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**A CULTURAL RESOURCES SURVEY OF THE
TWO DEVELOPMENT PARCELS (ED-6 and ED-7)
ON THE OAK RIDGE RESERVATION,
ROANE COUNTY, TENNESSEE**

February 2005

DuVall & Associates

Archaeological & Historical Services/ Franklin, Tennessee

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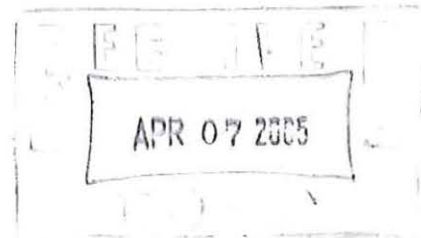
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Management Summary

Between the 16th of November and the 15th of December, 2004, DuVall & Associates, Inc., of Franklin, Tennessee conducted a Phase I cultural resources survey of two development areas, identified as parcels ED-6 and ED-7, located on the U.S. Department of Energy Oak Ridge Reservation in Roane County, Tennessee. The survey of the two tracts was undertaken at the request of SAIC of Oak Ridge Tennessee in cooperation with the U.S. Department of Energy. The primary goal of the investigation was to identify any archaeological or other cultural resources located in the two parcels and make a preliminary assessment of their eligibility for inclusion in the National Register of Historic Places.

The ED-6 parcel, to be utilized for residential development, consists of 149 ha (368 acres) of wooded uplands and foot slopes along the southern flank of Black Oak Ridge. The smaller ED-7 parcel consists of a 1.9 ha (4.68 acre) wooded slope located along Highway 58 and south of Poplar Creek. Proposed development of this parcel includes a train station and parking areas to be used in conjunction with the "Oak Ridge Secret City" train excursion tours.

The survey consisted of background historical and archaeological research and intensive pedestrian inspection of both the ED-6 and ED-7 parcels. Systematic shovel testing was conducted in areas of high resource probability within each of the parcels. No evidence of prehistoric or historic activity was identified within the ED-7 parcel. Two previously recorded prehistoric site areas (40RE134 and 40RE228) and five unrecorded historic period structure locations (40RE568, 40RE569, 40RE570, 40RE571, 40RE572) were identified within the ED-6 parcel.

The prehistoric site areas, 40RE134 and 40RE228, identified during previous surveys in 1974 and 1996, could not be relocated during the current investigations. Both sites were recorded as low density artifact scatters in disturbed context. Given additional disturbance in the intervening years it appears likely that both site areas, at least within the boundaries of the current project, have been totally destroyed. The historic period sites, 40RE568, 40RE569, 40RE570, 40RE571, and 40RE572, contain the remains of pre-Manhattan project houses and other structures located along old Gallaher Ferry Road (now a gravel access road). Surface remains such as chimney falls, foundation remains, and other historic debris define these site areas. None of these sites appear to date prior to the late 19th century and most produced artifacts representative of 20th century use. All would have been razed in 1942 or shortly thereafter when the land was acquired for the Manhattan Project. The sites are considered to be in poor to very poor condition, with substantial evidence of disturbance as a result of previous land-clearing and ongoing forestry practices. Given the general state of preservation, the relatively late date of occupation and the apparent lack of otherwise distinguishing elements, they are considered to have relatively limited potential for archaeological interpretation. They are not considered potentially eligible for National Register listing.

Two historic cemeteries (Rather and Scott cemeteries) are located in proximity to the ED-6 parcel boundaries but are well defined and should not be directly affected by proposed development plans. The Oak Ridge Turnpike Checking Station, a Manhattan Project era structure which is listed on the National Register of Historic Places, is located near the eastern corner of the ED-6 Parcel. All three sites should be identified on project mapping to insure avoidance during construction activity. No additional cultural resource management activity at either the ED-6 or ED-7 site is considered necessary at this time.

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INTRODUCTION

This report describes the conduct and results of a cultural resources survey of two parcels of property, identified as ED-6 and ED-7, located on the Department of Energy Oak Ridge Reservation in Roane County, Tennessee. The survey was undertaken by DuVall & Associates Inc., of Franklin, Tennessee for SAIC of Oak Ridge, Tennessee, in cooperation with the U.S. Department of Energy. The primary goal of the investigation, in compliance with Section 106 of the National Historic Preservation Act of 1966 (PL 89-665), was to determine whether any cultural resources potentially meeting the criteria for inclusion in the National Register of Historic Places (NRHP) are present within these areas.

The ED-6 Parcel area consists of approximately 149 ha (368 acres) of rolling to moderately dissected woodlands located on the slopes of Black Oak Ridge north of the East Fork of Poplar Creek. The ED-7 Parcel is a smaller, 1.9 ha (4.68 acre) pine forested tract located along the western margin of State Route 58 south of Burchfield Road.

The survey consisted of background research at the Tennessee Division of Archaeology (TDOA) and the Tennessee Historic Commission (THC), an intensive pedestrian survey of the entire project area, and systematic shovel testing of landforms which were considered to have moderate to high potential for past human activities. Field investigations were conducted between November 16 and December 15, 2004. Matthew Spice served as Field Director and was assisted by field technicians Matt Postelwaite and Stephanie Dale. Glyn D DuVall served as Principal Investigator. All materials related to the survey are temporarily housed at DuVall and Associates until the completion of the project.

PROJECT SETTING

Project Description

The project areas are both located on the U.S. Department of Energy Oak Ridge Reservation in northeastern Roane County, Tennessee. As shown in Figure 1, the 149 ha ED-6 Parcel is located on the south flank of Black Oak Ridge and includes sections of ridge crest, moderately steep side slopes and more gentle lower valley slopes north of the East Fork of Poplar Creek drainage. The 1.9 ha ED-7 Parcel (Figure 2) lies several miles downstream along the main branch of Poplar Creek, southwest of the intersection of Burchfield Road and State Route 58 (*i.e.*, SR 58 or Oak Ridge Turnpike).

The ED-6 Parcel is currently used as a Wildlife Management Area. Approximately 65% of the area consists of moderately steep to steep upland slopes covered with sub-mature (35-50 year old) mixed deciduous forest. The remaining 35% of the area consists of more moderate terrain on the lower valley slopes, generally rolling terrain along the footslopes north of the East Fork valley floor. This area, which contains a number of small tributary drainages, is also forested, predominantly with

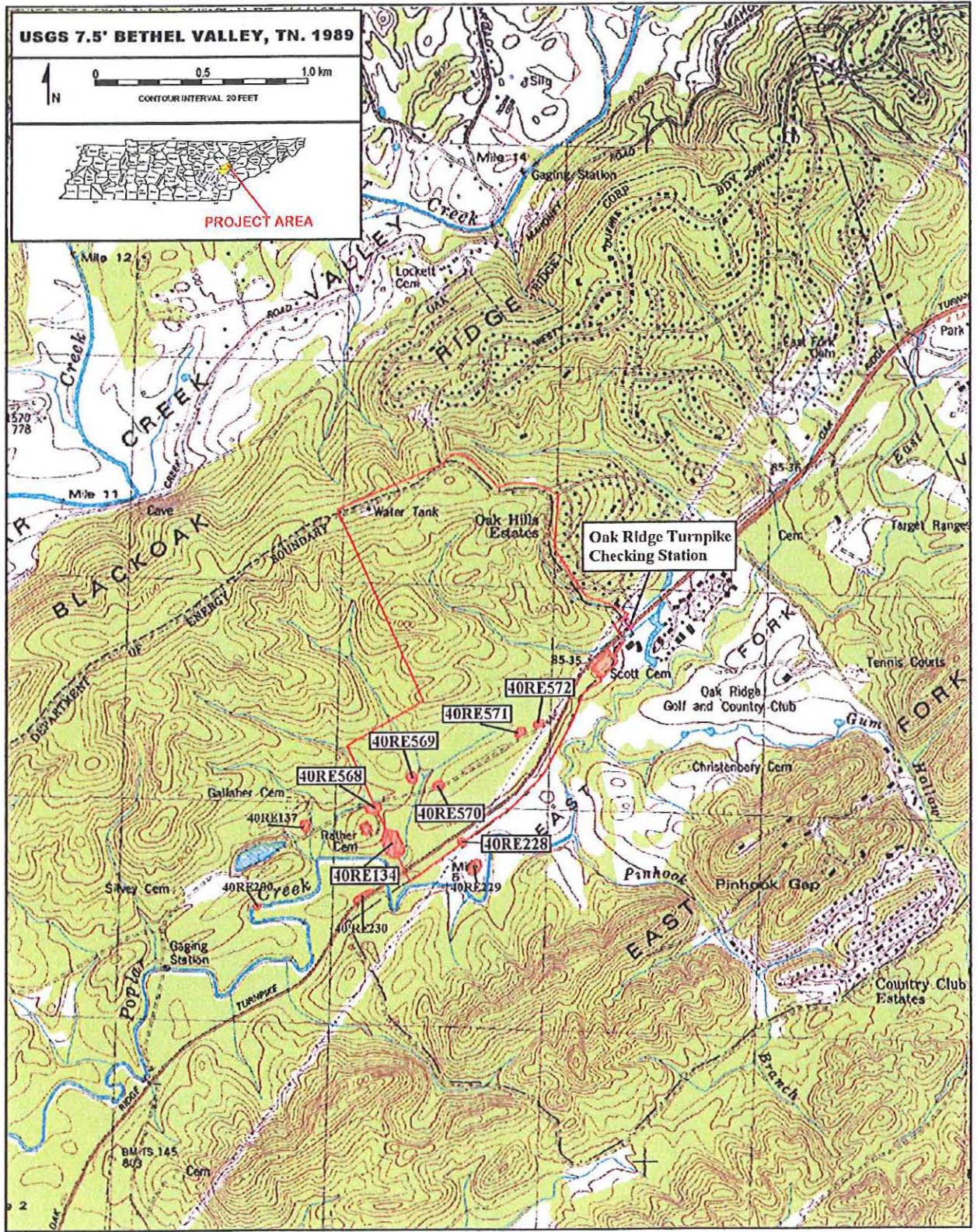


Figure 1. Project area map, showing Parcel ED-6 boundary (red), physical features and site locations discussed in text.

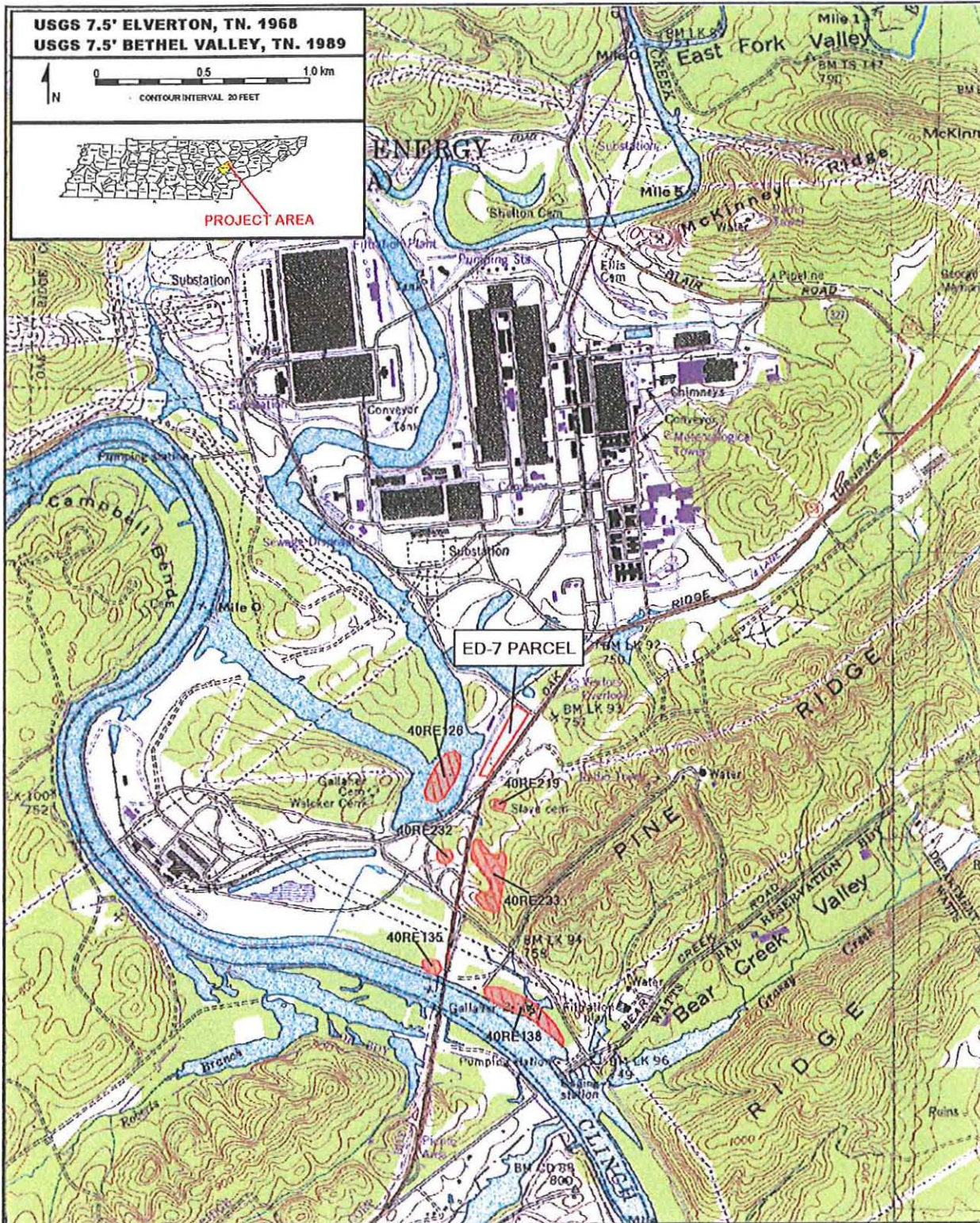


Figure 2. Project area map, showing Parcel ED-7 boundary (red), physical features and site locations discussed in text. K-25 complex area, at center, is drained by Poplar Creek. Clinch River is at left.

stands of pine which have been severely affected by the Southern Pine Beetle infestation. The majority of the mature pines in this area have been killed and have collapsed, creating extensive areas of dense secondary growth and younger pine trees (Figure 3). Only a small amount of open area is present within the parcel, most of it located either within the TVA powerline easement which crosscuts the southern edge of the tract or along Oak Ridge Turnpike and other existing roadways. The gravel patrol road which runs along the eastern and northern boundaries of the parcel is currently designated as a greenway, and is being used as a hiking and nature trail. A gravel patrol/access road which crosses the southern portions of the parcel follows the old Gallaher Ferry Road which was closed soon after the reservation was created. Residential development is currently planned for the ED-6 Parcel.

The ED-7 Parcel lies within the K-25 portion of the reservation. The tract lies on gentle slopes between the foot of Pine Ridge, to the east and Poplar Creek, to the west. The tract is bordered by Burchfield Road and State Route 58 (Oak Ridge Turnpike) on the north and east, by a TVA powerline on the south and by a railroad spur line on the west. The tract is forested in pines, with dense secondary growth occurring in some areas (Figure 4). This undeveloped property is to be used for a train station and parking area for the "Oak Ridge, Secret City" excursion train tours, which is being moved from its current facility at Blair Road and Poplar Creek Road.

More detailed maps of both tracts are provided in Appendix A.

Environmental Setting

The project area falls within the Ridge and Valley physiographic province (Fenneman 1938), the section in East Tennessee being generally referred to as the Great Valley (*e.g.*, Amick and Rollins 1937). This region is typified by a series of long, narrow, generally even-topped ridges and intervening valleys aligned in a southwest-northeast direction. These have been formed by the differential erosion of folded and faulted shale, dolomite, limestone, sandstone, and siltstone rocks of Cambrian, Ordovician, and Silurian geologic age. The higher ridges are capped with relatively resistant, steeply dipping sandstone, siltstone, or cherty dolomite, while the valley floors are principally underlain by softer shales and limestones. Surface drainage patterns are largely dictated by the prevailing topography, forming a trellised pattern of linear streams which follow the linear valley floors and crosscut the ridgelines through a relatively small number of watergaps. Transportation routes follow much the same pattern.

The ED-6 Parcel is entirely characteristic of this setting. Elevations within the ED-6 Parcel vary greatly from the highest point (1220' AMSL) at the top of Black Oak Ridge to 780' AMSL in the southern section along SR 58 near the East Fork of Poplar Creek. Much of ED-6 parcel falls on the side slopes of Black Oak Ridge, moderate to steeply sloping terrain with only few level areas observed in the form of small localized benches and narrow ridge crests. Slopes are somewhat more moderate toward the foot of the ridge. The area is drained by minor (Strahler Rank 1 and 2) tributaries which flow generally southeastward from the crest of the ridge to join with the East Fork of Poplar Creek, a small stream which drains the valley floor to the east and south of the project area.



Figure 3 Typical view of terrain and ground cover found in Parcel ED-6.



Figure 4 Typical view of terrain and ground cover found in Parcel ED-7.

As shown in Figure 2, the ED-7 Parcel is somewhat less typical, being located in a valley floor setting at a point where the southwest trending ridge and valley topography is crosscut by the major drainage of the region, the Clinch River, and by its major local tributary, Poplar Creek, which forms a wide meander just to the west of the project area. The project area is level to gently sloping at an average 800' AMSL. In general, this is a habitable, well drained landform in a well-watered setting.

