

PHASE I

ARCHAEOLOGICAL  
SURVEY FOR THE  
PROPOSED  
REALIGNMENT OF KY 805,  
LETCHER COUNTY,  
KENTUCKY.

KYTC ITEM# 12-8702.00

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**Kentucky Office of State  
Archaeology Project**

**Number:**

*FY15-8167*

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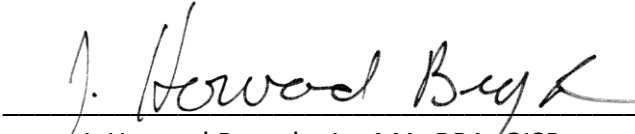


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Kentucky Office of State Archaeology  
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Archaeology Report

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# Abstract

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This report describes the field and laboratory method and the results of a Phase I archaeological survey conducted at the request of the Kentucky Transportation Cabinet (KYTC) by archaeologists from CDM Smith for the realignment of KY 805 near Jenkins in Letcher County, Kentucky (Item Number 12-8702.00). Field work was conducted on June 24<sup>th</sup> and 25<sup>th</sup>, 2014.

The state agency sponsoring this survey is the KYTC; the lead federal agency is the Federal Highway Administration. The survey was conducted in compliance with the guidelines established by the Kentucky Heritage Council Guidelines (Sanders 2006) and the National Historic Preservation Act of 1966 (P.L. 89-655; 80 Stat. 915, 16 U.S.C. 470 et seq), the National Environmental Policy Act of 1969 (P.L. 910190; 83 Stat. 852, 42 U.S.C. 4321 et seq), Procedures of the Advisory Council on Historic Preservation (36CFR800), Executive Order 11593, and the Protection and Enhancement of the Cultural Environment (16 U.S.C. 470; supp. 1, 1971).

The Phase I archaeological survey covered the project area that measured 32.9 acres (13.3 ha). The survey identified one archaeological site, 15LR98, occupying 1.7 acres (0.76 ha) of the APE. The site consisted of four historic house sites dating to the early twentieth century and associated with the founding of the town of Jenkins, Kentucky by the Consolidated Coal Company. Site 15LR98 is considered to be ineligible for recommendation to the National Register of Historical Places (NRHP) under Criteria A, B, C and D. No further archaeological work is necessary within the APE.



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## Acknowledgements

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The Principal Investigator for the archaeological survey was Mr. J. Howard Beverly, Jr., RPA. Field crew consisted of Robert Ball, RPA and Chris Rankin. Howard Beverly generated maps and formatted the report. Robert Ball provided support in Lexington.

# Section 1 -

## Introduction

This report describes the field and laboratory method and the results of a Phase I archaeological survey conducted at the request of the Kentucky Transportation Cabinet (KYTC) by archaeologists from CDM Smith for the realignment of KY 805 near Jenkins in Letcher County, Kentucky (Item Number 12-8702.00). Field work was conducted on June 24<sup>th</sup> and 25<sup>th</sup>, 2014.

### 1.1 Project Sponsor and Regulatory Authority

The state agency sponsoring this survey is the KYTC; the lead federal agency is the Federal Highway Administration. The survey was conducted in compliance with the guidelines established by the Kentucky Heritage Council Guidelines (Sanders 2006) and the National Historic Preservation Act of 1966 (P.L. 89-655; 80 Stat. 915, 16 U.S.C. 470 et seq), the National Environmental Policy Act of 1969 (P.L. 910190; 83 Stat. 852, 42 U.S.C. 4321 et seq), Procedures of the Advisory Council on Historic Preservation (36CFR800), Executive Order 11593, and the Protection and Enhancement of the Cultural Environment (16 U.S.C. 470; supp. 1, 1971).

### 1.2 Purpose and Scope of Work

A Phase I archaeological survey was conducted for the proposed realignment of KY 805 near Jenkins in Letcher County, Kentucky (Item Number 12-8702.00.)

The archaeological surveyors were prepared to shovel probe areas of less than 15% slope, auger deeper soil deposits, and to visually inspect the entire area. The purpose of this work was to identify any archaeological resources which might have existed and to record their extent, significance, and the potential impact of the proposed project on these cultural resources.

### 1.3 Project Location and Description

This project is located along KY 805 in Letcher County, west of Jenkins and the intersection with US 23, in the Kentucky Department of Highways District 12 (Figure 1-1). The project area is centered on existing KY 805 and to the south and east of Bik Elk Drive (Figure 1-2 and Figure 1-3).

### 1.4 Area of Potential Effect (APE)

The area of potential effect (APE) is defined as the limits of the proposed right-of-way and proposed waste area. The total area is 32.9 acres (13.3 ha).

