

**February 25, 2011**

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**PHASE I TERRESTRIAL ARCHAEOLOGICAL  
SURVEY OF THE INGLESIDE TRACT  
OWNED BY THE BRIDGETOWN  
DEVELOPMENT COMPANY, QUEEN ANNE'S  
COUNTY, MARYLAND**

**FINAL REPORT**

**Chesapeake Watershed  
Archaeological Research  
Foundation, Inc.**

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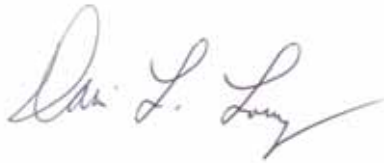
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**PHASE I TERRESTRIAL ARCHAEOLOGICAL SURVEY OF THE INGLESIDE  
TRACT OWNED BY THE BRIDGETOWN DEVELOPMENT COMPANY,  
QUEEN ANNE'S COUNTY, MARYLAND**

**SUMMARY LETTER**

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**February 25, 2011**

## ABSTRACT

A Phase I pedestrian archaeological survey was conducted on the property owned by the Bridgetown Development Company near the town of Ingleside in Queen Anne's County, Maryland. The survey was requested by representatives from the Maryland Historical Trust prior to the issuance of a permit for the construction of a surface mine on the property (see Appendix I). A prehistoric site (i.e., 18QU644) had been recorded on the property in 1994 via information provided by Mr. Joseph Reinhardt. The conditions of the field provided optimal surface visibility. A pedestrian survey was conducted at regular 5-foot intervals and documented limited evidence for the prehistoric archaeological site recorded as 18QU644. No additional archaeological sites were located on the property. Sub-surface soil profile descriptions and analysis conducted by Dr. Daniel Wagner and Dr. John Wah indicate that all Holocene-age archaeological remains are confined to the disturbed plowzone. With respect to the proposed surface mine, the collective results from the survey and sub-surface testing indicate that no further Phase II investigations are needed. The fieldwork, background and archival research, as well as, the archaeological/geomorphological summaries presented in this report should address any future cultural resource management concerns associated with the property. In sum, the survey methodology and the results presented in the following report conform to the *Standards and Guidelines for Archaeological Investigations in Maryland* (Shaffer and Cole 1994).

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# **PHASE I TERRESTRIAL ARCHAEOLOGICAL SURVEY OF THE INGLESIDE TRACT OWNED BY THE BRIDGETOWN DEVELOPMENT COMPANY, QUEEN ANNE'S COUNTY, MARYLAND.**

by

Darrin L. Lowery, Ph.D.

## **Introduction**

### Project Introduction, Location, and Description

A Phase I terrestrial archaeological survey was conducted on ~115 acres of tilled agricultural land within the eastern shore coastal plain of Queen Anne's County, Maryland (see Figure 1). The parcel is owned by the Bridgetown Development Company and is located less than one kilometer southwest of the town of Ingleside, Maryland (see Figure 2). The property is in the Choptank River watershed and is located on a first order tributary of the Beaverdam Ditch, which drains into the Tuckahoe Branch.

Based on a mandated request by the Maryland Historical Trust and outlined in a letter dated December 3<sup>rd</sup>, 2010 (see Appendix I), a Phase I pedestrian archaeological survey was conducted by the Chesapeake Bay Watershed Archeological Research Foundation on February 4<sup>th</sup> and 5<sup>th</sup>, 2011. The systematic pedestrian archeological survey encompassed the entire tilled section (~115 acres) of the property. More importantly, it encompassed the five-acre tract purposed for a borrow pit (see Figure 3).

All of the fields within the parcel had been tilled and disked in the fall of 2010. At the time of the survey the property had been planted with a crop of wheat. The wheat was immature at the time and the area had been washed by numerous precipitation events during the winter of 2010 and 2011. The archaeological survey complied with the "pedestrian survey" methodology defined by Shaffer and Cole (1994: 11) outlined in the *Standards and Guidelines for Archaeological Investigations in Maryland*.

In March 1994, a single prehistoric archaeological site (i.e., 18QU644) was recorded on the property based on information provided by Mr. Joseph Reinhardt, a resident of adjacent Caroline County. In June of 1995, three archaeological sites (18QU900, 18QU901, and 18QU902) on the fringes of the property were also recorded based on information provided by Mr. Joseph Reinhardt. As indicated in the letter from the Maryland Historical Trust (see Appendix I), the area had not been subjected to a systematic archaeological survey and the precise boundaries of these sites had not yet been established. The primary goal of this project was to assess the exact location of 18QU644. Another goal was to determine whether the archaeological site's designated as 18QU900 and 18QU902 extended onto the property. An additional goal was to ascertain if any additional archaeological sites are located on the property. In sum, the cultural chronological ages the sites on the property were to be updated. Sub-surface soil analysis for the project area was designed to assess the degree of intactness and the condition of the site or sites discovered during the Phase I investigation. The results of

the investigation were to be presented as a report outlining the project's findings and recommendations.

The report that follows summarizes the results of this project. The project relocated the prehistoric occupation site designated as 18QU644. However, the site area of 18QU644 seems to be confined to a smaller locale than the original 1994 documented site boundary. Based on the survey results, sites 18QU900 and 18QU902 do not extend onto the property. Since the adjacent parcels are owned separately, we could not trespass to further define the precise boundaries of these two sites. No additional archaeological sites were discovered on the parcel owned by the Bridgetown Development Company. With respect to the research, the work was conducted in accordance with the National Environmental Policy Act (NEPA) of 1969, with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and with Article 83B, Sections 5-617 – 618 of the Annotated Code of Maryland.

The survey was conducted within Maryland archaeological research unit #4, which encompasses the Choptank River drainage. Even so, the property is located only four kilometers southeast of the interfluvium or drainage divide between the Choptank and the Chester river watersheds. The project area is agriculturally tilled land that is situated within the "PRICE" U.S.G.S. quadrangle. Aside from the current residential yard area and a small (~five acre) forested depression on the far eastern edge of the property, the remaining 115 acres has been historically tilled for many generations. With respect to the soil types associated with the project area, the tract consists of mix of well-drained to poorly-drained soils. The well-drained sections encompass the slightly elevated ridges and upland flats. The early soil map for the area indicates that the property is dominated by Sassafras sandy loam with some relict areas of Downer sands (see Matthews and Reybold 1966: Sheets 24 and 29). The poorly-drained areas on the property encompass the depressions and the relict stream channels. The early soil map for the property implies these areas are dominated by Elkton, Fallsington, and Pocomoke loamy soils (Ibid).

Several drained bay-basins or small "Delmarva Bays" are located on the property. Geologically, the underlying sediments in this region include a mix of late Pliocene/early Pleistocene fluvial deposits that are overlain by late Pleistocene-age eolian deposits and landforms (see Lowery et al. 2010, Losco et al. 2010, and Markewich et al. 2009). The elevated ridges on the property and the ridges surrounding the circular "Delmarva Bays" would represent some of the late Pleistocene-age eolian landforms within the project area.

Upland drainage divide settings with well-drained eolian ridges are highly susceptible to the impacts of agriculturally induced surface erosion or deflation. Given the soil types, the geology, and the topographic undulations of the project area, the property would seem to have a high potential for prehistoric archaeological sites based on the regional prehistoric settlement model developed by Lowery (2003). However, agricultural tilling over the past 200 or more years may have completely eroded and destroyed the archaeological integrity associated with sites in these types of settings.

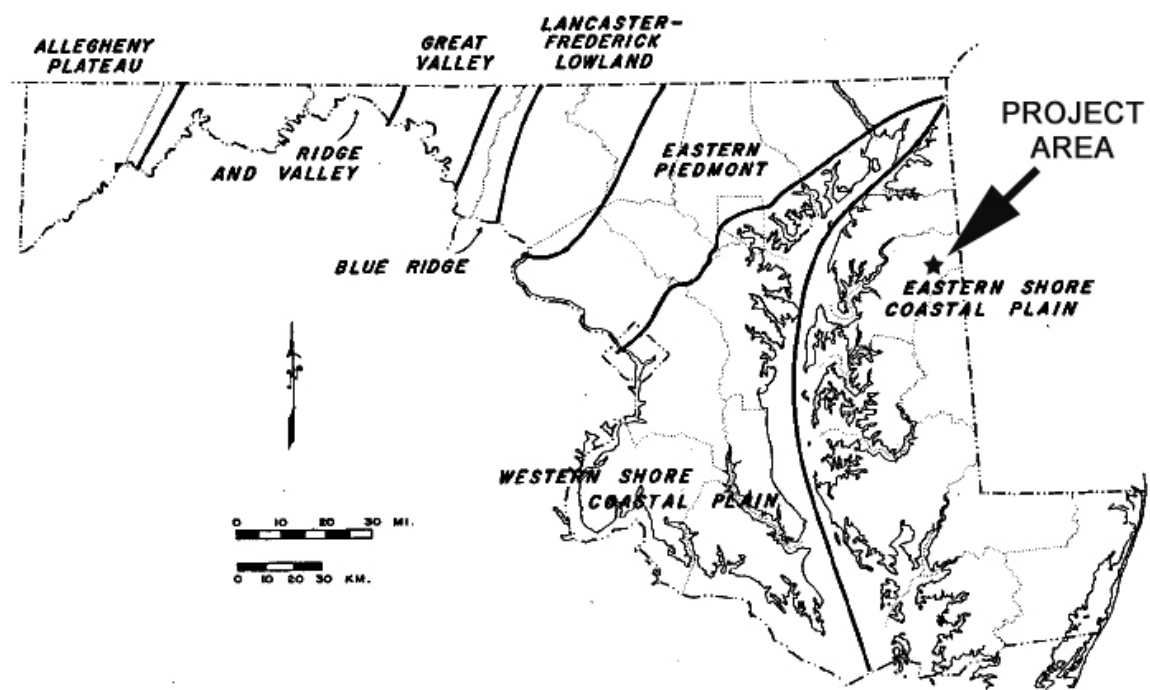


Figure 1. The Geographic Location of the Project Area in Maryland.