Soils in the ED-6 area generally reflect the higher slope regimes. Most of the area is mapped as Clarksville cherty silt loam, hilly and steep phases with smaller amounts of Dewy silt clay loam found on the ridge crests (Swann 1942). More moderate to gently sloping terrain in the southern portions of the ED-6 Parcel consist of Fullerton cherty silty clay loam and Tabott, silty clay loams. These soils are derived primarily from *in situ* weathering, with some colluvial additions in favorable downslope positions. As much as 75% or more of the soils examined in these situations can be considered severely eroded. In many places regolithic materials or bedrock are exposed at the surface. Much of this is the product of deforestation and intensive agricultural use over the past two centuries. Soils found along and in the small drainages that run throughout the project area consist of Roane gravelly loams with smaller amounts of silt or clay loams. These soils also tend to have shallow profiles. Extensive alluvial deposits are not found along these small creeks.

The ED-7 Parcel is situated on a level to gently sloping landform, which can be described as a remnant foot slope of Pine Ridge to the south. Although proximal to Poplar Creek (inundated at this point) no alluvial deposits are present in the ED-7 area. Soils are primary soils underlain by rock and are mapped entirely as Apison very fine sandy loam, eroded phase (Swann 1942). As in ED-6, almost all of the soil profiles examined suggest extensive erosion, with little or no solum remaining. Much of this is the product of deforestation and intensive agricultural use over the past two centuries.

The area falls within the Carolinian Biotic Province as defined by Dice (1943:16), a biologically rich and diverse area. The vegetation is characterized as temperate-deciduous, falling within Braun's (1950:192) Oak-Chestnut forest region and composed of a limited number of co-dominant canopy species and a rich herbaceous understory. The original biological composition has been dramatically altered, however, both by extensive forest clearing and logging and by the chestnut blight, which destroyed much of the original character of the forest. Most of the remaining forest consists of sub-mature regrowth. A considerable amount of acreage, specifically within the DOE reservation, including the ED-6 and ED-7 Parcels, have been replanted in pines.

Regional Culture History

Archaeological investigations in the Eastern Woodlands of North America demonstrate that the area has been occupied since at least 14000 and perhaps as early as 17000 years ago (Adovasio et al., 1977). A series of fundamental changes in the material culture, subsistence activities, and social organization of prehistoric Native American cultures occurred over this period of time and are referred to as "cultural traditions" (Willey and Phillips 1958). With the addition of chronometric dating, the tradition concept continues to be used as a basic classification scheme by prehistoric archaeologists in the Southeastern U. S. These traditions, along with their approximate temporal

boundaries are: Paleo-Indian (10000 B.C. 8000 B.C.), Archaic (8000 B.C.-900 B.C.), Woodland (900 B.C.-A.D. 900), and Mississippian (A.D. 900-A.D. 1600). The Historic Period in the Eastern Tennessee Valley included occupations by the Overhill Cherokee (A.D. 1600- A.D. 1838) and, after 1770, settlement by Euro- and African-Americans. A basic outline of this cultural history is provided below and in Table I. The reader is also referred to synthetic treatments of Southeastern prehistory by Steponaitis (1986) and Smith (1986) and to Chapman (1985), who provides an excellent summary of recent research in the Eastern Tennessee Valley.

Paleo-Indian Period (10000 B.C.-8000 B.C.)

Archaeological research has documented the presence of Native Americans in eastern Tennessee by at least 12000 years ago. It is widely accepted that the aboriginal inhabitants of the New World reached the North American continent from Asia by a land bridge formed across the Bering Strait during the last glaciation, though the precise timing and nature of these migrations is still open to question (Meltzer 1989). The earliest cultural complex generally recognized in the eastern United States is Clovis. The surviving material artifacts characteristic of the Clovis complex are lanceolate fluted projectile points, which are also typical of the slightly later Cumberland cultural complex. The Paleo-Indian toolkit also included unfluted lanceolate projectile points, bifacial knives and drills, and a variety of relatively formalized flake tools including endscrapers and graters (frequently executed on blades), and splintered wedges (*pieces esquillees*). Point types that are considered transitional between the Paleo-Indian and Archaic periods are Quad (ca. 8800-8000 B.C.), Beaver Lake (ca. 8500-8000 B.C.), Dalton (8200-7800 B.C.) and Greenbrier (ca. 8000-7500 B.C.).

Unfortunately, Paleo-Indian sites in the eastern United States are rarely well preserved. Consequently, most information on Paleo-Indian subsistence and settlement is based on analysis of lithic assemblages and/or on inferences derived from analysis of site patterning. Based largely on early investigations at western North American sites, it was initially thought that the subsistence economy of Paleo-Indian cultures was based primarily on big game hunting. This does not, however, appear to have been the case in the Mid-South and Southeast. Meltzer (1988:41) suggests that the Paleo-Indian inhabitants of these areas were generalists, who exploited a variety of subsistence resources, including seeds, nuts, small mammals, and, perhaps only occasionally, big game. Faulkner (1989), noting that Paleo-Indian sites in Tennessee do not appear to exhibit any discernible patterning with respect to environmental or topographic variation, suggests that the seeming randomness of site location reflects a dispersed, generalized hunting and gathering adaptation.

Paleo-Indian sites occur throughout Tennessee, and are relatively common in the Western Valley and Interior Low Plateaus, areas which were undoubtedly important from the standpoint of lithic resource procurement. Paleo-Indian components occur with lesser frequency in East Tennessee, where they usually are encountered as surface scatters. Chapman (1977) made extensive efforts to identify buried Paleo-Indian sites in the lower Little Tennessee River Valley, with entirely negative results.

Archaic Period (ca. 8000 B.C.-900 B.C.)

The Archaic Period in eastern North America is generally perceived as an adaptive response to the changing post-Pleistocene environment, including a gradual shift toward a wide spectrum of adaptive strategies characterized by reliance on small game hunting, wild plant food harvesting and the exploitation of riverine resources. The technological assemblage reflects the development of this wider economic base in a number of ways. A larger and more varied tool kit was produced, including several types of stemmed and notched projectile points; cutting, piercing, and scraping implements of stone and bone; heavy ground stone tools for wood working and specialized stone objects such as ground and polished atlatl weights and tubular pipes, was produced. Plant processing tools, such as mortars, pitted "nutting" stones and pestles appeared for the first time. Fish hooks and "net sinkers" are found at some sites. Archaic settlement patterns and social organization have been interpreted to be functionally interrelated to the varied patterns of regional adaptation, but all are characterized by the shifting exploitation of seasonally available resources and habitats. Relatively high rates of group mobility are considered characteristic of the Archaic as a whole, however, by the end of the period evidence of increasing investment in fixed facilities such as storage pits and houses suggests that groups were becoming less mobile. It is also during the later stages of the Archaic that the first experiments with cultigens (*i.e.*, cucurbits) and ceramics (in the Middle Tennessee Valley) occur.

The Archaic has traditionally been subdivided into Early (8000-6000 B.C.), Middle (6000-3000 B.C.), and Late Archaic (3000-900 B.C.). Early Archaic phases in the eastern Tennessee Valley generally take their names from the most distinctive types of associated projectile point forms: the Kirk Phase (dating 8000-7000 B.C.), and the succeeding LeCroy, St. Albans, and Stanley phases (between 7000-6100 B.C.; *e.g.*, Chapman 1985). Early Archaic sites are relatively common in a variety of topographic settings throughout East Tennessee, suggesting a fairly large and mobile population. The best defined components are those preserved in stratified alluvial sites in the lower Little Tennessee River valley (*e.g.*, Chapman 1975, 1977, 1978, 1979). Although these riverine sites generally lack evidence of substantial structures, they often exhibit activity areas, frequently including site furniture, around prepared clay hearths. Light duty structures are considered probable at these sites and they are generally thought to represent seasonal or multi-seasonal residence by relatively small bands or family groups. Upland locales are smaller and generally exhibit less in the way of material abundance and artifact diversity, and appear to represent both field camps and residential base camps used during extended seasonal foraging activity. As discussed by Chapman and Shea (1981), the subsistence base during the Early Archaic appears to have been based on a fairly broad spectrum of plant and animal species. The white-tailed deer was a staple food animal, while hickory nuts and acorns are the most consistently preserved plant food remains.

The Middle Archaic appears to be characterized by significant changes in settlement patterning and a lesser degree of residential mobility. Brown and Vierra (1983) suggest that this development arises from both environmental pressures and those relating to population increase and/or territorial competition. Environmental change relating to postulated warming/drying trends during the mid-Holocene may also have been responsible for some of the settlement and subsistence trends of this

Table 1. Chronological framework for the central eastern Tennessee Valley.¹

Time Period	Temporal Unit	Phase	Estimated Time Range
Historic	Euro-American	----	after 1500
Historic Cherokee	Overhill	Overhill	A.D. 1600-1838
Late Mississippian			
(Mississippian III)	Dallas & Mouse Creek	Dallas	A.D. 1200-1600
Early Mississippian			
(Mississippian II)	Hiwassee Island I & II	Hiwassee Island	A.D. 1000-1200
(Mississippian I)	Martin Farm	Martin Farm	A.D. 900-1000
Late Woodland ?	Hamilton	-----	A.D. 900-1200
	Hiatus?	-----	A.D. 600-900?
Middle Woodland			
(Woodland III)	Icehouse Bottom	Icehouse Bottom	A.D. 350-600
(Woodland II)	Patrick	Patrick	200 B.C.-A.D. 350
Early Woodland			
(Woodland I)	Bacon Bend	Watts Bar	1000-200 B.C.
Late Archaic	Undesignated	Iddins	1800-1000 B.C.
	Undesignated	Savannah River	3000-1800 B.C.
Middle Archaic	Undesignated (Sykes)	----	4500-3000 B.C.
	Undesignated (Guilford)	----	5000-4000 B.C.
	Morrow Mountain	Morrow Mountain	5500-5000 B.C.
	Stanly	Stanly	5800-5500 B.C.
	Stanly	Kirk Stemmed	6000-5800 B.C.
Early Archaic	Kanawha	Kanawha	6100-5800 B.C.
	LeCroy	LeCroy	6500-5800 B.C.
	St. Albans	St. Albans	6900-6500 B.C.
	Kirk	Kirk	8000-6800 B.C.
Transitional	Undesignated (Dalton)	----	8500-8000 B.C. ?
Paleo-Indian	Undesignated (Clovis)	----	10000-8000 B.C. ?

¹ After Kimball (1985) and Davis (1990)

period. Subsistence patterns basically resemble those of the Early Archaic period, however, both site locations and the frequency of certain artifact types of artifacts, such as net sinkers, suggest a focus on the use of riverine resources. Shellfish appear to be an important component of the Middle Archaic diet. Although common, Middle Archaic components are not well represented in the eastern Tennessee Valley in comparison with both earlier and later periods.

The late Middle Archaic and Late Archaic periods are characterized by an increasing variety of projectile point forms, as well as a more sedentary lifestyle. Permanent structures appear along with a greater differentiation of site types. Squash, gourd, chenopodium and sunflower are domesticated for the first time (Chapman and Shea 1981). There is a greater investment of energy in less portable objects, such as soapstone bowls, which would have been heavier than skin bags or baskets. In addition, the development of a complex mortuary ritual suggests the attachment of corporate groups to specific areas (Chapman 1985; Charles and Buikstra 1983).

Two Late Archaic phases, Savannah River (3000-1800 B.C.) and Iddins (1800-1200 B.C.), have been defined for eastern Tennessee. Savannah River is earlier and known chiefly from excavations at the Bacon Bend site, where the earliest known evidence for the domestication of squash in eastern Tennessee was documented. Lithic artifacts include *Savannah River Stemmed* projectile points made of slate and quartzite. The Iddins Phase was documented through excavations at the Harrison Branch, Patrick and Iddins sites (Schroedl 1975, 1978; Chapman 1981). The best context investigated for this phase is Stratum III at the Iddins site, which contained a row of rock-filled hearths along the front edge of the first terrace. Associated artifacts include *Iddins Undifferentiated Stemmed* projectile points, grooved-ax fragments, and pieces of carved soapstone bowls (Chapman 1981).

Evidence for regional exchange between the groups of eastern Tennessee and those to the south and east is demonstrated by the appearance in the archaeological record of objects made of soapstone or steatite. Marine shell from both the Gulf of Mexico and Atlantic coasts, as well as copper from the Lake Superior region, are also recovered in Late Archaic contexts and provide further evidence for regional exchange networks (Chapman 1985).

Woodland Period (ca. 900 B.C.-A.D. 900)

The Woodland Period in eastern North America is marked by the elaboration of several characteristics present at the close of the Late Archaic times. Increasing sedentism, heightened cultural complexity and social exchange, intensification of horticulture and the widespread use of ceramic technology are traits shared by most Woodland Period cultures.

The establishment of an elaborate mortuary complex, including the construction of burial mounds and ceremonial earthworks, indicates the development of a non-egalitarian social order (e.g., Brose and Greber 1979; Buikstra 1976). Wide-ranging trade networks are evident in the exchange of both raw materials and finished objects between peoples across the southeast and Ohio Valley. A suite

of wild plant foods, specifically a number of small starchy seeds, was being intensively utilized and some species were brought under domestication. By Middle Woodland times these included sumpweed (*Iva annua L.*), maygrass (*Phalaris carolinia*), chenopod (*Chenopodium sp.*) and sunflower (*Helianthus annuus L.*) (Yarnell 1976:270-71). Corn (*Zea mays*) also appears in the archaeological record during Middle Woodland times, but was not yet a staple.

Archaeologists customarily divide the Woodland period into Early (ca. 900 B.C.-ca. A.D. 0), Middle (ca. A.D.-600) and Late (A.D. 600-900). The original Woodland chronology for East Tennessee was based on investigations in the Watts Bar and Chickamauga reservoir areas in the 1930's and early 1940's (Lewis and Kneberg 1941, 1946). Several revisions/ refinements to this chronology have subsequently been made (e.g., McCollough and Faulkner 1973; Kimball 1985; Schroedl, *et al.* 1985).

McCollough and Faulkner (1973) defined an Early Woodland sequence for East Tennessee which consisted of, from earliest to latest, the Watts Bar, Greeneville, and Long Branch phases. The Watts Bar component is represented by pottery that is quartz or sand-tempered and fabric- or cord marked. The Greeneville phase is defined by the presence of both Watts Bar quartz-tempered and Long Branch limestone-tempered wares, with the Watts Bar wares comprising the greater quantity. Finally, the Long Branch phase is characterized by the predominance of Long Branch Fabric Marked limestone-tempered wares (McCollough and Faulkner 1973:93).

Kimball (1985) has proposed a revised chronology for the lower Little Tennessee River Valley in which the Early Woodland Watts Bar designation is replaced by a Woodland I ceramic cluster dating between 900 B.C. to 200 B.C. The original Greeneville and Long Branch units are likewise redefined as Woodland II, dated between 200 B.C. to A.D. 350. A Connestee Phase, distinguished primarily by sand tempered plain, fabric marked, and stamped pottery, is also recognized. Dating from A.D. 350- ca. A.D. 650 or later, this unit is coeval with, and presumably related to, Connestee cultures in western North Carolina. Evidence of "Hopewellian" exchange in the form of exotic cherts and cut sheet mica are associated with some Connestee Phase components. The earliest widely accepted date for the presence of corn in the Southeast (A.D. 439) comes from a Connestee Phase context in eastern Tennessee (Chapman and Shea 1981).

The Late Woodland cultural component for eastern Tennessee was first defined and described by Lewis and Kneberg (1946) as the Hamilton Focus. The defining characteristics of this component were the construction of conical or round burial mounds, the predominance of limestone tempered pottery exhibiting a mix of cord-marked, plain and brushed, and incised and punctate decorated surface treatments, and the use of a small triangular arrow point with distinctive incurvate margins (Lewis and Kneberg 1941:27-28).

In Lewis and Kneberg's (1946) reconstruction, the Hamilton settlement pattern consisted of households "strung out along the riverbanks" with burial mounds located on higher terraces away from the river. Burial mounds were considered focal points in a settlement system that was otherwise "rather loosely organized". Subsistence was believed to be based primarily on fresh water

mussels as the chief source of protein, augmented by the collection of plants. Agriculture was considered to be either unlikely, or at best to have formed a minimal part of the Hamilton culture diet.

Unfortunately, no well defined habitation sites of this period have been excavated. Lewis and Kneberg's hypothetical settlement pattern was based on observations at a number of shell heaps in the Chickamauga and Watts Bar basins which they believed were "individual household middens". Absence of structural remains on these sites, they believed, was due to poor preservation or light construction techniques. More recent investigations of Late Woodland middens, at 40LD46 and 40RH62, have also failed to produce evidence of structures. Investigations at these sites did, however, add to information about Hamilton subsistence patterns through well controlled faunal and botanical studies (McCullough and Faulkner 1973; Prescott 1977) which suggested that the subsistence base was richer and more diverse than previously envisioned. McCullough and Faulkner (1973:124) suggest that the Hamilton shell middens represent seasonal occupations, rather than permanent settlements.

In the absence of compelling evidence for habitation sites, Hamilton is sometimes regarded as no more than a distinctive mortuary complex. New dates from Hamilton mounds have also occasioned considerable uncertainty about the relationship of Hamilton and Mississippian cultural phenomena. Hamilton burial mounds are now known to have been used over a much wider time span than originally thought; recent investigations in Roane and Rhea counties provide a suite of radiocarbon dates between A.D. 700 and A.D. 1200 (Schroedl 1973; Schroedl 1990:173; Schroedl, et al., 1990: Table 20). This range, plus the fact that much later Dallas burials are intrusive in many Hamilton mounds, suggests that the Hamilton and Mississippian cultures are lineally related. Schroedl (1978) suggests that Hamilton is an incipient form of Early Mississippian and both Kimball (1985) and Schroedl, *et al.* (1985), place the Hamilton mortuary complex in the Mississippian I period. Clearly, this "mound-based" interpretation also has a number of problems. Carefully controlled and well dated excavations on habitation sites of this period are badly needed for the further definition of the Late Woodland in east Tennessee.

