

**5.0 PHASE I SURVEY  
FIELD RESULTS**

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### 5.1 Area 1

#### 5.1.1 Surface Collection

A total of 337, 10.0-meter by 10.0-meter square grid cells were surface collected during the Phase IB archaeological survey in Area 1 (Figure 11). The surface collection yielded 1,223 prehistoric artifacts, 1,118 historic artifacts, and 422 faunal artifacts (Appendix D). The prehistoric artifact assemblage contains a diverse collection of cultural materials. A variety of lithic tool forms were recovered from Area 1, including projectile points (n=6), bifaces (n=24), a scraper, a uniface, preforms (n=2), cores (n=28), pebble tools (n=2), utilized flakes (n=7), and a nondescript cutting tool (Table 7). Several of the projectile points were temporally distinguishable, including a Woodland II Period (A.D. 1000 to A.D. 1600) jasper Levanna triangle in Block H-3, a Woodland I period (3000 B.C. to A.D. 1000) quartz MacPherson point in Block D-21, a Woodland I period (3000 B.C. to A.D. 1000) quartz Tear Drop point in Block N-8, and an Archaic to Woodland I period (6500 B.C. to A.D. 1000) jasper Lamoka point in Block E-22 (Photograph 12).

An assortment of artifacts associated with procurement and testing of raw lithic materials was also recovered from Area 1. Eight blanks composed of argillite (n=6) and quartzite (n=2) were surface collected from Area 1 (Photograph 13). A total of 35 tested cobbles (n=35) were also found during the collection. Inspection of the tested cobbles identified the overall selection of two main lithic types, jasper (n=15) and quartz (n=13), followed by smaller numbers of chert (n=5), quartzite (n=1), and unidentifiable lithic materials (n=1).

Ground stone tools were found in Area 1 as well. The surface collection recovered numerous hammerstones (n=17), a fragment of a chert celt, quartzite mortars (n=2), a net sinker, and four shaft abraders from across Area 1 (Table 8) (Photograph 14) (Appendix D). Quartzite (n=18) accounted for 75 percent of the ground stone tools in the surface collection for Area 1 followed by a jasper hammerstone and shaft abrader, a quartz hammerstone, a sandstone hammerstone, and unknown lithic material used in the production of a celt. A total of 867 pieces of fire-cracked

**Table 7. Area 1, Lithic Reduction Stages and Tool Forms Recovered in Surface Collection.**

	Tested Cobble	Blanks	Preform	Biface	Core	Debitage*	Projectile Point	Scraper	Uniface	Pebble Tool	Cutting Tool	Utilized Flake Tool	Total
Argillite		6	1	1		37	2					2	49
Chalcedony						4							4
Chert	5			1	5	18	1			1			31
Jasper	15			9	16	55	1	1	1	1		5	104
Quartz	13		1	10	4	72	2						102
Quartzite	1	2		2	3	8					1		17
Unknown	1			1		3							5
<b>Total</b>	<b>35</b>	<b>8</b>	<b>2</b>	<b>24</b>	<b>28</b>	<b>197</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>312</b>

\*Debitage includes shatter and primary, secondary and tertiary stage reduction debris

**Table 8. Area 1, Ground Stone Tools Recovered in Surface Collection.**

	Celt	Hammerstone	Mortar	Net Sinker	Shaft Abrader	Total
Jasper		1			1	2
Quartz		1				1
Quartzite		14	2	1	1	18
Sandstone		1			2	3
Unknown	1					1
<b>Total</b>	<b>1</b>	<b>17</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>25</b>

rock (FCR) were also recovered during the surface collection of Area 1, composed of quartzite (n=695), sandstone (n=132), quartz (n=36), and jasper (n=4).

A total of 197 pieces of lithic debitage composed of primary (n=30), secondary (n=48), and tertiary (n=71) flakes, shatter (n=34), and flake fragments (n=14) were also collected in Area 1. As seen in Table 9, quartz and jasper were heavily favored material types in the debitage assemblage. High counts of quartz shatter as compared to other material types illustrates the availability of quartz gravels in the soils and the process of selecting better quality materials from the overall deposits. While argillite and quartz exhibit similar counts of waste flakes from the primary, secondary and tertiary stages of reduction, the argillite assemblage contains no shatter or flake fragments, suggesting that the material was quarried from an off-site source and transported to the site.

**Table 9. Area 1, Debitage Assemblage Recovered in Surface Collection.**

	Primary	Secondary	Tertiary	Shatter	Fragments	Total
<b>Argillite</b>	3	13	21			37
<b>Chalcedony</b>			3		1	4
<b>Chert</b>	1	4	10	1	2	18
<b>Jasper</b>	19	14	14	3	5	55
<b>Quartz</b>	4	13	20	29	6	72
<b>Quartzite</b>	1	4	2	1		8
<b>Unknown</b>	2		1			3
<b>Total</b>	30	48	71	34	14	197

A total of 15 Native American ceramic fragments were found during the controlled surface collection of Area 1. Of the 15 ceramic sherds recovered, eight proved to retain sufficient diagnostic characteristics reflective of Woodland I Period (3000 B.C. to A.D. 1000) wares. One ceramic body fragment was collected from Block C-19. This fragment exhibits crushed clay and shell temper attributable to Wilgus ware (ca. 250 B.C. to 280 A.D.). Four fragments were recovered from Blocks 19-E, 23-D, 16-B, and 17-E. The ceramic fragments were all small, finely crushed quartz and quartz/mica tempered body fragments. Exterior surface treatment was not discernable. The wares are attributable to Hell Island wares (ca. A.D. 600 to 1000). Blocks 18-D and 19-D produced two sherds with clay nodules in the temper, attributable to Coulbourn ware

(375 to 350 B.C.). One fragment of crushed quartz-temper, cord-marked exterior Wolf Neck ceramic (500 B.C.) was found in Block F-19. Two unidentifiable ceramic sherds were encountered in Block L-2, while Block R-11 contained one unidentifiable sherd of prehistoric ceramic.

The surface collection did uncover an unusual find. Block D-10 produced a small, polished steatite fragment, approximately 2.5 centimeters long, 1.2 centimeters wide, and 0.6 centimeter thick (Photograph 15). One edge exhibited a rounded, polished surface, unlike the jagged edge at the break, similar to a rim. However, the body of the steatite fragment was highly polished and exhibited a linear incision parallel to the rounded rim on one side. The opposite side of the fragment contained incised diagonal marks. It was thought that this steatite fragment was part of a gorget or pendant due to the highly polished surface and incised markings.

The historic artifact collection recovered in Area 1 is representative of early-eighteenth- through early-twentieth-century domestic and architectural refuse. Ceramics (n=564) comprised the largest number of historic artifacts found. The ceramic dates found in the following chapter represent general periods of manufacture based on the research of Ivor Noel Hume (1969; 2001), Stanley South (1977), and George Miller et al. (2000). Redware (n=336) dominated the historic ceramic collection, with examples of clear lead (n=56), lead (n=149), and yellow (n=1) glazed wares, unglazed fragments (n=27), eroded sherds (n=72), and three sherds with the glaze missing. Whiteware (n=139), porcelain (n=36), pearlware (n=29), gray salt-glazed (n=11) and brown salt-glazed (n=1) stoneware, creamware (n=6), yellowware (n=4), and one eroded fragment of buff-bodied earthenware constitute the remainder of the collection. A notable selection of decorations was observed in the assemblage. Examples of mid- to late-eighteenth-through early- to mid-nineteenth-century painted (n=1), blue (n=1) and green (n=1) shell edge, floral transfer-print (n=4), polychrome floral motif (n=1), and annular decoration (n=2) were recorded in the pearlware assemblage. The porcelain collection exhibited a similar composition of decorations and motifs, with production dates beginning in the mid-eighteenth-century. No prints or other decorations were visible on the stoneware sherds, although a sherd in Cell B-25 exhibited two, thin incised lines likely extending parallel to the rim. The gray salt-glazed wares possibly represent American salt-glazed ware (1705-1930), while the brown glazed sherd is

interpreted as Albany slip (1805-1920). The redware assemblage included examples of early eighteenth through mid-nineteenth-century slip decorated (n=28) wares. Transfer-print, painted designs, annular, polychrome, and sponge decorations present in the whiteware collection illustrate ceramic decorative patterns and techniques extending from the early-nineteenth-century onward. Transfer-print decorations in purple and green are representative of printed wares manufactured from 1828 to present, while sponge stamped designs date between 1845 to 1930 (Miller et al. 2000:13) (Appendix D).

Further inspection of the ceramic collection identified a varied sample of bases, rims and other distinctive parts of vessel and flatware forms. Of the 564 ceramic fragments recovered, 18 percent (n=101) consisted of rim fragments (n=61, 60.4%), base fragments (n=36, 35.6%), and handle fragments (n=4, 4%). Overall, the rim and base fragments illustrate hollowware and flatware forms of ceramics, such as plates, saucers, teacups, and crocks. A section of rim from a clear lead-glazed interior/exterior redware crock was recovered in Cell C-5 and represents utilitarian crockery used for food storage. Cell B-3 contained an applied clear lead-glazed interior/exterior redware eared handle fragment, while Cell E-13 yielded a fragment of an applied clear lead-glazed interior/exterior redware handle. Cell C-7 produced a fragment of a blue sponge decorated whiteware teacup base, while a decorative whiteware lid knob in the form of a corncob was found in Cell C-3 (Appendix D). The teacup base and lid knob are examples of refined tablewares used in a domestic setting.

