shatter	.	1	.	.	1	.	.	.	2
Block Shatter	6	8	.	.	29	1	.	.	44
Decortication Flakes	6	38	.	.	14	2	.	.	60
Early Reduction Flakes	25	53	6	2	35	36	.	.	157
Biface Reduction Flakes	8	12	1	.	4	5	.	.	30
Indeterminate Flakes	.	1	.	.	.	.	.	.	1
Other Flake Types	1	.	.	.	.	.	1	.	2
Fire-Cracked Rock	.	.	.	.	.	.	.	40	40
TOTALS	75	145	8	2	99	68	1	40	438

*Not Assigned; usually refers to fire-cracked rock; Jasp = Jasper, Rhyo = Rhyolite, Arg = Argillite, Qrt = Quartz, Qrtz = Quartzite, Chal = Chalcedony, Meta = Metasedimentary, Stea = Steatite.

primarily quartz, jasper, and chert debitage. No additional features were encountered in these test units.

A backhoe was then employed to strip the plowzone from part of Locus 2, beginning around Test Unit 14, which contained the possible prehistoric feature. Because the site had been plowed since the initial Phase II investigations, the test units in Loci 1 and 2 were no longer visible, and the placement of test units and the plowzone stripping were based on a reconstructed grid. During

the course of stripping Locus 2, it was discovered that the Phase II map of this locus contained a 10-meter error. (The Locus 1 map was correct.) Therefore, the test units of the current phase, which were intended to be placed around the most interesting units from the Phase II investigation, were actually 10 meters away (Figure 3). The original 15x15-meter area of plowzone stripping had been planned so that Phase II Test Unit 14, which contained Feature 2, would be in the northwestern quadrant of the cleared area. When Test Unit 14 was not found in its projected location, the stripping was extended 5 meters to the north, and Test Unit 14 was found along the northern edge. Feature 2 extended beyond Test Unit 14 to the south, so it was entirely contained within the stripped area, which measured approximately 15x20 meters.

The degree of recent tree-root disturbance visible in the stripped soils was surprising. Numerous roots were visible, some still containing remnant bark, suggesting that the site had been forested sometime within the past 50 years and had recently been cleared, probably by heavy equipment.

Two possible prehistoric cultural features were found in the stripped area of Locus 2. Feature 2 was a pit that had been located in Phase II Test Unit 14. The current investigations showed that Feature 2 was not a cultural pit. Test Unit 14 was located within a shallow drainage that ran northwest off the site, toward the ravine that bounds the site on the west. South of this drainage, the subsoil in Locus 2 was yellowish brown silty loam. In the northern part of the locus, the subsoil consisted of a stratum of light brownish yellow silt, approximately 15 centimeters thick, over yellowish brown silt loam. To further investigate the subplowzone silt stratum, a line of three 1x1-meter test units was placed across the stripped area at 5-meter intervals. These test units, Test Units 78, 79, and 80, had not been dug through the plowzone, but were established after the plowzone had been removed. Eleven prehistoric artifacts, all debitage, were recovered from Test Unit 80, one from Test Unit 79, and none from Test Unit 78.

A portion of this subplowzone silt stratum underlay Test Unit 14. Substantial root disturbance was also visible around Test Unit 14, within the silt stratum; it appears that this combination of subplowzone silt and root disturbance had been identified as Feature 2. Test Unit 81, excavated within the "feature," adjacent to Test Unit 14, yielded nine possible prehistoric artifacts, mostly fire-cracked rock.

Feature 3 was an oblong area of reddish soil, measuring 200x65 centimeters, within which pieces of possible fire-cracked rock were visible on the surface (Figure 4). The feature was sectioned perpendicular to its long axis, and the southernmost segment was excavated. The feature was approximately 15 centimeters deep, although the boundary between the redder soil of the feature and the surrounding matrix was not distinct. The cracked rock within the feature was scattered throughout the matrix with no apparent patterning. No other artifacts were recovered during the testing. Although the feature may represent cultural activity, it may also simply be the remnants of a burned tree, and in any event it seems to have limited information potential.

While the stripped area was being troweled, several prehistoric artifacts were recovered from the top of the subsoil. Most of these were possible fire-cracked rock, but two cobble cores were also recovered. One was chert, and the other was a sizable jasper piece from which blades up to 5 centimeters long had been struck.

