

I. INTRODUCTION

The Louis Berger Group, Inc. (Berger), has undertaken Phase III mitigation of Site 7NC-G-143, the Drawyer Creek South Site, on behalf of the Delaware Department of Transportation (DelDOT) (Plate 1). The site, which is located on the south bank of Drawyer Creek near Odessa, Delaware, was determined to be eligible for listing in the National Register of Historic Places under Criterion D because of its ability to yield information important to prehistory. Based on this determination, a large-scale archaeological excavation project was undertaken, focused on recovering data from a portion of the site. The results of the excavations (Plate 2) are presented in this report.

DelDOT sponsored the mitigation program in compliance with the instructions and intents set forth by Section 101(b)(4) of the National Environmental Policy Act; Executive Order 11593; Section 106 of the National Historic Preservation Act; 36 CFR 771, as amended; the 1980 guidelines for treatment of archaeological properties developed by the Advisory Council on Historic Preservation; and the Advisory Council's amended *Procedures for the Protection of Historic and Cultural Properties* as set forth in 36 CFR 800.

The Drawyer Creek South Site lies within the proposed right-of-way for SR 1, a new limited-access highway that will carry traffic from I-95 in the northern part of the state to U.S. Route 113 south of Dover, alleviating congestion on U.S. Route 13 (Figure 1). It was estimated that more than 90 percent of the site would be destroyed by the proposed construction. Avoidance was considered as a treatment option, but the site could not be avoided without a major realignment of SR 1. The current alignment is the result of a long process of weighing alternative routes and their impacts on population centers and wetlands and other environmentally sensitive areas, as well as cultural resources. In addition, any alternative crossing point along Drawyer Creek would be likely to impact other potentially significant sites. Data recovery excavations were therefore undertaken to mitigate the adverse impact of construction on the Drawyer Creek South Site. The Phase III fieldwork was conducted from July 9 to August 20, 1996.

The excavations were carried out in accordance with a formal research design which was reviewed and approved by DelDOT and the Delaware State Historic Preservation Office (DESHPO). The research design was structured to address several information needs that are widely used in prehistoric archaeology. These themes, which are of relevance to understanding the region's prehistory and are an integral part of the State Plan for Management of Archaeological Resources, include chronology (the time frame of regional prehistory), subsistence practices, settlement patterns or prehistoric use of the landscape, community patterning within the site itself, stone tool manufacturing and ceramic container technology, and the means by which prehistoric populations adapted their lifeways to long-term changes in the environment. In addition to these issues of general interest in regional prehistory, the research design included more specific questions relating to the Drawyer Creek South Site itself, such as the formation of the lands upon which the site is situated and how the remains of the various occupations of the site were deposited in the archaeological record—i.e., how the site was formed through time.

Initial guidelines used for compiling a research design for the excavations at the Drawyer Creek South Site were found in existing state and regional management plans for prehistoric resources

(Custer 1986; Custer and De Santis 1986). These management plans had been developed according to the Secretary of the Interior's Standards to provide explicit settlement pattern models for the various periods of the state's prehistory. The Drawyer Creek South Site is located in what the state management plan for prehistoric resources (Custer 1986:159) designates the Interior Study Unit, which is in northern Delaware, between the Shore zone to the east and the Mid-Drainage zone to the southwest.

During the planning stages of the SR 1 project, investigators from the University of Delaware Center for Archaeological Research (UDCAR) tested a number of small, wooded locations along Drawyer Creek similar to the one on which the Drawyer Creek South Site is situated (Custer and Bachman 1986a, 1986b). A single 1x1-meter test unit was excavated on each of nine locations, and prehistoric artifacts were recovered from each test unit (Sites 7NC-G-59 through 7NC-G-67). Lithic flakes were recovered in all of the test units, and five of the units yielded sherds of Minguannan ceramics, a Woodland II (AD 1000-1600) ware type (Custer 1989). Because of the variety of artifacts, the UDCAR investigators suggested that these sites represented Woodland II base camps.

In 1989, as part of an attempt to locate historic archaeological sites from the 1630 to 1730 period, Lu Ann De Cunzo, of the University of Delaware, conducted test excavations at several places along the Appoquinimink River not far from its confluence with Drawyer Creek, directly southeast of Site 7NC-G-143 (De Cunzo 1993). De Cunzo's surveys were carried out by surface inspection and shovel testing, and only flakes were recovered in the area surveyed.



Plate 2: Site 7NC-G-143, View of Phase III Excavations

Site 7NC-G-143 was discovered by Berger during the Phase I survey of the SR 1 corridor from Pine Tree Corners to Drawyer Creek (Bedell 1995a), and was further evaluated through Phase II site testing (Bedell 1995b). The site at that time was measured to be approximately 50 meters north to south and 25 meters east to west. Boundaries of the site include the wetlands along Drawyer Creek to the north, shallow ravines on the eastern and western sides of the site, and on the south, a borrow pit excavated during the construction of the Dupont Highway. On this landform, which may be characterized as a low terrace overlooking Drawyer Creek, are two small ridges divided by a very shallow swale. The site is presently wooded, and contains some very large oaks and poplars. In the shallow ravine just south of the site where it enters the wetlands along Drawyer Creek, there is a dense thicket of wild irises. Portions of the bank along Drawyer Creek are quite abrupt, suggesting that the creek channel once cut against the bank and therefore the marsh adjacent to the bank is formed of recent soil and organic deposits. In the area near Test Unit 10, excavated during the Phase II archaeological testing, the bank is very gradual and drowned stumps are visible on the tidal mud flat.