The glassware assemblage yielded examples of bottle (n=115), vessel (n=14), lamp (n=1), mirror (n=1), and lid liner (n=1) fragments. The bottle glass assemblage exhibited predominantly colorless (n=43), olive (n=32), and amber (n=27) shards, followed by aqua (n=6), green (n=4), and frosted (n=3) colors. Examples of late-nineteenth- through twentieth-century colorless machine-made base fragments (n=10) were recorded in Area 1, as well as a fragment of a neck and patent lip of an aqua medicine bottle. One amber body fragment in Cell L-3 exhibited the embossed lettering "...L...", and one colorless body fragment in Cell C-2 bore the embossed letters "...RD...", likely the product of mid-nineteenth- through twentieth-century manufacture. The olive bottle glass collection included four tops exhibiting a V-tooled lip and rounded, flattened string rim (Cell H-3), an uptooled lip and string rim (Cell G-12), and downtooled lip

(Cell C-20), and an uptooled lip with flattened side (Cell O-2) (Photograph 16). Two olive glass bases, both which exhibited a bell-shaped basal profile, were recovered in Cell H-17 and A-2 (Appendix D). The olive glass collection did not exhibit any mold marks. The collection of tops and bases exhibit uneven thickness in design, suggesting these wares represent mouth-blown or free-blown bottles dating from the mid- to late-eighteenth through mid-nineteenth-century. The vessel glass assemblage included examples of colorless impressed fluted design (n=3), colorless depressed square design (n=1), an undecorated rim fragment (n=1), undecorated colorless body fragments (n=7), one light blue fragment, and one violet fragment (Appendix D). One fragment of undecorated lamp glass, one fragment of mirror glass, and one fragment of a milk glass lid liner comprise the remainder of the glass assemblage.

The architectural collection (n=367) produced a significant number of brick fragments (n=316), as well as window glass (n=40), metal fasteners (n=8), a hinge fragment (n=1), mortar (n=1) and a staple (n=1). The brick assemblage produced examples of glazed finished materials (n=27, 8.5%) as well as undiagnostic fragments (n=289, 91.5%). Unlike the brick assemblage, the metal fastener collection was limited to wire (n=1), cut (n=2), and unidentifiable (n=2) nails, corroded spike fragments (n=3), and a corroded staple (n=1). One fragment of aqua window glass was recovered in a predominantly colorless window glass collection.

In addition to the architectural and domestic refuse, the surface collection in Area 1 recovered a corroded horseshoe and horseshoe fragment (n=2), a barbed wire fragment (n=1), slag (n=3), plastic (n=4), a piece of field lime (n=1), a plastic four-hole button (n=1), a glazed terra cotta sewer pipe fragment (n=1), metal fragments (n=8), and coal (n=37) (Appendix D). The faunal assemblage produced a large number of oyster shell fragments (n=417) and a few clam shell fragments (n=5).

Given the number of prehistoric and historic artifacts found in Area 1, a series of artifact distribution maps were created to interpret any horizontal patterns of site activity based on surface artifact counts. Distinctive patterns of prehistoric artifact concentrations were noted in Area 1. While these prehistoric artifact concentrations did not delineate the exact location of subsurface features, the density of artifacts does suggest general activity areas (Figure 19). Based

on the types and numbers of artifacts found in these concentrations, certain inferences can be made about potential site types and horizontal limits of prehistoric archaeological deposits in Area 1.

For the purposes of the Phase IB, areas of artifact density were referred to as loci. Locus 1, the area of high artifact density in the northern portion of the site, is delineated to the west by SR 12, to the south by Row 16, to the east by Column G, and to the north by SR 1. A smaller area of prehistoric artifact density to the south of Locus 1, labeled Locus 2, is bounded by Row 14 and Row 10 to the north and south, respectively, and by Column B and Column F to the west and east, respectively. To the east, Locus 3 is bounded by Row 17 to the north, Column M to the east, Row 11 to the south, and Column I to the west.

Three smaller areas of prehistoric artifact density were noted to the south of Area 1. Locus 4 is bounded by Row 13, Column R, Row 10, and Column O. Locus 5 is delineated by Row 5, Column N, Row 1, and Column K. Locus 6 is defined by Row 6 to the north, Row 2 to the south, Column C to the west, and Column G to the east.

Based on the artifact distribution maps for Area 1, specific temporal trends and patterns are suggested from the surface collection. Locus 1 contained two projectile points temporally associated with the Archaic to Woodland I periods (6500 B.C. to A.D. 1000), as well as eight prehistoric ceramic sherds, all attributable to the Woodland I period (3000 B.C. to A.D. 1000). Conversely, Locus 6 produced a Woodland II period (A.D. 1000 to A.D. 1600) projectile point. A Woodland I projectile point was also recovered from Block 8-N, just to the southwest of Locus 4. Locus 4 and Locus 5 produced one and two unidentifiable prehistoric ceramic sherds each, respectively, while the remaining ground in Area 1 did not yield prehistoric ceramics. The variation of dates between projectile points recovered from Area 1 implies that Locus 1 was established earlier than the loci found to the south and east. It can be suggested that Locus 1 represents a long-term occupation site, given the extensive time period covered by the projectile points and ceramics. The loci to the south and east may be interpreted as smaller satellite occupations of Locus 1 based on the later projectile point styles and the unidentifiable ceramic sherds recovered in the area. However, given that this hypothesis is substantiated by cultural

materials found in a disturbed, plowed surface context, the interpretation may change with the exposure and investigation of subsurface features in Area 1

Conversely, the historic artifact distribution maps depict historic cultural remains scattered over a wide dispersal pattern in Area 1, with little indication of any artifact densities (Figure 20). However, a concentration of brick was noted in a small area along the marshlands defined by Row 4 to the north, Column N to the east, Row 1 to the south, and Column K to the west (Figure 21). This locus also happens to contain two corroded cut nails. It is suggested that this locus may represent the remains of a building or piers associated with a river landing located along Spring Creek. An early-eighteenth-century river landing was identified at Locus A (Site 7K-F-163A), located approximately 1,500.0 meters east (downstream) of the APE, associated with a dwelling and outbuilding upslope on the flatlands (Liebeknecht et al. 1996). In addition, the town of Frederica has supported a substantial eighteenth- and nineteenth-century shipbuilding industry and maritime trade center (Coverdale 1976; Valle 1984). The diversity of historic ceramics and glassware in Area 1 is representative of tableware, containers and crockery expected to be found in the Soulie Gray House.

The chain of title for the Soulie Gray property suggests that a mid-eighteenth-century occupation also may have been present in the APE. The 1748 will of John Brinckle devised a brick house and 70 acres of land, along with a 150-acre tract, situated west of the “lower Kings Road” or “Old Main County lower Road” to his heirs. Comparing the 1788 Bowers Furbee map (Figure 9) to a modern topographical map of the project area, the eighteenth-century lower County Road closely follows the current farm road east of the APE, placing the APE within this 220-acre tract. There is no indication of “Loftis’s Point” on the eighteenth-century maps (Figures 8 and 9), but it is suggested that Area 1 likely represents this landmark based on proximity of the landform to the confluence of Spring Creek and the Murderkill River. In addition, Figures 8 and 9 do not illustrate any structures on the west side of the lower County Road, although the Brinckle house is referenced as part of the parcel west of the roadway. The brick remains found in Area 1, coupled with a selection of eighteenth-century artifacts, such as slip-trail redware, creamware, pearlware and olive bottle glass, offer evidence of an eighteenth-century occupation in the APE,

as the Brinckle house is described as a brick structure, whereas the Soulie Gray House is described in the 1866 fire insurance policy as a frame structure.

### *5.1.2 Test Units*

In Area 1, the symmetric grid placed across the landscape during the surface collection allowed for the use of cardinal coordinates to designate test units. The southwest corner of Block A-1 was designated N500 E500, the southeast corner of Block A-1 labeled N500 E510, and so on. A total of 23, 1.0-meter by 1.0-meter test units were excavated in Area 1 (Figure 11).

The excavation of the test units in Area 1 revealed a relatively well-developed soil that has weathered within sediments attributable to the Pleistocene-age of landform construction. In general, the excavations exposed a 26.0 to 33.0 centimeter thick dark brown (10YR 3/3) plowzone horizon capping the surface. Below the plowzone, the soil profile included a 17.0 to 28.0-centimeter thick dark yellowish brown to yellowish brown (10YR 4/6-5/6) sandy loam to sandy clay E-horizon, followed by a brown to strong brown (7.5YR 4/4-5/6) pebbly, sandy clay Bt-horizon. Test units N560 E570, N568 E510, N573 E530, N582 E546, N600 E560, N609 E565, N643 E580, and N680 E587 produced two consecutive dark yellowish brown to yellowish brown (10YR 4/6-5/6) E-horizons, a sandy loam over a sandy clay episode, below the plowzone horizon (Appendix E).