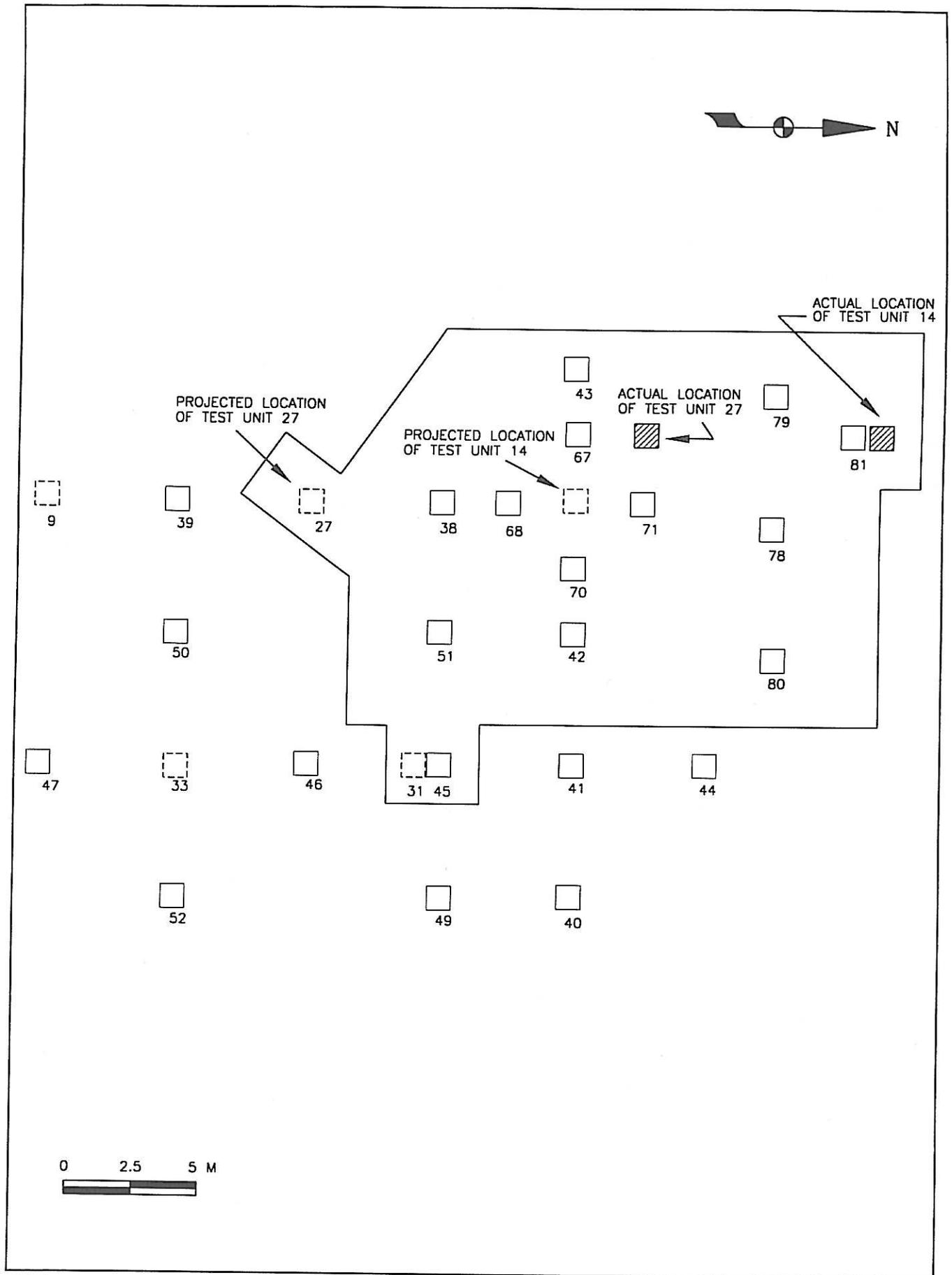


FIGURE 3: Plan of Testing in Locus 2, Site 7NC-G-150

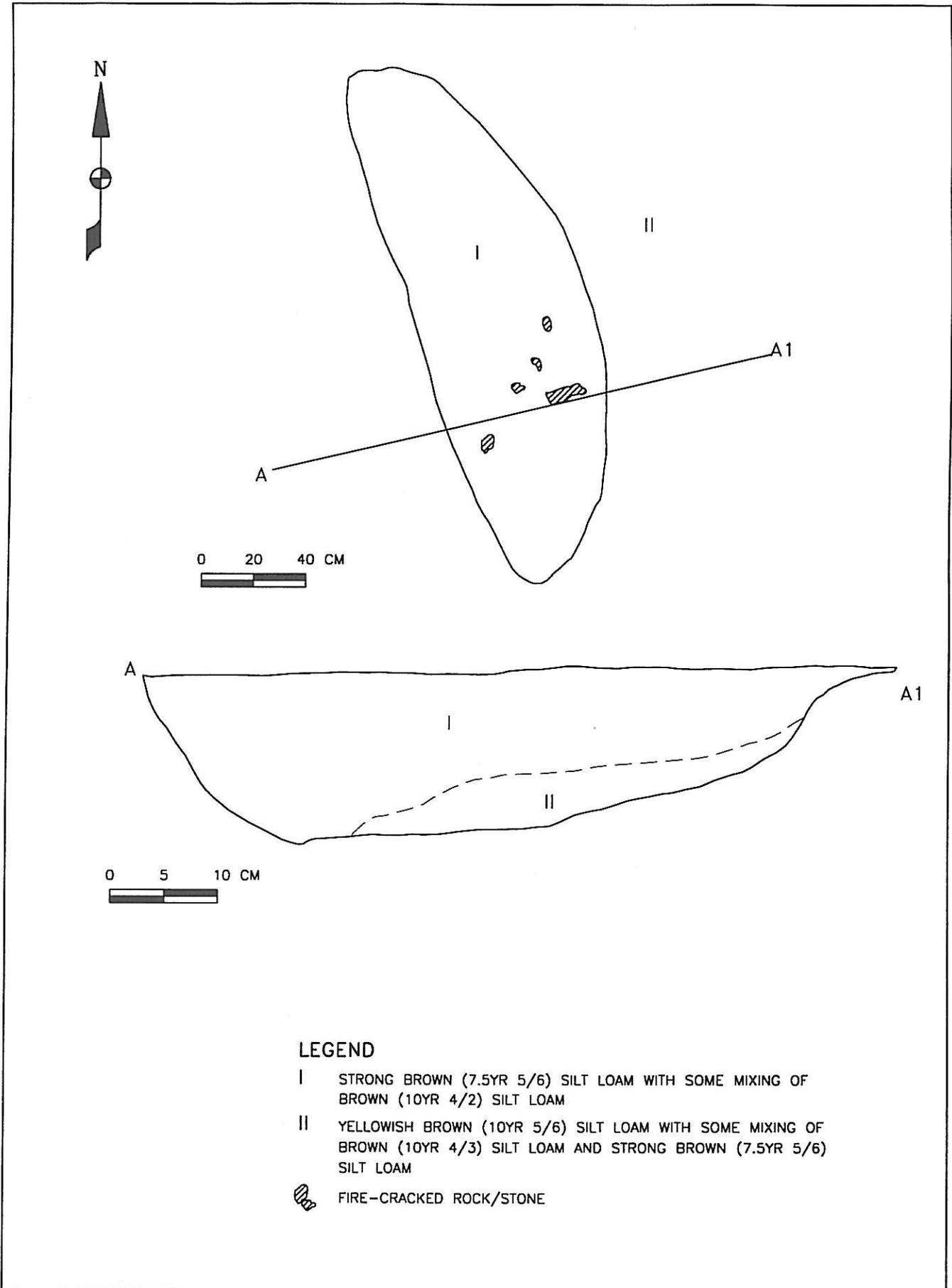


FIGURE 4: Feature 3, Plan View and Profile, Site 7NC-G-150

The stone artifacts recovered from all phases of work in Locus 2 are summarized in Table 2. Most of the collection was debitage and fire-cracked rock. Nearly 13 percent of the debitage recovered from this locus had some cobble cortex. The source for most of the material found was almost certainly cobbles and pebbles found in Drawyer Creek or other nearby stream beds. Perhaps the most interesting object recovered was a fragment of a steatite bowl. Such bowls served as storage and cooking containers before ceramics were introduced around 1000 BC.