### 1.5 OSA Records Research

On July 23, 2014, the site files and survey records at the Office of State Archaeology (OSA) were accessed.

### 1.6 Principal Investigator

The principal investigator for the project was J. Howard Beverly, MA, RPA.

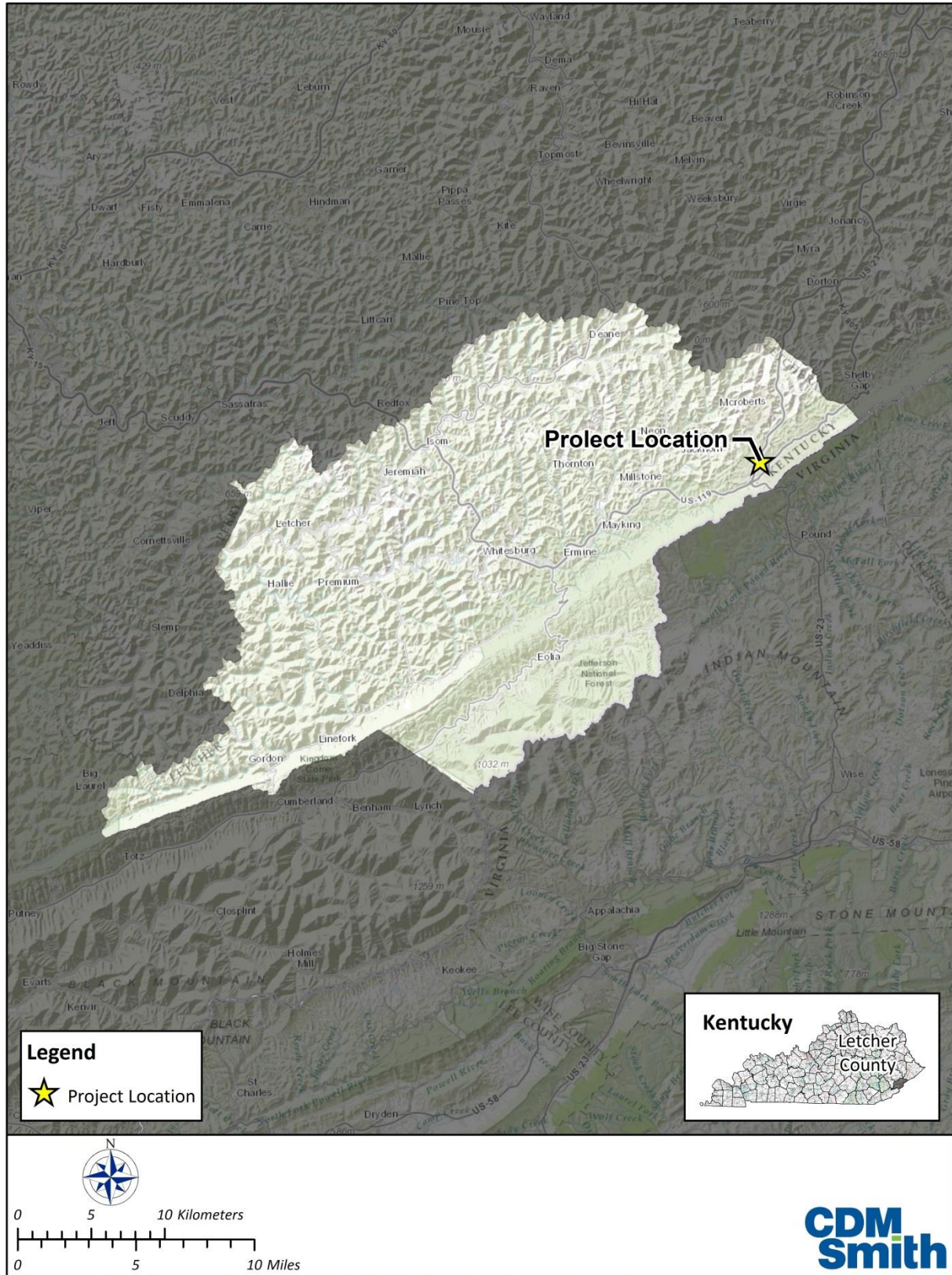


Figure 1-1. Project Location within Letcher County.