During the geomorphologic investigation, it was noted that the plowzone in Area 1 exhibited discreet areas that contained deposits of natural gravels (<40 mm) likely attributable to original sediment deposition during the Pleistocene (Hayes 2004) (Appendix C). Test Unit N590 E554 was located within an area of pebble-rich plowzone (Figure 22). Its exposure detailed a relatively well-developed soil that has weathered within sediments of Pleistocene age. The 25.0-centimeter thick plowzone (Ap) consists of a dark brown (10YR 3/3) mixed pebbly sandy loam (Appendix E). The majority of the artifacts recovered from this unit were found in the plowzone. These include: FCR (n=2), debitage (n=4), architectural debris (n=10), historic ceramics (n=5), and shell (n=2) (Appendix D). An underlying leached yellowish brown to light yellowish brown (10YR 5/4-6/4) pebbly sandy loam (E) soil horizon, encountered 25.0 to 40.0 centimeters below surface, and a brown (7.5YR 5/4) pebbly sandy loam transitional (EB) soil horizon, found 40.0

to 50.0 centimeters below surface, detail evidence of bioturbation and common gravels. The few artifacts found in these two horizons are represented by two lithic debitage in the E-horizon and one flake, one brick fragment, and one redware sherd in the EBt-horizon. The excavation extended into a brown (7.5YR 4/4) clay-and iron-enriched, pebbly, sandy loam Bt-horizon from 50.0 centimeters below surface to the bottom of excavation at 81.0 centimeters below surface. Two flakes were recovered from the Bt-horizon in this test unit; one flake from 50.0 to 60.0 centimeters below surface, and the second flake from 60.0 to 70.0 centimeters below surface. No cultural materials were recovered from below the second level of the Bt-horizon. A sandy anomaly noted in the southwest corner of the unit was of undetermined origin, but may have well represented a natural soft-sediment deformation feature (related to groundwater, pressure, and disturbance).

Test Unit N660 E584 was located within an area that lacked many pebbles in the plowzone (Figure 23). Notably, the pebble-rich sediment was first noted approximately 60.0 centimeters below surface in a strong brown (7.5YR 4/6) pebbly mixed sandy loam Bt soil horizon typical of other units. Overlying sediments consisted of a 25.0-centimeter thick dark brown (10YR 3/2) very fine sandy loam plowzone (Ap), a yellowish brown (10YR 5/4) very fine sandy loam E-horizon from 25.0 to 50.0 centimeters below surface, and a brown (7.5YR 5/4-5/6) very fine sandy loam transitional (EB) soil horizon 50.0 to 60.0 centimeters below surface (Appendix C).

The recovery of prehistoric and historic cultural materials generally decreased with the depth of the excavation. The plowzone horizon produced the greatest number of artifacts (n=82), including lithic debitage (n=12), FCR (n=3), tools (n=2), oyster shell (n=2), architectural debris (n=43), historic ceramics (n=18), bottle glass (n=1), and vessel glass (n=1). The E-horizon contained FCR (n=6), a hammerstone, debitage (n=7), a tested jasper cobble, a pearlware sherd, a window glass shard, and brick (n=4) (Appendix D). Prehistoric artifact counts dropped off below the E-horizon, with only seven debitage and one FCR found in the EBt-horizon. The Bt-horizon produced small, but appreciable, quantities of debitage, including four flakes from the first level in the horizon and four flakes in the second level of the horizon. No cultural materials were recovered below the second excavation level of the Bt-horizon.

In TU N660 E584, weathering processes associated with soil formation had masked obvious sedimentary structures that could help distinguish water- from wind-transported sediments. However, the lack of pebbles within the matrix and apparent dominance of very fine sand suggest possible eolian deposition. The locational integrity of this relatively deep context has not been clearly determined.

Several features were documented in the test unit excavations in Area 1. Feature 1, a dark stain measuring approximately 20.0 by 25.0 centimeters surrounded by a lighter stain measuring 100.0 by 30.0 centimeters, was identified 59.0 centimeters below datum (cmbd) in the southeast corner of TU N576 E539 (Photograph 17). The darker soil matrix is a loosely compacted dark yellowish brown (10YR 4/4) sandy loam, while the lighter stain consists of a dark yellowish brown (10YR 4/4) mottled with a yellowish brown (10YR 5/4) sandy loam. One jasper flake and one quartz shatter were recovered from the surface of the lighter color matrix, while charcoal flecking was noted throughout the feature.

A second feature was noted within Stratum II, level 1 (E-horizon) of TU N594 E559. Feature 2 consisted of a roughly 20.0 to 30.0-centimeter diameter circular stain composed of a dark yellowish brown (10YR 3/4) sandy loam (Photograph 18). The feature was not excavated. However, the feature soil matrix is loosely compacted, distinct from the surrounding subsoil matrix, and may be the result of rodent activity.

Feature 3 consists of a dark yellowish brown (10YR 4/6) loosely compact loamy sand stain located in the southwest corner of TU N570 E525 (Photograph 19). This feature was identified approximately 69.0 cmbd at the interface between Stratum II, a yellowish brown (10YR 4/6) sandy loam with approximately ten percent gravel content (E-horizon), and Stratum III, a strong brown (7.5YR 4/6) sandy clay with approximately ten to 20 percent gravel content (Bt-horizon). Upon examination of the excavation profile, it was discovered that the soils initially identified as an overlying deep E-horizon were in fact part of the feature matrix. As such, the actual depth of Feature 3 extended from 40.0 to 92.0 cmbd.

Artifacts recovered during the Phase I survey from Feature 3 in TU N570 E525 included ten quartzite FCR, jasper primary (n=6), secondary (n=1), and tertiary (n=12) flakes, jasper shatter (n=1), a jasper core fragment (n=1), quartzite primary (n=1), secondary (n=1), and tertiary (n=1) flakes, and five quartz tertiary flakes. Two small brick fragments were also noted. Artifact counts were greatest in Level 1 (40.0 to 48.0 cmbd) (n=23) and Level 2 (48.0 to 58.0 cmbd) (n=13), decreasing significantly into Level 4 (69.0 to 80.0 cmbd) (n=1) and 5 (80.0 to 92.0 cmbd) (n=3). The artifact collection from Level 3 (58.0 to 69.0 cmbd) was lost in the field, but the level form indicates two jasper flakes were recovered from this level. No trends by material type or reduction stage were noted in the vertical distribution to indicate discrete chipping episodes.

## **5.2 Area 2**

A total of 51 surface collected 10.0-meter by 10.0-meter square grid cells, 40 STPs, and seven 1.0-meter square test units in Area 2 yielded a total of 52 prehistoric artifacts, 540 historic artifacts, and 26 faunal remains (Figure 12). The soil profile in Area 2 illustrates a stable landform impacted by agricultural land use. The general soil profile consists of a 15.0 to 29.0-centimeter thick, dark brown to brown (10YR 3/3-4/3) sandy loam Ap-horizon overlying an 11.0 to 24.0 centimeter thick yellowish brown (10YR 5/4-5/6) loamy sand E-horizon. A yellowish brown to brownish yellow (10YR 5/6-6/6) sandy loam to sandy clay Bt-horizon was observed underlying the Ap- and E-horizons. Test excavations revealed the intermittent presence of an E-horizon package in Area 2. STPs 23L, 23R, 24R, 26C, 26R, 23C+5m R+5m south, and TU 1 exhibited an Ap- over Bt-horizon profile. STPs 25L, 25C, 25R, 23C+5m R, 23C+5m south, 23C+5m R+5m north exhibited a 20.0 to 30.0-centimeter thick yellowish brown (10YR 5/4) silt loam Ap-horizon, suggesting that historic plowing activities have redistributed portions of the E-horizon up into the plowzone.

To the east, STP excavations conducted between Line 17 and Line 22 exhibited a general Ap/E/Bt-horizon soil profile previously described for Area 2. TU 5, found approximately 20.0 meters north of the house site and east of STP 17L, produced a 30.0-centimeter thick dark brown (10YR 3/3) sandy loam Ap-horizon overlying a yellowish brown (10YR 5/4) sandy loam E-horizon. TU 3, located 30.0 meters east of TU 5, produced a 37.0-centimeter thick dark yellowish brown (10YR 4/4) sandy loam Ap-horizon overlying a light olive brown (2.5Y 5/4)

sandy loam Bt-horizon. The soil profiles in TU 2, 4 and 7 also contained a 25.0 to 34.0 centimeter thick dark brown to dark yellowish brown (10YR 3/3-3/4) sandy loam Ap-horizon overlying a strong brown to yellowish brown (7.5YR 4/6 to 10YR 5/6) clay loam Bt-horizon (Appendix E) (Photograph 20).

Subsurface testing in the fallow, grassy area north of the Soulie Gray House revealed evidence of infilling along the northern edge of the corridor. STP 26RR exhibited a 23.0-centimeter thick package of mottled dark brown and yellowish brown (10YR 4/2 and 5/6) coarse sand fill overlying a dark brown (10YR 4/2) lamella stained coarse sandy loam fill horizon from 23.0 to 42.0 centimeters below surface. These fill horizons capped a mottled yellowish brown (10YR 5/6) coarse sandy loam Bt-horizon 42.0 centimeters below surface to the end of excavation at 63.0 centimeters below surface (Appendix E). In STP 25RR, archaeologists uncovered a 33.0-centimeter thick mottled very dark grayish brown and dark grayish brown (10YR 3/2 and 4/2) silt loam fill deposit overlying a dark yellowish brown (10YR 4/4) sandy loam fill episode 33.0 to 59.0 centimeters below surface. A brownish yellow (10YR 6/6) loamy sand Bt-horizon was recorded below the fill horizons in STP 25RR (Appendix E).

Additional fill episodes were noted in Area 2. STPs 23C, 24L, 24C, 24RR, 26L, and 26R exhibit a 10.0 to 26.0-centimeter thick dark grayish brown (10YR 3/2-4/2) fill horizon overlying the Ap-horizon. TU 6, located approximately 90.0 meters northwest of the house site, exhibits a 23.0 centimeter thick dark grayish brown (10YR 4/2) loamy sand fill horizon overlying a 10.0-centimeter thick dark yellowish brown (10YR 4/4) sandy loam fill horizon. A dark yellowish brown (10YR 4/6) sandy clay Bt-horizon was encountered below the second fill deposit (Appendix E). These fill horizons are identified as spoil materials possibly excavated from the adjacent farm pond and spread over the field, or from filling and grading the landscape to create the SR 1 roadway.