TABLE 2 **SUMMARY OF PREHISTORIC LITHIC ASSEMBLAGE**
LOCUS 2, SITE 7NC-G-150

ARTIFACT TYPE	RAW MATERIAL										TOTAL
	Chert	Jasp	Rhyo	Arg	Qrt	Qrtz	Chal	Meta	Stea	Not Assg*	
Bifaces											
Projectile Points	2	.	.	.	1	.	.	.	.	.	3
Early-Stage Bifaces	.	1	.	.	.	.	.	.	.	.	1
Middle-Stage Bifaces	.	.	.	.	1	.	.	.	.	.	1
Late-Stage Bifaces	1	.	.	.	2	.	.	.	.	.	3
Ind. Biface Fragments	2	.	.	.	2	.	.	.	.	.	4
Unifaces											
Sidescrapers	.	1	.	.	.	.	.	.	.	.	1
Utilized Flakes	.	1	.	.	.	.	.	.	.	.	1
Groundstones											
Steatite Bowl	.	.	.	.	.	.	.	.	1	.	1
Cores											
Freehand Cores	.	2	.	.	.	1	.	.	.	.	3
Tested Cobbles	.	.	.	.	1	1	.	.	.	.	2
Debitage											
Flake Fragments	30	57	.	1	32	8	1	.	.	.	129
Flake Shatter	1	4	.	.	.	.	.	.	.	.	5
Block Shatter	10	10	.	.	44	4	.	.	.	.	68
Decortication Flakes	7	30	.	.	21	5	.	.	.	.	63
Early Reduction Flakes	39	65	4	.	68	13	.	1	.	.	190
Biface Reduction Flakes	11	31	1	.	5	.	.	.	.	.	48
Indeterminate Flakes	.	2	.	.	.	.	.	.	.	.	2
Fire-Cracked Rock	.	.	.	.	.	.	.	.	.	140	140
TOTALS	103	204	5	1	177	32	1	1	1	140	665

*Not Assigned; usually refers to fire-cracked rock; Jasp = Jasper, Rhyo = Rhyolite, Arg = Argillite, Qrt = Quartz, Qrtz = Quartzite, Chal = Chalcedony, Meta = Metasedimentary, Stea = Steatite.

TABLE 3

SUMMARY OF PREHISTORIC LITHIC ASSEMBLAGE
LOCUS 3, SITE 7NC-G-150

ARTIFACT TYPE	RAW MATERIAL							Not Assg*	TOTAL
	Chert	Jasper	Rhyolite	Argillite	Quartz	Quartzite	Sedimentary		
Bifaces									
Projectile Points	.	1	.	1	.	.	.	.	2
Late-Stage Bifaces	.	.	1	.	.	.	.	.	1
Ind. Biface Fragments	.	2	.	.	.	.	.	.	2
Unifaces									
Sidescrapers	1	.	.	.	.	.	.	.	1
Utilized Flakes	1	.	.	.	.	.	.	.	1
Groundstones									
Mano	.	.	.	.	.	1	.	.	1
Cores									
Freehand Cores	.	.	.	.	.	.	1	.	1
Tested Cobbles	2	.	.	.	.	.	.	.	2
Debitage									
Flake Fragments	10	10	.	.	3	.	.	.	23
Block Shatter	12	14	.	.	8	7	.	.	41
Decortication Flakes	3	14	.	2	1	3	.	.	23
Early Reduction Flakes	15	22	.	.	8	4	.	.	49
Biface Reduction Flakes	5	4	.	.	.	.	.	.	9
Indeterminate Flakes	.	1	.	.	.	.	.	.	1
Fire-Cracked Rock	.	.	.	.	.	.	.	69	69
TOTALS	49	68	1	3	20	15	1	69	226

*Not Assigned; usually refers to fire-cracked rock.

3. Locus 3

Five additional test units were excavated in Locus 3 during the extended Phase II testing (see Figure 2). The initial Phase II testing in Locus 3 consisted of a single line of five test units, approximately 5 meters away from the marshy drainage to the east of the site. The first two units of this phase, Test Units 72 and 73, were placed 5 meters west of the Phase II units. Test Unit 74 was placed between those units and the original line, 2 meters northwest of Test Unit 24, while Test Units 75 and 76 were placed 2 meters east of the original line. The highest artifact count was 25, in Test Unit 73; the lowest was 3, in Test Unit 76. In total, 62 prehistoric artifacts were recovered from Locus 3 in this phase, all of them lithic flakes (Table 3). All of the test

units contained deep slopewash deposits similar to those in Phase II Test Unit 24 (Figure 5). Testing was continued into the subsoil below this slopewash, but the subsoil was sterile in every case. All of the artifact-bearing soils in Locus 3 have therefore been disturbed.