During the Phase I investigations at the site location, shovel tests produced chert and jasper flakes and a single Minguannan (Woodland II) ceramic sherd. Follow-up shovel tests encountered a prehistoric feature consisting of a concentration of fire-cracked rock. Based on this initial field investigation, it was also determined that the site had never been disturbed by plowing. This raised the possibility that the Drawyer Creek South Site was a very well preserved archaeological deposit.

The Phase II testing consisted of the excavation of 14 one-meter squares placed judgmentally across the point of land on which the site is located (Bedell 1995b). The soil profile was inspected by a geomorphologist, Dr. Daniel Wagner, who confirmed that the site had never been plowed, and there was little evidence of soil deflation. Soils covering the site consisted of a thin organic layer overlying a sandy loam E-horizon approximately 25 centimeters deep. Nearly all of the artifacts from the Phase I, Phase II, and Phase III investigations were recovered from this E-horizon. A few artifacts were recovered from deeper soils, to a depth of 40 centimeters, but those artifacts are believed to have dropped into the deeper soils through root or rodent action or other natural processes.

The Phase II investigation showed that artifact density was quite low across most of the site, generally less than 10 artifacts per test unit. A few of the units yielded high numbers of flakes from cobble reduction activities, and others produced several Minguannan pottery sherds. One unit contained a formal jasper endscraper (Plate 3). Based on the results of the Phase II testing, the Drawyer Creek South Site was believed to represent a procurement and processing station of the Woodland II period, where the inhabitants made tools from locally available cobbles and used their ceramic vessels in hearthside locations close to the edge of the marsh. According to the initial interpretation, a primary activity conducted at the site was plant food processing: after edible plants had been gathered from the nearby wetlands, they were processed with cobble tools and cooked or soaked in the ceramic pots. At least one goal of the final (Phase III mitigation) stages of excavation of the Drawyer Creek South Site was to collect additional data with which to test these hypotheses.

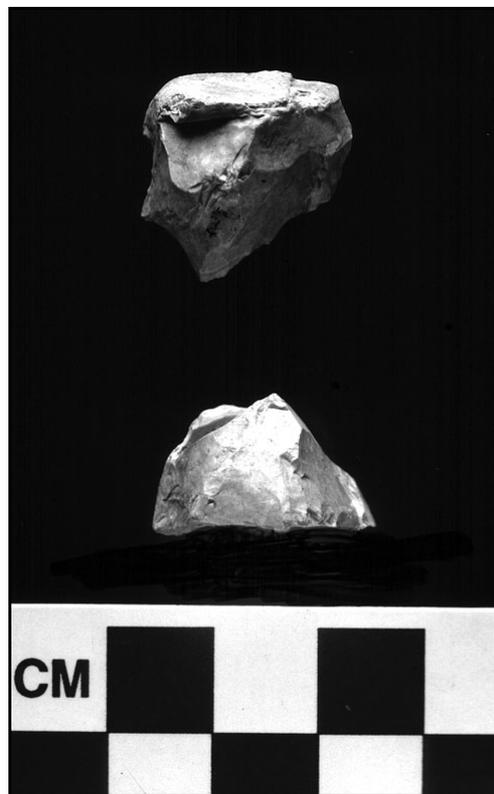
The background to this investigation is described in Chapter II, which also presents an overview of the prehistory of northern Delaware as it applies to the Drawyer Creek South Site excavations. Chapter III describes the environmental setting within which the site is located, including the local

geology and hydrology, and an analysis of raw materials (e.g., types of stone utilized by prehistoric inhabitants of northern Delaware), and presents a reconstruction of the climate and vegetation as it existed during the prehistory of the region. Brief summaries directed toward the more general reader are italicized throughout the report in subsections prefaced by the word *Note*.

Chapter IV describes the research design that was used to guide the field and laboratory research. Hypotheses and research questions were developed on the basis of information obtained from prior research conducted in the region. This step is critical in designing and implementing a major excavation project. It is most important to know what kinds of information are to be expected from excavating a site such as Drawyer Creek South, and how the data may be processed to gain a better understanding of prehistory—in this case the prehistory of northern Delaware. Integral parts of the research design are the field and laboratory methods used to process and analyze the artifacts recovered from the site and to address the spatial information on features and artifact clusters documented in the site excavation records.

Specific data on each completed excavation block, including features, stratigraphy, soils, and artifact associations, are described in Chapter V. The results of the artifact analyses are discussed according to occupation—the upper component and the lower component—in Chapter VI; the various artifact classes represented by the nearly 11,000 artifacts recovered from the excavations are described in detail with respect to stylistic features, technological information, and raw material of origin. In Chapter VII, the concluding chapter, information is summarized and interpreted for the site as a whole, indicating the sequence of events that took place during prehistoric occupation of the site. Chapter VII also relates the site data to the research questions and hypothetical statements outlined in Chapter IV.

Appendix A consists of a public information handout prepared for the Drawyer Creek South Site. Artifact inventories are presented in Appendix B, along with lithic artifact type definitions. The soils report constitutes Appendix C, and the soil chemistry results are given in Appendix D. The results of flotation analysis are presented in Appendix E. Artifacts and records from the site excavations, which are presently stored at Berger’s laboratory facility in East Orange, New Jersey, will ultimately be prepared for permanent curation at the appropriate State of Delaware facility.



**Plate 3: Jasper Endscraper,
Recovered During Phase II
Excavations. Top and end
views (Cat. No. 363)**