A dramatic reduction in the quantity and diversity of mid-eighteenth- to mid-twentieth-century historic artifacts was noted in Area 2 in comparison to Area 1. The domestic artifact assemblage (n=132) included 48 historic ceramics, such as whiteware (n=17), red earthenware (n=25), pearlware (n=3), creamware (n=2), and stoneware (n=1); vessel glass (n=10) and bottle glass

(n=72); a steel knob, and a sanitary can fragment. Varied decorative motifs, such as green shell edge (n=1) and polychrome painted floral design (n=1) pearlware sherds, fragments of flow blue (n=1), black (n=2) and blue (n=2) floral design transfer print, and blue annular (n=1) whiteware, and examples of clear lead (n=3), lead (n=5) glazed, and slip trail (n=2) redware sherds, represent common decorative patterns in mid-eighteenth- through mid-twentieth-century wares. The bottle and vessel glass assemblage did not yield any diagnostic fragments to suggest a particular period of manufacture, although amber (n=31), aqua (n=2), colorless (n=36), green (n=1), and olive (n=2) bottle fragments and blue (n=1), colorless (7), violet (n=1) and opaque (n=1) vessel glass fragments illustrate a varied composition of chemical mixtures used to produce different hues. It is suggested that these artifacts are contemporaneous with a mid-nineteenth- to twentieth-century period of manufacture based on the large number of colorless (n=36) and amber (n=31) fragments in the collection.

Architectural items (n=238) were predominantly represented by brick (n=71), nails (n=91), and window glass (n=63). The brick collection revealed a small number of glazed brick fragments (n=6), although the small size of the fragments prohibited defining if the long or short face of the brick was glazed. The nail collection produced an overwhelming number of late-eighteenth-through late-nineteenth-century cut (n=72) nails, as well as a smaller selection of wire (n=18) and heavily corroded, unidentifiable nails (n=1). A door latch (n=1), staple (n=1), a spike (n=1), asphalt shingle fragments (n=5), a threaded nut, and concrete fragments (n=4) illustrate a general assortment of architectural refuse recovered in Area 2. A number of industrial artifacts (n=167) were recovered from the excavations, including ceramic electric insulator fragments (n=3), coal (n=149), aluminum foil fragments (n=3), a piece of reflector glass, asphalt (n=2), plastic (n=5), a corroded fire hose nozzle, and three pieces of corroded metal (Appendix D)

The prehistoric artifact assemblage includes a sparse number of debitage (n=21), FCR (n=26), and five tools. In the debitage collection, jasper (n=7) and chert (n=9) comprise the largest material type, followed by quartz (n=3) and quartzite (n=2). Sandstone (n=20) FCR fragments represent the largest material type (38.4%) and artifact type (76.9%) in the overall prehistoric assemblage for Area 2, with smaller counts of quartzite (n=5) and quartz (n=1) FCR noted in the collection. Two quartzite hammerstone fragments, one jasper utilized flake, one burnisher of

unknown material, and a jasper pebble exhibiting battering on its ends, comprise tool forms recovered from Area 2 (Appendix D).

The prehistoric cultural material observed in Area 2 was scattered and of low density (Figure 24). The pedestrian survey of the 10.0-meter square grid cells identified a small cluster of FCR in Rows 1 through 5, with one piece of FCR found in Blocks 1-R, 2-R, 2-C, 3-R, 3-C, 5-R, and 5-L, and two pieces of FCR found in Block 4-L. A hammerstone was also recovered from Block 2-C. Excavations in Row 23 documented a small, 20.0-meter long by 6.0-meter wide area of jasper (n=5), chert (n=2), and quartzite (n=2) debitage and FCR (n=6) distributed within the Ap-horizon of STP 23C, STP 23C+5m East, STP 23R, STP 23 RR (Stratum II), STP 26RR+5m South (Stratum II) and TU 1, as well as in the Bt-horizon of TU 1. Analysis of the collection identified jasper primary (n=2) and tertiary (n=2) flakes, a chert flake fragment, and five FCR fragments in the Ap-horizon of the excavations, and a jasper primary flake (n=1), chert (n=1) and quartzite (n=2) tertiary flakes, one quartzite FCR in the first 10.0-centimeter level of the Bt-horizon in TU 1. No subsurface features were identified in the STP and TU excavations.

Historic cultural materials were dispersed to the east and north of the Soulie Gray House (Figure 25). A small cluster of architectural debris was observed along the periphery of the Soulie Gray House lot. A concentration of brick (n=44) was observed within Rows 10 through 17 east of the non-extant farm. TU 3 produced a total of 21 cut and ten wire nails from the Ap-horizon, with one cut and six wire nails found in the overlying O-horizon and the one each cut and wire nail in the underlying Bt-horizon. The Ap-horizon in TU 5 and TU 4 contained seven and three cut nails, respectively. A single wire nail was also recovered from the Ap-horizon in TU 5. Appreciable counts of window glass were also encountered in the Ap-horizon of TU 3 (n=22) and TU 4 (n=6). A second concentration of cut nails was noted along the eastern edge of the farm pond. TU 1 yielded 14 cut nails in the Ap-horizon, while TU 6 produced three cut nails each in the Ap- and E-horizons. TU 6 also produced a small assortment of ceramic sherds (n=16) in the Ap- (n=14) and E-horizons (n=2), whereas the glass collection was recovered predominantly from the O- (n=6) and Ap- (n=23) horizons in TU 3 and the Ap-horizon (n=13) in TU 5 (Appendix E). Cut nails (n=14) were also recovered in notable quantities to the north of the farm, with STP 21-RR producing five nails alone.

The remains of a post mold was discovered in Area 2. Feature 1, a circular stain approximately 18.0 centimeters in diameter, was exposed in the west wall of Test Unit 5 (Photograph 21). The feature soil consisted of a dark brown (10YR 3/3) sandy loam surrounded by a yellowish brown (10YR 5/4) sandy loam. The feature was excavated to a depth of 89.0 cmbd and revealed to be the remnant of a historic post, likely a fence post. A single brick fragment, discovered at the base of Feature 1, comprised the only cultural artifact in the stain. Other than Feature 1, no other cultural features were encountered in Area 2. TU 2, placed in the area of the FCR concentration along the southern edge of the Soulie Gray House, did not exhibit any cultural materials below the plowzone, or any feature stains indicative of Native American occupation.

The artifact distribution patterns for Area 2 suggest certain trends for prehistoric and historic site occupation. The distribution of the prehistoric artifact assemblage revealed limited information concerning horizontal and vertical trends in Area 2. The concentration of FCR towards the southern end of the surface collected grid in Area 2 may have been part of Locus 3 in Area 1, but the construction of SR 1 adversely impacted site preservation, leaving a small portion of the site remaining to the east. The excavation of TU 2 within the FCR cluster revealed a single piece of chert shatter and a few historic artifacts in the Ap-horizon, with no evidence of *in situ* FCR, carbon, or burnt earth in the Bt-horizon to suggest that the remains of an intact hearth are present in Area 2.

The small lithic cluster found in the Ap/Bt-horizons north of the farm is interpreted as part of 7K-F-163B, a prehistoric/historic surface scatter documented along the east edge of the farm pond. TU 1 produced the largest number of prehistoric artifacts, with two jasper primary flakes and three quartzite FCR fragments recovered in the Ap-horizon, and one jasper primary flake, one chert tertiary flake, two quartzite tertiary flake, and one quartzite FCR collected from the first 10.0 centimeter level of the Bt-horizon. The remainder of the prehistoric artifact assemblage in Area 2 was retrieved in small numbers from the disturbed plowzone or fill context. Despite the presence of debitage and FCR in the Bt-horizon, the low artifact count and absence of features indicates that this possible chipping feature has been impacted by historic and modern plowing and redistributed across the landscape, providing no new information concerning stone tool manufacturing technology. Given the close proximity of the multiple prehistoric loci identified in

Area 1 to the FCR remains noted on the south side of the farm and the lithic cluster on the north side of the farm in Area 2, it is suggested that these prehistoric resources are part of one large, multi-component site complex documented in the APE.

The historic artifact assemblage found in Area 2 is associated with the non-extant Soulie Gray House. The mid-eighteenth- to mid-twentieth-century domestic and architectural remains correspond to the general timeframe of historic occupation of the Soulie Gray House and are representative of the debris associated with farmstead occupations. The historic artifacts in the plowed field to the east of the farm and the fallow ground north of the farm reflect household refuse and building debris dispersed by plowing activities. The ceramics assemblage illustrates a general assortment of decorated and undecorated flatware and hollowware forms used for food storage, preparation, and serving. Fragments of bottles, jars, and other hollow forms represent a sample of glass containers used by the household occupants.

It is not unexpected to find quantities of architectural refuse adjacent to the main house site. The 1866 Fire Insurance Policy for John West (Table 5) lists an old barn, a frame carriage house, a frame stable, and several other outbuildings on the property. Historic aerial photographs (Figures 26 to 30), a 1963 As-built map of the farm (Figure 31), historic USGS topographic maps (Figures 7, 32 to 33), and photographs of the farm outbuildings (Figure 34) illustrate a series of small, mid-twentieth-century frame outbuildings along the north side of the north driveway entrance to the farm, as well as a large frame and concrete block barn in the northeast corner of the property. It is suggested that an earlier building stood in the location of the frame and concrete block barn. Figure 26 illustrates a large, rectangular structure, designated Building B, at the eastern end of the north driveway entrance to the farm. By 1954, Building B had been demolished (Figure 27). Evidently the necessity of a barn or outbuilding on the property held some significance, as by 1956 a new Building B is shown on the property (Figure 33). This is confirmed in a 1961 aerial photograph, with a second large outbuilding, a frame and concrete block barn depicted on the 1964 As-built map of the property, constructed on the farm property slightly to the south of the previous building's location (Figure 28).