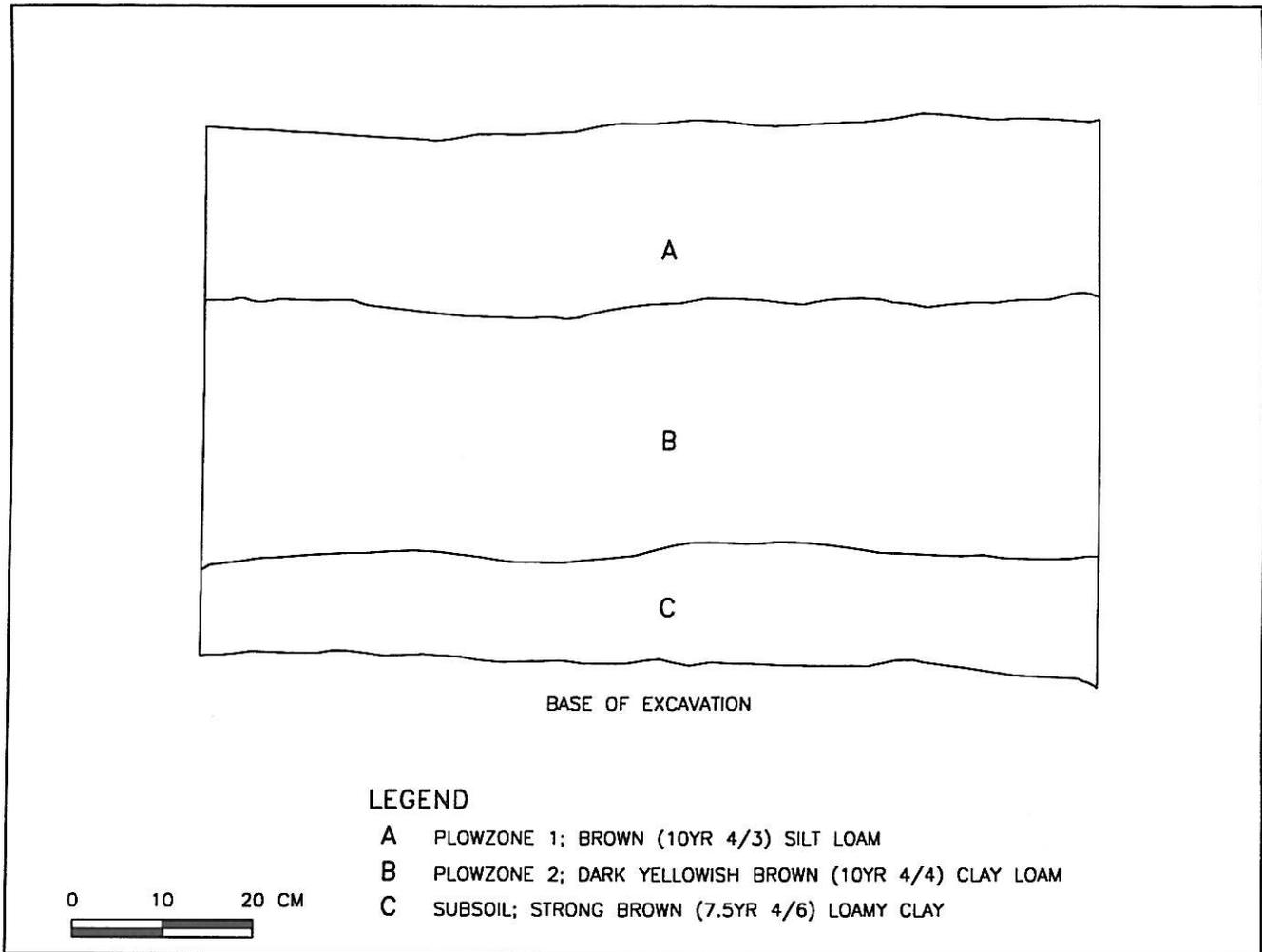


FIGURE 5: Stratigraphic Profile of Test Unit 73, West Wall, Site 7NC-G-150

III. SUMMARY AND RECOMMENDATIONS

The extended Phase II investigations of Site 7NC-G-150, the Eisenbrey Wetland Site, added little to what had been learned during the initial Phase II investigations. The main purpose of the extended Phase II testing was to search for prehistoric features, and no definite prehistoric features were found. The site appeared to be what Custer (1989, 1994) calls a procurement site, a place where prehistoric peoples camped while exploiting the resources of the wetlands along Drawyer Creek. The site was occupied in at least two periods. The contracting-stemmed points recovered from Locus 3, although they can date to a very long period, were most common in the period from 3000 to 500 BC, which in Delaware is known as the earlier part of the Woodland I period (Custer 1996). The steatite bowl fragment almost certainly dates to before 1000 BC. The ceramic fragments from Locus 2 indicate occupation in a later period. The fragments are too small to be precisely dated, but they probably date to after 400 BC, since ceramics are uncommon on small sites with earlier dates (Custer 1989). Occupation may therefore have spanned most of the Woodland I period, 3000 BC to AD 1000.