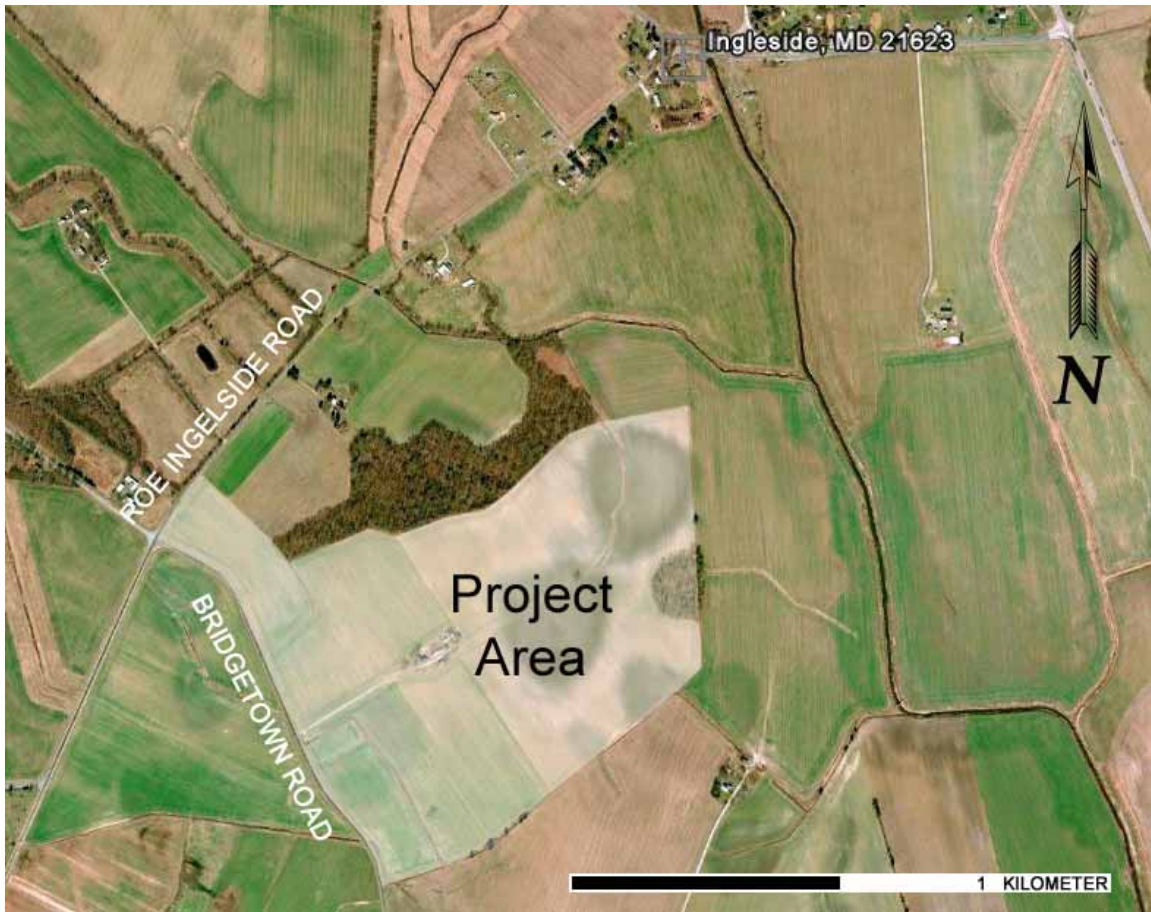


Figure 2. An Aerial View of the Bridgetown Development Company Project Area near Ingleside, Maryland.

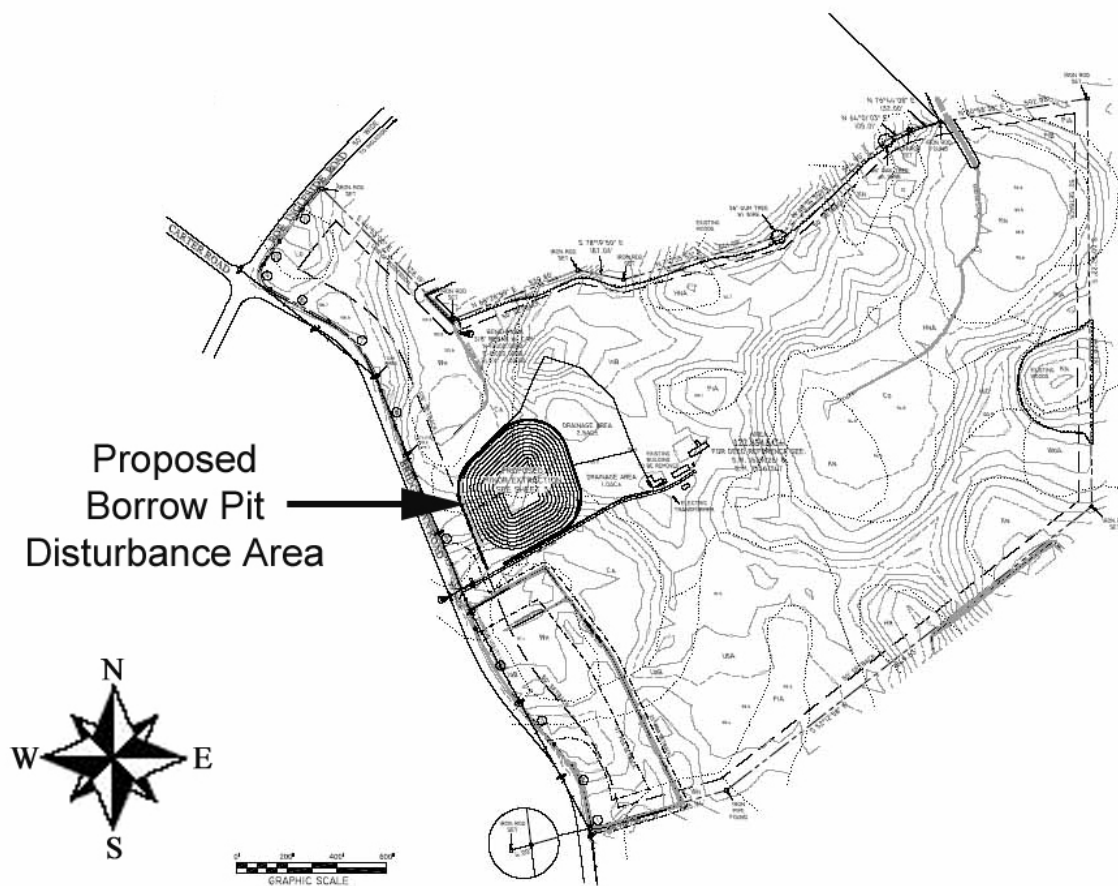


Figure 3. The Proposed Borrow Pit Area within the Project Area.

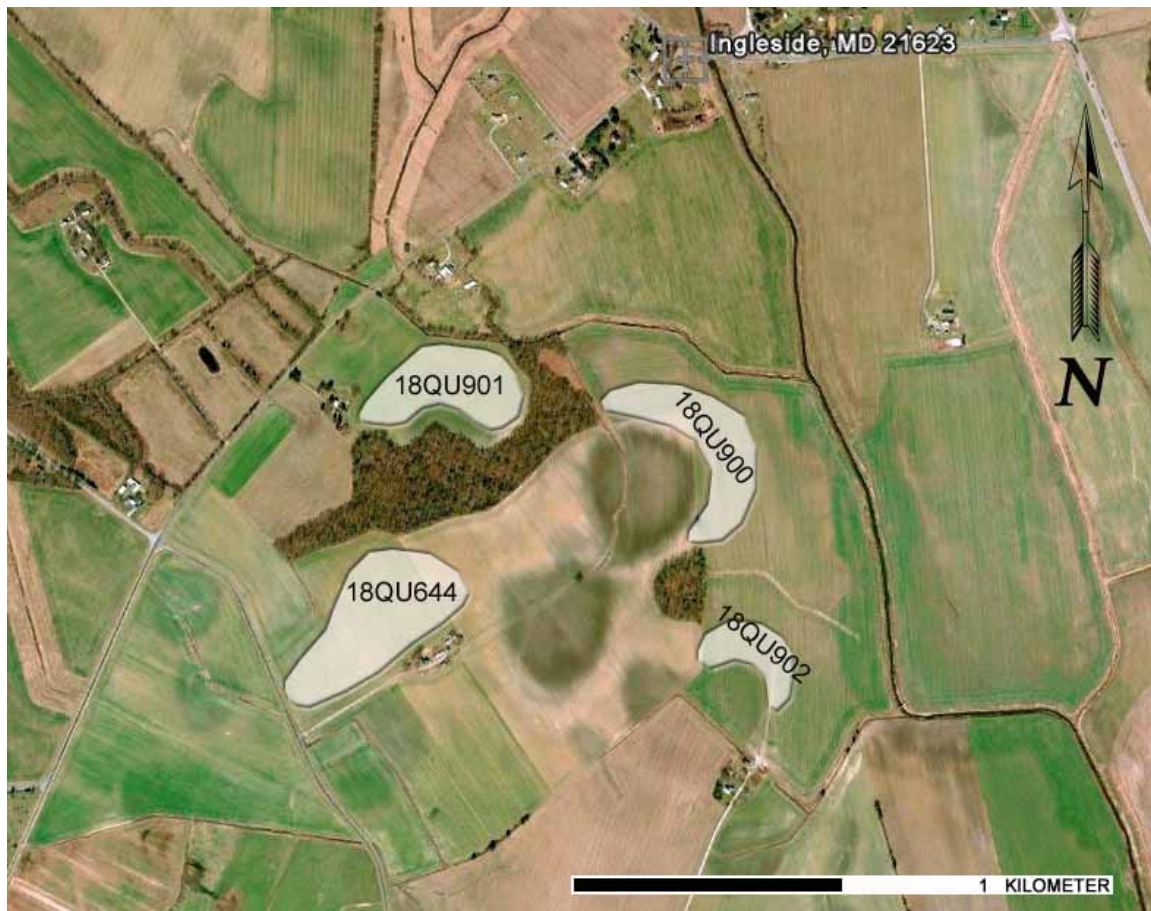


Figure 4. Archaeological Sites Recorded within the Project Area.

## Results of Archival and Background Research

### Archival Overview

The data on file at the Maryland Historical Trust indicate that one prehistoric archaeological site is located on the property (i.e., 18QU644) are located on the property. Three additional prehistoric sites (i.e., 18QU900, 18QU901, and 18QU902) are located adjacent to or are marginally included within the property boundary. North of the property near Ingleside, two prehistoric sites (i.e., 18QU643 and 18QU959) have been recorded. Importantly, the pattern of sites near Ingleside would suggest a prehistoric interest in the area with settlements focused on the elevated sandy ridges surrounding the poorly-drained depressions. The site data forms on file at the Maryland Historical Trust indicate that all of these sites were occupied during the Archaic through Woodland periods, circa 10,000 radiocarbon years BP and 500 radiocarbon years BP. Less than one-mile southeast of the project area, Brown (1979: Table 1, 9) reported a Clovis point at a site near the mouth of Beaverdam Ditch, which was later recorded as 18QU639. Importantly and like much of the well-drained soil in the project area, 18QU639 is

located on Sassafras soils. Since Clovis points are 13,200 years old, the data would imply that the plowed ridges in the project area could potentially include the diagnostic cultural remains from all prehistoric periods.

Prior to historic ditching and draining, the poorly-drained circular depressions or bay-basins in the project area would have been interior ponds, swamps, and wetlands. A few remnant unaltered bay-basins or “Delmarva Bays” occur in adjacent Caroline County, Maryland (see Figure 5) and these landscapes provide us with an image of how the project area may have looked prior to historic clearing and draining. The depressions and the adjacent sandy ridges are eolian landforms that were created via intense northwesterly winds during the last Ice Age in a dry dune setting (see Goudie et al. 1999).

Similar “Delmarva Bay” eolian landforms with associated archaeological sites (see Figure 6) are found throughout the interfluvial areas of the Delmarva Peninsula. Because of agricultural tilling, many of the sandy ridges are heavily eroded (see Figure 7) and some reveal evidence of extensive long-term prehistoric use (see Figure 8). However, prehistoric sites with dense refuse and lithic debris do not occur around every “Delmarva Bay” landform (Lowery 2003).

The information recorded via Mr. Joseph Reinhardt for site 18QU644 would suggest that the prehistoric occupation is as dense as the site shown in Figures 6, 7, and 8. The information included in the site file suggests that 18QU644 was occupied from the outset of the Archaic period circa 11,000 years ago to the end of the Woodland period circa 500 years ago. With respect to the objectives of this Phase I survey, the primary goal would be to determine the actual site boundary, update the site’s cultural chronology, and compare the new information with the data provided by Mr. Reinhardt in 1994.





Figure 5. An Intact Delmarva Bay Wetland near Baltimore Corner in Caroline County, Maryland.