It is not clear from the background research or the archaeological record if Building B depicted in Figure 26 represents one of the structures listed on the 1866 West policy, or a building constructed in the late nineteenth- to early-twentieth-century. Cut and wire nails, window glass, and a concentrated scatter of brick refuse along the north edge of the house lot represent construction and demolition refuse associated with Building B on the 1937 photograph, the circa 1956 frame and concrete block barn, and with the outbuildings listed on the 1866 fire policy. It is unlikely that architectural refuse associated with the Soulie Gray House would be included in this area, as the house was burned as part of a fire school training exercise in 1992, the resultant rubble pushed into the house foundation, the foundation covered with fill (Bill Betts, personal communication 2004). While a portion of the mid-twentieth-century barn's concrete block foundation was observed in TU 3, it is inconclusive that the barn's construction destroyed any cultural deposits associated with the nineteenth-century occupation of the farm. Given the presence of a historic post mold stain (Feature 1) in TU 5, the area of architectural refuse in Area 2 along the north edge of the house lot may contain additional subsurface deposits and features associated with the outbuildings and site-specific activity areas of the mid-nineteenth- to early-twentieth-century occupation of the Soulie Gray House.

### **5.3 Area 3**

Seven shovel tests were excavated in Area 3, located to the west of SR 12 (Figure 13). Excavations in Area 3 identified an impacted and disturbed setting composed of multiple fill horizons overlying and surrounding buried fiber optic and sewer line utilities. STP 5 is representative of a typical soil profile in Area 3. Stratum I, a fill horizon comprised of a mottled dark brown (10YR 3/3) and yellowish brown (10YR 5/4) sandy loam with road gravel, extended from 0.0 to 32.0 centimeters below ground surface. Stratum II, a mottled yellowish brown (10YR 5/8) and yellow (10YR 7/8) sand, was encountered from 32.0 to 90.0 centimeters below ground surface (Appendix E). Two clear vessel fragments, two square nails fragments, and an oyster shell fragment were recovered from Stratum I in STP 5. No subsurface features were encountered in Area 3.

Excavations in the remaining test pit excavations in Area 3 produced a similar selection of artifacts. STP 3 produced two clam shell fragments from fill, while fill horizons in STP 4

contained amber bottle glass (n=8), clear vessel glass (n=2), and oyster shell (n=10). STP 6 contained 14 amber bottle glass fragments from various fill horizons. STP 2 produced the only evidence of prehistoric remains, with one jasper flake recovered from a brownish yellow (10YR 6/6) sandy loam 12.0 to 59.0 centimeters below surface. This level also produced amber bottle glass (n=2), clear vessel glass (n=1), tile fragments (n=2), clear window glass (n=1), and oyster shell (n=35) in the same context as the jasper flake (Appendix E). No artifacts were recovered from STP 1 or STP 7.

#### **5.4 Area 4**

A controlled surface collection in Area 4 did not yield any prehistoric or historic cultural remains on the surface of the plowed field (Figure 14). No further excavations were conducted in this area.

#### **5.5 Area 5**

A total of 107 STPs were excavated within Area 5 (Figure 15). The soil profile in Area 5 revealed a fairly uniform plowzone consisting of a 20.0 to 38.0-centimeter thick dark brown to brown (10YR 3/3-4/3) silt loam to sandy loam horizon overlying a 6.0 to 23.0-centimeter thick yellowish brown (10YR 5/4-5/6) silty sand E-horizon subsoil. The variability in depth and presence of the E-horizon was noted over the entire parcel of Area 5 and is interpreted to represent the natural undulating surface of the terrain prior to deforestation and historic plowing of the landscape. A strong brown to dark yellowish brown (7.5YR 4/6 to 10YR 4/6) silty sand to sandy clay Bt-horizon subsoil was observed underlying the Ap- and E-horizon soils (Appendix E).

Testing in the southern portion of Area 5 identified variations in soil colors and textures associated with ponding surface runoff. STP N200 E1000 produced a 33.0-centimeter thick plowzone horizon overlying a light olive brown (2.5Y 5/6) sandy clay E-horizon 33.0 to 57.0 centimeters below surface and a brownish yellow (10YR 6/8) sandy clay Bt-horizon extending from 57.0 centimeters below surface to the bottom of the test pit at 68.0 centimeters below surface. STPs N200 E800, N250 E850, and N250 E950 also evidenced an olive brown to light yellowish brown (2.5Y 4/3-6/3) soil horizon below the plowzone (Appendix E). These test pits

were excavated within a low spot that collects surface runoff from the natural slope of the field, possibly the result of SR 1 obstructing the natural drainage pattern of the landscape (Photograph 22). A yellowish brown mottled with reddish yellow (10YR 5/8 and 7.5YR 6/8) coarse sand Bt-horizon subsoil was encountered below the plowzone in STP N150 E950 and may represent part of the natural drainage channel of the landform.

A small assortment of prehistoric (n=31), historic (n=88) and faunal (n=7) artifacts were recovered across Area 5. Lithic types found in the prehistoric assemblage included jasper (n=22), chert (n=4), quartz (n=2), and quartzite (n=1). Primary (n=6), secondary (n=14), and tertiary (n=5) stage reduction debris, as well as a small number of shatter (n=2), illustrate waste materials from stone tool processing activities. A chert utilized flake found in the plowzone of STP N450 E700 represents the only tool found in Area 5. The recovery of two prehistoric ceramic sherds, identified as Hell Island ware (600 B.C.-A.D. 800), from the plowzone horizon in STP N325 E900 and one FCR fragment in the plowzone of STP N450 E750 are representative of cooking activities. However, no evidence of hearth features, charcoal, or heat-reddened earth was observed in or around the excavations containing the prehistoric ceramics or FCR to (Appendix D).

The historic artifact assemblage contained a variety of domestic, architectural and industrial artifact classes. Domestic refuse (n=51) included ceramics (n=37), bottle glass (n=10), vessel glass (n=2), and an undecorated kaolin pipe bowl fragment (n=1) (Appendix D). The overall ceramic assemblage weighed heavily with late eighteenth- to early nineteenth-century wares, including creamware (n=6) (1762-1820) and undecorated (n=10) (1779-1820) and polychrome (n=2) (1795-1820) pearlware. Undecorated porcelain (n=1) and unglazed (n=2) and eroded (n=5) redware fragments exhibit an early-eighteenth-century through twentieth-century production date as well, but the lack of decoration or diagnostic features precludes assigning a specific date to these remains. Sherds of manganese- (n=3) and lead-glazed (n=1) redware and undecorated (n=4), polychrome (n=1), blue annular (n=1), and blue shell edge (n=1) whiteware and provide examples of early-nineteenth- through early-twentieth-century ceramics. Colorless (n=7), aqua (n=2), and light olive (n=1) bottle glass, and aqua (n=1) and colorless (n=1) vessel glass, illustrate examples of mid-nineteenth- through mid-twentieth-century glass manufactures.

Brick fragments (n=19), window glass (n=5), plaster fragments (n=2), and cut (n=3) and wire (n=1) nails represent architectural refuse (n=30) recovered in Area 5. Industrial artifact types include coal (n=4) and coal slag (n=1), glass slag (n=1), unidentified metal (n=1), and an iron threaded nut (n=1). Eroded oyster shell fragments (n=7) comprised the faunal materials collected from Area 5.

Distribution trends of the material collection in Area 5 indicate that historic and modern plowing of the landform has disturbed and/or dispersed cultural remains of Native American and early- to mid-nineteenth-century farmstead activities across the landscape (Figure 35). Of the 126 prehistoric, historic, and faunal artifacts collected during the Phase IB survey of Area 5, a total of 120 (95.2%) artifacts were recovered from the plowzone horizon. The E-horizon yielded two jasper (STP N300 E800 and N350 E1050) and one chert (STP N300 E700) flakes, one wire nail (STP N500 E600), one pearlware sherd (STP N500 E800), and one colorless bottle glass fragment (STP N550 E950). Three prehistoric artifact concentrations were observed in Area 5 (Figure 36). Locus 1 consists of a 30.5-meter by 45.7-meter scatter of five jasper and one chert flakes found in the plowzone horizon in the eastern portion of the tested parcel. Locus 2 comprises a 61.0-meter by 30.5-meter concentration of six jasper and one chert flakes, two Hell Island ceramic sherds, one brick fragment, two whiteware sherds, one eroded oyster shell fragment, one unidentified metal fragment, and one iron threaded nut. One chert flake and one jasper flake were recovered from the E-horizon in STP N300 E700 and STP N300 E800, whereas the rest of the collection in Locus 2 was found in the plowzone horizon. Locus 3, 30.5 meters by 15.2 meters, contained seven jasper, one chert and one quartz flake, two creamware sherds, two brick fragments, one cut nail, and one eroded shell fragment, all found in the plowzone. No cultural features were observed in the test pit excavations conducted within these three loci.