Most of the artifacts recovered from all parts of the site were debitage and fire-cracked rock. The fire-cracked rock probably indicates that prehistoric peoples sometimes camped overnight on the site, but the absence of storage pits or other features and the small number of tools recovered argue that these stays were brief. The most common lithic material in all the loci was jasper, which made up 38 percent of the collection, followed by quartz (27%), chert (22%), and quartzite (10%). There were some minor variations—for example, Locus 3 yielded more chert than quartz—but the differences were small and not statistically significant. The consistency suggests that the pattern of material selection and stone-tool use remained similar throughout the Woodland I period. It seems that throughout this period, local cobbles were used on the site to manufacture both expedient tools and finished bifaces.

The Eisenbrey Wetland Site does not appear to have sufficient integrity to be eligible for listing in the National Register of Historic Places. Artifact densities are not high anywhere on the site, and for the most part are quite low. More than 90 percent of the material recovered from the site was recovered from plowed contexts. An insufficient number of diagnostic artifacts were found to precisely date the site's various components, and few tools were found that might provide more precise information about its function. No definite cultural features were found.

The most appropriate historic context for evaluating the information potential of the site is *Stability, Storage and Culture Change in Prehistoric Delaware: The Woodland I Period (3000 B.C. – A.D. 1000)* (Custer 1994). For a plowed procurement site, Custer suggests that research could focus on questions concerning lithic technology, ceramic technology, and chronology. The Eisenbrey Wetland Site is not appropriate for research in any of these areas. Only a few small sherds of ceramics have been recovered, not enough to support sophisticated analysis. Lithic debitage, including cores, has been recovered, but not in large quantities; larger collections, from intact contexts, have been recovered or are known to exist at several sites in the vicinity, including Site 7NC-G-143 (the Drawyer Creek South Site), Site 7NC-G-151 (the Whitby Branch Site) (Bedell et al. 1997), Site 7NC-F-7 (the Hell Island Site) (Thomas 1966), and Sites 7NC-G-

56, 7NC-G-57, 7NC-G-58, 7NC-G-59, 7NC-G-60, 7NC-G-61, and 7NC-G-62 (a series of sites on the peninsula between Drawyer Creek and the Appoquinimink River) (Custer and Bachman 1986). It seems unlikely that the assemblage from the Eisenbrey Wetland Site could add significantly to what has been learned from research at these other nearby sites. As for chronology, very few diagnostic artifacts have been recovered from the Eisenbrey Wetland Site. The site is therefore not a good candidate for answering the research questions presented in the Woodland I historic context. The Eisenbrey Wetland Site, Site 7NC-G-150, is therefore not considered eligible for listing in the National Register of Historic Places.

IV. REFERENCES

- Bedell, John C., Charles H. LeeDecker, John T. Eddins, Ingrid Wuebber, Robert Jacoby, and Earl Proper
1997 *Phase I and II Archaeological Studies in the Proposed SR 1 Corridor, Scott Run to Pine Tree Corners, New Castle County, Delaware.* Submitted to the Delaware Department of Transportation, Dover, by Louis Berger & Associates, Inc., East Orange, New Jersey.
- Custer, Jay F.
1989 *Prehistoric Cultures of the Delmarva Peninsula.* University of Delaware Press, Newark.

1994 *Stability, Storage and Culture Change in Prehistoric Delaware: The Woodland I Period (3000 B.C. – A.D. 1000).* Delaware State Historic Preservation Office, Dover.

1996 *A Guide to Prehistoric Arrowheads and Spear Points of Delaware.* Center for Archaeological Research, University of Delaware, Newark.
- Custer, Jay F., and David C. Bachman
1986 *An Archaeological Planning Survey of Selected Portions of the Proposed Route 13 Relief Route, New Castle County, Delaware.* DelDOT Archaeology Series No. 44. Delaware Department of Transportation, Dover.
- Kraft, John
1977 Late Quaternary Paleographic Changes in the Coastal Environments of Delaware, Middle Atlantic Bight, Related to Archaeological Settings. *Annals of the New York Academy of Sciences* 288:35-69.
- Thomas, Ronald A.
1966 7NC-F-7, The Hell Island Site. *Delaware Archaeology* 2(3):1-11.