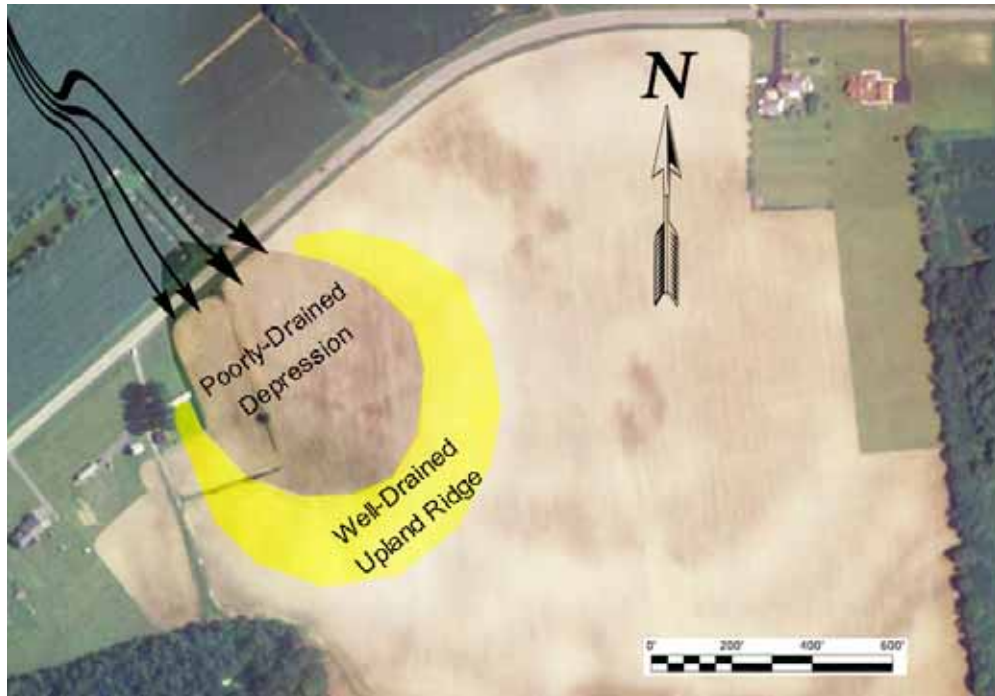


Figure 6. The Postulated Formation of a Delmarva Bay at Site 7K-E-24 near Felton, Delaware.



Figure 7. A Landscape View of Site 7K-E-24 Looking Northeast.





Figure 8. Paleoindian through Late Woodland Period Diagnostic Points and Flake Tools found during a Systematic Pedestrian Phase I Survey at 7K-E-24.

#### Background Research: A Brief Prehistoric and Historic Overview

The following is a brief synopsis of the regional prehistory. For a detailed discussion of the cultural periods mentioned the reader is advised to read Custer's (1989) text entitled *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study* and Dent's (1995) text entitled *Chesapeake Prehistory: Old Traditions, New Directions*. Both of these references will provide a more comprehensive discussion of the prehistoric archaeological data than is permitted in this report. In reference to the prehistory of the Delmarva region and the macro-Chesapeake Bay, the prehistory is broken-up into three major periods: the Paleo-Indian Period (circa 11,500 – 10,000 radiocarbon years B.P.), the Archaic Period (circa 10,000 – 3,000 radiocarbon years B.P.), and the Woodland Period (circa 3,000 – 400 radiocarbon years B.P.). Each one of these periods is marked by changes in human subsistence, technology, and social organization. As such, the following discussion will highlight these changes in reference to the known regional prehistoric archaeological data.

#### *Paleo-Indian Period:*

The earliest unequivocal evidence of human occupation in the “New World” is associated with the Paleo-Indian period. The first pan-regional diagnostic cultural remains in North America are associated with the Clovis culture (Bonnichsen and

Turnmire 1999). Clovis sites have been dated to roughly 11,500 to 10,800 radiocarbon years old at sites in the western United States (Haynes, et al. 1984: 184-191). Recent radiometric dates at Clovis sites in the eastern United States (McAvoy and McAvoy 1997, and Dent 2000) suggest that the eastern sites are contemporaneous with their western counterparts. Evidence for pre-Clovis cultures in the Middle Atlantic region has also been reported at Meadowcroft Rockshelter in Pennsylvania (Adovasio et al. 1978), at Cactus Hill in Virginia (McAvoy and McAvoy 1997), and at Miles Point in Maryland (Lowery et al. 2010). The few pre-Clovis sites suggest that earlier cultures were in the Middle Atlantic region between 21,000 and 13,000 radiocarbon years B.P.

With respect to subsistence, only one site in the Middle Atlantic region has provided data relative to the diet of peoples during the Paleo-Indian period. The Shawnee-Minisink site along the Delaware River suggests that Paleo-Indian peoples were utilizing fish, seeds, nuts, fruits and berries (Dent 2000). Recent work in the Mid-West, Northeast, and Southeast is beginning to indicate that eastern Paleo-Indians may have hunted or scavenged large extinct game animals. The Kimmswick site in eastern Missouri has produced Clovis projectile points in association with several mastodons and a giant sloth (Graham and Mead; *ibid.*). In the Northeast, the Hiscock site in western New York has produced three fluted Clovis style projectile points in association with mastodon remains and the remains of other mammals (Gramly and Funk 1990: 16). Gramly and Funk (*ibid.*) suggest that the mastodon carcasses found at the Hiscock site may have been scavenged and not actually hunted by Paleo-Indians. Several tantalizing Paleoindian sites in Florida have produced Clovis style fluted points in contexts with Late Pleistocene faunal remains (Dunbar 1991: 198-211). Recently, Tankersley and Redmond (2000: 42-46) have reported Clovis stone and bone tools in association with several flat-headed peccaries and giant beaver from Sheridan Cave in Ohio. The recent archaeological evidence from the East suggests Paleo-Indian subsistence may have been partially based on Pleistocene megafauna (Gramly and Funk 1990: 16).

The diagnostic stone technology associated with the Clovis sites in the Middle Atlantic region and North America is primarily associated with a variety of “fluted” lanceolate projectile points (i.e., Clovis, Cumberland/Barnes, Mid-Paleo, Crowfield, and Hardaway-Dalton). A variety of these point types have been recorded in regional artifact collections (Lowery 1999). Carr and Bergman (2000) have provided a brief summary of the Paleo-Indian stone tool technology aside from the diagnostic projectile points. Carr and Bergman (*Ibid.*) suggest that in the Middle Atlantic region bifacial cores dominate eastern Clovis assemblages, along with polyhedral, tabular and cobble/pebble cores. These authors (*Ibid.*) have suggested that “true” Paleolithic blade cores are lacking in eastern Clovis assemblages. Stanford (personal communication: 4/19/01) has indicated that “true” blade cores are included in the assemblage from the Shawnee-Minisink site but were misinterpreted in the earlier publications about the site. Lowery and Phillips (1994) and Lowery (2000) have provided data, which indicates that “true” blades were manufactured from large cobbles of high-quality lithic materials. Here within the Chesapeake Bay region Paleo-Indians utilized locally available cobbles of cryptocrystalline and non-cryptocrystalline materials (*Ibid.*).



With respect to the social organization of the Paleo-Indian cultures, researchers (Custer 1989 and Dent 1995) have suggested that in the Middle Atlantic region Paleo-Indian groups were extremely mobile hunter-gatherers. As such, the seasonal migrations encompassed large territories (Ibid.). Lowery's (2000) work on the Delmarva Peninsula suggests that regional Clovis groups utilized locally available secondary cobble sources and locally available primary Aquia formation orthoquartzites to manufacture their tool kits. Lowery (ibid.) would suggest that Clovis groups within the coastal plain were not traveling long distances to acquire bedrock materials for their tool kits. Joseph McAvoy's work (personal communication: 3/27/00) in Virginia implies the same pattern. Like southern Virginia, the Delmarva region also contains one of the largest accumulations of diagnostic Paleo-Indian projectile points known for the Middle Atlantic area (Lowery 2000). In other words, McAvoy (personal communication: 3/27/00) and Lowery (Ibid.) suggest that Clovis groups were local, had entrenched settlement patterns, and had restricted mobility patterns. The high density of Paleoindian diagnostic projectile points on the Delmarva Peninsula (see Lowery 1999 and 2000) and in southern Virginia (McAvoy 1992) clearly reinforces this observation. Lowery (2000) and McAvoy's (personal communication: 3/27/00) observations about Clovis age settlement and mobility patterns would have definite ramifications relative to the arguments related to pre-Clovis occupations within the Middle Atlantic region.

#### *Archaic Period:*

The Archaic period in the Middle Atlantic region encompasses a time frame between 10,000 and 3,000 radiocarbon years B.P. The period has been further separated into early, middle, and late designations. Diagnostic projectile points in the region associated with the Early Archaic period include Palmer, Charleston, Amos, Lost Lake, Decatur, Fort Nottoway/Thebes, and Kirk variety points (see Lowery 1999: 47-51, and Figure 10 I-Q). The diagnostic projectile points in the region associated with the Middle Archaic period include MacCorkle, St. Albans, LeCroy, Stanly, Guilford, and Morrow Mountain points (see Lowery 1999: 51-53, and Figure 12 A-G). Finally, the diagnostic projectile points in the region associated with the Late Archaic period include Savannah River, Poplar Island, Piney Island, Bare Island, Pequea, Lehigh / Koens-Crispin Broadspers, Normanskill, Susquehanna Broadspers, Perkiomen Broadspers, and Fishtail variety points (see Lowery 1999: 53-55, and Figure 12 H-P).

With respect to subsistence, various sites in the Middle Atlantic region have provided data relative to the diet of peoples during the Archaic period. The Early Archaic levels at the Crane Point site in Maryland produced a hearth feature with charred hickory nut, butternut, possible acorns, and wild seeds including amaranth and chenopod (Lowery and Custer 1990: 99). The Early Archaic levels at the Cactus Hill site in Virginia have also revealed hearths with oak and hickory remains (McAvoy and McAvoy 1997: Appendix D). The Early Archaic hearths at Cactus Hill site have been dated between 9,790 +/- 200 radiocarbon years B.P. to 8,800 +/- 120 radiocarbon years B.P. (Ibid). The Middle Archaic levels at the Slade site in Virginia included a hearth containing carbonized hickory hulls dated to 8,300 +/- 110 radiocarbon years B.P. (Egloff and McAvoy 1990: 70). The Late Archaic subsistence data for the region is more extensive and it suggests that nuts, fruits, roots, seeds, deer, black bear, squirrel, rabbit,

turtles, fish, waterfowl, beaver, otter, and muskrat were exploited by humans (Stevens 1991: 202-203). Sites in the region also suggest that during the Late Archaic period regional cultures around the Chesapeake Bay began to exploit marine resources such as fish, clams, and oysters (Custer 1988: 121-136).

The technologies linked to the Archaic period in the Middle Atlantic region indicate a variety of projectile point types were being manufactured. In the region bifacial technologies, bi-polar technologies, and cobble core reduction is indicated (see Geier 1990: 81-98, and McLearen 1991: 89-138). Ground stone tools such as axes, adzes, gouges, and spearthrower weights are associated with Archaic period sites. During the Late Archaic period steatite stone bowls appear in the archaeological record. Custer (1989) and Dent (1995) indicate that Archaic peoples cached artifacts and there is evidence for extensive trade and exchange.