A concentration of late eighteenth- through early-twentieth-century domestic and architectural debris was also recorded in Area 5 (Figure 37). Locus 4 consists of a 30.5-meter by 30.5-meter scatter of pearlware (n=3), redware (n=3) and whiteware (n=1) sherds, a kaolin pipe bowl fragment, coal slag (n=1), brick (n=4), window glass (n=1), plaster (n=2), an eroded oyster shell fragment, and bottle glass (n=3) recovered largely from the plowzone horizon. Within this locus,

STP N200 E900 yielded an 80.0-centimeter thick dark brown (10YR 3/3) loamy sand fill over a brown (10YR 5/3) clayey sand horizon extending from 80.0 centimeters to the bottom of the excavation at 92.0 centimeters below surface. Three pearlware sherds and one brick fragment were recovered from the top 50.0 centimeters of this 80.0-centimeter thick package. However, there was no differentiation between the plowzone and the remainder of the stratum to distinguish whether these artifacts were found in the plowzone context. The presence of late-eighteenth- through late-nineteenth-century ceramics, a pipe bowl fragment, and architectural debris in Locus 4 suggests that this concentration may represent the plow-dispersed remains of a dump or midden. The 80.0-centimeter thick deposit in STP N200 E900 possibly represents fill associated with a dump site. The fill deposit is located near a low spot in Area 5, and may have served as waste material used to fill in a boggy area to raise the land surface and increase the acreage of tillable ground.

## **5.6 Area 6**

Archaeological testing in Area 6 revealed that the fallow setting flanking the north and south sides of the Soulie Gray House lot was plowed at one time (Figure 16). STP N430 E610 provides a representative soil profile for the southern section of Area 6, consisting of a dark yellowish brown (10YR 4/4) loamy sand plowzone 0.0 to 29.0 centimeters below surface, followed by a yellowish brown (10YR 5/4-5/6) sandy loam E-horizon subsoil 29.0 to 38.0 centimeters below surface, and a strong brown (7.5YR 5/6) sandy loam Bt-horizon extending from 38.0 centimeters to the bottom of the excavation at 47.0 centimeters below surface (Appendix E). The northern section of Area 6 yielded a similar soil profile as noted in the southern section, but evidenced a dark yellowish brown to yellowish brown (10YR 4/6-5/8) gravelly sandy loam Bt-horizon. A second Bt-horizon, composed of a brownish yellow (10YR 6/6) coarse sand, was recorded in STP N520 E520 at 60.0 centimeters below surface.

Not surprisingly, an assortment of mid-eighteenth- through mid-twentieth-century domestic and architectural refuse was recovered from Area 6. Architectural materials (n=839) far outnumbered all artifact classes in Area 6. Numerous samples of brick fragments (n=723), including one glazed fragment, four pieces bearing high concentrations of impurities, and one handmade half-brick, were recovered from the parcel. A large number of cut (n=66) and wire nail fragments

(n=28), as well as one unidentifiable nail, were also collected from the excavations. Window glass (n=19) and asbestos tile fragments (n=2) constitute the remaining architectural artifacts found in Area 6 (Appendix D).

Domestic refuse (n=144) included an assortment of ceramic wares spanning the mid-eighteenth-through early-twentieth-century period. Creamware (n=8) and pearlware (n=4) represent a late-eighteenth- to early-nineteenth-century component of the ceramic assemblage. While the creamware assemblage did not exhibit any decorations, examples of blue painted (n=1) and green shell-edge (n=1) decoration were observed in the pearlware collection. Fragments of whiteware, including undecorated (n=13) (1820 on), flow blue (n=2) (1840-1860), and decal (n=1) (1890 on), one sherd of undecorated yellowware (1830 on), three ironstone fragments (1840 on), and one sherd of porcelain (1745 on) were also collected in Area 6. Redware sherds include lead (n=7) and manganese (n=3) glazed (1822-1900), eroded sherds (n=17), and two slip-trail decorated sherds. The slip-trail redware reflects a ware type manufactured between 1733 and 1850. However, the overall ceramic collection generally encompasses a late-eighteenth- to early-twentieth-century period of manufacture, suggesting that these two redware sherds, as well as the porcelain fragment, likely date to a late-eighteenth-century manufacture. The recovery of a molded ironstone rim and an undecorated whiteware rim provides examples of flatware vessel forms in the assemblage.

The glassware collection recovered from Area 6 yielded predominantly bottle glass remains (n=77), along with a small number of vessel (n=1), jar (n=1), stemware (n=1), and flat glass (n=1) fragments. Of the 38 amber bottle glass fragments, 36 consisted of undiagnostic shards. One amber glass shard in TU N520 E579, Stratum II, level 1 (33.0-43.0 cmbd), a fill deposit, consisted of a machine-made bottle base, while a second bottle fragment in STP N520 E500 exhibited the letters "...TO B..." embossed on the bottle exterior. Semi-automatic mechanized bottle production was first introduced in the late nineteenth century in the United States and England, with fully automatic production lines beginning in 1904 (Jones et al. 1989:39). Lettered plate designs on glass bottle and container bodies generally date from the last third of the nineteenth century to present (ibid:49). Aqua (n=14), dark aqua (n=1), cobalt (n=1), light olive (n=1), olive (n=1), colorless (n=16) and solarized colorless (n=3) bottle glass fragments were

limited to undecorated body sherds. The light olive and olive glass fragments exhibit tiny seed bubbles within the glass matrix, but this is not necessarily a characteristic of an eighteenth- or early-nineteenth-century bottle. Solarized glass, a formerly colorless glass which turns a slight purplish tint from overexposure to the sun's ultraviolet rays, was most common from the late nineteenth- through early-twentieth-century (ibid:13). TU N520 E579, Stratum I (10.0-33.0 cmbd), the plowzone horizon, produced one colorless machine-made bottle base bearing the embossed words "ONE PINT" on the exterior, attributed to late nineteenth- through mid-twentieth-century manufacture.

Beyond the bottle assemblage, the glass collection produced examples of container and tableware items. One fragment of aqua jar glass bears the embossed letters "...ON..." on the exterior of the shard. This fragment is likely part of a Mason canning jar produced after 1858 (ibid.:164). Unfortunately, no mold marks or other manufacturing characteristics were visible to identify the manufacturing process used to create the jar. TU N520 E579, Stratum II, level 2 (43.0-57.0 cmbd), contained a small sherd of opaque white vessel glass, widely used for tablewares, containers, and lighting devices in the late nineteenth century (ibid:14). A colorless solarized glass disk, possibly the base of a stemware glass, was recovered in TU N519 E499, Stratum II, level 1 (33.0-43.0 cmbd), a plowzone horizon (Appendix D).

The industrial artifact class evidenced a small sampling of material culture associated with the farmstead occupation. Fragments of coal (n=28) and coal slag (n=28) are interpreted to reflect a fuel source used to heat the farm house or an outbuilding. Various pieces of hardware, including electric wire (n=1), chain fragments (n=3), an iron spike, a staple, unidentified metal (n=26), stamped (n=2) and perforated (n=1) sheet metal fragments, and an iron alloy hardware plate, possibly from a door latch, illustrate items used within the house and outbuildings. Personal items include a knife blade and a fragment of a slate pencil. A fragment of a bit and a small metal O-ring represent portions of tack possibly used with horses.

In addition to the historic artifact assemblage, archaeological testing in Area 6 yielded a small assortment of prehistoric artifacts, including debitage (n=21), fire-cracked rock (FCR) (n=7), and one utilized flake tool. Jasper (n=16) accounted for the largest number of artifacts, followed by

chert (n=6), quartz (n=2), quartzite (n=2), sandstone (n=3), and siltstone (n=1). The recovery of chert primary (n=1) and secondary (n=5) flakes, as well as jasper shatter (n=1), primary (n=1), secondary (n=9), and tertiary (n=5) reduction stages, in the debitage collection reflects waste materials from lithic procurement and processing activities. Cooking activities are represented by the few FCR fragments found in Area 6. No temporally diagnostic prehistoric artifacts were recovered in the assemblage (Appendix D).

The distribution of the artifact collection in Area 6 suggests that the northern section has borne the brunt of landscape impacts associated with domestic and agricultural practices of the Soulie Gray Farm, as well as the construction of the SR 1 bypass. The seven STPs excavated in the southern section of Area 6 yielded one prehistoric and seven historic artifacts, whereas the seventeen STPs and four test units conducted in the northern section of Area 6 produced a total of 1,141 artifacts. Much of the artifact collection was recovered between a common plowzone horizon found across the area (n=848, 73.8%) and an overlying fill episode (n=124, 10.8%), with only a trace number of historic artifacts recorded in the E- (n=1, <1%) and Bt-horizons (n=1, <1%). Two soil anomalies associated with cultural features in the northern section, Feature 6 and Feature 3, produced a total of 165 and 2 artifacts, respectively.

Testing adjacent to the southeastern corner of the farm pond exposed a buried plowzone horizon (Stratum II) which capped a concentration of brick rubble. TU N519 E499, TU N519 E500, and STP N520 E500, situated on a slight rise adjacent to the east side of the farm pond, exhibited a 9.0 to 20.0-centimeter thick dark brown to dark yellowish brown (10YR 3/3-4/4) sandy loam fill deposit (Stratum I) overlying a 17.0 to 18.0-centimeter thick brown to dark yellowish brown (10YR 4/3-4/6) loamy sand plowzone (Stratum II). An approximately 90.0-centimeter wide by 105.0-centimeter long concentration of brick was exposed at the top of the second level of Stratum II 52.0 cmbd in the south half of TU N519 E499 and the southwest corner of TU N519 E500 (Photograph 23). Analysis of the brick pieces in the concentration, as well as the material recovered from Strata I and II, revealed fragments with high impurity content, suggesting that some of the bricks are possibly handmade. The surrounding plowzone matrix was excavated to reveal the next soil stratum, a yellowish brown (10YR 5/6) loamy sand deposit (Stratum III).

The artifact assemblage in Stratum I and Stratum II in these three excavations contained a general mix of late eighteenth- through twentieth-century ceramics, bottle and vessel glass, architectural debris, coal, shell and bone fragments, metal fragments, and other refuse. Brick counts were much higher in Stratum II (n=568) compared to Stratum I (n=66), attributable to fragments extracted by plow from the main concentration, otherwise no appreciable variations in class or count were noted between the two stratum. The brick rubble concentration and the underlying deposit (Stratum III) were designated Feature 3, and left *in situ*.