Mississippian Period (ca. A.D. 900-A.D. 1600)

The Mississippian cultures at their apex are generally regarded as having achieved the highest level of sociocultural and political complexity known to North America north of Mexico. The designation "Mississippian" has been used to refer to a number of prehistoric human populations in the Eastern Woodlands, based largely on the presence of a number of material culture traits including shell-tempered pottery and rectangular, truncated, substructural pyramidal mounds. Smith (1978) describes the term "Mississippian" as referring to those prehistoric populations of the eastern deciduous woodlands during the time period A.D. 800-1500 "that had a ranked form of social organization, and had developed a specific complex adaptation to linear, environmentally circumscribed floodplain habitat zones" (Smith 1978:486). The Mississippian culture is marked by a primary reliance on horticulture for its subsistence base, including the extensive cultivation of several varieties of maize, beans, and squash. This adaptation, associated with the concomitant growth of large populations, fostered territoriality and competition for suitable land. It also

provided an economic surplus that permitted the development of craft specialization and related exchange networks. These developments, in turn, can be associated with the increased levels of social and political complexity exhibited in Mississippian site structure, settlement patterning, and symbolic expression. This cultural adaptation developed in the Mississippi Valley and spread throughout a large portion of the Southeast through both the migration of people and the transmission of ideas to indigenous populations.

Many of the larger Mississippian centers were fortified by a defensive stockade encompassing large areas. These sites are considered the focal point of Mississippian populations and were the residence of socio-political elites. Mississippian mortuary patterns indicate a ranked society in which individuals occupied hierarchical positions with differential access to both resources and power. A hierarchical settlement organization, ranging from small farmsteads to large villages which exercised political and religious control over large areas, is also associated. The focal point of the major centers was a large open plaza bordered by flat-topped mounds, substructures for buildings which served both civic and religious functions as well as being the residence of the elites of Mississippian society. The larger centers also contain evidence of a trade network that dealt with the exchange of both exotic and utilitarian items; chiefly salt, copper and various chert types. Copper, exotic cherts, and marine conch shells were often used for the production of special "ceremonial" items, which symbolically expressed elements of Mississippian myth and ritual. Mississippian ceramics are functionally and stylistically more diverse than those of the Woodland period. Effigy wares appear modeled in the forms of both human and animal shapes, while others are painted with decorative elements. Utilitarian wares, used for the preparation and storage of food, are also present. Tempering in both categories of ceramics is characteristically crushed mussel shell.

Investigations at Martin Farm, along with additional comparative studies in the lower Little Tennessee River valley, have contributed to a greater understanding of the emergence of Mississippian culture in east Tennessee (Schroedl, *et al.*, 1985; Schroedl, *et al.*, 1990). Dating from A.D. 900 to A.D. 1000, the Martin Farm Phase appears to represent the rapid cultural transformation of indigenous Woodland populations and includes agricultural intensification, increased settlement size and evidence of greater social stratification. Technological changes, specifically, the shift from limestone tempered ceramics to shell tempered wares, with ceramic assemblages including both kinds of wares as well as mixed-tempered vessels, are indicative of the transitional character of the phase. Other Mississippian characteristics appear full-blown. Martin Farm components, for example, are associated with the earliest evidence of temple mounds in the region.

The succeeding Hiwassee Island Phase (A.D. 1000-A.D. 1300) is associated with a major shift in settlement location, specifically the movement of residential sites from the floodplain to higher terrace settings. This suggests a response to frequent flooding, and thus may be indicative of greater residential stability. The settlement shift may also be indicative of an increased competition for agricultural lands prompted by population growth (Schroedl, *et al.*, 1990:188). Certainly, the shift in settlement appears to be accompanied by significant increases in settlement size, complexity and degree of sedentism. These changes do not appear, however, to be associated with significant

changes in subsistence behavior. Botanical assemblages suggest no variation between Martin Farm and Hiwassee Island phases, with hickory nutshell, acorn shell, walnut shell and maize--both eight- and ten-rowed varieties--represented in comparable amounts. Squash, gourd, chenopodium, sunflower, smartweed and sumpweed are also constituents of both assemblages (Schroedl, *et al.*, 1985:411-456). Greater formal and stylistic diversity is demonstrated in Hiwassee Island ceramic assemblages, which are distinguished by the expanded and refined use of shell tempered pottery (Schroedl, *et al.*, 1990:185-188).

The succeeding Dallas Phase represents the "classic" expression of Mississippian Culture in the Eastern Tennessee Valley. First described by Lewis and Kneberg (1941, 1946), the phase is associated with significant changes in community plan, subsistence, architecture, and burial customs, as well as other forms of material culture. The settlement pattern included large palisaded villages, such as those at Hiwassee Island, Citico, Toqua, and Bussell Island, which covered several acres and contained one or more platform mounds and associated plaza areas. Other characteristics of Dallas material culture include rectangular houses of single-post construction; shell tempered pottery with plain and cord-marked exteriors, strap and lug handles, and decorations consisting of incising or modeling; and flexed pit burials usually accompanied by grave offerings consisting of small pots or other grave goods (Lewis and Kneberg 1941, 1946). The Dallas lithic assemblage--with the exception of Dallas excurvate triangular projectile points, and perhaps celts--resembles that of Martin Farm and Hiwassee Island phases (Davis 1990:61).

The Dallas settlement pattern is characterized by the distribution of compact towns along major alluvial terraces. The majority of Dallas towns have a single substructure mound topped by a single primary structure, and only a few towns such as Toqua (40MR6) have more than one structure on a mound or more than one mound (Polhemus 1987:1246).

Historic Period (ca. A.D. 1600-A.D. 1838)

Beginning perhaps as early as the late 15th century, Mississippian cultures entered a period of rapid decline, a phenomenon which may have been exacerbated by the disease and political disruptions which accompanied the early Spanish explorations in the Southeast. By the early 17th century Mississippian polities, including those in East Tennessee, were much reduced. Although elements of the Dallas culture appear to persist well into the historic period in some parts of eastern Tennessee (Polhemus 1987), it is relatively clear that the area was slowly being abandoned. The exact relationship between the Dallas Phase cultures and their primary successors in eastern Tennessee, the Cherokee, is unclear. It appears, however, that the Tennessee (or Overhill) Cherokee moved into the area from the mountain valleys of North and South Carolina as the Dallas polity collapsed, absorbing, or perhaps displacing, remnant elements of the local population.

The historic center of Cherokee occupation in Tennessee was east of the Tennessee River in the valleys of the lower Hiwassee and lower Little Tennessee River. Although the Cherokee claimed all of eastern Tennessee, there is little historical or archaeological evidence for the establishment of major Cherokee settlements in the Clinch or Powell river valleys. Archaeological surveys of

the Clinch River area do not, in fact, indicate a major Native American presence during the Historic Period. Accounts of 18th century travelers likewise suggest that the area was unsettled. In 1791 the Cherokee ceded their lands east of the Clinch River to the United States under the terms of the Holston Treaty; remaining lands west of the river were ceded in 1799 and 1805.

The first substantial Euro- and African-American settlement in the Roane /Anderson County area began in the last decade of the 18th century, spurred, to a certain extent, by the completion of the Avery Trace from the eastern valley settlements to the Cumberland settlements around Nashville and by the construction of Fort Southwest Point at the mouth of the Clinch (present Kingston). By 1797, Francis Bailey could note the "marks of civilized life" in the area as he passed along the trace on his way from Nashville (Williams 1928:427). Kingston, located on the river just above Southwest Point, was established in 1799 and two years later became the county seat of the newly formed Roane County.

Throughout the 19th century most of this area remained a relatively isolated and rural area of farms and woodlots. Relatively large farms were established along the fertile terraces of the Clinch; holdings in the narrow tributary valleys tended to be smaller. Large and small farms alike, however, were engaged primarily in the production of livestock, corn, tobacco, and, for a brief period in the early 19th century, cotton. Slaves were present on some of the larger establishments prior to the Civil War, but as in most of the Appalachian South, farm labor was provided primarily by the proprietor and his family. Most industries were farm-based (or based on farm produce), including grist mills, distilleries, sawmills, and tanyards. The exception was a narrow belt of industry which emerged at a fairly early date in the western part of Roane county, primarily west of the Tennessee and Clinch along the Cumberland escarpment. Initial development in this area was prompted, before the end of the 18th century, by the discovery of iron ore deposits, and later in the 19th century, by the exploitation of nearby coalfields and timber resources. Located along the major river systems, near the intersection of major north-south, east-west roadways and subsequently along a major railway, these activities eventually gave rise to the towns of Rockwood and Harriman. Rockwood, in particular, became the focal point of the non-farm economy of the area. During the later 19th and early 20th centuries mining, timbering and the industries they supported became much more important economically and drew increasing numbers of local people away from farm employment (Johnson and Dennings 1984). As in the remainder of the upland South, the coming of the mines, mills and timber interests had as much impact on local economies as did the outcome of the Civil War in other parts of the region.

By the early 20th century the agrarian sector of the local economy was strongly in decline. Soils, particularly on the deforested valley slopes, had been markedly depleted and many of the farms had been subdivided to the point that they were no longer commercially viable. Farming continued, but primarily as a supplement to employment elsewhere. Out-migration during the early 20th century was pronounced and the rural population as a whole declined.

The onset of the Great Depression appears to have hit the area particularly hard; not only did many of the small industrial concerns (such as the Roane Iron Company) immediately go out of business or suspend operations, but there was no longer a viable farm economy to fall back on. By 1933 nearly 25 percent of the population of Roane County was on relief prompting, for a brief interval, a "back to the farm" trend as a way of cushioning industrial unemployment. According to Johnson and Denning (1984:56), in the five years after 1932 the farm population of Roane County increased 47 percent and the number of operating farms increased 40 percent. Federal remediation programs of the 1930's, particularly the WPA and CCC, were important not only because they provided temporary jobs, but because they constructed needed schools and roads and did an immense amount of reforestation and erosion control work. The Tennessee Valley Authority, formed in 1933 to provide flood control and power generation, also served some of the same public and resource conservation functions. The construction of Norris Dam (1933-1936) and Watts Bar Dam (1939-1942) had a particularly strong impact on the economy and infrastructure of the area, with both projects flooding substantial amounts of Clinch River bottomland.

Despite some improvements in access and public infrastructure, the landscape of the area in 1942 was still an overwhelmingly rural one, with scattered small farms and rural residences and a few small farming communities such as Wheat. In 1940, the rural population of Roane County totaled only about 17,300 persons, with an additional 10,500 urban residents living in Harriman, Rockwood, and Kingston (Johnson and Jackson 1981:45). Population appears to have been particularly low in the relatively isolated area north (west) of the Clinch. Available maps for this period, including the first series of TVA maps, published by USGS in planimetric form in 1935 and 1936, as well as the property acquisition maps prepared by the government in 1942, show a wholly expected pattern of rural settlement: away from the Clinch River itself, most structures were located either adjacent to the roads following the narrow valley floors, or within the smaller tributary hollows to either side.

In October, 1942, the United States government filed a "declaration of taking" for 59,000 acres in Anderson and Roane County and the rural character of the lower Clinch began to change forever. During the following six months, the entire population of Roane County between the Clinch River and the Poplar Creek Valley was removed and was replaced by a small army of administrators, contractors, construction workers and military personnel. Within another two years, these individuals had built the fifth largest city (by population) in the state and were in the process of completing one of the largest industrial facilities in the world. Unbeknown to most local residents, the area became one of the three main operations centers for the Manhattan Project, the World War II attempt to devise and produce the world's first atomic bomb. The primary mission of the Clinton Engineer Works, as the Tennessee project area was known, was the production of fissionable uranium isotopes and plutonium.

Most of the pre-1942 buildings within the new reservation were demolished; a good number had neither electricity or plumbing and were considered generally unsuited for housing. About 181 of the more substantial farm residences and other buildings were retained for temporary residential use, but most of these were demolished shortly after the war (Carver and Slater 1994:25).

Despite the construction of thousands of houses in the new city of Oak Ridge, housing for the peak population of 75,000 workers was in critically short supply during the war and trailer camps and districts of small pre-fabricated houses and "hutments" were established throughout the reservation. Most of this housing was expected to last only for a few years at most and almost all outside Oak Ridge itself was abandoned and razed before 1950 (Carver and Slater 1994; Johnson and Dennings 1984; Johnson and Jackson 1981).

Subsequent development within the reservation has primarily been restricted to the original three plant sites (K-25, X-10 and Y-12), however, some additional support and subcontractor facilities have been added in adjacent areas.

Previous Research

Site survey records generally reflect the abundance of archaeological resources in the region. To date, nearly 600 prehistoric and historic sites have been recorded in Roane County, most of them being located in close proximity to the Clinch, Emory, and Tennessee Rivers. A lesser number of sites were found along smaller tributaries like Poplar Creek and in upland areas. Two previously recorded prehistoric site areas, 40RE134 and 40RE228, are found within the boundaries of the ED-6 parcel. No previously recorded historic sites are found within the current project boundaries.

A good overview of archaeological work in the area has been provided by Pace (1996). The first reported archaeological surveys in the lower Clinch River area were conducted by Cyrus Thomas, C. B. Moore and M. R. Harrington between 1885 and 1922, but it was not until 1941, with the construction of Watts Bar Dam, that the lower 28 miles of the Clinch River was systematically surveyed (*i.e.* Nash 1941). Thomas, Moore, and Harrington, in particular, were specifically interested in prehistoric burial mounds. Nash's efforts were more systematic and encompassing, but, like the others, focused predominantly on the river terraces.

Most subsequent investigations in the lower Clinch area have taken place in close proximity to the Oak Ridge Reservation, including no fewer than 10 surveys and testing projects, with detailed excavations at three prehistoric sites. A general survey of the Oak Ridge Reservation was conducted by Fielder (1974). Fielder *et al.* (1975) conducted a survey for a proposed Exxon Nuclear Facility site on the north side of the Clinch, beginning south of the Gallaher Bridge. McCullough (1981) conducted a systematic survey of the site for the proposed Tennessee Synfuels Plant, including a large area between Campbell Bend and SR 58 on the south side of the Clinch. Detailed investigations in the immediate area were conducted between 1972 and 1982 in the Clinch River Breeder Reactor Project (CRBRP) area, located on the north side of the Clinch between river miles 14.5 and 18.6. Jolley (1982) and Schroedl (1990) provide useful descriptions of the survey and testing work, which eventually identified a total of 27 prehistoric sites. Schroedl (1990) summarizes the major prehistoric investigations in the CRBRP area, including the excavation of Early and Middle Woodland components in a laterally stratified point bar at 40RE108 and excavation of a late Woodland Hamilton mound at 40RE124. The Synfuels, CRBRP, and K-25 work also included

assessments of alluvial stratigraphy along the Clinch River terraces. An inventory of the K-25 plant site has recently been conducted by the JACOBS Environmental Restoration Team (JACOBS 1995).

The two largest systematic survey projects, at the Synfuels Plant site and at the CRBRP plant site, are probably most relevant to assessing prehistoric site distribution in the area, because they encompass a relatively wide range of topographic variation. In both areas, a strong riverine orientation is shown among sites which can be classified as habitation or residential locales. Almost all such sites are located on the alluvial terraces and lower upland slopes within 300 meters (horizontal) and 30 meters (vertical) of the Clinch River. Prehistoric sites were identified on upland ridgelines outside this zone, but they are typically either lithic extraction locales or low-density artifact scatters, which probably represent field camps and other short-term activity areas (Jolley 1982; McCullough 1981). Small prehistoric artifact scatters (such as 40RE134, located within the current ED-6 Parcel project area), have also been identified adjacent to minor tributary streams well away from the Clinch River (Fielder 1974:64). The situation appears to be broadly the same as that described for the lower Little Tennessee River Valley by Davis (1990:260-261), who concludes that there is a functional dichotomy between the use of riverine and upland zones which persists throughout the prehistoric occupation of the area.

More recent and relevant to the current project is the 1996 survey of the proposed modifications to State Route 58 and State Route 95 (Gallaher Road/Oak Ridge Turnpike) between Interstate 40 and Wisconsin Avenue (Pace 1996). The ED-7 area lies adjacent to this previous survey. The ED-6 area encompasses previously surveyed areas along the SR 58 right of way, however, most of these have been heavily modified by road construction since 1996. The 1996 project involved the expansion of the existing highway alignment from two to four lanes, requiring the acquisition of from 15-46 meters (50-150 feet) of additional right of way for a length of 16.1 km (10 mi). Seven site areas were identified, including four prehistoric components of undetermined cultural affiliation and five historic components dating to the late 19th or early-mid 20th centuries. Among the former group was 40RE228, located within the boundaries of the ED-6 Parcel. Among the historic period sites were remains associated with some of the temporary housing erected during the construction of K-25 and houses/farmsteads which predated the Manhattan Project. A 1999 survey of the National Neutron Spallation Source project site, located on Chestnut Ridge, documented evidence of small scale prehistoric activity at a number of locations and relocated a previously inventoried farmstead site (Pace 1999).

Previous historical research in the area has been almost exclusively centered on the development of Oak Ridge facilities and documentary accounts of the farms and communities that they replaced. Pertinent resources include an excellent architectural/historical assessment by Carver and Slater (1994) and the historical account of early project development by Johnson and Jackson (1981). Archaeological assessments have been more limited, but historic sites were included in inventory level surveys in the general reservation area (Fielder 1974; Fielder *et al.*, 1977), at the Tennessee Synfuels Plant Site (McCullough 1981), at the Clinch River Breeder Reactor Site (Schroedl 1974 *et seq.*), and at the K-25 plant site (JACOBS 1995). Sites recorded during these surveys were almost exclusively the remains of late 19th and early 20th-century farmsteads and cemeteries. Four of the five

historic house sites identified within the ED-6 Parcel as part of the current project had been previously visited by Fielder in 1977 (but were not inventoried at that time). Two known cemeteries are located proximal to the ED-6 project area: the Scott Cemetery, located south of SR 95 near Wisconsin Avenue; and the Rather Cemetery, located outside the western boundary in southwestern part of the project area. These cemeteries are well marked and are not located within the proposed project area.