With respect to the social organization of the Archaic cultures, researchers (Custer 1989 and Dent 1995) have suggested that in the Middle Atlantic region Archaic groups were mobile hunter-gatherers. Even so, the mobility over the duration of the Archaic period seems to go down during the latter portion of the Archaic period (Ibid.). Intentional burials and cemeteries appear during the Archaic period. Stanzeski (1998: 42-43) has reported a series of Early Archaic age cremation burials at the West Creek site in southern coastal New Jersey. A date of 9850 +/- 160 radiocarbon years B.P. was recorded for the cremation burials at the West Creek site and the burials included Kirk corner-notched points along with a few scrapers (Ibid.). Egloff and McAvoy 1990: 70) reported a poorly preserved Middle Archaic cremation burial at the Slade site in Virginia. The cremation burial at the Slade site was found in association with MacCorkle-like or St. Albans points and a ground stone adz (Ibid.). A hearth from the same level was dated to roughly 8,350 radiocarbon years B.P. Late Archaic age burials in association with spearthrower weights and bifacial points were reported by Regensburg (1970: 20-23) at the Savich Farm site in New Jersey. The Archaic age archaeological data suggest that regional cultures may have had defined territories with designated cemetery locations.

#### *Woodland Period:*

The Woodland period in the Middle Atlantic region encompasses a time frame between 3,000 and 400 radiocarbon years B.P. The period has been further separated into early, middle, and late designations. Diagnostic projectile points in the region associated with the Early Woodland period include Rossville, Teardrop, Piscataway, Meadowood, Hellgramite, and Early Adena variety points (see Lowery 1999: 55-56, and Figure 12 Q and 13 A-B). The diagnostic projectile points in the region associated with the Middle Woodland period include Late Adena, Fox Creek/Selby Bay, and Jacks Reef variety points (see Lowery 1999: 56-57, and Figure 13 C-L). Finally, the diagnostic projectile points in the region associated with the Late Woodland period include triangular variety points (see Lowery 1999: 57, and Figure 13 M-O).

The Woodland period subsistence data for the region is more extensive and it suggests that nuts, fruit, roots, seeds, deer, black bear, squirrel, rabbit, turtles, fish, waterfowl, beaver, otter, and muskrat were exploited by humans (Stevens 1991: 202-

203, and Barfield and Barber 1992: 225-248). Sites in the region also suggest that during the Woodland period regional cultures around the Chesapeake Bay intensify the exploitation of marine resources such as fish, clams, and oysters (Custer 1988: 121-136). At present, there is no evidence for cultigen utilization along Maryland's Eastern Shore during the Woodland period.

The Woodland period is marked primarily by the introduction and use ceramics. The lithic technology associated with the Woodland period reflects a variety of lithic reduction strategies. Bi-polar and bifacial core reduction is present in the stone tool kit. Decorative items such as stone pendants, gorgets, engraved stone pipes, beads, and a variety of shell and bone artifacts are present in the archaeological record. Copper artifacts also appear in the archaeological record. Long distance trade and exchange is represented in some of the Woodland period assemblages.

Along the Maryland's Eastern Shore, the archaeological data suggests that Woodland period groups practiced a hunter-gatherer lifestyle. High status burials are Early and Middle Woodland burials occur at selected locations on the Delmarva Peninsula (Custer 1989 and Dent 1995). During the Late Woodland period, large mass graves or ossuaries have been discovered (Curry 1999). Even though the groups in the region practiced a hunter-gatherer way of life, the settlement patterns and movements of the regional groups seems to be more restricted.

#### *Historic Period:*

The Choptank River watershed was occupied by Native American cultures at the time Europeans first explored the region. Some evidence suggests that the Spanish and other European explorers may have ventured up the Chesapeake Bay during the 16<sup>th</sup> century. However, at the time the English first explored the Chesapeake, the native Choptank groups had ephemeral occupations and settlements within the watershed.

The Choptank and Chester River watersheds were not explored by John Smith during his 1608 expeditions up the Chesapeake Bay. He labeled the region as "Brookes Forest" (see Figure 9). Even though he clearly interacted and traded with the native cultures in the region, Smith's explorations seemed to have been confined to the main trunk of the Nanticoke River, to the south, and the Sassafras River, to the north.

Not surprisingly, the first European settlements were situated near the mouth of both the Choptank and Chester Rivers within Talbot and Queen Anne's County. In 1631, William Claiborne and his Virginia followers had settled on Kent Island and were trading with the Susquehannocks in Pennsylvania and the Wicomesse on the Chester River. By 1632, the earliest documented English plantation had been established on Poplar Island in western Talbot County and it was part of William Claiborne's Virginia settlement on Kent Island. During the period between 1640 and 1680, plantations quickly appeared along the banks of the Choptank River up to the lower reaches of the Tuckahoe branch and along the main channel of the Choptank River near the town of Choptank and Secretary in Caroline County (see Figure 10). The interior areas of what would later become Queen Anne's County remained largely uninhabited until the 18<sup>th</sup> century. The

lack of interior settlements is primarily linked to the fact that water served as the principle mode of transportation. Road systems accelerated the number of interior settlements. By the 19<sup>th</sup> century, the established railroads increased the number of interior rural towns that appeared in interior portions of Queen Anne's County, which include the town of Ingleside. The principle economic base of the region was and still is agriculture. Only in the past 30 years have agricultural practices shifted from "mole-bore" plowing to "no-till". The earlier "mole-bore" technique caused significant surface erosion, landscape deflation, and sedimentation within the bay's tributaries. Recently, major towns in the county have expanded with new residential development, which has reduced the number of farms and the agricultural tilled fields in the area.



Figure 9. A Portion of John Smith's 1612 Map of Virginia Showing the Area Encompassing the Choptank and Chester River Watersheds.

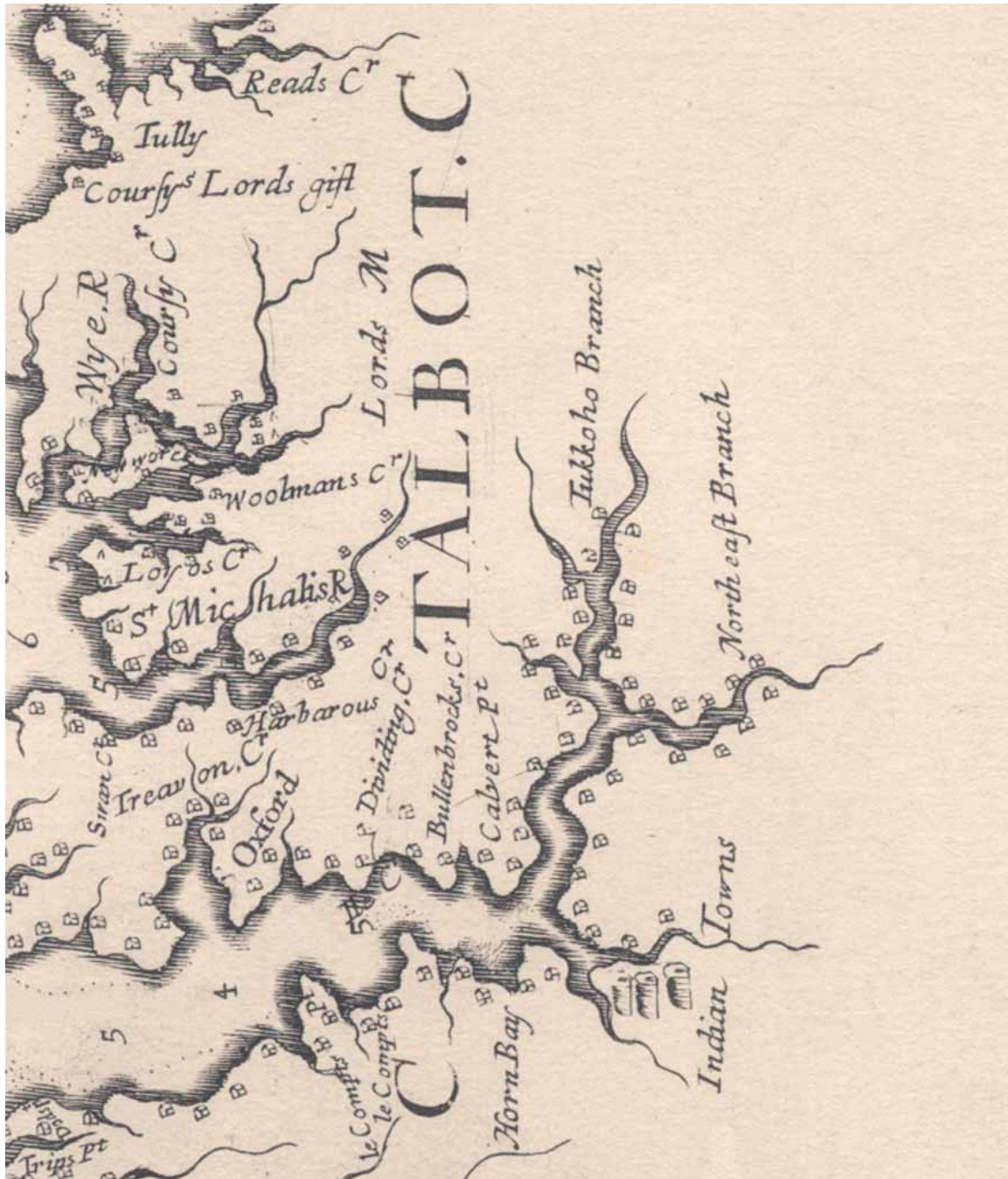


Figure 10. A Portion of Augustine Herrman's 1673 Map Showing the Choptank River Watershed.



## Methodology of the Survey

The fields areas on the property had been tilled and disked in the late Fall and they had been planted in wheat. Fortunately, when the fieldwork was conducted on February 4<sup>th</sup> and 5<sup>th</sup>, the wheat was still immature and the underlying ground area was exposed (see Figure 11). Because of the air temperatures, the ground surface was frozen in the morning, but thawed in the afternoon. Even with the ice, the fields had >90 percent surface visibility. Considering the excellent surface conditions (see Figure 12), a pedestrian surface archaeological survey would easily relocate 18QU644 and any additional sites on the property. A pedestrian survey would also permit a more accurate boundary for 18QU644 and document the cultural chronology present at the site. Soil profiles for the area would provide an idea of the site's integrity.



Figure 11. Tilled Surface Conditions associated with the Bridgetown Development Company Property.



Figure 12. Frozen *In Situ* Archaic Stemmed Point found at 18QU644.

The field crew included Dr. Darrin Lowery, Dr. Dan Wagner, and Dr. John Wah (see Appendix II). Dr. Wagner and Dr. Wah conducted four soil profile descriptions on the property (see Figure 13). At the completion of the soils investigations, Dr. Wagner and Dr. Wah joined the pedestrian Phase I survey crew. The goal of the soil investigation was to determine the origin (i.e., fluvial or eolian) of the parent material beneath the plowzone, assess the overall age of the sub-soil based on the degree of soil weathering, and consider the possibility for buried or intact archaeological remains. A four-inch bucket auger with one four-foot extension was used to extract the soil. Three profile descriptions were generated within the documented site boundary of 18QU644 (see Figures 4 and 14). A fourth profile description was generated along the far eastern edge of the property (see Figure 14). The soil from each boring was laid out on a cloth, measured, and described.



Figure 13. Dr. Dan Wagner and Dr. John Wah Augering the Property.