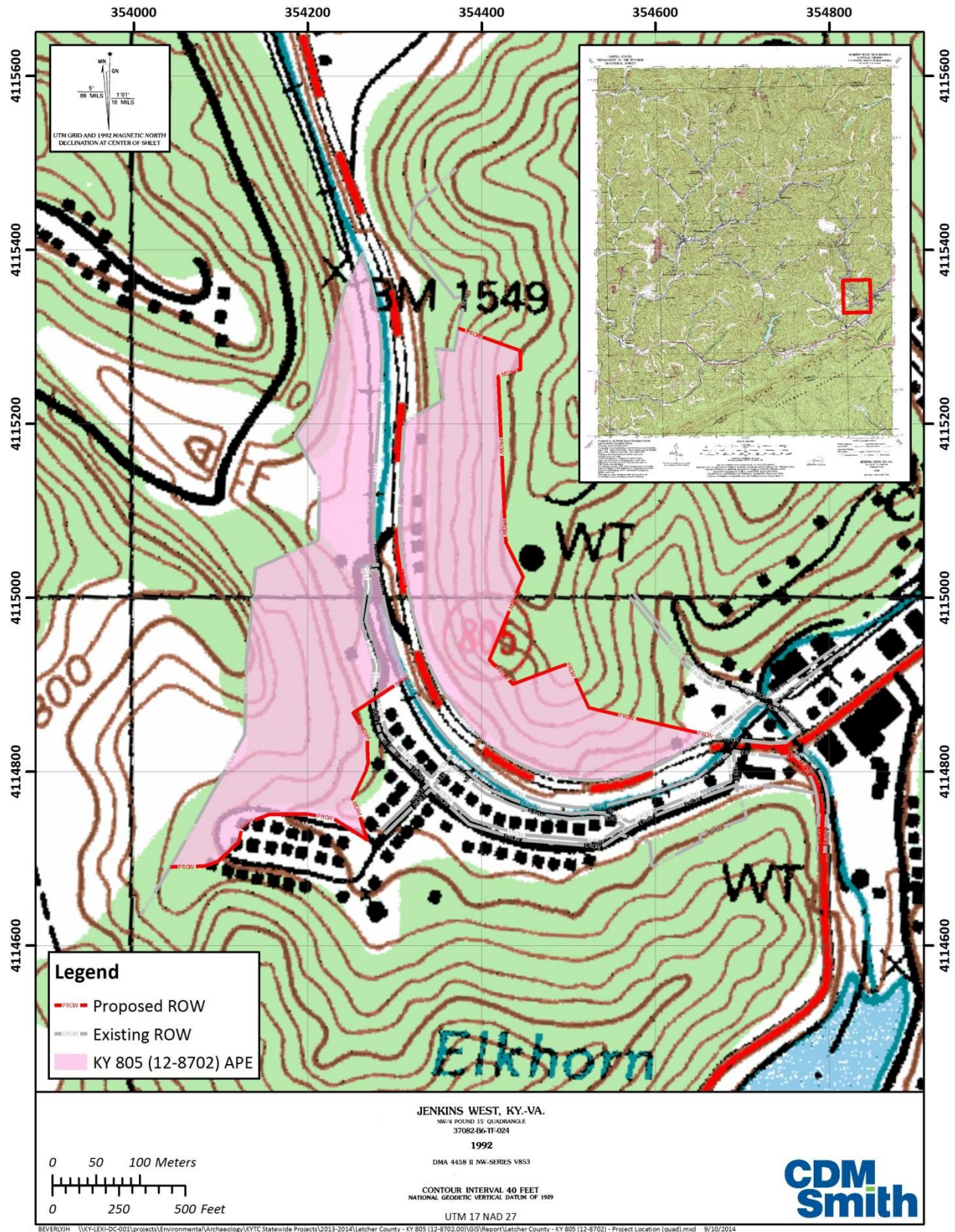


Figure 1-2. USGS Topographical Map showing Project Location.





Figure 1-3. Aerial Map showing Project Location.

## 1.7 Field and Laboratory Crew

The field crew consisted of Robert Ball and Chris Rankin. Mr. Ball served as the field director and planned, coordinated, and supervised all field activities. J. Howard Beverly, Jr. and Robert Ball prepared the final report, and J. Howard Beverly, Jr., prepared the maps and formatted the report. Laboratory analysis was coordinated by Dona Daugherty. Historic artifact analysis was conducted by J. Howard Beverly.

### 1.7.1 Field Effort

The total number of hours expended during fieldwork was 32 hours or approximately 4 person days. Field work for the project was conducted on June 24<sup>th</sup> and 25<sup>th</sup> 2014.

### 1.7.2 Laboratory Effort

The total number of hours expended to wash, catalog, analyze, and write up artifacts was 8 hours. Identification of artifacts was conducted using available library references and by comparison with artifact collections at CDM Smith.