In short, previous archaeological investigations in the surrounding area suggest would suggest a relatively high potential for the occurrence of prehistoric resources in the ED-7 project area, which features highly habitable terrain in reasonable proximity to a major river and large tributary creek. The relatively small areas of easily habitable terrain and the much smaller tributary rank in the ED-6 area suggests a relatively lower potential for the occurrence of major prehistoric residential sites, but does not, of course, preclude the presence of highly significant sites of other types. Historic period use or occupation, particularly during the late nineteenth and early to mid-twentieth century would also have been possible in both areas, particularly given the presence of historically used roads.

National Register Listed or Eligible Sites

No National Register listed properties are located within the project boundaries. The Oak Ridge Turnpike Checking Station is the closest listed property and is situated just outside the northeastern end of the ED-6 Parcel (see Figure 1 and Figure A1). The site consists of two guard houses which flank either side of Oak Ridge Turnpike about 30 meters east of the project area boundary. The boundary description for this site is a single rectangle which encloses both structures. The George Jones Memorial Church, found on Wheat Road approximately 2.6 km (1.6 miles) north of the ED-7 Parcel is the only other National Register listed property within 5.0 km. Neither of these properties would be directly affected by the proposed project.

SURVEY METHODOLOGY

Background Research

Prior to the field investigations a search for materials bearing on known site locations in the vicinity of the project area was conducted. The site inventory and county survey files maintained by the Division of Archaeology were examined, as well as appropriate map resources, including the series of USGS 7.5' maps produced for the area between 1935 and 1987.

Field Investigations

Field investigations were relatively straightforward. A preliminary reconnaissance of the project area was conducted to identify any obtrusive cultural features or artifactual remains exposed at ground surface. As indicated above, ground surfaces throughout the project area were typically vegetated

or forested, providing generally poor conditions for identifying any but the most highly obtrusive archaeological site. High slope areas were systematically walked in order to determine if any caves, rockshelters or other unusual terrain features were present which might have been conducive to past human use. Survey elsewhere within the project area was supplemented by shovel testing.

Shovel testing was conducted at 30 meter intervals along linear transects oriented to provide relatively uniform coverage of those low slope (*i.e.*, less than approximate 10 % slope) areas judged most suitable for (or most likely to retain evidence of) past human habitation and use. This shovel testing interval was reduced in likely areas and narrowed even more within obvious site locations (*i.e.* around structural remains at historic sites) to 15m intervals. Each shovel test consisted of a 30x30 cm unit excavated to subsoil, generally encountered within 20 cm of the surface. All excavated fill was passed through a 1/4" mesh screen in order to enhance and systematize any artifact recovery. Where artifacts were encountered in the shovel test grid, additional units were added at incrementally smaller intervals in order to increase artifact recovery and/or refine site boundaries. Distribution of shovel tests within the project area is shown on mapping provided in Appendix A.

Constraints on Investigations/ Unsurveyed Areas

There were few constraints on the survey of the ED-6 and ED-7 parcels. Downed timber associated with damage caused by the southern pine beetle infestation was present in many portions of the project areas. As a result, some of the shovel tests were offset (from a regular grid or linear transect) and moved to avoid downed timber. Downed timber and dense secondary growth also hampered pedestrian reconnaissance within the ED-6 Parcel, possibly obscuring some historic features. Despite these limitations, all portions of the project area received an adequate assessment.

Site Recording

Site inventory forms were submitted to Tennessee Division of Archaeology, 5103 Edmondson Pike, Nashville, Tennessee, 37211, for five sites area identified during the course of the survey. New site designations were given for 40RE568, 40RE569, 40RE570, 40RE571, and 40RE572.

Artifact Processing and Record Curation.

Artifact processing was limited to rough sorting and analysis. No prehistoric artifacts were recovered in any of the shovel tests. A small number of historic period artifacts were recovered, limited to scattered, fragmentary materials which were sorted into basic material categories (glass, ceramic, metal and other), identified by function, if possible, and inventoried. Temporary curation of artifacts, field notes, photographs, and other project records will be provided by DuVall and Associates, Inc., at 137 A Alpha Drive, Franklin, Tennessee, 37064.

SURVEY RESULTS

Overview

Parcel ED-6. As discussed above, the ED-6 project area contains predominantly moderate to steep slopes, with only a few low slope areas, predominantly the lower valley slopes in the vicinity of Oak Ridge Turnpike and old Gallaher Ferry Road, but including a few small ridge crests and localized flats along the side slopes of Black Oak Ridge as well. Approximately 90% of the parcel is forested, with relatively few ground exposures. Although a few artifacts were observed in eroded locations and large features such as piles of foundation or chimney stones were visible even in dense undergrowth, shovel testing was the primary means of site discovery in the parcel. Shovel tests were installed throughout the area where landform slope was low or moderate (as described in the Methodology section). As shown on Figure A1, a total of 157 shovel tests were excavated within the parcel, with 12 of these producing historic period cultural materials. Based on the distribution of positive tests, surface artifacts and/or visible surface features, a total of five historic site areas were defined. Other historic artifacts were recovered at a few additional locations, but appeared to represent isolated artifacts or the likely result of trash and debris dumping. Results for individual tests are given in Appendix B.

As described in more detail below, the five defined site areas (40RE568, 40RE569, 40RE570, 40RE571, 40RE572) appear to represent poorly preserved structure locations dating to the late 19th-early 20th century. Four of these are located along an old section of Gallaher Ferry Road, which was the early 20th century road through this portion of the valley. Given the general level of surface disturbance observed throughout much of the tract it is possible, even likely, that additional historic sites were once present, but whose material remains are now too widely scattered for detection or meaningful definition.

No prehistoric artifacts or newly identified prehistoric site areas were identified during the course of the survey. Two prehistoric sites, 40RE134 and 40RE228, had been previously recorded in the area, both along the East Fork of Poplar Creek. As described below, neither of these sites could be relocated during the current survey project.

Parcel ED-7. The small ED-7 Parcel contains level to gently sloping terrain covered in pine trees with dense secondary undergrowth. As with the ED-6 parcel, the area generally appears to have had a significant amount of surface modification from past episodes of mechanical clearing, logging, and general agricultural use. All areas received a through pedestrian reconnaissance and a total of 19 shovel tests were excavated, providing reasonably comprehensive coverage of the entire parcel. No prehistoric or historic period materials of archaeological interest were recovered in the area. A detailed map of the survey area, showing the location of physical features such as roads, standing structures and the locations of shovel tests, is provided in Figure A2.

Site Descriptions- Parcel ED-6

Site designation: 40RE568

Site Type: Residential

Cultural Associations: Historic Period, ea. to mid-20th century

Site Location: UTM: (16) N 3983977 E 0739159

Elevation: 800' AMSL

Description: The site area is located within the southwestern section of the ED-6 Parcel (Figures 1 and A1). It lies along the southern side of a gravel patrol/access road, formerly a section of the Gallaher Ferry Road. The site area is bisected by the western project boundary and by a gravel road that leads to the nearby Rather Cemetery. The site is situated on a level topped, slightly elevated landform which is covered with trees and brush. Hardwoods are found along the road and tract boundaries, while the project area itself is dominated by planted pine forest. The site area is largely defined based on the distribution of surface features, including the remains of a stacked stone house foundation, located on the southwest side of the cemetery road approximately 15 m to the west of and outside the project boundaries (Figure 5). Additional remains were encountered on the opposite side of the cemetery road within the project area. These remains consist of scattered limestone rocks, possibly scattered footers or other structural elements, a small circular depression (possibly a filled in well, cistern or privy) and scattered trash and structural debris..



Figure 5. General view of the 40RE568 site area. View is to the southwest.

A plan of the site area is provided in Figure 6. Based on the shovel test data and visible surface remains observed, the size of the entire site area (including the portion outside the current project area) is estimated as being 100m E/W by 45m N/S.

Artifacts observed on site surfaces consisted of the limestone rock and several large pieces of metal as well as some smaller items like metal cans and container glass fragments. These items were not collected. Shovel testing activities were only conducted on the eastern side of the road within the project boundaries. A total of 10 shovel tests were excavated, of which only one produced additional artifacts. A single wire nail was recovered from the surface of shovel test #7 (*i.e.*, ST 7). All the artifacts observed on the site would be consistent with construction and use during the late 19th or early 20th century.

Preservation on the site appears to be variable. The westernmost foundation, located outside the current tract, appears to be in relatively good condition. Structure remains inside the tract are clearly much more scattered, a probable result of tree planting and harvesting techniques. Shovel tests also suggest a considerable amount of surface disturbance, exhibiting a thin mixed surface layer over (mechanically) truncated subsoil.

Discussion and Recommendations: According to the 1935 USGS planometric map (Bethel Valley 7.5' Quad) two structures were located in this general vicinity, one on the western side of the cemetery road and one on the opposite or eastern side. The stone foundation examined probably represents the western structure, while the scattered remains to the east of the road, within the project area, are from the other structure indicated on the map. The structures were still present in 1942, as they appear to be identified on DOE land acquisition maps. According to these, the intact (western) foundation is probably the site of the J.K. Rather house (#961A).

Based on field observations and map data then, the site appears likely to represent the remains of a house and possibly associated farm outbuildings which were acquired during the creation of the Oak Ridge Reservation in 1942. The site would have been abandoned at that date and the structures razed shortly thereafter. It appears likely that the site was occupied sometime after ca. 1890, however, this is uncertain based on the small artifact sample observed.

Given the apparent late date of the occupation and its commonplace character, we do not believe that 40RE568, at least the highly disturbed portion lying within the current project area, constitutes a significant archaeological resource. We do not believe the site is eligible for National Register listing and recommend no additional evaluation within the project area.

40RE568

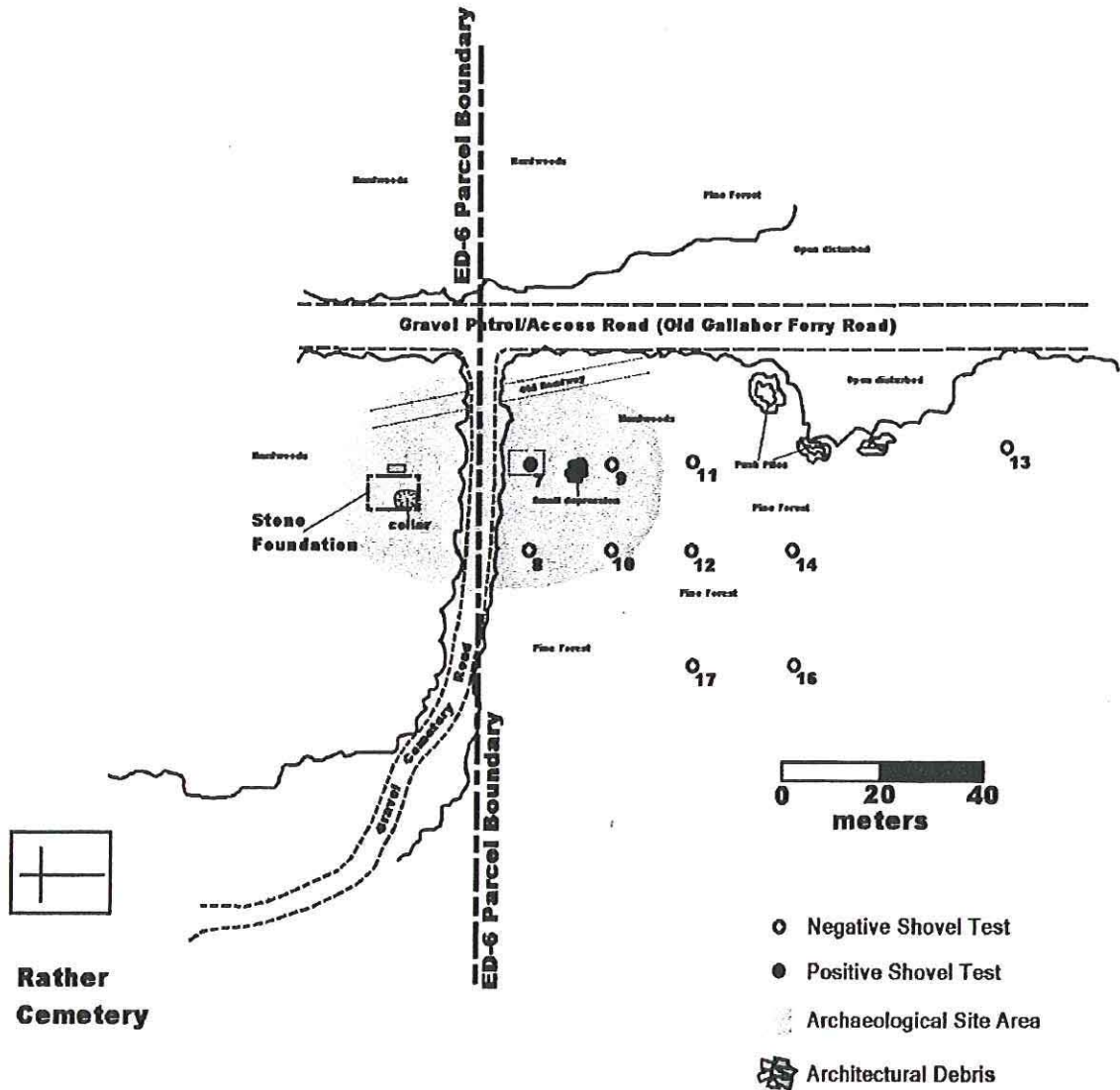


Figure 6. Sketch map of the 40RE568 site area showing shovel test locations and other physical features.

Site designation: 40RE569

Site Type: Residential

Cultural Associations: Historic Period, early to mid-20th century

Site Location: UTM: (16) N 3984118 E 0739334

Elevation: 820' AMSL

Description: This is an apparent structure location situated in the southwestern portion of the ED-6 Parcel (Figures 1, A1). The site occupies a wooded rise approximately 60 m north of the old Gallaher Ferry Road, now a graveled access road. A driveway leading to the access road marks the eastern boundary of the site. The western and southern boundaries are defined by wooded slopes. The site area was defined by both surface observations and shovel tests. Remains observed on the surface consist of chimney fall and portions of a limestone rock foundation. Several depressions or holes, likely representing a cellar, privy or cistern, were clearly visible (Figure 7). Additional debris was observed scattered on the surface. A plan view of the site area is provided in Figure 8. Based on the distribution of surface features and positive shovel tests, the site measures approximately 50m N/S by 45m E/W.



Figure 7. General view of the 40RE569 site area, note the depression in the foreground, possibly representing a cellar location.

A total of six shovel tests were excavated within the site area of which four produced historic materials. As shown in Appendix B, a total of 52 artifacts were recovered from the positive shovel tests. The assemblage consists of 1 milk glass plate fragment, 39 window glass shards, 3 undecorated whiteware sherds, 4 clear and 1 aqua container glass fragments, 1 milk glass mason jar lid liner fragment, 1 iron object of indeterminate use, 1 wire nail, and 1 brass grommet. Additional artifacts were observed on the site surface but were not collected. These included tin can fragments, additional bottle and container glass and architectural remains like brick and limestone rock. All artifacts observed are consistent with a late 19th to mid 20th century occupation of the site.

Shovel test soil profiles indicate that artifacts are generally confined to the top 10 cm of the soil profile, a thin disturbed layer which likely represents mechanical mixing of surface sediments during logging or possibly, during the razing of the structure. It is possible that more deeply intrusive features are preserved at the site.

Discussion and Recommendations: A structure at this location is indicated on the 1935 USGS planometric map (Bethel Valley 7.5' Quad). Given that it does not appear on later USGS mapping, it is likely that the structure was razed soon after the DOE reservation was created in 1942. According to DOE land acquisition maps the remains are probably those of a house (#941B) which was located on land formerly owned by Ben and Jean Freels.

Recovered artifacts suggest that this was primarily a 20th century occupation. Given the apparent late date and commonplace nature of the occupation as well as evidence of extensive surface disturbance in the site area, we do not believe that the site constitutes a significant archaeological resource. Consequently, the site is not considered potentially eligible for National Register inclusion and no additional investigations at this location are recommended.