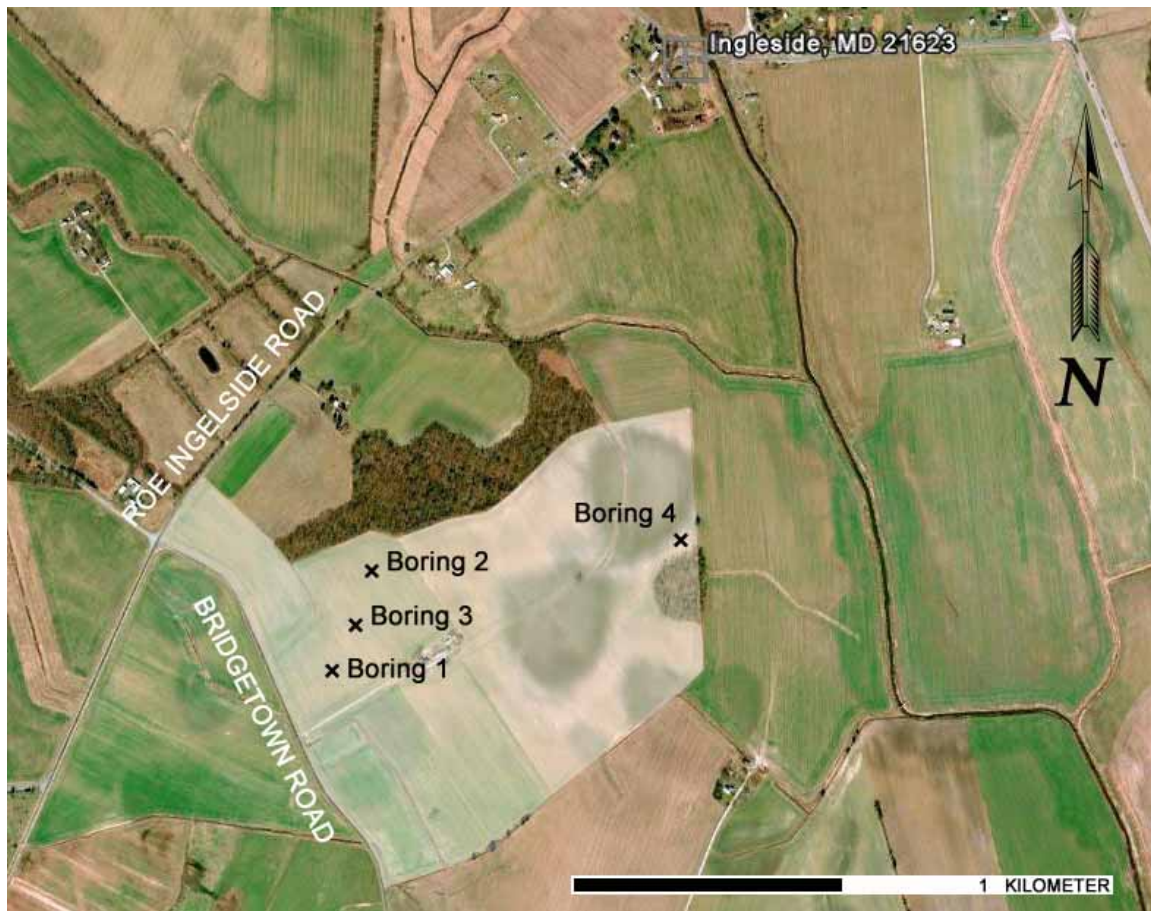


Figure 14. Soil Profile Boring Locations within the Project Area.

Given the ~115 tilled acres associated with the project area and the excellent surface conditions, a five-foot surface survey interval was employed to conduct the Phase I archaeological survey. The five-foot even-spaced interval followed the furrow patterns to avoid disturbing the already planted crops (see Figure 15). A hand-held GPS device, a satellite image of the farm, and a copy of the U.S.D.A. soil survey were carried in the field to plot the location of any prehistoric artifacts exposed on the surface (see Figure 16). Finally, a digital camera was carried in the field to photograph any unique features or artifacts found during the survey. All artifacts were bagged and labeled with the GPS data. Ultimately, the artifacts distribution pattern were plotted on a satellite image of the property to further refine the boundaries of 18QU644 and plot any other site discovered as a result of the fieldwork.



Figure 15. The Arrows Denote the Transect Interval Pattern Used to Conduct the Phase I Pedestrian Survey.





Figure 16. A Hand-Held GPS Device Used to Record the Exact Longitude and Latitude of the Artifacts found on the Surface.

### Results of the Survey

The field survey began on February 4<sup>th</sup>, 2011 and concluded on February 5<sup>th</sup>, 2011. The survey, which encompassed the entire tilled tract of land, did relocate the site recorded as 18QU644. However, no additional prehistoric or historic archaeological sites were found on the property. The survey results permitted a more refined location for 18QU644. The survey addressed the cultural chronology sequence present at 18QU644 and the soils investigation helped to gauge the site's integrity.

The data observed in the field suggest that the property shows evidence of extreme agriculturally induced surface deflation or erosion. The surface erosion is indicated by several aspects. The limited distribution of a silt eolian mantel, the presence of pebbles and gravel in plowzone, and the brilliant soil color changes observed on the ridge crests that transect the property indicate that deflation and erosion has occurred. The pebbles or gravels seem to be associated with the ancient Pliocene or early Pleistocene fluvial deposits that underlie the property in intact sub-soil geologic strata. The presence of these pebbles and gravels on the surface of the plowed field would indicate that over most of the study area all of the prehistoric-era archaeological deposits would be confined to the plowzone or Ap soil horizon.

Dr. Wagner's work within a closed upland poorly-drained depression concluded that in low lying areas the plow zone has been over-thickened by tillage-induced slope wash from adjacent higher positions (see Appendix III: Borings 1 and 2). He noted that the higher areas are moderately to severely deflated. Both Wagner and Wah concluded that the Eg, BEg, and the Btg soil horizons in Boring #3 represent reworked and redeposited Younger Dryas-age loess (see Lowery et al. 2010) from the topographically higher positions on the property. The soils investigation resulted in the conclusion that the Younger Dryas-age loess has been naturally eroded from all positions of more than about 2 to 3% slope, and it was likely redeposited in the several Delmarva Bays on the property. In the few locations (see Appendix III: Boring 4), the intact loess still persists across level upland positions. The veneer of intact loess is interpreted to be Younger Dryas in age based on degree of subsoil development and the similarity to locations along the western sections of the Delmarva Peninsula (Ibid).

The importance of the loess cap allows us to gauge the integrity of the archaeological deposits in portions of the Delmarva Peninsula. Being a Younger Dryas-age eolian deposit, the loess should be between 12,700 and 11,600 years old. The loess presence on the surface of a landscape would mean that Clovis-age (circa 13,200 to 12,800 years BP) archaeological remains could be buried. However, an eroded loess cap would mean that Clovis-age artifacts along with all younger archaeological deposits would be within the plowzone. Important to the integrity of 18QU644, Dr. Wah noted (see Appendix III: Boring 1) that the surface was eroded with materials transported downslope and deposited in the adjacent swales. The surface of the site consists of ancient fluvial and estuarine coastal plain sediments. As such, all prehistoric archaeological remains at 18QU644 and along any other ridge on the property area should be confined to the plowzone. This assertion is further reinforced by the fact that less than one-mile southeast of the project area, Brown (1979: Table 1, 9) reported a Clovis point at a site on a ridge near the mouth of Beaverdam Ditch.

The pedestrian survey resulted in the discovery of fourteen prehistoric lithic artifacts associated with 18QU644. Only eleven of the artifacts were collected (see Figure 17). The remaining three artifacts included thermally-altered or fire-cracked rock. These burned rocks may have been associated with prehistoric hearths or they may indicate that natural fires occurred at some unknown time in the past. The individual locations of the fire-cracked rocks were also recorded. However, they were left in the field. Of the artifacts discovered, only three provide us with an idea of the age of the site. The stemmed quartz projectile point (see Figure 12 and 17) found at 18QU644 would be associated with the Late Archaic period and could be approximately 5,000 to 4,000 years old. A similar age basal section of a jasper stemmed point was also discovered (see Figure 17). A highly resharpened rhyolite Orient-type point was also documented (see Figures 16 and 17). Orient points are associated with the Terminal Archaic/Early Woodland periods and could be approximately 3,200 to 2,800 years old. The remaining non-diagnostic portion of the assemblage found at 18QU644 included one complete chert biface preform, one broken chert biface preform, a quartzite bi-polar core, four quartz flakes, and one chert flake. Unlike the large and diverse assemblage shown in Figure 8,

the limited assemblage collected from 18QU644 would imply that the site had an ephemeral occupation. However, one could argue that Mr. Reinhardt, whose data originally documented the site, may have removed many of the artifacts from 18QU644 years ago.

The GPS locations outlined in Table 1 for each artifact found during the survey permitted a more precise location for 18QU644 (see Figure 18). One of the mandated objectives outlined in the letter request from the Maryland Historical Trust (see Appendix I) demanded a more precise location of the site. By comparing the dimensions of the site on file at the Maryland Historical Trust (see Figure 4) with the clustering of artifacts shown in Figure 18, it would seem that 18QU644 has a more restricted boundary.

The objectives outlined in the letter request from the Maryland Historical Trust (see Appendix I) indicated that the survey was needed to record or document any new sites on the property. Even though the surface conditions were excellent, the survey failed to locate any additional archaeological sites on the property. Therefore, the only concern with respect to the proposed project (see Figure 3) would be 18QU644.

## **Summary and Recommendations**

The field conditions in the project area permitted a more precise documentation of the location associated with 18QU644. The artifacts suggest that the site was occupied during the Late Archaic through Early Woodland periods, circa 5,000 to 2,800 years ago. The small assemblage found during the survey would indicate an ephemeral or limited occupation. However, this does not preclude the possibility that the collecting activities of Mr. Reinhardt literally “vacuum-cleaned” the site many years ago. The soil profile data for the site indicate that the area is heavily eroded, both agriculturally and naturally.

The research concludes that the borrow pit (see Figure 18) will remove all traces of 18QU644. The data generated from this survey would indicate that the site is of limited significance, lacks archaeological integrity, and would not be eligible for nomination to the National Register for Historic Places. Even though the proposed borrow pit would remove the site, the current survey data suggest that the site has no archaeological importance in region. As such, the presence of 18QU644 should not impede the issuance of the borrow-pit permit. However, since no other archaeological sites are located on the property, the borrow pit could be relocated. As such, 18QU644 would not be impacted. In sum, the results of the Phase I investigation on the property owned by the Bridgetown Development Company near Ingleside indicate that no additional archaeological investigations are needed.

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Figure 17. Prehistoric Artifacts found at 18QU644.

**Table 1. Artifact Description and GPS Location Data.**

18QU644 (2011) ARTIFACT DESCRIPTION:	LATITUDE:	LONGITUDE:
1). Quartz Late Archaic Stemmed Point	N 39°04'53.5"	W 75°53'06.8"
2). Chert Flake (w/cortex)	N 39°04'53.9"	W 75°53'07.0"
3). Rhyolite Terminal Archaic Orient Fishtail Point	N 39°04'54.7"	W 75°53'07.4"
4). Large Quartz Flake	N 39°04'53.3"	W 75°53'06.2"
5). Chert Cobble Biface Preform	N 39°04'53.5"	W 75°53'06.0"
6). Chert Cobble Biface Preform (mid-section)	N 39°04'53.9"	W 75°53'05.9"
7). Jasper Late Archaic Stemmed Point (base)	N 39°04'54.7"	W 75°53'05.6"
8). Quartzite Cobble Bi-polar Core	N 39°04'53.9"	W 75°53'07.1"
9). Quartz Cobble Flake	N 39°04'54.7"	W 75°53'08.6"
10). Mid-Size Quartz Flake	N 39°04'53.3"	W 75°53'08.3"
11). Small Quartz Flake	N 39°04'53.2"	W 75°53'08.2"
12). Fire-Cracked Rock (not collected)	N 39°04'52.9"	W 75°53'08.6"
13). Fire-Cracked Rock (not collected)	N 39°04'52.2"	W 75°53'08.0"
14). Fire-Cracked Rock (not collected)	N 39°04'51.3"	W 75°53'07.7"



Figure 18. The Clustering of Artifacts associated with 18QU644.