## 1.8 Maps and Figures

Maps and figures for this report were prepared using a combination of Microstation design files, GIS data overlays, and databases gathered from a number of different resources. Existing site information was provided by the Office of State Archaeology. Soil mapping was provided by United States Department of Agriculture online and printed resources. Landowner data and vegetation coverage were obtained from aerial photographs and field reconnaissance. All GIS work was conducted by J. Howard Beverly, MA, RPA, GISP.

## 1.9 Curation

All field notes, maps, forms, and artifacts will be curated at the University of Kentucky's curation facility, the William S. Webb Museum of Anthropology.

## 1.10 Summary of Investigations

A Phase I archaeological survey was conducted by archaeologists from CDM Smith at the request of the KYTC ahead of the proposed realignment of KY 805, in Letcher County, Kentucky. The total APE measures 32.9 acres (13.3 ha). The survey identified one archaeological site, 15LR98, occupying 1.7 acres (0.76 ha) of the APE. Site 15LR98 is considered to be ineligible for recommendation to the National Register of Historical Places (NRHP) under Criteria A, B, C and D. No further archaeological work is necessary within the APE.



## Section 2 -

# Environmental

Aspects of the natural environment often influence the development of prehistoric and historic communities. In this section, the environmental background of Letcher County and the surrounding region is reviewed. Environmental data includes physiography, geology, hydrology, soils, climate, flora, and fauna.

## 2.1 Physiography

The physiography of Kentucky can be generalized as a series of bisected plateaus and gently rolling plains separated by Escarpments. Kentucky can be divided into five primary regions: the Cumberland Plateau (Eastern Coalfields) in the east, the north-central Bluegrass Region, the south-central and western Pennyroyal Plateau, the Western Coal Fields and the far-west Jackson Purchase. The Bluegrass Region is divided further into two regions - the Inner Bluegrass and the Outer Bluegrass.

Letcher County lies within the Eastern Coal Fields (Figure 2-1). This region is comprised of three major physiographical features, the Pottersville Escarpment, the Cumberland Plateau, and the mountain and creek bottom areas (Bladen 1973:23; Bladen 1984:58). The Eastern Coalfield region begins in the west with the Pottersville Escarpment. It is a rock wall with a coarse grained Rockcastle sandstone conglomerate cap (Bladen 1973:25; Bladen 1984:59). This area is deeply incised by eroding streams. The Cumberland Plateau is located between the Pottersville Escarpment to the west and the mountain and creek bottom area to the east. Deep canyons and gorges have been created by streams cutting through layers of soft decomposed shale and shales (Bladen 1973:30; Bladen 1984:60). The last area, east of the Cumberland Plateau, is the mountain and creek bottom areas. This area is made up of the Cumberland and Pine Mountains. It includes the highest peak in the state, Big Black Mountain, part of the Cumberland mountain chain, in Harlan County with an elevation of 4,150 feet (Bladen 1973:32; Bladen 1984:60). The Cumberland Mountains are the projecting edge of the Pottsville sandstone, known as the Lee conglomerate. Similarly, the Pine Mountain range is the also the projecting edge of the Lee conglomerate. Both of these mountain ranges were formed by an uplifting fault (Bladen 1973:32; Bladen 1984:60).

The landscape of Letcher County consists of long narrow ridgetops, steep and very steep hillsides, and narrow valleys. The hillsides feed perennial streams with abrasive sediment that slowly cuts through rock-forming drainageways in a dendritic pattern of hollows and coves. Flood plains and stream terraces are narrow, and level land rarely occurs (McIntosh 2004:12). The lowest elevation, about 675 feet, is at the mouth of Jones Fork where it joins the Right Fork of Beaver Creek. Upland elevations commonly exceed 1,400 feet. Local reliefs of 500 to 800 feet are common, generally being greater in the eastern part of the county than in the west. The highest elevations occur in the extreme southern and southeastern parts of the county where mountaintop elevations in excess of 2,000 feet are present. The highest point in the county is 3,720 feet, on a peak on Black Mountain. The lowest elevation is approximately 940 feet where the North Fork of the Kentucky River exits the county (McGrain and Currens 1978).