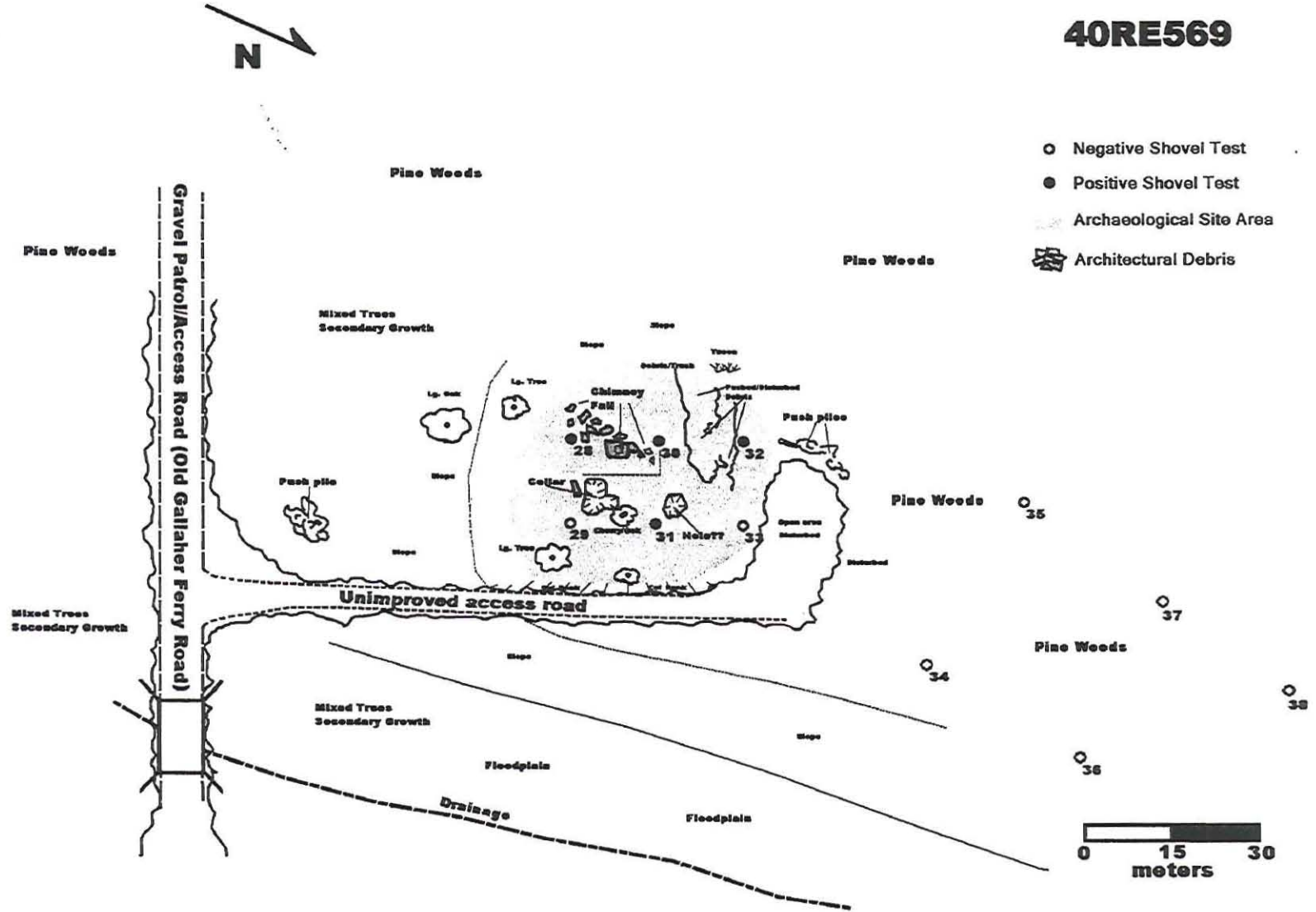


Figure 8. Sketch map of the 40RE569 site area showing shovel test locations and other physical features.

Site designation: 40RE570

Site Type: Residential

Cultural Associations: Historic Period, early to mid-20th century

Site Location: UTM: (16) N 3984094 E 0739471

Elevation: 820' AMSL

Description: The site is located in the southern portion of the ED-6 Parcel along the north side of the graveled access road, formerly a section of the early 20th century Gallaher Ferry Road (Figure 1, A1). The site occupies the sloping western end of a low rise along the roadway. A drainage ditch is located approximately 60 meters to the west. The area is predominantly covered in pine forest, however, the site area itself is covered in relatively open, sub-mature hardwood forest. Structural remains were identified on the surface during the pedestrian reconnaissance of the area. They consist of a chimney fall and portions of limestone rock foundations, apparently the remains of a small house and an outbuilding (Figure 9). Based on the foundation remnants, the size of the house was minimally 12' E/W by 10' N/S. In addition to the remains on the north side of the road, a large excavation partially lined with rock is located along the south side of the road opposite the main site area. This feature may represent a root cellar. Based on the distribution of surface features, shovel tests and landform characteristics, the total site area is estimated at approximately 50m N/S by 60m E/W. A plan view of the site area showing the location of surface features and shovel tests is provided in Figure 10.



Figure 9. General view of the 40RE570 site area. Note scattered foundation remains at center of picture. View is to the east.

40RE570

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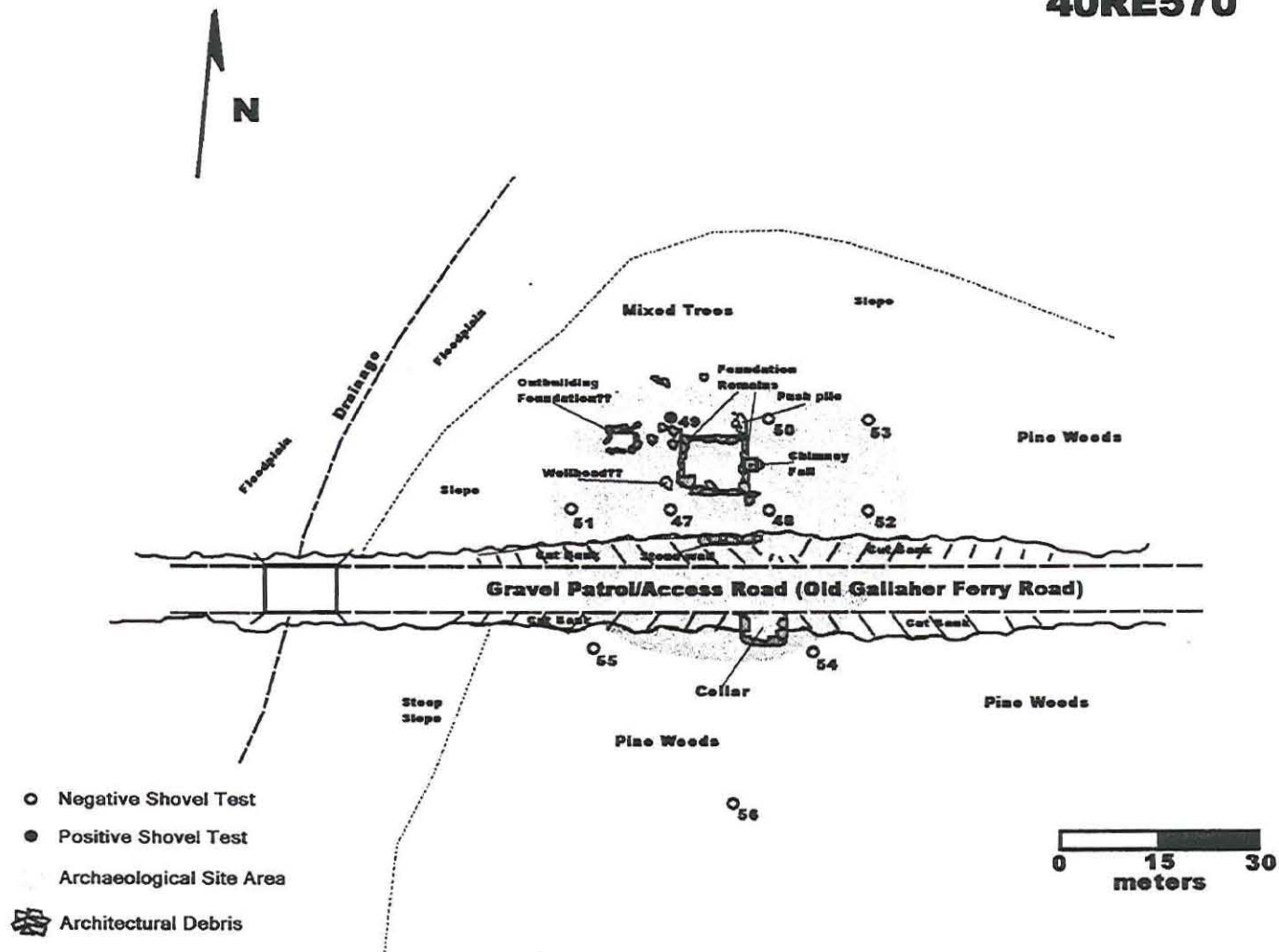


Figure 10. Sketch map of the 40RE570 site area showing shovel test locations and other physical features.

Artifact density on the site appears to be generally low. A total of 9 shovel tests were excavated within the site area with only one producing historic material, a total of 3 artifacts including 1 piece of clear container glass and 2 ceramic whiteware fragments. A limited number of artifacts were also observed on site surfaces, including limestone, extruded brick and smaller debris such as metal and glass container fragments. These were noted, but not collected. All the artifacts observed appear to date from the first half of the 20th century.

Soil profiles observed during shovel testing generally indicate shallow disturbed deposits in most areas of the site, consistent with what would be expected during mechanical razing of the structures. Additional damage to the site area has likely occurred as the access/patrol road has been improved.

Discussion and Recommendations: The 40RE570 site area appears to be the remains of a house abandoned in the mid-20th century, presumably after 1942, when all of the existing structures in the reservation area were acquired by the government and vacated. The structure is indicated on the 1935 planometric sheet (USGS 7.5' Bethel Valley, TN), but does not appear on later USGS quadrangles. The structure was probably intentionally razed at that time. According to DOE land acquisition maps, these are the likely remains of a dwelling (#941A) located on land then owned by Ben and Jean Freels. A beginning date for the occupation of the site is uncertain, but based on the extruded brick used in chimney construction and other elements, it probably post-dates the turn of the 20th century.

Although the site could contain some intact features, particularly those, like the root cellar, which are deep enough to be protected from surface modification, the site area is in generally poor condition. Given the apparent late date of the occupation and its commonplace nature, as well as the overall degree of disturbance, we do not believe the site should be considered a significant source of archaeological information. It is not considered eligible for NRHP inclusion and no further cultural resource management activities are recommended.

Site Designation: 40RE571

Site Type: Residential

Cultural Associations: Historic Period, ea. to mid 20th century

Site Location: UTM: (16) N 3984329 E 0739849

Elevation: 820' AMSL

Description: This site is located in the southern portion of the ED-6 Parcel along the northern side of the graveled access road (the old Gallaher Ferry Road) and approximately 200 meters west of its intersection with SR 58/95 (Figure 1, A1). The site lies along the crest of a low rise which slopes gradually away from the road. Ground cover in and around the site consists of sub-mature hardwood forest but the site area is surrounded by planted pines, most with extensive pine beetle damage. The site was initially identified during pedestrian reconnaissance based on the presence of non-native landscape vegetation (yucca plants) along the roadway and a chimney fall/chimney base, located 15 meters north of the road. Additional structural remains in the form of limestone rock, brick and concrete are also present, scattered across the site surface (Figure 11). Most of this material was fairly well scattered and no dimensions on the structure could be estimated. Two depressions located 10-15 meters west/northwest of the main concentration of structural debris likely represent former privy/outhouse locations. A plan view of the site area is shown in Figure 12. Based on the distribution of surface features and positive shovel tests the site area is estimated as being approximately 50 m N/S by 60 m E/W in size.



Figure 11. General view of the 40RE571 site area. View to the northeast.

A total of nine shovel tests were excavated within the site area. Of these only three were positive, producing one artifact each (1 milk glass jar lid liner, 2 wire nails). Additional artifacts noted on the surface included limestone blocks and brick, as well as metal and glass container fragments. The artifact sample is too small to be considered representative, but the structural components and portable artifacts observed on the site are consistent with a 20th century occupation. Use of concrete, extruded brick and wire nails suggests that much of the construction at the site occurred during the 20th century.

Push piles are present along the roadway margin and at the edges of the pine tracts that surround the primary structure locus. The soil profiles at this location again showed a relatively thin surface layer of mixed soils overlying silt clay subsoils and regolithic material.

Discussion and Recommendations: 40RE571 appears to be the locus of another residential structure occupied in the early 20th century and razed soon after the creation of the federal reservation in 1942. The structure is indicated on the 1935 planometric sheet (USGS 7.5' Bethel Valley, TN), but does not appear on later USGS quadrangles. According to DOE land acquisition maps, the remains are those of a dwelling (#965A) located on land formally owned by M.J. and Hoyle Low.

The structures at this location were probably razed with heavy equipment and the periphery of the structure area also shows a significant amount of more recent disturbance from forestry activity and modifications along the roadway margin. The site generally appears to be in poor condition. Particularly given the relatively late date and commonplace nature of the occupation, the site does not appear to be a significant source of archaeological data. The site is not considered eligible for National Register inclusion. No further evaluation is recommended.

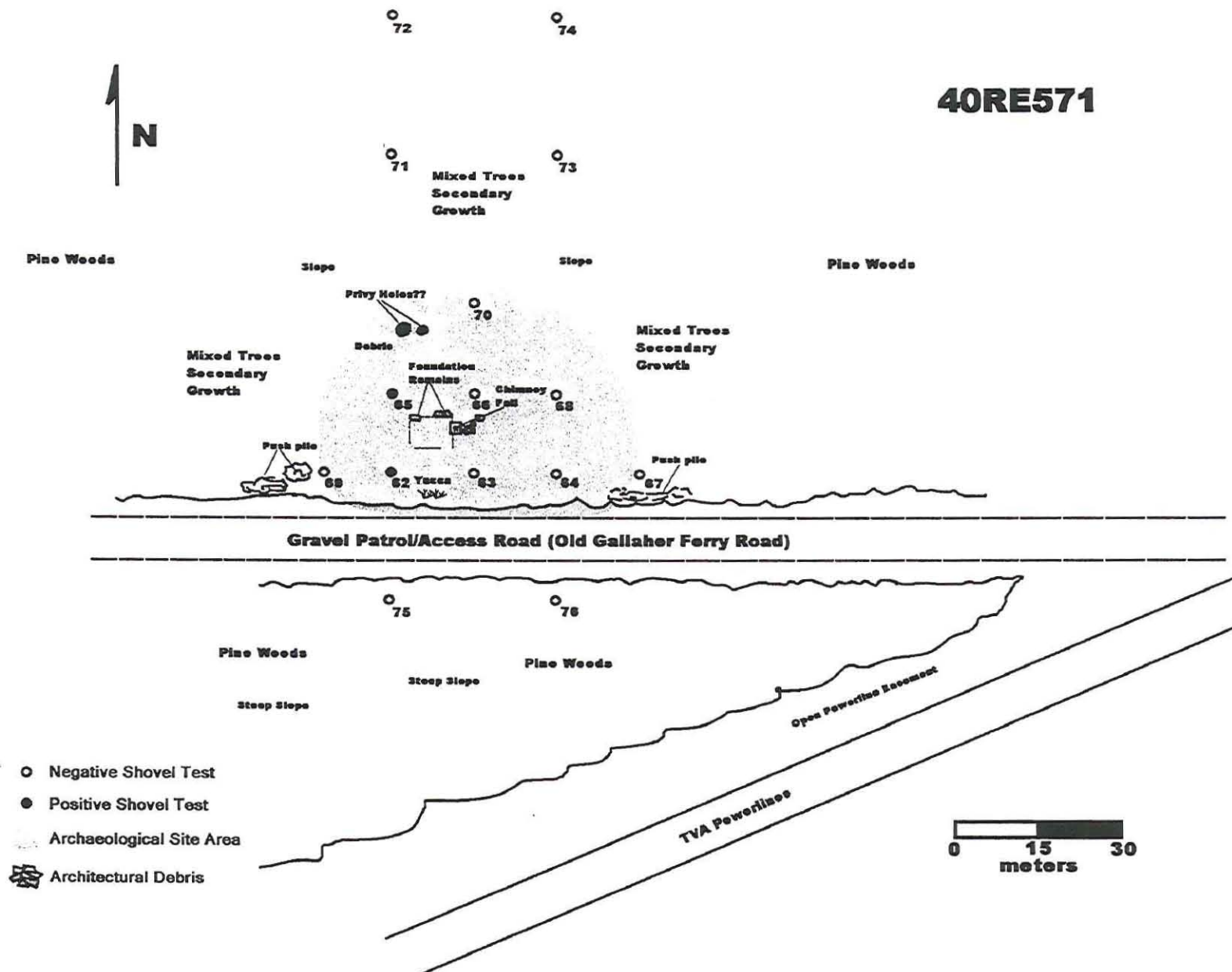


Figure 12. Sketch map of the 40RE571 site area showing shovel test locations and other physical features.

Site designation: 40RE572

Site Type: Residential

Cultural Associations: Historic Period, early to mid- 20th century

Site Location: UTM: (16) N 3984384 E 07399839

Elevation: 820' AMSL

Description: 40RE572 is a probable home site located in the southern portion of the ED-6 Parcel along the north side of the gravel access road (former Gallaher Ferry Road) approximately 100 m west of its intersection with SR 58/95 (Figure 1, A1). The site area lies on the crest of a low rise adjacent to the roadway and partially within a TVA powerline right of way, which cuts across the eastern end of the site. With the exception of the power line, the site area is forested in sub-mature hardwood forest, surrounded by (beetle) damaged pine forest and other dense growth. The site area has clearly been disturbed around its periphery, with numerous push piles (*i.e.*, from mechanical surface clearing) present along the roadway margin and at the edge of the pine plantings (Figure 13).



Figure 13. General view of the 40RE572 site area. Note the uneven terrain and numerous push piles shown in the photo. View is to the west.

The site area was largely defined by surface remains, including a pile of concrete block (possibly the result of recent dumping) and a filled in depression which likely represents a cellar. Scattered limestone blocks, probable footers (structural supports), were observed on the site, but were too disturbed to estimate structure dimensions. Based on the shovel test locations and features observed on the surface the site area is estimated as being approximately 40m N/S by 60m E/W in size. A sketch map of the site area is given in Figure 14.

A total of 8 shovel tests were excavated within the site area. Four of these produced a total of 26 artifacts, including 10 undecorated whiteware sherds, 1 decorated, industrial stoneware sherd, 1 milk glass (mason jar lid liner) fragment, 2 clear 1 aqua and 1 brown container glass shards, 2 fragments of (lamp) chimney glass, 1 cut nail, 5 wire nails, 1 piece of cast iron, and 1 iron chain link. Additional artifacts, including fragments of metal, glass and ceramic containers, were noted in push piles and on the surface, but not collected. The artifacts would be generally consistent with occupations occurring between the last quarter of the 19th century and the first half of the 20th.