A concentration of architectural and domestic remains was also identified in STP N520 E580 and TU N520 E579. Test excavations uncovered a 23.0 to 25.0-centimeter thick brown to dark yellowish brown (10YR 4/3-4/4) sandy loam plowzone (Stratum I) overlying an 18.0-centimeter thick very dark brown to very dark grayish brown (10YR 2/2-3/2) silt loam deposit (Stratum II). Stratum I produced a varied assortment of faunal material, including fragments of clam (n=9) and oyster (n=18) shell and bone (n=6), as well as brick (n=19), cut nails (n=12), bottle glass fragments (n=44), ceramics (n=6), window glass (n=1), asbestos tile (n=1), a small metal O-ring, and pieces of corroded metal (n=4). Conversely, Stratum II yielded a larger number of brick (n=59), cut (n=30) and wire (n=26) nails, and corroded metal (n=21), as well as terra cotta fragments (n=4), ceramics (n=4), window glass (n=2), oyster shell (n=6), bottle and vessel glass (n=9), coal (n=1), a spike, asbestos tile (n=1), and one fragment of FCR (Appendix E). Stratum III, a 20.0-centimeter thick brownish yellow mottled with strong brown (10YR 6/6 m/w 7.5YR 5/6) sandy loam Bt-horizon, produced one aqua bottle glass fragment. Stratum III was underlain by Stratum IV, a culturally sterile yellowish brown mottled with strong brown (10YR 5/6 m/w 7.5YR 5/6) fine sandy loam Bt-horizon.

The number of brick fragments recovered from TU N520 E579 and STP N520 E580 is far less than the brick count recorded in the excavations adjacent to the southeastern edge of the farm pond. However, these two excavations produced a number of cut and wire nails, brick fragments and corroded metal, along with a small selection of utilitarian household items such as ceramics and bottle and vessel glass, in Stratum II, a fill deposit. The architectural remains were recovered in the general area where a series of documented mid-twentieth-century frame agricultural outbuildings once stood, possibly even mid- to late-nineteenth-century outbuildings, and likely

represent fasteners and other materials from those demolished outbuildings dispersed by plow activities along with general household refuse around the perimeter of the property. Given the absence of charcoal, burnt timbers, and scorched earth in the soil matrix, as well as a mix of wire and cut nails, it is suggested that the outbuildings were razed and the remains taken offsite or deposited along the backside of the yard. A rubble pile of rotted lumber and scrap metal was observed along the eastern edge of the property, possibly the remains of the mid-twentieth-century outbuildings (Photograph 24).

Evidence of rodent disturbance was also noted in Area 6. A dark yellowish brown (10YR 4/4) loamy sand soil horizon (Stratum II) was exposed 30.0 to 50.0 centimeters below surface in STP N530 E550. Removal of the surrounding plowzone matrix in TU N529 E550 revealed an approximately 50.0-centimeter long by 40.0-centimeter wide stain in the E-horizon, and designated Feature 2. Removal of the feature fill uncovered a shallow depression with a small tunnel continuing into the subsoil at the western end (Photograph 25). The excavation of the feature yielded no prehistoric or historic artifacts.

## **5.7 Areas 7 and 8**

A total of 76 STPs and one, one-meter square test unit were excavated in Area 7 during the Phase I archaeological survey for the project (Figure 17). Area 8 received a total of 70 STP excavations in the Phase I survey (Figure 18). The soil profiles in Areas 7 and 8 were consistent with a sandy, Coastal Plain upland setting bisected by a minor-order drainage. The general soil profile of the upland setting consisted of a 25.0 to 39.0-centimeter thick brown to yellowish brown (10YR 4/3-5/4) sandy loam plowzone (Ap) overlying a 9.0 to 18.0 centimeter thick yellowish brown (10YR 5/4-5/6) sandy loam subsoil (E). A strong brown (7.5YR 4/6-5/8) to yellowish brown (10YR 5/6-5/8) sandy loam to sandy clay Bt-horizon subsoil was observed underlying the Ap and E-horizons. Testing within a grassy swale at the head and along the sides of the farm pond exhibited a series of hydric, olive-hued soils (Figures 38 and 39). STP N710 E470 yielded a moist, olive brown (2.5Y 4/3) clay loam plowzone horizon from 0.0 to 22.0 centimeters below surface, followed by a moist, light olive brown (2.5YR 5/3-5/4) loamy sand Bt-horizon subsoil extending from 22.0 centimeters to the bottom of the excavation at 35.0 centimeters below surface (Appendix E). It was noted that these soils continued beyond the

grassy swale into the adjacent plowed fields, but gradually tapered out and were replaced by the soil types described for the upland setting.

Evidence of colluvial deposition was noted below the plowzone horizon in STP N690 E450 and N690 E470. Stratum II, a 15.0 to 30.0-centimeter thick brown (10YR 5/3) loamy sand horizon noted in both test pits, exhibited thin ribbons of fine sand embedded within the soil matrix, similar to soil deposits observed in surface runoff channels in the plowed fields. These two test pits are thought to represent the location of a stream that once flowed into the drainage which empties into Spring Creek. Test pits excavated within the headwater drainage of the pond exhibited olive brown (2.5Y 4/3-4/4) to light yellowish brown (2.5Y 6/3) colors, unlike the brown (10YR 4/3) to strong brown (7.5YR 5/6) hues noted in the surrounding higher ground, reflecting the hydric properties of the soils in the channel (Appendix E).

Archaeological testing revealed that the landscape was modified through agricultural land use. A series of fill deposits were observed in several test excavations conducted within 15.0 meters of the farm pond (Figures 40 and 41). The fill deposits varied between 17.0 to 32.0 centimeters in thickness, averaging two to three horizons in each excavation, and consisted of various different colors. A plowzone horizon was observed below the fill deposits in the excavations, except for STP N560 E500 in Area 7 and STP N600 E440 and N660 E460 in Area 8. STP N560 E500 and N600 E440 yielded fill overlying an E- and Bt-horizon package, while STP N660 E440 evidenced fill over Bt-horizon subsoil. Correlated fill horizons were identified between STPs on both sides of the farm pond (Table 10).

**Table 10. Correlated Fill Deposits in Areas 7 and 8.**

<b>Area</b>	<b>STP</b>	<b>Stratum</b>	<b>Fill Deposit</b>
7	N560 E500, N580 E500, N590 E510, N600 E500, N620 E500	I	10YR 2/2 very dark brown silt loam
7 8	N640 E500 N630 E430	I I	10YR 4/4 dark yellowish brown sandy loam
7 7 8	N670 E490 N680 E480, N680 E500 N680 E460	I II I	2.5Y 6/3 light yellowish brown sandy loam to sand
7 7	N680 E480, N680 E500 N600 E500	I III	10YR 5/3 brown sandy loam to sand
7	N560 E500, N580 E500, N590 E510, N600 E500, N610 E510, N620 E500, N640 E500	II	Mottled 10YR 7/3 very pale brown, 10YR 2/1 black, and 10YR 5/6 yellowish brown sandy loam to silt loam
7	N560 E500, N580 E500	III	Mottled 2.5Y 5/3 light olive brown and 10YR 5/6 yellowish brown sandy loam
8 8	N570 E450 N670 E450	I III	10YR 6/3 pale brown sand
8 8	N590 E430, N610 E450 N590 E430	I III	10YR 3/3 dark brown loamy sand
8 8	N590 E430 N670 E450	II IV	10YR 7/4 very pale brown loamy sand to sand
8	N600 E440, N610 E430	I	10YR 4/3 brown loam
8	N600 E440, N610 E430	II	Mottled 10YR 4/3 brown, 10YR 2/2 very dark brown and 10YR 7/6 yellow loamy sand
8	N660 E460, N670 E450	I	Mottled 10YR 4/3 brown and 10YR 6/3 pale brown loamy sand

The discrete distribution of the fill horizons on both sides of the farm pond suggests that the pond was dredged, possibly in several episodes, and the resultant spoils were graded along the pond edge. Prior to the dredging activities, the landscape was part of the plowed cropland. Large swaths of ground in Areas 7 and 8 exhibited a truncated Bt-horizon capped with the plowzone (Figures 42 and 43) (Appendix E). These swaths are interpreted as peaks in the undulating terrain where historic plowing activities gradually depleted the E-horizon over time and subsequently excavated into the underlying Bt-horizon.

An assortment of architectural debris, domestic refuse, and industrial class artifacts related to the occupation of the Soulie Gray Farm were recovered from Areas 7 and 8, as well as a small sample of prehistoric artifacts. By far, the largest quantity of artifacts (n=292) was recovered in Area 7, adjacent to the Soulie Gray House site, as opposed to Area 8 (n=50). In Area 7, architectural (n=121) and domestic (n=100) artifact classes were most prevalent. Fragments of brick (n=48), window glass (n=19), terra cotta tile (n=1) and mortar (n=1) represent some of the building materials found in the artifact assemblage. Cut (n=23), wire (n=20), and unidentified

nails (n=9) illustrate fastener types spanning the early-nineteenth through twentieth century. Small quantities of brick (n=8), cut (n=1) and unidentified nails (n=1), and window glass (n=1) were also found in Area 8. STP N660 E460, Stratum I (0.0-63.0 cmbs), a fill deposit, contained a fragment of a curved brick with eroded glaze, distinct from the nondescript brick fragments found throughout Areas 7 and 8 (Appendix D).