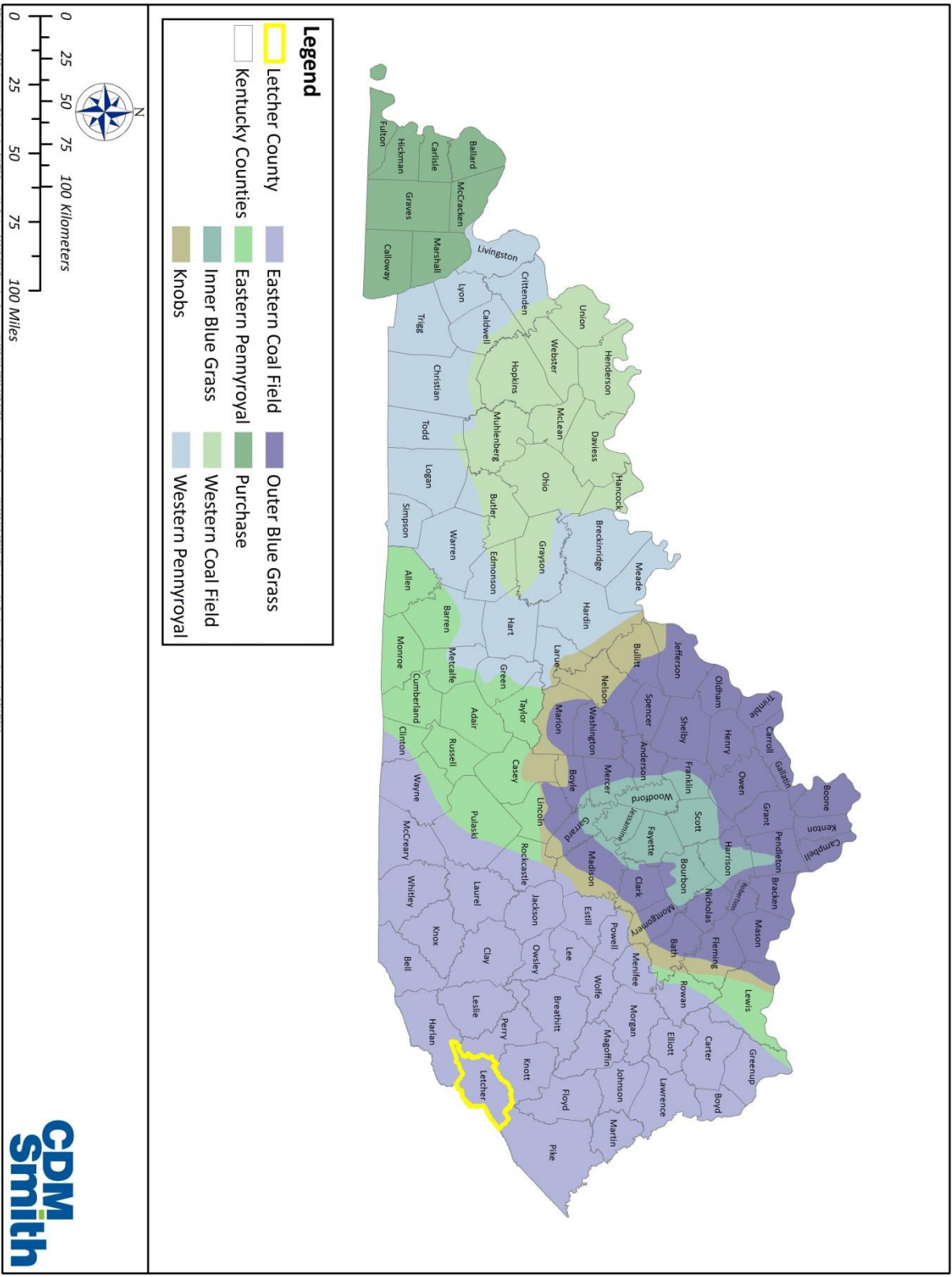


Figure 2-1. Physiographic Map of Kentucky.

## 2.2 Geology

The Eastern Coalfields physiographic region is an area of highly dissected area of varying altitude and relief. Consolidated sedimentary rocks are of the Breathitt Formation, which is Pennsylvanian age, and from unconsolidated sediments of Quaternary age (Figure 2-2). The sediments of the Pennsylvanian were deposited 320 million years ago. The warm climate of the Pennsylvanian grew extensive forests and great coastal swamps at the edges of water bodies. Marine waters advanced and receded many times, which produced many layers of sandstone, shale, and coal. Vegetation of all sorts fell into the water and was buried under blankets of sediments, which over long geologic time were compressed into coal. The non-vegetative sediments such as sand, clay and silt were compressed into sandstone and shale. Over the last one million years unconsolidated Quaternary sediments have been deposited along the larger streams and rivers (McGrain 1983).