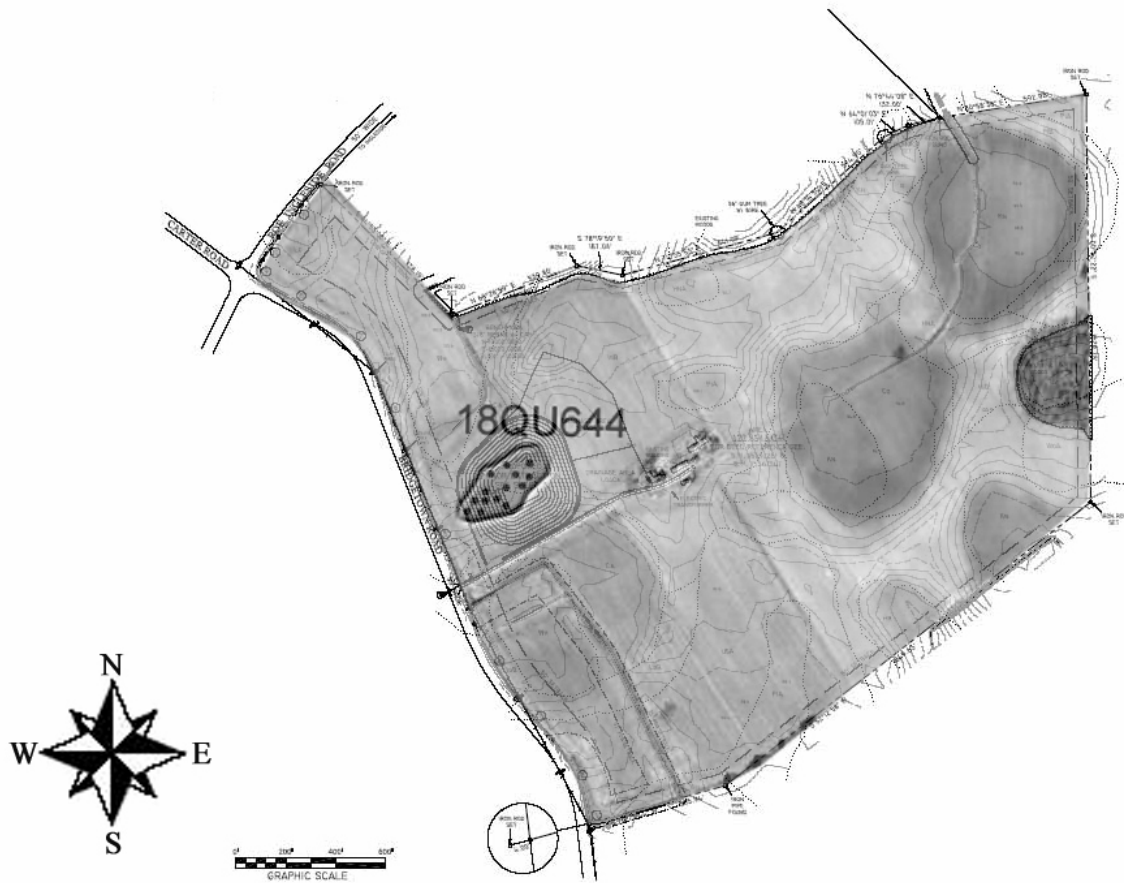


Figure 19. The Boundaries of 18QU644 with Respect to the Proposed Borrow Pit.



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APPENDIX I:

THE LETTER FROM THE MARYLAND HISTORICAL TRUST



*Maryland Department of Planning  
Maryland Historical Trust*

*Martin O'Malley  
Governor*

*Anthony G. Brown  
Lt. Governor*

*Richard Eberhart Hall  
Secretary*

*Matthew J. Power  
Deputy Secretary*

December 3, 2010

Mr. Peter A. Yencsik  
Minerals, Oil & Gas Division  
MD Department of the Environment  
1800 Washington Boulevard  
Baltimore, MD 21230-1708

Re: MHT Review of Bridgetown Development Surface Mine – Queen Anne's County – 11-SP-1086

Dear Mr. Yencsik:

Thank you for providing the Maryland Historical Trust (MHT) with the above-referenced submission. We received the submittal on November 17, 2010 and are reviewing the proposed undertaking to assess potential effects on historic properties in accordance with the Maryland Historical Trust Act, §§ 5A-325 and 5A-326 of the State Finance and Procurement Article. We understand that the proposed 4.99 acre surface mine will require a permit from MDE and is therefore subject to state historic preservation law.

MHT files indicate that a portion of archeological site 18QU644 is located within the proposed project area. The site has yielded a variety of prehistoric projectile points, ceramics, and groundstone tools and has been identified as an encampment area that was occupied repeatedly during the Archaic and Woodland periods. The precise boundaries of the site, however, have not been established, as the area has not yet been systematically surveyed for archeological resources. Given the presence of site 18QU644 and the proximity of other prehistoric sites located just to the north and east, it is also possible that other archeological sites may be located within the project area that have not yet been identified. We are therefore requesting that a Phase I archeological survey take place in all planned disturbance areas prior to the commencement of any ground-disturbing activities associated with the surface mine. The survey must be carried out by a qualified professional archeologist and performed in accordance with the *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994). Upon our review of the results, additional (Phase II) investigations of identified sites may be necessary.

A list of preservation consultants as well as additional information regarding the state historic preservation review process can be found on our website at <http://mht.maryland.gov>. If you have any questions or require further information, please do not hesitate to contact me at 410-514-7638 or [dhenry@mdp.state.md.us](mailto:dhenry@mdp.state.md.us).

Sincerely,

Dr. Dixie L. Henry  
Preservation Officer  
Maryland Historical Trust

DEC -7 2010

DLH/201004943

## APPENDIX II:

### THE RESUMES THE RESEARCH CREW

## SHORT CURRICULUM VITAE

Darrin L. Lowery, Ph. D.  
8949 High Banks Drive  
Easton, Maryland 21601  
E-mail: darrinlowery@yahoo.com  
Day and Evening Phone: (410) 822-4737  
Cell: (443) 786-8661

### EDUCATION:

2007-2009 Ph.D., Geology, University of Delaware, Newark, DE  
1997-2001 M.A., Archaeology/Geoarchaeology, Temple University, Philadelphia., PA  
1988-1992 B.A., Anthropology/Archaeology, University of Delaware, Newark, DE

### EXPERIENCE:

- Nineteen years of archaeological survey and excavation fieldwork experience in the Middle Atlantic region.
- Officially documented and recorded 1892 prehistoric and historic archaeological sites on the Delmarva Peninsula.
- Awarded a pre-Doctoral fellowship in 2009 and a Research Collaborator position in 2010 at the Smithsonian Institution's National Museum of Natural History.

### RESEARCH INTERESTS:

- Geoarchaeology, Prehistoric Archaeology, Quaternary Geology, Paleoclimatology, Climate Change, Soil Science, & Geomorphology.

### PROFESSIONAL ACTIVITIES:

- Presented forty-nine invited public lectures or professional presentations at meetings.
- Authored sixty-one academic and research publications based on archaeological and geoarchaeological research.

### ABBREVIATED PUBLICATION LIST:

2011 Stanford, D., **D. Lowery**, B. Bradley, M. Jodry, M. Kay, J. Speakman, and T. Stafford. New Evidence for Paleolithic Human Occupation of the Eastern North American Outer Continental Shelf at the Last Glacial Maximum. *Science* (In Press).

2010 **Lowery, D.**, M. A. O'Neal, J. S. Wah, D. P. Wagner, and D. J. Stanford. Late Pleistocene Upland Stratigraphy of the Western Delmarva Peninsula, USA. *Quaternary Science Reviews* 29 (11-12): 1472-1471.

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2004 **Lowery, D.** *A Landscape Sculpted by Wind and Water: Additional Archaeological and Geomorphological Investigations on Mockhorn Island in Northampton County, Virginia.* Manuscript prepared for the Virginia Department of Historic Resources, Richmond, Virginia.

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## **Short Resume**

### **Daniel P. Wagner, Ph.D.**

President and Senior Scientist, Geo-Sci Consultants, LLC, 1983 to present

#### **Years Experience:**

Geo-Sci Consultants, LLC: 28 years

Other Firms: 7 years

#### **Education:**

University of Maryland, Ph.D., Soil Science, 1982

University of Maryland, M.S., Soil Science, 1976

University of Maryland, B.S., Soil Science, 1973

**Professional Memberships:** Eastern States Archeological Federation; Middle Atlantic Archaeological Conference; American Quaternary Association; Mid Atlantic Association of Professional Soil Scientists; American Society of Agronomy; Soil Science Society of America; International Union of Soil Science

#### **Profile of Relevant Experience:**

Dr. Wagner has worked as a consulting pedologist throughout Eastern North America, Central America, and the Caribbean for 35 years. During this time he has either directed or contributed to some 1,400 projects. Among these, Dr. Wagner has undertaken over 600 geoarchaeological studies, most of which involved paleogeographic analyses of prehistoric sites emphasizing late Pleistocene through Holocene depositional and soil weathering sequences, as well as evolving environmental conditions. He has also worked on a number of historic sites interpreting landscape modifications for settings ranging in diversity from 18<sup>th</sup> Century tidewater plantations to the altered shorelines and core areas of major East Coast cities. Dr. Wagner has presented numerous papers at both professional earth science and archaeological meetings, and has authored or co-authored 45 professional publications. He also taught an environmental soils course at Johns Hopkins University for 14 years.

JOHN S. WAH

P.O. Box 186, Shippensburg, PA 17257 ∴ (240) 604-6639

matapeake.soil@gmail.com

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### **Summary of Experience**

Trained in pedology and archaeology. Soil science investigations include the examination of soil genesis, morphology, and classification, soil-landscape relationships, wetland soils, and soils in archaeological and paleoclimatic studies. Experience in the physical, chemical, and mineralogical characterization of soils. Teaching in field, laboratory, and classroom settings. Preparation of technical and scientific reports and presentations. Recent work has involved soils/geomorphological evaluation of archaeological sites in PA, NY, MD, NJ, and KY. PA Department of Environment SEO, certificate # 03635.

### **Education**

Ph.D. (2003), Soil Science, University of Maryland, College Park.

Dissertation: "Origin and Pedogenic History of Quaternary Silts on the Maryland Coastal Plain."

Advisor: Dr. M.C. Rabenhorst

M.S. (1998), Soil Science, University of Tennessee, Knoxville.

Thesis: "Characteristics of Soils along the Elk River, Southcentral Tennessee: Implications for Soil and Landscape Genesis, and Archaeology."

Advisor: Dr. J.E. Foss

B.A. (1993), Anthropology and Medieval Studies, Pennsylvania State University, University Park.