Bottle glass sherds (n=68) in amber (n=31), aqua (n=10), colorless (n=22), solarized (n=2), and green (n=3) hues illustrates the use of glass containers in the consumer market. The majority of the bottle glass assemblage featured undiagnostic sherds. One colorless fragment found in the plowzone horizon of STP N580 E580 exhibited the letters "...IDS..." embossed on the exterior surface, identified as the product of late-nineteenth- through twentieth-century mechanized bottle production (Jones et al. 1989:39). A late nineteenth- through early-twentieth-century solarized glass bottle stopper recovered in the plowzone horizon of STP N570 E530 is possibly part of a perfume container. Of the two bottle glass sherds found in Area 8, one fragment, a thin-bodied colorless sherd found in the plowzone horizon of STP N680 E400, possibly represents a blown-in-mold form of manufacture dating from 1880. In addition to the bottle assemblage, a fragment of opaque vessel glass, colorless flat glass, aqua flat glass, and a rim fragment of a hatched pattern glass tumbler were found in Area 7, while Area 8 produced a fragment of frosted lamp chimney glass. Unfortunately, the tumbler fragment does not contain enough detail to determine the method of manufacture.

The ceramic assemblage in Area 7 (n=28) and Area 8 (n=22) yielded a mix of mid- to late-eighteenth- through early-twentieth-century household wares, including red earthenware (n=19 [Area 7] and 14 [Area 8]), pearlware (n=2 [Area 7] and 2 [Area 8]) (1779-1820), and whiteware (n=6 [Area 7] and 4 [Area 8]) (1820-present) fragments. One sherd of ironstone (1840-present) was recovered from the plowzone in STP N580 E560, Area 7, while STP N640 E440 and N680 E420, Area 8, produced one sherd each of undecorated creamware (1762-1820) from the plowzone horizon. Examples of Jackfield (n=4 [Area 7] and 1 [Area 8]) (1751-1818), clear lead glazed (n=1 [Area 7] and 1 [Area 8]) (1822-1900), and slip decorated (n=1 [Area 7] and 1 [Area 8]) (1733-1850) redware, and blue edge (n=1 [Area 8]) (1820-1835), red sponge print (n=1 [Area 8]) (1828 on), blue transfer print (n=1 [Area 8]) (1820 on), purple transfer print (n=1 [Area 8])

(1828 on) whiteware illustrate the common decorative motifs used in ceramic production (Appendix E). A sample of eroded redware sherds (n=13 [Area 7] and 10 [Area 8]) was also attributed to wares used in the household setting, but lacked any surficial attributes to define decoration or form. The ceramic collection likely represents flatware and hollowware forms, although a red sponge print whiteware rim sherd found in the plowzone of STP N670 E390 represents the only indication of vessel form, in this case flatware. A porcelain doll head fragment and a plastic shotgun shell comprise the remainder of the domestic artifact collection. Faunal materials were limited to three eroded shell fragments, one identified as oyster.

Industrial artifact types (n=34 [Area 7] and 8 [Area 8]) were limited compared to domestic and architectural debris. A small number of coal (n=13), cinder (n=1), and charcoal (n=1) fragments were recorded in Area 7, as well as a fragment of hardened rubber, a corroded staple, and seven unidentified metal fragments. One piece coal and one metal fragment were recovered from the plowzone horizon in Area 8. The plowzone horizon in TU N583 E600, Area 7, produced a brown glazed porcelain electric insulator bearing the name "CROSS." Dust-pressed porcelain electrical insulators were introduced to the public by 1878, some thirteen years after glass insulators (Miller et al 2000:15). STP N610 E510, Stratum I (0.0 to 49.0 cmbs), and STP N630 E510, Stratum II (12.0 to 50.0 cmbs), produced one and eight fragments, respectively, of machine-made, extruded, terra cotta field drain tile fragments. In Area 8, STP N590 E430, Stratum III (27.0 to 44.0 cmbs) and STP N610 E430, Stratum II (29.0 to 94.0 cmbs), both fill deposits, also yielded three drain tile fragments each. Machine-made terra cotta drain tiles were first produced in 1848, with production still active today (ibid.:11). The tile fragments were recovered from dredge spoils excavated from the farm pond, suggesting that the farm pond previously consisted of a boggy drainage. The drainage tiles represent the farm owners' efforts to drain the boggy channel and add more arable land to their holdings.

A small number of prehistoric artifacts were encountered in Area 7 (n=34) and Area 8 (n=6) as well. Jasper (n=29), chert (n=5), and quartz (n=4) debitage, one quartzite FCR fragment, and one quartzite hammerstone comprise the assemblage (Appendix D). Varying stages of reduction were noted in the debitage assemblage. Primary flakes (n=13) were composed exclusively of jasper. Secondary and tertiary stage waste debris yielded jasper (n=9 and 7), chert (n=3 and 2) and

quartz (n=2 and 2) flakes as well. The hammerstone, a medium-size cobble, exhibited pecking on both ends, and was possibly used in stone tool manufacturing.

The distribution of the artifact assemblage in Areas 7 and 8 has been largely influenced through the agricultural use of the landscape. Approximately 92.5 percent (n=270) of the artifact assemblage in Area 7 was recovered within the plowzone horizon, followed by three percent (n=8) in the E-horizon, and five percent (n=14) in fill deposits. The Area 8 assemblage was divided between 46 percent (n=23) of the collection in the plowzone, and 54 percent in the fill deposits. No soil stains or other cultural features were identified with the subsoil.

Elevated counts of architectural and domestic artifacts were observed in select portions of Areas 7 and 8. STP N580 E580, Stratum II (33.0-43.0 cmbs), a 10.0 centimeter thick gravelly top layer in the E-horizon, yielded the only historic artifacts in Areas 7 and 8 below the plowzone, representing cut (n=2), wire (n=2), and unidentified (n=1) nails, one amber and one colorless bottle glass, and one unidentified metal fragment. Analysis of the artifact assemblage recovered from the plowzone horizon identified increased counts of brick, cut and unidentified nails, window glass, amber and colorless bottle glass fragments in a 40.0-meter square area surrounding STP N580 E580, but no cultural remains or features in the E-horizon. In general, the artifact assemblage was equally distributed throughout the plowzone horizon within this 40.0 meter square area, and did not exhibit any trends in artifact numbers or types per STP. A second, smaller scatter of architectural and domestic refuse was observed in the plowzone horizon of STPs N540 E620, N550 E610, and N550 E600. No subsurface features or artifact trends were identified in these test pits. Adjacent to the farm pond, STP N610 E510 and N630 E510, Area 7, and STP N590 E430 and N610 E430, Area 8 produced a small number of terra cotta field drain tile fragments from fill deposits.

Similar to the historic assemblage, the plowzone horizon also produced the majority of the prehistoric artifact collection. Area 8 yielded a very small number of jasper flakes (n=4) and FCR (n=1) mixed with historic refuse scattered along the northern and southern limits of the parcel, while STP N610 E450 produced a hammerstone mixed with bottle glass and ceramic fragments in a fill deposit. No subsurface features were identified in any of the test excavations

conducted in Area 8. In Area 7, a small number (n=4) of lithic debitage were recovered in the plowzone horizon just beyond the fill deposit flanking the eastern edge of the farm pond. No prehistoric materials were encountered in any of the fill materials deposited along the edge of the pond.

Beyond the few scattered flakes, a 20.0- by 40.0-meter area of lithic debris was identified in the southeastern corner of the parcel. A total of six pieces of debitage, mixed with historic refuse, were recovered from the plowzone horizon in five STPs (Table 11). TU N583 E600 yielded an additional 24 flakes from the plowzone horizon. No prehistoric artifacts were found in the E-horizon of the lithic scatter.

**Table 11. Prehistoric Artifact Concentration in Area 7.**

<b>Excavation</b>	<b># artifacts</b>	<b>Artifact description</b>
STP N560 E590	1	jasper flake; primary w/ cortex
	1	jasper flake; tertiary
STP N560 E600	1	jasper flake; primary, cortical
STP N580 E590	1	jasper flake; secondary w/ cortex, heat treated
STP N580 E600	1	jasper flake; secondary
TU N583 E600	3	jasper flake; primary, cortical
	1	jasper flake; primary w/ cortex
	2	jasper flakes; primary w/ cortex
	1	chert flake; secondary
	1	chert flake; secondary w/ cortex
	1	jasper flake; secondary
	1	jasper flake; secondary w/ cortex
	1	jasper flake; secondary, heat treated
	3	jasper flake fragments; secondary
	1	quartz flake; secondary
	2	chert flakes; tertiary
	2	jasper flakes; tertiary, heat treated
	3	jasper flakes; tertiary
	2	quartz flakes; tertiary
STP N590 E590	1	jasper flake; primary, cortical

As seen in Table 11, the lithic concentration recovered in the southeast corner of Area 7 exhibits a diverse assortment of primary (n=9), secondary (n=11), and tertiary (n=10) reduction stage waste material. While no cores or finished tools were recovered within Areas 7 or 8, this assemblage reflects artifact types consistent with a stone tool production activity area. Jasper primary and secondary debitage accounts for 56.6 percent of the concentration assemblage, suggesting that jasper was the primary source material utilized in this activity area, but chert and quartz were also used for tool manufacture. Water-worn cortex surfaces present on primary and

secondary flakes in the collection illustrates the use of local gravel and cobble resource for raw materials, not unexpected given the quantity of pebbles and gravels noted in the plowed surfaces of the adjacent fields. STP N580 E580, situated just west of the lithic concentration, contains an E-horizon consisting of 40 to 50 percent gravels, overlying a Bt-horizon containing 50 percent gravels. This gravelly deposit might have been the source of raw materials exploited by Native Americans in the lithic concentration.