The geology underlying Letcher County is made up of sandstone, siltstone and shale of the Pennsylvanian (McIntosh 2004:9). Floodplain soils and stream terraces formed in quaternary alluvial sediments (McFarlan 1943). The geology of the APE is shown in (Figure 2-3). The Breathitt Formation is the most extensive geology in the area, and it consists of horizontally level-bedded sedimentary rocks of the Pennsylvanian system (Bates and Sweet 1966). The Breathitt Formation is often subdivided into the upper part, the middle part, and the lower part of the Breathitt Formation (McDowell, Grabowski, and Moore 1981). The upper part consists of mostly sandstone with some thin strata of shale and siltstone and significant amounts of coal. The middle part consists of sandstone, siltstone, shale, and coal. The lower part consists of shale and siltstone with some argillaceous limestone and calcareous shale of marine origin (Morse 1931). Soils weathered from the strata of the Breathitt Formation include Cloverlick, Dekalb, Gilpin, Handshoe, Highsplint, Kimper, Marrowbone, Rayne, and Shelocata.

## 2.3 Hydrology

Kentucky is home to the most navigable inland waterways in the lower 48 states. Part of Kentucky's boundary with other states is formed by a few major drainages. The eastern boundary with West Virginia is demarked by the Big Sandy River. It joins the Ohio River near Ashland. The Ohio River then forms the northern boundary with Ohio, Indiana, and Illinois. The western boundary with Missouri is formed where the Ohio River merges with the Mississippi River.

The major drainages of Kentucky include the Big Sandy River, Ohio River, Mississippi River. The interior is drained by several smaller drainages that mostly flow into the Ohio River. These include the Licking, Kentucky, Salt, Green, Tradewater, Cumberland and Tennessee Rivers (Bladen 1984:13-14). In west Kentucky, some drainages empty directly into the Mississippi River (Newell 1986:H66).

There are no natural lakes found completely within Kentucky. Only Reelfoot Lake, a naturally occurring lake in Tennessee, occasionally extends into Fulton County during wet weather (Bladen 1984:14).

Most of the streams in the Eastern Coalfields physiographic region are tributaries to larger streams found along valley bottoms between steep valley walls (Newell 1986). The main drainages of the Eastern Coalfields are the Big Sandy, the Licking, the Cumberland, and the Kentucky Rivers. They are dendritic in nature and drain into the Ohio. A few smaller streams, such as Tygarts Creek and the Little Sandy River drain directly into the Ohio (Bladen 1984:60).