### **Experience**

Soil Scientist, Principal Investigator, Matapeake Soil and Environmental Consultants, LLC, Shippensburg, PA (2008 to present)

- Responsible for project design, budgeting, and implementation
- Performed soil/geomorphological field research in archaeological investigations
- Prepared technical and scientific reports and presentations

## APPENDIX III:

### SOIL PROFILE DESCRIPTIONS

## Ingleside Property

### Soil Profile Description

#### Boring 1

Horizon	Depth (cm)	Properties
Ap	0-33	Dark Brown (10YR 3/3) sandy loam; friable consistence
Bt1	33-60	Dark yellowish brown (10YR4/6) sandy loam; discontinuous clay skins; friable consistence
Bt2	60-94	Yellowish brown (10YR5/6) sandy loam; discontinuous clay skins; friable consistence
BC1	94-125	Brownish yellow (10YR6/6) loamy sand; common medium distinct dark yellowish brown (10YR4/6) iron concentrations; 2 percent coarse fragments; very friable consistence
BC2	125-180	Brownish yellow (10YR6/6) loamy sand; few fine faint dark yellowish brown (10YR4/6) iron concentrations; common medium faint brown (10YR5/3) depletions; 2 percent coarse fragments; very friable consistence

**Notes:** Located at southwest end of property, 100 meters east of Bridgetown Road and 50 meters north of the farm lane, 39°04.897'N 75°53.111'W; upland summit/shoulder of small ridge; 3 percent slope; coastal plain sediments; surface eroded with materials transported downslope and deposited in swale along farm lane; described February 4, 2011 by J.S. Wah

**Ingleside Property**  
**Soil Profile Description**

**Boring 2**

Horizon	Depth (cm)	Properties
Ap	0-17	Dark Brown (10YR 3/3) sandy loam; friable consistence
Bt1	17-41	Dark yellowish brown (10YR4/6) sandy loam; discontinuous clay skins; friable consistence
Bt2	41-60	Yellowish brown (10YR5/6) sandy loam; discontinuous clay skins; friable consistence
BC1	60-82	Yellowish brown (10YR5/6) sandy loam; very friable consistence
BC2	82-114	Brownish yellow (10YR6/6) loamy sand; common medium distinct dark yellowish brown (10YR4/6) iron concentrations; common medium distinct brown (10YR5/3) depletions; very friable consistence
BC3	114-180	Brownish yellow (10YR6/6) loamy sand; common medium distinct dark yellowish brown (10YR4/6) iron concentrations; common medium distinct grayish brown (10YR5/2) depletions; very friable consistence

**Notes:** Located on north side of property, 300 meters east of Bridgetown Road, 200 meters north of farm lane, 39°04.994'N 75°53.081'W; upland summit on top of small knoll; coastal plain sediments; surface eroded with materials transported downslope and deposited in closed depression (location of Boring 3); described February 4, 2011 by J.S. Wah



**Ingleside Property**  
**Soil Profile Description**

**Boring 3**

Horizon	Depth (cm)	Properties
Ap	0-47	Dark Brown (10YR 3/3) heavy loam; friable consistence
Eg	47-60	Olive gray (5Y 5/2) loam; friable to very friable consistence
BEg	60-75	Olive gray (5Y 5/2) loam; friable consistence
Btg	75-100	Olive gray (5Y 5/2) loam; friable consistence
2Btg	100-110	Olive gray (5Y 5/2) sandy clay loam; friable consistence
2BCg	110-163	Gray (5Y 5/1) sandy clay loam and strong brown (7.5YR 5/6) silt loam; friable consistence
2Cg	163-175+	Grayish brown (2.5Y 5/2) light sandy loam; very friable consistence

**Other comments:** Closed upland depression; very poorly drained; plow zone has been over-thickened by tillage-induced slope wash from adjacent higher positions, which are moderately to severely deflated; increment between 47 and 100 cm is interpreted to be reworked and redeposited loess, again from higher positions; loess has been naturally eroded from all sloping positions of more than about 2 to 3% slope, and was likely redeposited in the several Delmarva Bays on the property; in the few locations where it still persists across level positions, the loess is interpreted to be Younger Dryas in age based on degree of subsoil development; GPS: 39° 04.958' N 075° 53.073' W ± 54ft; described 2/4/11, D.P. Wagner

### Ingleside Property Soil Profile Description

#### Boring 4

Horizon	Depth (cm)	Properties
Ap	0-21	Dark brown (10YR 3/3) silt loam; friable consistence
AE	21-33	Yellowish brown (10YR5/4) silt loam; friable consistence
Bt1	33-61	Yellowish brown (10YR5/6) silt loam; common medium faint strong brown (7.5YR4/6) iron concentrations; common medium distinct grayish brown (2.5Y5/2) depletions; discontinuous clay skins; friable consistence
2Bt2	61-102	Strong brown (7.5YR5/6) loam; common fine faint strong brown (7.5YR4/6) iron concentrations; many medium prominent grayish brown (2.5Y5/2) depletions; discontinuous clay skins; friable consistence
2BC1	102-117	Strong brown (7.5YR5/6) loam with high fine sand content; many medium prominent gray (2.5Y6/1) depletions; friable consistence
2BC2	117-142	Dark yellowish brown (10YR4/6) sandy loam; many medium distinct strong brown (7.5YR5/8) iron concentrations; many medium prominent gray (2.5Y6/1) depletions; friable consistence

**Notes:** Located at northeast end of property, 39°05.039'N 75°52.601'W; upland summit with 0 percent slope; loess over coastal plain sediments with a mixing zone from 61-102 cm; described February 4, 2011 by J.S. Wah

APPENDIX IV:

UPDATED 18QU644  
MARYLAND ARCHAEOLOGICAL SITE  
DATA FORM

MARYLAND INVENTORY OF HISTORIC PROPERTIES  
**ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM**

Date Filled: \_\_\_\_\_

Check if Update: ☒ **X**



Department of Housing and Community Development  
**Maryland Historical Trust**  
**Division of Historical and Cultural Programs**  
 100 Community Place  
 Crownsville, Maryland 21032

Site Number: 18QU644  
 County: **Queen Annes**

**A. DESIGNATION**

1. Site Name: **Reinhardt No.6**
2. Alternate Site Name/Numbers: \_\_\_\_\_
3. Site Type (describe site chronology and function; see instructions): \_\_\_\_\_  
*Highly deflated Late Archaic to Early Woodland ephemeral occupation site*

- |   |                            |               |
|---|----------------------------|---------------|
| 4. Prehistoric <input checked="" type="checkbox"/> <b>X</b> | Historic _____             | Unknown _____ |
| 5. Terrestrial <input checked="" type="checkbox"/> <b>X</b> | Submerged/Underwater _____ | Both _____    |

**B. LOCATION**

- |   |   |
|---|---|
| 6. USGS 7.5' Quadrangle(s):<br><br><i>PRICE</i> | (For underwater sites)<br>NOAA Chart No.: _____ |
|---|---|

(Photocopy section of quad or chart on page 4)

7. Maryland Archaeological Research Unit Number: **#4**
8. Physiographic Province (check one):
 

<input type="checkbox"/> Allegheny Plateau <input type="checkbox"/> Ridge and Valley <input type="checkbox"/> Great Valley <input type="checkbox"/> Blue Ridge	<input type="checkbox"/> Lancaster/Frederick Lowland <input type="checkbox"/> Eastern Piedmont <input type="checkbox"/> Western Shore Coastal Plain <input checked="" type="checkbox"/> <b>X</b> Eastern Shore Coastal Plain
---	---
9. Major Watershed/Underwater Zone (see instructions for map and list): **5**

**C. ENVIRONMENTAL DATA**

10. Nearest Water Source: *Small drainage of Beaverdam Ditch* Stream Order: *1st*
11. Closest Surface Water Type (check all applicable)
 

<input type="checkbox"/> Ocean <input type="checkbox"/> Estuarine Bay/Tidal River <input type="checkbox"/> Tidal or Marsh	<input type="checkbox"/> Freshwater Stream/River <input checked="" type="checkbox"/> <b>X</b> Freshwater Swamp <input type="checkbox"/> Lake or Pond <input type="checkbox"/> ? Spring
---	---

## C. ENVIRONMENTAL DATA [continued]

	Minor (0-10%)
	Moderate (10-60%)
<i>X</i>	Major (60-99%)
	Total (100%)
	% Unknown



## BASIC DATA FORM

## C. ENVIRONMENTAL DATA [continued]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

*The site is located on a highly deflated ridge adjacent to a topographic depression.*

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

*See Attached Soil Profile Description*

26. Site size: 109 meters by 60 meters (or 358 feet by 196 feet)

27. Draw a sketch map of the site and immediate environs, here or on separate sheet:

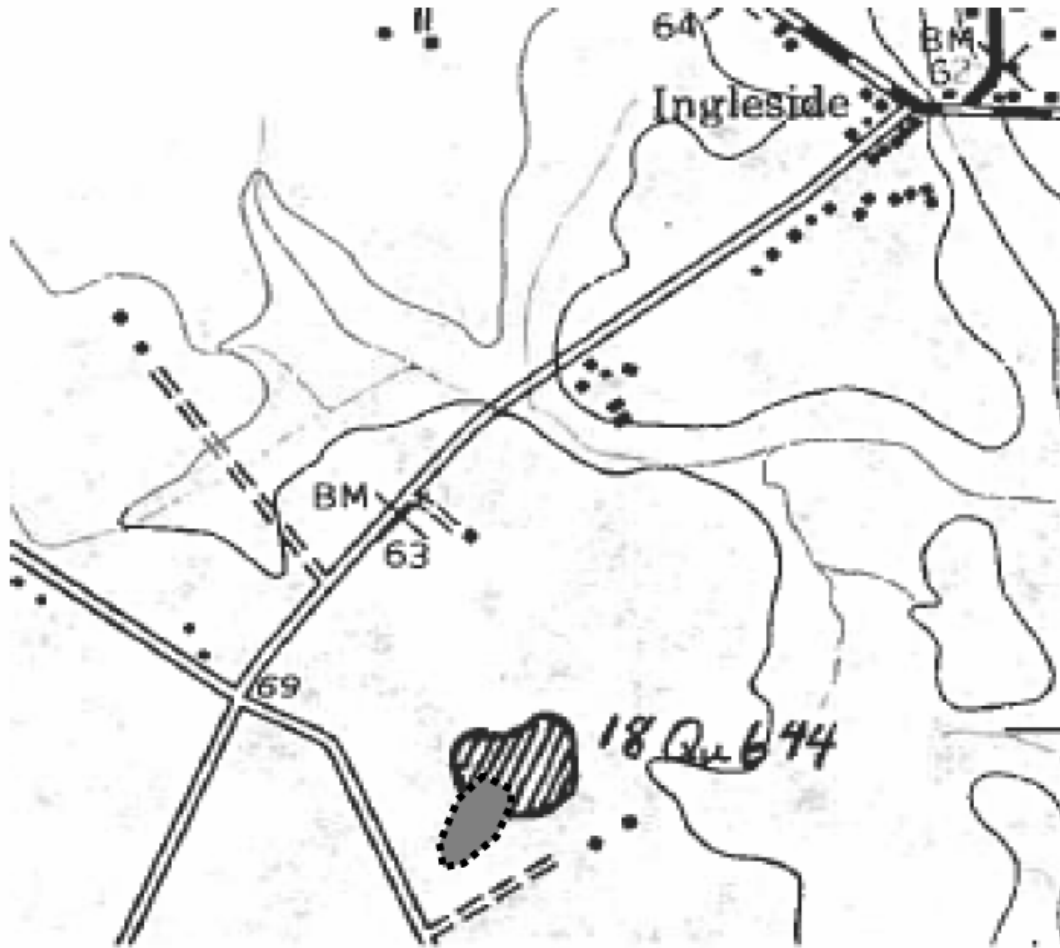


Scale:

North arrow:

**BASIC DATA FORM**

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.