The soil profiles from the shovel tests indicated shallow, eroded and very disturbed deposits

Discussion and Recommendations: The 40RE572 site area appears to be the remains of a house or structure abandoned at some point in the mid-20th century, either in conjunction with, or possibly prior to the acquisition of the property by the federal government. The structure is indicated on the 1935 planometric sheet (USGS 7.5' Bethel Valley, TN), but it does not appear on later USGS quadrangles. DOE land acquisition maps indicate that the site is located on Tract #965, land formally owned by M.J. and Hoyle Low. The structure is not listed on the DOE inventory maps, however, it may have been abandoned before the Low property was acquired. A beginning date for the occupation of the site is unclear. Based on the artifacts recovered, it probably dates from the late 19th to the turn of the 20th century.

The structures on the site were apparently razed in a similar manner to other structure sites identified in the ED-6 area and the site area has clearly been degraded since by forestry activity and modifications to the roadway margin. Although deep subsurface features (such as the cellar or privies) probably remain on the site, most of the surface deposits appear to have been substantially remodeled. The site will be likely be destroyed during redevelopment of the area, however, given the degree of disturbance and the late date of the occupation, we do not consider it to be a significant archaeological resource. The site is not considered potentially eligible for National Register inclusion and no further evaluation is recommended.

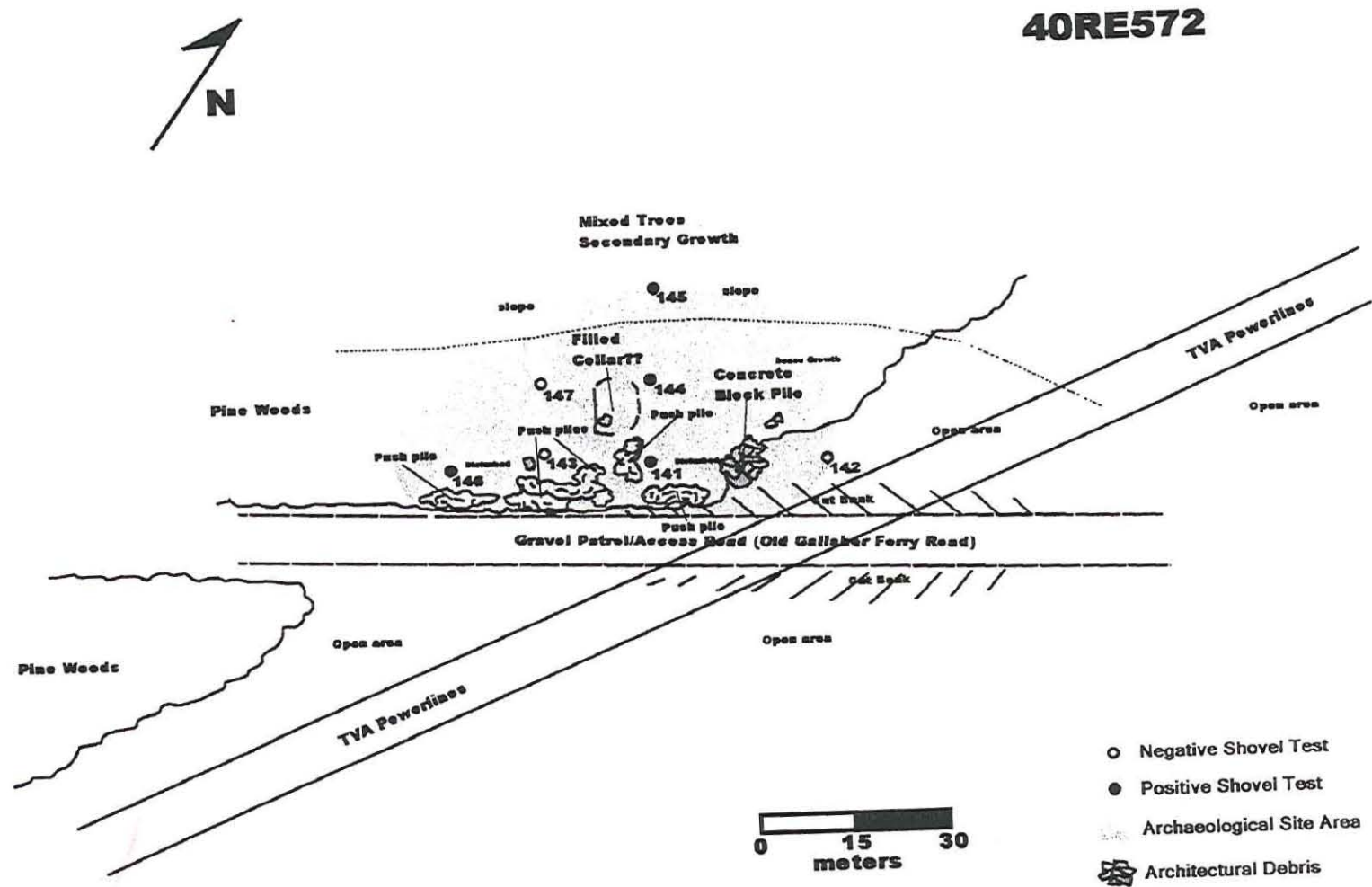


Figure 14. Sketch map of the 40RE572 site area showing shovel test locations and other physical features.

Site Designation: 40RE134

Site Type: Open Prehistoric/Historic

Cultural Associations: Prehistoric, Archaic (Early, Middle, Late) and Woodland
Historic Period, early to mid-20th century

Site Location: UTM: (16) N 398316 E 0739287

Elevation: 790' AMSL

Description: The site area is located in the southwestern corner of the ED-6 Parcel, on the crest of a low rise approximately 60-80 meters north of SR 58/95 and 30 meters east of the East Fork of Poplar Creek (Figure 1, A1). As originally mapped, the site area appears to be bisected by the western ED-6 boundary. The site was originally defined by Fielder (1974:64), who surveyed the area when it had been plowed for planting and offered good visibility for surface collections. Fielder collected a total of 54 artifacts from an approximate 20x30 meter area. The small collection included prehistoric artifacts, including diagnostic artifacts suggesting use in the Archaic and Woodland periods, and a small number of historic period artifacts of early 20th century origin.

The site area defined by Fielder, now covered in a mixed pine and secondary growth forest, could not be relocated during the current survey. Surface survey of the area located the remains of a large concrete silo within the northern portion of the site area (Figure 15), however, other than debris associated with the silo no other historic artifacts or features were noted. A total of nine (9) shovel tests were excavated within what should have been the eastern half of the site area (the portion within the ED-6 parcel. These tests completely penetrated the old plow zone in the site area, but none of the tests produced cultural materials.



Figure 15. View of the silo located in the northern portion of the 40RE134 site area.

Pedestrian reconnaissance of the landform suggests that it has been badly disturbed during the last quarter century, with push piles and other evidence of earth moving observed throughout the area. Shovel test profiles show a disturbed surface layer ranging from 15-30 cm in depth overlying a truncated silt-clay subsoil, which could be a product of either early 20th century agriculture or more recent tree farming.

Discussion and Recommendations: The small amount of historic material recorded by Fielder in 1974 was undoubtedly associated with the ruined silo, which in turn was probably associated with a barn and perhaps other farm structures in this area. All were likely associated with the residential occupation of 40RE568, which is located just up slope along the old Gallaher Ferry Road.

The prehistoric component at the site, potentially of greater interest, probably represented multiple episodes of short term use at what was undoubtedly a favorable location, a well drained rise in close proximity to East Fork Poplar Creek. The absence of prehistoric artifacts in the 2004 shovel tests could be a consequence of very low artifact density or it may indicate that the bulk of the site area is actually located closer to the East Fork and outside the current survey area. In either case, given the low observed artifact density and the substantial disturbance to site surfaces, there appears to be little likelihood of identifying intact prehistoric archaeological resources on the site. The site area, at least as it occurs within the present project area, is not considered potentially eligible for inclusion in the National Register. The remaining portion of the site area (to the west of the current project) has probably been similarly affected by land-use practices, but it should be re-evaluated for cultural content and contextual integrity if it is threatened in the future. No additional management action is required at this time.

Site Designation: 40RE228

Site Type: Open activity or habitation

Cultural Associations: Prehistoric, indeterminate period

Site Location: UTM: (16) N 3983840 E 0739590

Elevation: 790' AMSL

Description: The site area is located on the southern boundary of the ED-6 Parcel, along the south side of SR 58/95 (Oak Ridge Turnpike) and just north of Sweet Gum Lane (Figure 1, A1). The site was originally identified during a survey of a right of way expansions along SR58/95 (Pace 1996). It is described as a small prehistoric lithic scatter located on a relatively level terrace adjacent to, and approximately one meter above, the floodplain of East Fork Poplar Creek. The site area was defined based on a surface collection of exposed surfaces and the excavation of 8 shovel tests. The site was estimated as measuring at least 40 m N/S and 20 m E/W, extending from the wooded highway right of way southward into an adjacent power line easement and an area which had been cleared for residential development.

During the 1996 survey a total of 22 prehistoric artifacts, predominantly chert debitage, was recovered from the site surface and from four of the eight shovel tests. Surface collection conditions were not particularly good, however, an average recovery of three artifacts for each of the positive shovel tests demonstrated that artifact densities were very low within the best preserved portions of the site.

The ED-6 project area largely encompasses the previously surveyed highway right of way and the bulk of the 40RE228 site area as originally defined. The 2004 resurvey of this area was limited to pedestrian survey only. A considerable amount of residential housing has been constructed adjacent to the highway right of way and encroaches into the southern portion of the site area, extending to within 15 meters of the edge of the existing SR58/95 roadway. All exposed surfaces in and around this development and under the powerlines were inspected for artifacts, however, none were observed.

Discussion and Recommendations: Along with 40RE230, 40RE229 (located approximately 120 meters to the SE), and 40RE134 (discussed above), 40RE228 appears to be one of several small prehistoric sites which occupied the elevated landforms along the margins of the East Fork Poplar Creek floodplain in this vicinity. All appear to be low density artifact scatters and, based on very small artifact samples reported, appear to represent relatively short term, non-specialized activity.

In his 1996 recommendations Pace (1996:47) argued that 40RE228 had an extremely limited potential for further archeological study, citing the generally low artifact densities, lack of component distinctiveness, apparent absence of intact artifact bearing soil horizons, and low probability of encountering intact cultural features. No additional evaluation of the site was recommended at the time. The current investigations indicate that the site area now has even less integrity, with a significant portion of the former site area substantially destroyed. Given the careful 1996 definition, there appears to be little reason to revisit the issue of eligibility at this time. In our opinion, the site does not meet criteria for National Register inclusion and no further resource management activities are required.

SUMMARY AND RECOMMENDATIONS

The survey of the ED-6 and ED-7 parcels indicates that no cultural properties potentially eligible for inclusion in the National Register of Historic Places are present in either tract.

No evidence of prehistoric or historic period activity was identified during the survey of the ED-7 parcel. The absence of prehistoric sites, in particular, might be considered somewhat surprising as the tract's location, a well drained landform in close proximity to a major creek and within reasonable proximity to the Clinch River, would make it a relatively attractive setting for prehistoric period habitation. Given good coverage of the area, however, there seems to be no reason to doubt the survey results.

Both prehistoric and historic period sites have been identified within the much larger ED-6 parcel. Two prehistoric sites (40RE134 and 40RE228) had been recorded in the area during previous surveys. Both of these sites, located in the southern portion of the ED-6 parcel in close proximity to East Fork Poplar Creek, were originally described as relatively small, low-density lithic scatters. No evidence of either site was encountered during the current survey. 40RE134, defined under ideal conditions in 1974, could not be relocated despite intensive shovel testing of the mapped site area. It appears either that the site was incorrectly mapped, that it has very low artifact density and/or that it has been more or less destroyed by tree farming in the parcel. Although portions of the site may exist outside (to the west) of the current project area, the potential for affecting significant archaeological resources within the project area is considered very low. The 40RE228 site area, defined during a highway easement survey in 1996, has been encroached by recent housing development and has been at least partially destroyed. The site was thoroughly assessed during the 1996 survey (*i.e.*, Pace 1996) and was considered to have very limited potential for archaeological interpretation at that time. Particularly given the continued degradation of the site, this assessment seems entirely appropriate. We do not consider either of these sites to be eligible for National Register inclusion.

Evidence for historic period occupation within the ED-6 parcel consists of four poorly preserved house sites (40RE569, 40RE570, 40RE571, 40RE572) and a portion of a fifth (40RE568) which is bisected by the project boundary. All of these are located along an abandoned section of old Gallaher Ferry Road, which was the major road through the East Fork valley during the first half of the 20th century. Each site includes foundation or chimney elements from a small house and possibly associated structures, as well as possible pit features such as cellars or privies. Structural elements and recovered artifacts suggests that these are residential sites, the homes of the small farmers of the area. Some of the structures were probably owner-occupied, others would likely have been used by tenant farmers. Although artifact samples recovered from the sites are small and may not accurately reflect the full occupation span, it is relatively clear that all of the sites were occupied during the first half of the 20th century and most, if not all, appear to have been occupied up to 1942, when all of the local land was purchased by the federal government. A couple may have been in use during the late 19th century, but this is not entirely clear.

What is abundantly clear, however, is that all of the sites have significant levels of surface disturbance. This is partially the result of the structures on the sites being intentionally razed (*i.e.*, with heavy machinery) during the 1940s with, in some cases, more recent mechanical disturbance from tree planting/harvesting or modification/ improvement to the existing roadway. These activities are evidenced in thin or patchy surface horizons containing mixed soils and artifacts and in heaped piles of spoil left by the blades of front-end loaders. Thus, although it seems clear that deep features, such as cellars, privies, etc., would be preserved at some of the sites, much of the activity space surrounding the structures would be substantially destroyed.

As a group, these sites could conceivably provide a basis for the study of early 20th century farm life in what was a relatively remote and impoverished portion of eastern Tennessee. This time and place, particularly during the era of the Great Depression and New Deal, has been of considerable interest to historians, but has been very little studied by archaeologists at this point. This contrast is perhaps understandable in that the sheer abundance of documentary sources on the period, including any number of first person accounts of rural life at the time, make it unclear that archaeological studies would add a new or truly useful perspective on what is still, after all, the recent past. This attitude will likely change over time, but at the present, given the absence of a developed body of substantive research or comparative data, these sites do not appear to offer significant research opportunities. Particularly given that (presumably) better preserved sites of this type are still relatively common in the area, we do not consider these sites to be potentially significant archaeological resources. They are not considered potentially eligible for National Register consideration.

The Oak Ridge Turnpike Checking Station, currently listed on the National Register of Historic Places, is located just outside (within thirty meters) of the eastern boundary of the ED-6 Parcel. The site should not be directly affected by the project.

Rather and Scott Cemeteries, located outside but adjacent to the ED-6 Parcel boundary, should not be directly affected by current development plans. Both are fenced and clearly marked, however, we recommend that they also be identified on project mapping to insure avoidance during any construction activity.

Given the concurrence of the State Historic Preservation Officer in these opinions, we recommend no additional cultural resource management activity at this time.