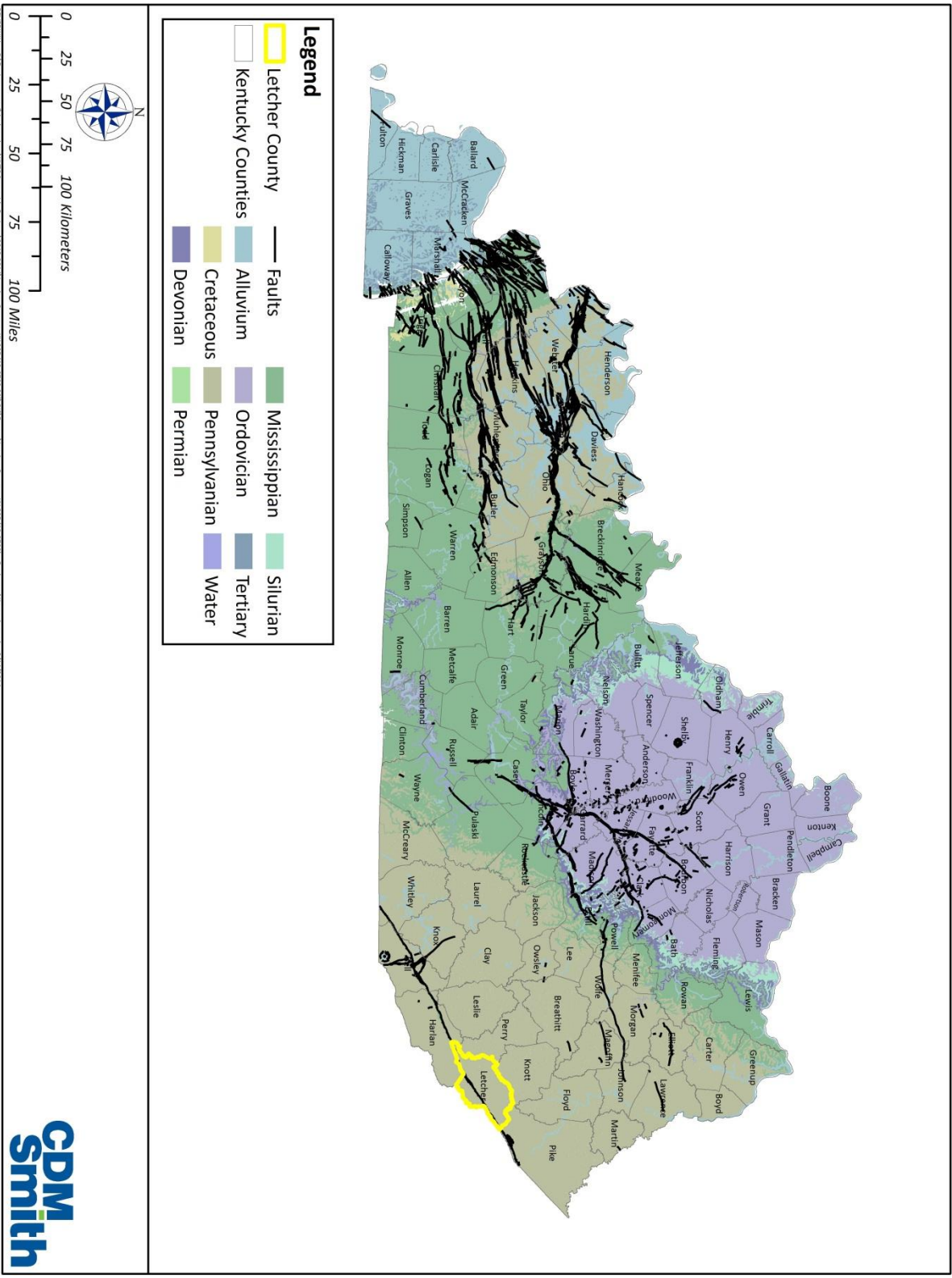
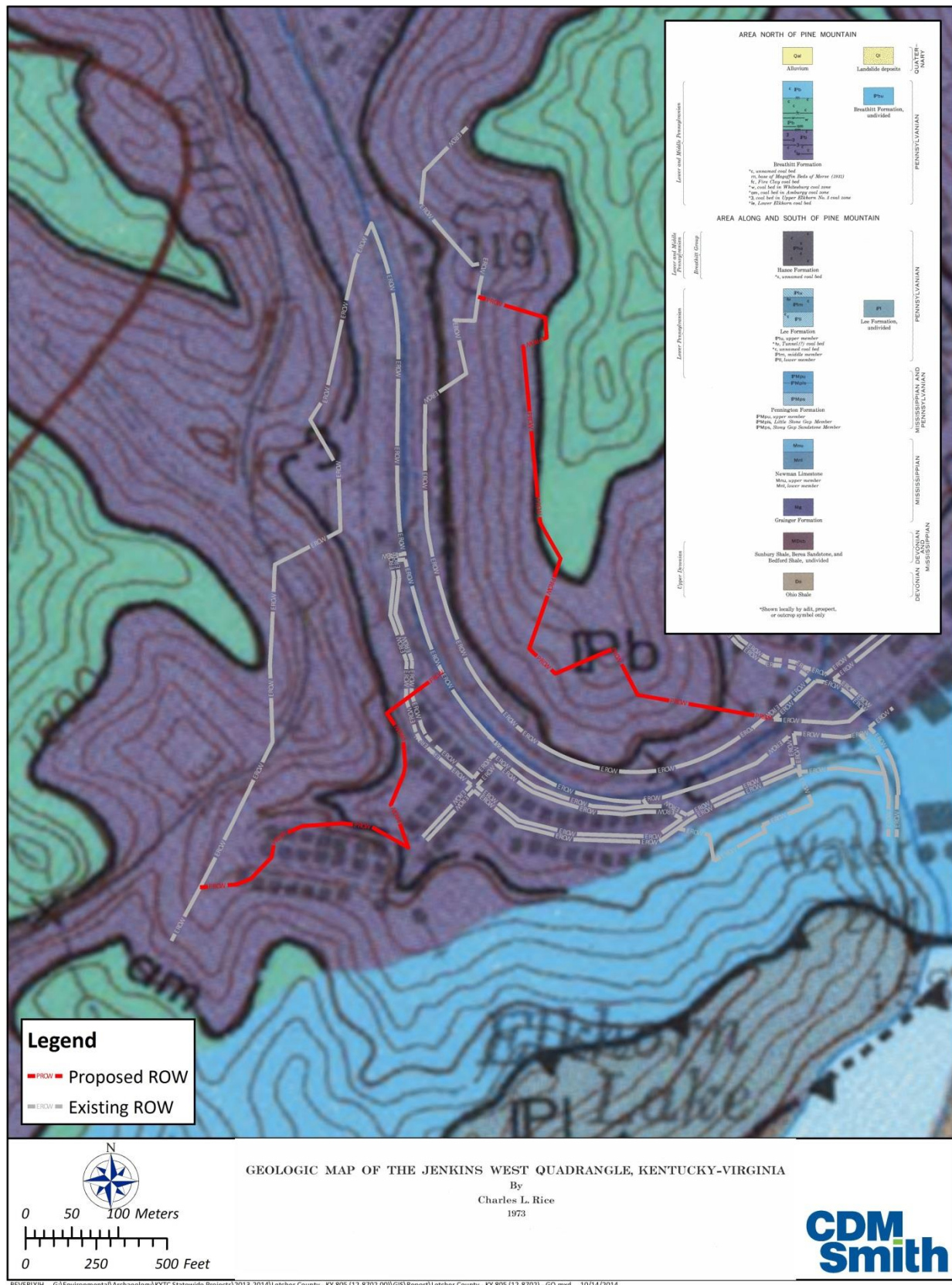