Old Site Boundary (Hachered marks)

New Site Boundary (Solid Color)

## BASIC DATA FORM

## D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC	HISTORIC	UNKNOWN
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	
<input type="checkbox"/> Paleoindian	<input type="checkbox"/> 17th century	
<input type="checkbox"/> Archaic	<input type="checkbox"/> 1630-1675	
<input type="checkbox"/> Early Archaic	<input type="checkbox"/> 1675-1720	
<input type="checkbox"/> Middle Archaic	<input type="checkbox"/> 18th century	
<input checked="" type="checkbox"/> Late Archaic	<input type="checkbox"/> 1721-1780	
<input checked="" type="checkbox"/> Terminal Archaic	<input type="checkbox"/> 1781-1820	
<input type="checkbox"/> Woodland	<input type="checkbox"/> 19th century	
<input type="checkbox"/> Adena	<input type="checkbox"/> 1821-1860	
<input checked="" type="checkbox"/> Early Woodland	<input type="checkbox"/> 1861-1900	
<input type="checkbox"/> Middle Woodland	<input type="checkbox"/> 20th century	
<input type="checkbox"/> Late Woodland	<input type="checkbox"/> 1901-1930	
<input type="checkbox"/> CONTACT	<input type="checkbox"/> post 1930	

## E. INVESTIGATIVE DATA

29. Type of Investigation:

<input checked="" type="checkbox"/> Phase I	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Phase II/Site Testing	<input type="checkbox"/> Field Visit
<input type="checkbox"/> Phase III/Excavation	<input type="checkbox"/> Collection/Artifact Inventory
<input type="checkbox"/> Archival Investigation	<input type="checkbox"/> Other:

30. Purpose of Investigation:

<input checked="" type="checkbox"/> Compliance	<input type="checkbox"/> Site Inventory
<input type="checkbox"/> Research	<input type="checkbox"/> MHT Grant Project
<input type="checkbox"/> Regional Survey	<input type="checkbox"/> Other:

31. Method of Sampling (check all applicable)

<input type="checkbox"/> Non-systematic surface search
<input checked="" type="checkbox"/> Systematic surface search
<input type="checkbox"/> Non-systematic shovel test pits
<input type="checkbox"/> Systematic shovel test pits
<input type="checkbox"/> Excavation units
<input type="checkbox"/> Mechanical excavation
<input type="checkbox"/> Remote sensing
<input type="checkbox"/> Other:

32. Extent/nature of excavation:

## F. SUPPORT DATA

33. Accompanying Data Form(s):

<input checked="" type="checkbox"/> Prehistoric
<input type="checkbox"/> Historic
<input type="checkbox"/> Shipwreck

34. Ownership:

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Federal	<input type="checkbox"/> State	<input type="checkbox"/> Local/County
<input type="checkbox"/> Unknown			

**BASIC DATA FORM**

35. Owner(s): Bridgetown Development Company  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

36. Tenant and/or Local Contact: N/A  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

37. Other Known Investigations: Unknown

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38. Primary report reference or citation: PHASE I TERRESTRIAL ARCHAEOLOGICAL SURVEY OF THE INGLESIDE TRACT OWNED BY THE BRIDGETOWN DEVELOPMENT COMPANY, QUEEN ANNE'S COUNTY, MARYLAND.  
Darrin L. Lowery 2011 (Manuscript on file at the Maryland Historical Trust)

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?  

<input type="checkbox"/> Slides	<input type="checkbox"/> Field records	<input type="checkbox"/> Other:
<input type="checkbox"/> Photos	<input type="checkbox"/> Sonar	_____
<input type="checkbox"/> Field Maps	<input type="checkbox"/> Magnetic record	_____

40. If yes, location of records: \_\_\_\_\_

41. Collections at Maryland Archaeological Conservation (MAC) Lab or to be deposited at MAC Lab?  
☐ Yes  
☒ No  
☐ Unknown

42. If NO or unknown, give owner: Chesapeake Watershed Archaeological Research Foundation  
 Location: 8949 High Banks Drive, Easton, MD 21601  
 and brief description of collection: 1 quartz stemmed point, 1 fragmented jasper stemmed point, 1 rhyolite Orient point,  
1 complete chert biface preform, 1 broken chert biface preform, 1 quartzite bi-polar core, 4 quartz flakes,  
and 1 chert flake

43. Informant: N/A  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Date: 3/4/2011

44. Site visited  
 by: Dr. Darrin Lowery, Dr. Daniel Wagner, and Dr. John Wah  
 Address: \_\_\_\_\_  
 Phone: 410-822-4737 Date: 3/4/2011

45. Form filled  
 out by: Dr. Darrin Lowery  
 Address: 8949 High Banks Drive, Easton, MD 21601  
 Phone: 410-822-4737 Date: 3/4/2011

46. Site Summary/Additional Comments (append additional pages if needed):

## BASIC DATA FORM

## F. SUPPORT DATA [continued]

46. Site Summary/Additional Comments (continued):



18QU644 (2011) ARTIFACT DESCRIPTION:	LATITUDE:	LONGITUDE:
1). Quartz Late Archaic Stemmed Point	N 39°04'53.5"	W 75°53'06.8"
2). Chert Flake (w/cortex)	N 39°04'53.9"	W 75°53'07.0"
3). Rhyolite Terminal Archaic Orient Fishtail Point	N 39°04'54.7"	W 75°53'07.4"
4). Large Quartz Flake	N 39°04'53.3"	W 75°53'06.2"
5). Chert Cobble Biface Preform	N 39°04'53.5"	W 75°53'06.0"
6). Chert Cobble Biface Preform (mid-section)	N 39°04'53.9"	W 75°53'05.9"
7). Jasper Late Archaic Stemmed Point (base)	N 39°04'54.7"	W 75°53'05.6"
8). Quartzite Cobble Bi-polar Core	N 39°04'53.9"	W 75°53'07.1"
9). Quartz Cobble Flake	N 39°04'54.7"	W 75°53'08.6"
10). Mid-Size Quartz Flake	N 39°04'53.3"	W 75°53'08.3"
11). Small Quartz Flake	N 39°04'53.2"	W 75°53'08.2"
12). Fire-Cracked Rock (not collected)	N 39°04'52.9"	W 75°53'08.6"
13). Fire-Cracked Rock (not collected)	N 39°04'52.2"	W 75°53'08.0"
14). Fire-Cracked Rock (not collected)	N 39°04'51.3"	W 75°53'07.7"



**F. SUPPORT DATA [continued]**

46. Site Summary/Additional Comments (continued):

**Soil Profile Description**

**Boring 1**

Horizon	Depth (cm)	Properties
Ap	0-33	Dark Brown (10YR 3/3) sandy loam; friable consistence
Bt1	33-60	Dark yellowish brown (10YR4/6) sandy loam; discontinuous clay skins; friable consistence
Bt2	60-94	Yellowish brown (10YR5/6) sandy loam; discontinuous clay skins; friable consistence
BC1	94-125	Brownish yellow (10YR6/6) loamy sand; common medium distinct dark yellowish brown (10YR4/6) iron concentrations; 2 percent coarse fragments; very friable consistence
BC2	125-180	Brownish yellow (10YR6/6) loamy sand; few fine faint dark yellowish brown (10YR4/6) iron concentrations; common medium faint brown (10YR5/3) depletions; 2 percent coarse fragments; very friable consistence

**Notes:** Located at southwest end of property, 100 meters east of Bridgetown Road and 50 meters north of the farm lane, 39°04.897'N 75°53.111'W; upland summit/shoulder of small ridge; 3 percent slope; coastal plain sediments; surface eroded with materials transported downslope and deposited in swale along farm lane; described February 4, 2011 by J.S. Wah

# MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18 QU644

## 1. Site type (check all applicable):

<input type="checkbox"/> village	<input type="checkbox"/> earthen mound
<input type="checkbox"/> hamlet	<input type="checkbox"/> shell midden
<input type="checkbox"/> base camp	<input type="checkbox"/> fish weir
<input type="checkbox"/> short-term resource procurement	<input type="checkbox"/> submerged prehistoric
<input type="checkbox"/> lithic quarry/extraction	<input checked="" type="checkbox"/> lithic scatter
<input type="checkbox"/> rockshelter/cave	<input checked="" type="checkbox"/> unknown
<input type="checkbox"/> cairn	<input type="checkbox"/> other:

## 2. Categories of aboriginal material or remains present at site (check all applicable):

<input checked="" type="checkbox"/> flaked stone	<input type="checkbox"/> human skeletal remains
<input type="checkbox"/> ground stone	<input type="checkbox"/> faunal implements/ornaments
<input type="checkbox"/> stone bowls	<input type="checkbox"/> faunal material
<input checked="" type="checkbox"/> fire-cracked rock	<input type="checkbox"/> oyster shell
<input type="checkbox"/> other lithics	<input type="checkbox"/> floral material
<input type="checkbox"/> ceramics (vessels)	<input type="checkbox"/> unknown
<input type="checkbox"/> other fired clay	<input type="checkbox"/> other:

## 3. Lithic materials (check all applicable):

<input checked="" type="checkbox"/> jasper	<input type="checkbox"/> steatite
<input checked="" type="checkbox"/> chert	<input type="checkbox"/> sandstone
<input checked="" type="checkbox"/> rhyolite	<input type="checkbox"/> silicified sandstone
<input checked="" type="checkbox"/> quartz	<input type="checkbox"/> ferruginous quartzite
<input checked="" type="checkbox"/> quartzite	<input type="checkbox"/> European flint
<input type="checkbox"/> chalcedony	<input type="checkbox"/> basalt
<input type="checkbox"/> ironstone	<input type="checkbox"/> unknown
<input type="checkbox"/> argillite	<input type="checkbox"/> other:

## 4. Diagnostics (choose from manual and give number recovered or observed):

1 quartz Late Archaic stemmed point, 1 fragmented jasper Late Archaic stemmed point, 1 rhyolite Orient point  
1 complete chert biface preform, 1 broken chert biface preform, 1 quartzite bi-polar core, 4 quartz flakes, and 1 chert flake

## 5. Features present:

☐ yes  
☒ no  
☐ unknown

## 6. Types of features identified (check all applicable):

<input type="checkbox"/> midden	<input type="checkbox"/> refuse/storage pits
<input type="checkbox"/> postmolds	<input type="checkbox"/> burials
<input type="checkbox"/> house patterns	<input type="checkbox"/> ossuaries
<input type="checkbox"/> palisade	<input type="checkbox"/> unknown
<input type="checkbox"/> hearths	<input type="checkbox"/> other:
<input type="checkbox"/> chipping clusters	

**PREHISTORIC DATA FORM**

---

## 7. Flotation samples collected:

☐ yes  
☒ no  
☐ unknown

## analyzed:

☐ yes, by \_\_\_\_\_  
☐ no  
☐ unknown

## 8. Samples for radiocarbon dating collected:

☐ yes  
☒ no  
☐ unknown

Dates and Lab Reference Nos. \_\_\_\_\_

## 9. Soil samples collected:

☐ yes  
☒ no  
☐ unknown

## analyzed:

☐ yes, by \_\_\_\_\_  
☐ no  
☐ unknown

## 10. Other analyses (specify):

See Soil Profile Description Page 8 Basic Data Form  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 11. Additional comments:

*The site is heavily eroded and seems to have a more restricted boundary than the original boundary recorded in 1994.*

12. Form filled out by: Dr. Darrin L. LoweryAddress/Affiliation: CWAR, 8949 High Banks Drive, Easton, MD 21601Date: 3/4/2011