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APPENDIX A

Project Maps

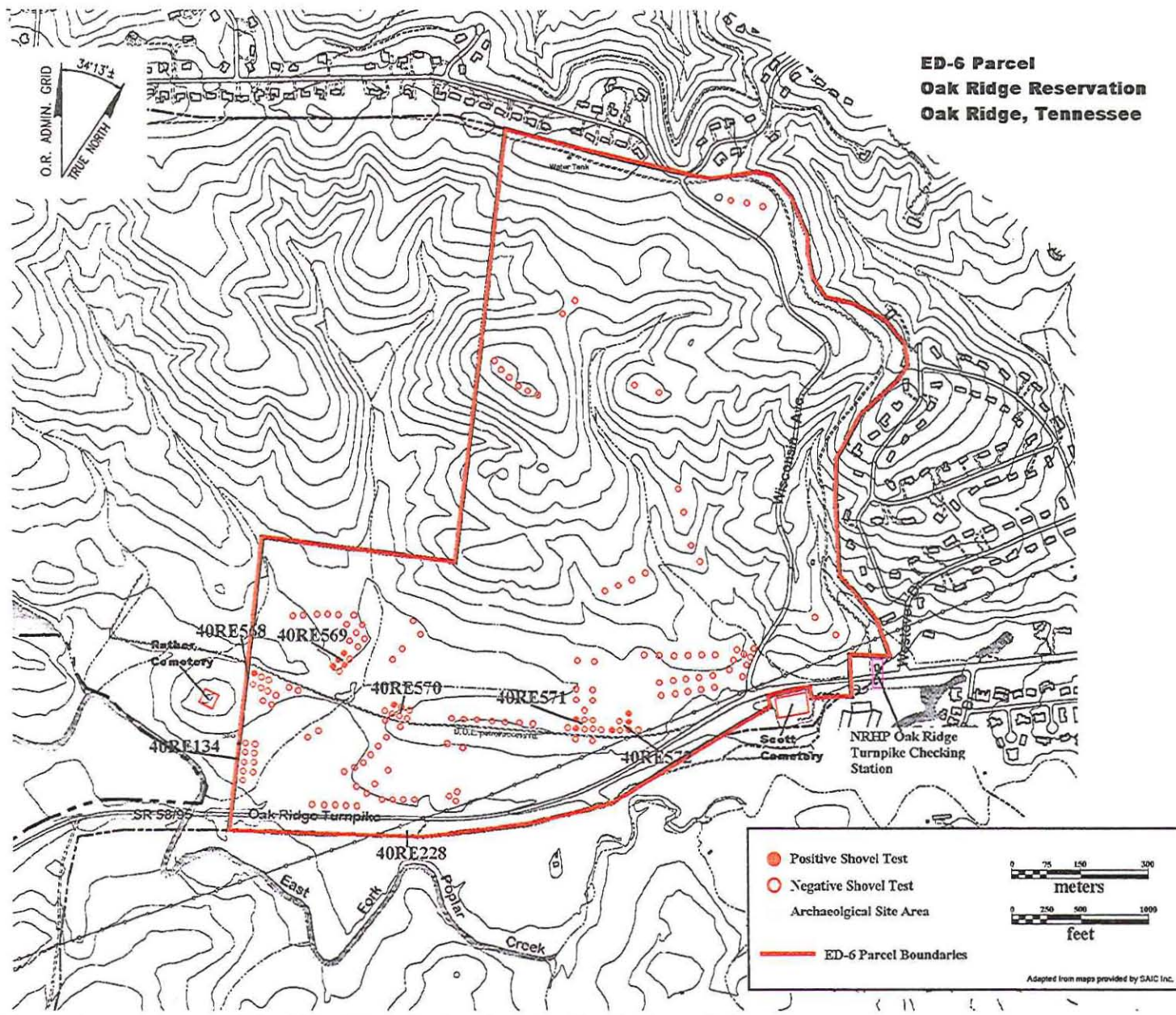
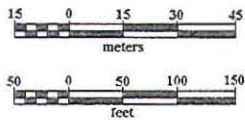
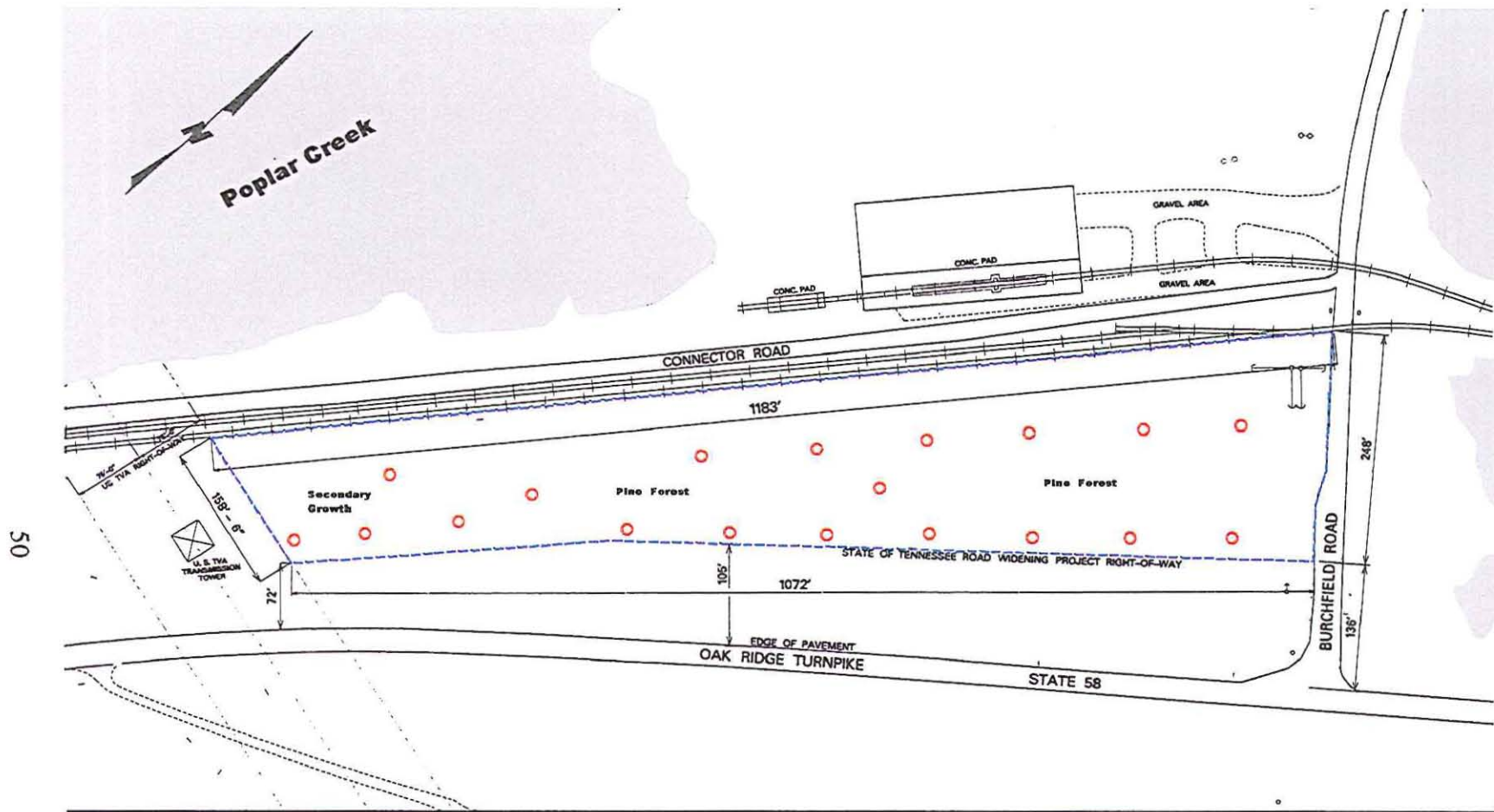


Figure A1. Project area map of the ED-6 Parcel, showing the distribution of shovel tests and other physical features described within the text.



ED-7 Parcel

East Tennessee Technology Park NEW RAILROAD STATION SITE

LEGEND	
	PROPOSED LEASED AREA 203,880 SQ. FT. (4.68 Acres)
	NORMAL POOL POPLAR CREEK
	RAILROAD
	POLES POLES WITH GUY WIRES
	POSITIVE SHOVEL TEST
	NEGATIVE SHOVEL TEST

Adapted from maps provided by SAIC Inc.

Figure A2. Project area map of the ED-7 Parcel, showing the distribution of shovel tests and other physical features described within the text.

APPENDIX B
Shovel Test Table

Shovel Test and Surface Collection Results for SAIC, Parcel ED-6						
Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6		1	1	0-18-cm bs	10YR 3/2 Silty loam, gravel	-
			2	18-40cm bs	10YR 6/4 Silty clay, gravel	-
ED-6		2	1	0-18cm bs	10YR 3/2 Silty loam, Regolithic gravel	-
			2	18-40cm bs	10YR 6/4 Silty clay, Regolithic gravel	-
			3	40+cm bs	10YR 6/6 Silty clay, Regolith gravel	-
ED-6		3	1	0-19cm bs	10YR 5/4 Silty clay, Regolith	-
			2	19-38cm bs	10YR 6/6 Silty clay, Regolith	-
ED-6		4	1	0-12cm bs	10YR 3/2-3/3 Silty loam, Humic	-
			2	12-48cm bs	10YR 6/4 Silty sandy clay, Regolith	-
ED-6		5	1	0-19cm bs	10YR 3/2-3/3 Silty loam, Regolith	-
			2	19-40cm bs	10YR 6/4 Silty sandy clay, Regolith	-
ED-6		6	1	0-13cm bs	10YR 3/2 Silty loam, Regolith	-
			2	13-27cm bs	10YR 6/6 Silty clay, Regolith	-
ED-6	40RE568	7	1	0-12cm bs	10YR 2/2 Silty clay loam, Regolith	1
			2	12-22cm bs	2.5Y 5/4 Silty clay, Regolith	-
ED-6	40RE568	8	1	0-12cm bs	10YR 3/2 Sandy silty clay loam	-
			2	12-23cm bs	5Y 6/3 Silty loam	-
			3	23-40cm bs	10YR 5/8 Silty clay loam	-
ED-6	40RE568	9	1	0-22cm bs	10YR 2/2 Silty clay loam	-
			2	22-40cm bs	2.5Y 4/6 Silty clay	-
ED-6	40RE568	10	1	0-18cm bs	10YR 3/2 Silty clay, Regolith	-
			2	18-29cm bs	10YR 6/6 Silty clay, Regolith	-
ED-6	40RE568	11	1	0-16cm bs	10YR 2/2 Silty Clay loam, Regolith	-
			2	16-22cm bs	2.5Y 5/4 Silty clay, Regolith	-
ED-6	40RE568	12	1	0-8cm bs	10YR 3/2 Silty clay loam	-
			2	8-20cm bs	10YR 6/6 Silty clay	-
ED-6	40RE568	13	1	0-18cm bs	10YR 6/4 Silty clay loam	-
			2	18-34cm bs	7.5YR 5/8 Silty clay	-
ED-6	40RE568	14	1	0-28cm bs	10YR 4/3 Silty clay loam	-
			2	28-32cm bs	10YR 6/8 Silty clay	-
ED-6		15	1	0-10cm bs	10YR 2/2 Silty clay loam	-
			2	10-26cm bs	7.5YR 5/8 Silty Clay	-
ED-6	40RE568	16	1	0-50cm bs	10YR 3/4 Silty clay loam, Regolithic gravel	-
ED-6	40RE568	17	1	0-12cm bs	10YR 3/4 Silty clay, Regolithic gravel	-
			2	12-26cm bs	7.5YR 3/4 Compact silty clay, Regolithic gravel	-
ED-6	40RE134	18	1	0-30cm bs	10YR 3/4 Silty clay loam	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6	40RE134	19	1	0-13cm bs	10YR 5/4 Silty clay loam	-
			2	13-28cm bs	7.5YR 5/6 Compact silty clay	-
ED-6	40RE134	20	1	0-44cm bs	Silty clay loam	-
ED-6	40RE134	21	1	0-20cm bs	10YR 5/4 Silty clay loam	-
			2	20-45cm bs	Compact silty clay	-
ED-6	40RE134	22	1	0-18cm bs	10YR 3/4 Silty clay loam	-
			2	18-26cm bs	10YR 5/4 Compact silty clay	-
ED-6	40RE134	23	1	0-30cm bs	10YR 5/4 Silty clay loam	-
			2	30-44cm bs	10YR 5/6 Compact silty clay	-
ED-6	40RE134	24	1	0-20cm bs	10YR 3/2 Silty clay loam	-
ED-6	40RE134	25	1	0-38cm bs	10YR 5/4 Sandy loam, Regolithic gravel	-
ED-6	40RE134	26	1	0-18cm bs	10YR4/4 Silty clay loam, Regolithic gravel	-
			2	18-23cm bs	10YR 5/4 Silty clay loam, Regolithic gravel	-
ED-6	40RE134	27	1	0-23cm bs	10YR 3/4-3/3 Silty clay loam	-
			2	23-54cm bs	10YR 5/4-3/4 Compact silty clay	-
ED-6	40RE569	28	1	0-8cm bs	10YR 3/4 Silty sandy loam	1
			2	8-20cm bs	2.5YR 4/6 Sandy loam, Regolithic gravel	-
ED-6	40RE569	29	1	0-10cm bs	10YR 3/2 Silty clay loam	-
			2	10-20cm bs	7.5YR 4/6 Silty sandy clay loam, Regolithic gravel	-
ED-6	40RE569	30	1	0-8cm bs	10YR 3/4 Silty clay loam	40
			2	8-22cm bs	2.5YR 4/6 Sandy clay loam, Regolithic gravel	-
ED-6	40RE569	31	1	0-10cm bs	10YR 3/4 Silty clay loam	1
			2	10-20cm bs	2.5YR 4/6 Silty clay loam, Regolithic gravel	-
ED-6	40RE569	32	1	0-13cm bs	10YR 3/3 Silty clay loam	8
			2	13-30cm bs	5YR 4/6 Silty clay	-
ED-6	40RE569	33	1	0-12cm bs	10YR 3/4 Silty clay loam	-
			2	12-20cm bs	2.5YR 4/6 Silty clay loam	-
ED-6		34	1	0-16cm bs	10YR 3/4 Sandy silt loam	-
			2	16-27cm bs	2.5YR 4/6 Silty clay	-
ED-6		35	1	0-13cm bs	10YR 3/4 Silty clay loam	-
			2	13-29cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		36	1	0-12cm bs	10 YR 3/4 Sandy silt loam, Regolithic	-
			2	12-28cm bs	2.5YR 4/6 Silty clay, Regolithic gravel	-
ED-6		37	1	0-18cm bs	10YR 3/4 Silty clay loam	-
			2	18-24cm bs	7.5YR 4/6 Silty clay loam, Regolithic gravel	-
ED-6		38	1	0-10cm bs	10YR 3/4 Silty clay loam	-
			2	10-20cm bs	7.5YR 4/6 Silty clay loam, Regolithic gravel	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6		39	1	0-26cm bs	10YR 3/3 Silty clay loam,	-
			2	26+cm bs	7.5YR 5/4 Silty clay	-
ED-6		40	1	0-9cm bs	10YR 3/4 Silty clay loam	-
			2	9-25cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		41	1	0-4cm bs	10YR 3/2 Humic, Regolithic gravel	-
			2	4-8cm bs	7.5YR 4/6 Silty clay loam , Regolithic gravel	-
ED-6		42	1	0-13cm bs	7.5 YR 2.5/2 Silty loam, Regolith	-
			2	13-24cm bs	5YR 5/6 Clay, Regolithic gravel	-
ED-6		43	1	0-4cm bs	7.5 YR 2.5/2 Silty loam, Regolithic gravel	-
			2	4-18cm bs	2.5YR 5/3 Silty clay loam, Regolithic gravel	-
ED-6		44	1	0-5cm bs	10YR 4/3 Humic, Regolithic gravel	-
			2	5-13cm bs	7.5YR 4/6 Sandy clay loam,	-
ED-6		45	1	0-8cm bs	10YR 4/3 Silty clay loam, Regolithic gravel	-
			2	8-12cm bs	7.5YR 4/6 Sandy clay loam, Regolithic gravel	-
ED-6		46	1	0-6cm bs	10YR 3/3 Silty loam	-
			2	6-26cm bs	5YR 4/6 Silty clay loam	-
ED-6	40RE570	47	1	0-7cm bs	10YR 3/3 Silty loam, Humic	-
			2	7-20cm bs	2.5YR 6/4 Silty/sandy loam, Regolith	-
ED-6	40RE570	48	1	0-22cm bs	10YR 3/3 Silty loam	-
			2	22-34cm bs	5YR 4/6 Silty clay loam	-
ED-6	40RE570	49	1	0-27cm bs	10YR 3/2 Silty clay loam	3
			2	27-32cm bs	7.5YR 5/6 Silty clay, Regolith	-
ED-6	40RE570	50	1	0-17cm bs	10YR 4/2 Silty clay	-
			2	17-23cm bs	7.5YR 5/6 Clay	-
ED-6	40RE570	51	1	0-8cm bs	10YR 3/2 Silty loam, Regolith	-
			2	8-15cm bs	2.5YR 6/4 Sandy loam, Regolith	-
ED-6	40RE570	52	1	0-18cm bs	10YR 4/3 Silty clay loam, Regolithic gravel	-
			2	18-33cm bs	10YR 7/4 Sandy clay, Regolithic gravel,	-
ED-6	40RE570	53	1	0-18cm bs	10YR 4/3 Silty clay loam	-
			2	18-33cm bs	10YR 7/4 Sandy clay, Regolithic gravel	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6	40RE570	54	1	0-4cm bs	10YR 3/4 Humic, Regolith	-
			2	4-9cm bs	10YR 6/6 Silty clay	-
ED-6	40RE570	55	1	0-9cm bs	10YR 4/3 Silty clay loam, Regolithic gravel,	-
			2	9-26cm bs	10YR 7/4 Sandy clay loam, Regolithic gravel	-
ED-6	40RE570	56	1	0-12cm bs	10YR 3/4-5/4 Humic, Regolith	-
			2	12-20+cm bs	7.5YR 4/6 Silty clay	-
ED-6		57	1	0-4cm bs	10YR 3/4 Silty loam, Regolith, Humic	-
			2	4-12cm bs	10YR 6/6 Silty clay loam, Regolith	-
ED-6		58	1	0-27cm bs	10YR 3/3 Silty loam	-
			2	27-32cm bs	7.5YR 3/4 Silty clay loam	-
ED-6		59	1	0-7cm bs	10 YR 3/2 Silty loam	-
			2	7-24cm bs	10 YR 4/6 Silty loam	-
			3	24-27cm bs	7.5 YR 4/6 Silty clay loam	-
ED-6		60	1	0-19cm bs	10YR 4/4 Silty loam	-
			2	19-27cm bs	5YR 4/6 Silty clay loam	-
ED-6		61	1	0-4cm bs	10 YR 3/2 Silty loam	-
			2	4-13cm bs	10 YR 4/6 Silty loam	-
			3	13-17cm bs	7.5 YR 4/6 Silty clay loam	-
ED-6	40RE571	62	1	0-17cm bs	10YR 2/2 Silty loam	2
			2	27-32cm bs	10YR 7/6 Silty clay loam, Regolithic gravel	-
ED-6	40RE571	63	1	0-9cm bs	10YR 3/2 Silty clay loam, Regolith	-
			2	9-12cm bs	10YR 7/6 Sandy clay loam, Regolith	-
ED-6	40RE571	64	1	0-8cm bs	10YR 3/2 Silty clay loam, Regolith	-
			2	8-15cm bs	10YR 7/6 Silty clay loam, Regolith	-
ED-6	40RE571	65	1	0-17cm bs	10YR 2/2 Silty loam	1
			2	27-32cm bs	10YR 7/6 Sandy clay loam, Regolithic gravel	-
ED-6	40RE571	66	1	0-16cm bs	10YR 2/2 Silty loam	-
			2	27-32cm bs	10YR 7/6 Sandy clay loam, Regolithic gravel	-
ED-6	40RE571	67	1	0-8cm bs	10YR 3/2 Silty clay loam, Regolith	-
			2	8-17cm bs	10YR 7/6 Silty clay loam, Regolith	-
ED-6	40RE571	68	1	0-15cm bs	10YR 2/2 Silty loam	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
			2	15-26cm bs	10YR 7/6 Sandy clay loam, Regolithic gravel	-
ED-6	40RE571	69	1	0-10cm bs	10YR 3/2 Silty clay loam, Regolith	-
			2	10-14cm bs	10YR 7/6 Silty clay loam, Regolith	-
ED-6	40RE571	70	1	0-4cm bs	10YR 3/2 Silty loam, Humic	-
			2	4-10cm bs	10YR 6/4-6/6 Compact Silty clay, Regolith	-
ED-6	40RE571	71	1	0-12cm bs	10YR 3/2 Silty clay loam	-
			2	12-31cm bs	2.5YR 5/4 Silty clay	-
ED-6	40RE571	72	1	0-20cm bs	10YR 3/4 Silty clay loam	-
			2	20-29cm bs	10 YR 5/6 Silty clay	-
ED-6	40RE571	73	1	0-8cm bs	10YR 3/2 Silty loam, Humic	-
			2	8-18cm bs	10YR 6/6 Sandy/silty clay,	-
			3	18-24cm bs	10YR 6/8 Sandy/silty clay	-
ED-6	40RE571	74	1	0-16cm bs	10YR 4/3 Silty clay loam	-
			2	16-24cm bs	7.5YR 5/6 Silty clay loam	-
ED-6		75	1	0-18cm bs	10YR 3/2 Silty loam, Regolith	-
			2	18-20cm bs	10YR7/6Silty Loam, Regolith	-
ED-6		76	1	0-10cm bs	10YR 2/3-3/4 Angular chert gravel, Some silt	-
			2	10+cm bs	10YR 6/4 Sticky silty clay, Regolithic chert	-
ED-6		77	1	0-5cm bs	10YR3/2 Silty loam, Regolith	-
			2	5-17cm bs	10YR7/6 Silty clay, Regolith	-
ED-6		78	1	0-17cm bs	10YR 4/4 Silty clay loam	-
			2	17-49cm bs	7.5YR 5/8 Silty clay loam	-
ED-6		79	1	0-16cm bs	10YR3/4-5/4 Silty loam, Regolithic gravel	-
			2	16-24cm bs	10YR 5/4-4/6 Compact silty clay, Regolithic gravel	-
ED-6		80	1	0-1cm bs	10YR 3/3 Humic	-
			2	1-4cm bs	7.5YR4/6 Silty clay, Regolith	-
ED-6		81	1	0-6cmbs	7.5YR 3/2 Silty loam, Humic	-
			2	6-15cm bs	5YR 5/8 Compact silty clay	-
ED-6		82	1	0-28cm bs	10YR 5/8 Silty clay	-
			2	28-32cm bs	7.5YR5/8 Silty clay	-
ED-6		83	1	0-22cm bs	10YR 4/4 Sandy clay loam, Regolith	-
			2	22-26cm bs	10YR 5/4 Silty clay loam	-
ED-6		84	1	0-6cm bs	10YR 4/4 Silty clay loam, Humic	-
			2	6-12cm bs	7.5YR 5/6 Silty clay	-
ED-6		85	1	0-24cm bs	10YR 4/3 Silty clay	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
			2	24-28cm bs	7.5YR 4/4 Silty clay	-
ED-6		86	1	0-10cm bs	10YR 2/2 Silty clay, Regolith	-
			2	10-29cm bs	10YR 4/4 Silty clay, Regolith	-
ED-6		87	1	0-10cm bs	10YR 4/3 Silty clay	-
			2	10-20cm bs	7.5YR 4/4 Silty clay	-
ED-6		88	1	0-19cm bs	10YR 2/2 Silty Clay	-
			2	19-29cm bs	10YR4/4 Compact silty clay	-
ED-6		89	1	0-9cm bs	10YR 4/3 Silty clay	-
			2	9-12cm bs	7.5YR 4/4 Silty Clay	-
ED-6		90	1	0-25cm bs	10YR 3/3 Silty loam	-
			2	25-28cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		91	1	0-13cm bs	10YR 4/3 Silty clay loam	-
			2	13-20cm bs	7.5YR 4/4 Silty clay	-
ED-6		92	1	0-34cm bs	10YR3/4 Silty clay loam	-
			2	34-50cm bs	7.5YR 3/3 Silty clay loam	-
ED-6		93	1	0-40cm bs	10YR 4/3 Sandy/silty clay loam	-
ED-6		94	1	0-22cm bs	7.5YR Silty clay loam	-
			2	22-38cm bs	5YR 4/4 Silty clay	-
ED-6		95	1	0-8cm bs	10YR 3/2 Silty loam, Humic	-
			2	8-30cm bs	10YR 3/4 Silty clay loam	-
			3	30-32cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		96	1	0-27cm bs	10YR 3/4 Silty clay loam	-
			2	27-34cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		97	1	0-2cm bs	10YR 3/2 Humic	-
			2	2-12cm bs	7.5YR 4/6 Regolithic	-
ED-6		98	1	0-26cm bs	10YR 3/4 Silty clay loam	-
			2	26-39cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		99	1	0-8cm bs	10YR 4/4 Silty clay loam, Regolith	-
			2	8-27cm bs	10YR 5/4 Sandy clay loam	-
ED-6		100	1	0-32cm bs	10YR 3/3 Silty loam	-
			2	32-39cm bs	10YR 4/4 Silty clay loam	-
ED-6		101	1	0-7cm bs	10YR 4/4 Silty clay loam, Regolith	-
			2	7-25cm bs	10YR 5/4 Sandy clay loam	-
ED-6		102	1	0-10cm bs	10YR 4/4 Silty clay loam, Regolithic gravel	-
			2	10-24cm bs	7.5YR 4/6 Compact silty clay, Regolithic gravel	-
ED-6		103	1	0-14cm bs	10YR 3/4 Silty loam, Humus (10YR 3/2), toe slope, wooded upland	-
			2	14-18+cm bs	10YR 3/4-4/6 Silty clay, sterile subsoil	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6		104	1	0-12cm bs	10YR 3/4 Silty loam, small angular chert, Humus (10YR 3/2)	-
			2	12-15+cm bs	10YR 5/4 Silty clay, subsoil, soil has leached look	-
ED-6		105	1	0-21cm bs	10YR 3/3-3/2 Silty loam, abundant small angular chert pieces, open woodlands	-
			2	21-24cm bs	10YR 4/6 Silty clay loam, some rock, subsoil	-
ED-6		106	1	0-20cm bs	10YR 3/3 Silty loam, abundant small angular chert, humus layer	-
			2	20-25cm bs	10YR 4/6 Silty clay, small rocks, subsoil, open woods	-
ED-6		107	1	0-25cm bs	10YR 3/2-3/3 Silty loam	-
ED-6		108	1	0-13cm bs	10YR 3/2 Silty loam, charcoal noted	-
			2	13-28cm bs	10YR 4/4 Silty loam	-
ED-6		109	1	0-24cm bs	10YR 3/2-3/3 Silty loam, rocks	-
			2	24-30cm bs	10YR 4/6 Silty loam, rocks	-
ED-6		110	1	0-20cm bs	10YR 3/3 Silty loam, natural chert piece	-
			2	20+cm bs	10YR 4/4 Silty loam	-
ED-6		111	1	0-20cm bs	10YR 3/2-3/3 Silty loam, rocks	-
			2	20-28cm bs	10YR 4/4-4/6 Silty loam, rocks	-
ED-6		112	1	0-10cm bs	Thick humus layer, 80% Regolithic gravel, loam	-
ED-6		113	1	0-29cm bs	10YR 6/4 Silty/sandy clay loam, Regolithic gravel	-
ED-6		114	1	0-12cm bs	10YR 3/3 Silty clay loam	-
			2	12-25cm bs	7.5YR 4/4 Silty clay	-
ED-6		115	1	0-20cm bs	10YR 3/3 Silty clay loam, thick humus layer, fallen pine and overgrowth	-
			2	20-29cm bs	7.5YR 4/4 Clay	-
ED-6		116	1	0-27cm bs	10YR 4/4 Silty loam	-
			2	27-35cm bs	7.5YR 4/3 Clay	-
ED-6		117	1	0-25cm bs	10YR 3/3 Silty loam, overgrowth	-
			2	25-29cm bs	10YR 4/6 Silty clay loam	-
ED-6		118	1	0-22cm bs	10YR 4/4 Silty loam	-
			2	22-26cm bs	7.5YR 3/4 Clay	-
ED-6		119	1	0-17cm bs	10YR 3/3 Silty clay loam, thin humus layer, overgrowth	-
			2	17-22cm bs	7.5YR 4/3 Silty clay loam	-
ED-6		120	1	0-18cm bs	10YR 3/2 Compact silty loam	-
			2	18-23cm bs	10YR 3/4 Compact silty clay loam	-
ED-6		121	1	0-25cm bs	10YR 4/3 Silty loam	-
			2	25-27cm bs	7.5YR 3/4 Clay	-
ED-6		122	1	0-17cm bs	10YR 3/1 Silty clay loam	-
			2	11-26cm bs	7.5YR 4/3 Clay	-

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6		123	1	0-16cm bs	Silty clay loam, boulder at bottom of test	-
ED-6		124	1	0-20cm bs	10YR 3/1 Silty clay loam, Regolithic gravel	-
			2	20-24cm bs	7.5YR 4/3 Mottle clay	-
ED-6		125	1	0-12cm bs	10YR 3/3 Silty loam, thin humus layer	-
			2	12-16cm bs	Decomposing shale	-
ED-6		126	1	0-26cm bs	10YR 3/1 Silty clay loam, large rock in 80% of test	-
			2	26+cm bs	7.5YR 4/3 Clay	-
ED-6		127	1	0-15cm bs	10YR 3/2 Silty clay loam, pine forest	-
			2	15-20cm bs	7.5YR 4/4 Mottled clay	-
ED-6		128	1	0-23cm bs	10YR 3/1 Silty clay loam, rock in bottom of test, Regolithic gravel	-
ED-6		129	1	0-33cm bs	10YR 4/3 Silty loam	-
			2	33+cm bs	7.5YR 4/4 Clay	-
ED-6		130	1	0-15cm bs	10YR 3/4 Silty loam, pine forest	-
ED-6		131	1	0-29cm bs	10YR 4/4 Silty loam	-
ED-6		132	1	0-33cm bs	10YR 3/2 Silty loam, thin humus layer	-
ED-6		133	1	0-26cm bs	10YR 4/3 Silty loam, large rock in bottom of test	-
			2	26-31cm bs	7.5YR 4/4 Clay	-
ED-6		134	1	0-14cm bs	7.5YR 4/6 Silty clay loam, thin humus layer, eroded surface	-
ED-6		135	1	0-12cm bs	10YR 3/2 Silty clay loam, some Regolithic gravle	-
			2	12-26cm bs	7.5YR 4/3 Clay	-
ED-6		136	1	0-10cm bs	7.5YR 4/6 Clay, thin humus layer, eroded surface	-
ED-6		137	1	0-17cm bs	10YR 3/2 Silty loam	-
			2	17-29cm bs	7.5YR 4/6 Compact silty clay loam	-
ED-6		138	1	0-23cm bs	10YR 4/3 Silty loam, large rocks	-
ED-6		139	1	0-18cm bs	10YR 3/4 Silty clay loam, flood plain	-
			2	18-26cm bs	10YR 4/3 Silty clay loam	-
			3	26-45cm bs	10YR 3/4-3/3 Silty clay, Regolith gravel	-
ED-6		140	1	0-30cm bs	10YR 4/4 Silty loam, some rocks	-
ED-6	40RE572	141	1	0-30cm bs	10YR 3/2 Silty loam, rocky bottom, near push pile	2
ED-6	40RE572	142	1	0-16cm bs	10YR 3/4 Silty loam w/ clay	-
			2	16-22cm bs	7.5YR 4/4 Clay	-
ED-6	40RE572	143	1	0-16cm bs	10YR 3/2 Silty loam, charcoal noted	1
			2	16-20cm bs	10YR 5/6 Silty loam, 80% rock, near push pile	-
ED-6	40RE572	144	1	0-18cm bs	10YR 2/1 Silty/sandy loam, Regolithic gravel	9
			2	18-20cm bs	10YR 6/2 Clay	-
ED-6	40RE572	145	1	0-18cm bs	10YR 3/2 Silty loam	3
ED-6	40RE572	146	1	0-24cm bs	10YR 2/1 Silty/sandy loam, Regolithic gravel	4

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
			2	24+cm bs	10YR 6/2 Clay	-
ED-6	40RE572	147	1	0-13cm bs	10YR 3/2 Silty loam, near push pile	-
			2	13-30cm bs	7.5YR 4/4 - 10YR 3/2 Clay mottled to about 31cm	-
ED-6		148	1	0-13cm bs	10YR 3/4 Silty clay loam, near drainage	-
			2	13-18cm bs	10YR 4/4 Silty clay loam, pebbles	-
ED-6		149	1	0-10cm bs	10YR 4/4 Silty loam	-
			2	10-37cm bs	7.5YR 4/3 Clay loam	-
ED-6		150	1	0-8cm bs	10YR 3/2 Silty clay loam, thin humus layer, pine forest, eroded surface	-
			2	8-12cm bs	7.5YR 4/4 Clay	-
ED-6		151	1	0-6cm bs	10YR 3/4 Silty loam, humus	-
			2	6-21cm bs	7.5YR 4/3 Clay	-
ED-6		152	1	0-24cm bs	7.5YR 3/3 Silty clay loam	-
ED-6		153	1	0-26cm bs	10YR 4/4 Silty loam	-
			2	26-30cm bs	7.5YR 4/6 Silty clay loam	-
ED-6		154	1	0-16cm bs	10YR 3/3 Silty loam	-
			2	16-38cm bs	10YR 4/4 Silty loam	-
ED-6		155	1	0-19cm bs	10YR 4/4 Silty loam	-
			2	19-30cm bs	10YR 4/6 Silty clay loam	-
ED-6		156	1	0-24cm bs	10YR 3/4 Silty loam	-
ED-6		157	1	0-25cm bs	10YR 3/4 Silty loam, hill top	-
			2	25+cm bs	7.5YR 4/4 Silty clay loam	-

Shovel Test and Surface Collection Results for SAIC, Parcel ED-7

Parcel	Site #	ST #	Lev.	Depths	Description	Artifacts
ED-6		1	1	0-12cm bs	10YR 3/3 Silty loam, Regolithic gravel	-
			2	0-15cm bs	10YR 3/2 Thick humus, 80% Regolithic gravel & rock	-
ED-6		3	1	0-18cm bs	10YR 3/3 Silty clay, Regolithic gravel	-
			2	18-30cm bs	7.5YR 4/3 Clay, some decomposing shale	-
ED-6		4	1	0-10cm bs	10YR 3/2 Silty clay loam, thin humus layer	-
			2	10-26cm bs	10YR 4/4 Silty clay mottled w/ decomposing shale	-
ED-6		5	1	0-19cm bs	7.5YR 4/3 Silty clay loam	-
			2	19-21cm bs	7.5YR 4/3 Decomposing shale	-
ED-6		6	1	0-8cm bs	10YR 3/2 Silty clay loam	-
			2	8-26cm bs	7.5YR 5/4 Clay mottled w/ decomposing shale	-
ED-6		7	1	0-17cm bs	10YR 3/3 Silty loam	-
			2	17-30cm bs	7.5YR 4/3 Decomposing shale	-
ED-6		8	1	0-17cm bs	10YR 3/3 Silty clay loam	-
			2	17-27cm bs	7.5YR 4/3 Clay	-
ED-6		9	1	0-12cm bs	10YR 3/3 Silty clay loam	-
			2	12-20cm bs	7.5YR 4/3 Clay	-
ED-6		10	1	0-16cm bs	10YR 3/3 Silty clay loam, charcoal and ash deposit begins at 12cm and continues to bottom of test	-
			2	16-28cm bs	7.5YR 4/3 Clay, charcoal chunks, some rocks, water	-
ED-6		11	1	0-20cm bs	10YR 3/3 Clay loam	-
			2	20-27cm bs	10YR 2/1 Damp clay loam, ground water	-
ED-6		12	1	0-13cm bs	10YR 3/3 Silty clay loam, charcoal noted	-
			2	13-20cm bs	Charcoal layer, near train tracks	-
ED-6		13	1	0-9cm bs	10YR 3/3 Silty clay loam, charcoal noted	-
			2	9-25cm bs	7.5YR 5/4 Clay mottled with decomposing shale	-
ED-6		14	1	0-11cm bs	10YR 3/3 Clay loam	-
			2	11-17cm bs	7.5YR 4/6 Clay, concrete block in NW corner	-
ED-6		15	1	0-9cm bs	10YR 3/3 Silty clay loam, up slope from train tracks	-
			2	9-26cm bs	7.5YR 4/4 Clay mottled w/ decomposing shale	-
ED-6		16	1	0-11cm bs	10YR 3/3 Silty/sand loam, dense Regolithic gravel and rocks	-
ED-6		17	1	0-13cm bs	10YR 3/2 Thin humus layer, 80% layer	-
			2	13-26cm bs	10YR 4/4 Silty clay loam, some rocks	-
ED-6		18	1	0-12cm bs	10YR 3/2 Silty clay loam, Regolithic gravel	-
			2	12-20cm bs	10YR 4/6 Clay, Regolithic gravel	-
ED-6		19	1	0-8cm bs	10YR 3/3 Silty clay loam, some rocks	-
			2	8-20cm bs	7.5YR 4/4 Clay	-