Figure 2-2. Geologic Map of Kentucky.





**Figure 2-3. Geological Quadrangle.**

Three of the state's major rivers have headwaters in Letcher County, the Cumberland, the North Fork of the Kentucky River, and the Levisa Fork of the Big Sandy River. The Project Area is located within the Big Sandy River watershed. The project area is drained by ELkhorn Creek which drains the eastern edge of Letcher County into Pike County (Figure 2-4).

## 2.4 Soils

Most of the soils found in Kentucky developed under the same formation processes and climate conditions. The differences in soils from one area to another are chiefly dependent on three factors: parent material, the topography where the soils are found, and the amount of time exposed to erosional forces.

There are four soil types found with the project area (Figure 2-5). They are described below.

Fedscreek-Shelocta-Handshoe complex, 30 to 80 percent slopes, very stony (FaF) soils is made up of three major components (Fedscreek (30%), Shelocta (30%), and Handshoe (25%)) and five minor components (Kimper (3%), Highsplint (3%), Marrowbone (3%), Gilpin (3%), and Berks (3%)). The Fedscreek component is found along mountain slopes between 30 and 80 percent. It is well drained and is not flooded. It is not ponded. The parent material consists of coarse-loamy colluvium derived from sandstone and siltstone. The Shelocta component is found on mountain slopes with slopes between 30 and 80 percent. The soil is well drained and not flooded. It is not ponded. The parent material consists of fine-loamy colluvium derived from sandstone and shale. The Handshoe component is found along mountain with a slope between 30 and 80 percent. The soil is well drained and not flooded. It is not ponded. The parent material consists of loamy skeletal colluvium derived from sandstone (USDA 2014).

The Kaymine, Fairpoint, and Fiveblock soils, benched, 2 to 70 percent slopes, very stony (KfF) soils are made up of three major components (Kaymine, unstable fill (40%), Fairpoint, unstable fill (20%), and Fiveblock, unstable fill (15%)) and six minor components (Cedarcreek, unstable fill (8%), Bethesda, unstable fill (7%), Shelocta (3%), Sewell, unstable fill (3%), Itmann, unstable fill (2%), and Udorthents, unstable fill (2%)). The Kaymine, unstable fill component is found on reclaimed lands on mountains with a slope between 2 and 70 percent. The soil is well drained and not flooded. It is not ponded. The parent material consists of loamy coal extraction mine spoil derived from interbedded sedimentary rock. The Fairpoint, unstable fill component is found on reclaimed lands on mountains with a slope between 2 and 70 percent. It well drained and not flooded. It is not ponded. The parent material consists of loamy coal extraction mine spoil derived from interbedded sedimentary rock. The Fiveblock, unstable fill is found on reclaimed lands on mountains with a slope between 2 and 70 percent. The soil excessively drained and not flooded. It is not ponded. The parent material consists of loamy coal extraction mine spoil derived from interbedded sedimentary rock (USDA 2014).

Udorthents-Urban land complex, 0 to 15 percent slopes (uUdoC) soils is made up of one major component (Udorthents, unstable fill (55%)) and four minor components (Urban land (30%), Gilpin (5%), Cutshin (5%), and Shelocta (5%)). The Udorthents, unstable fill component is found on mountain slopes where the slope is between 0 and 15 percent. The soil is well drained and is not flooded. It is not ponded. The parent martial consists of loamy skeletal mine spoil or earthy fill derived from interbedded sedimentary rock (USDA 2014).

Udorthents-Urban land-Rock outcrop complex, 0 to 35 percent slopes (uUduE) soils is made up of one major component (Udorthents, unstable fill (50%)) and five minor components (Urban land (25%),



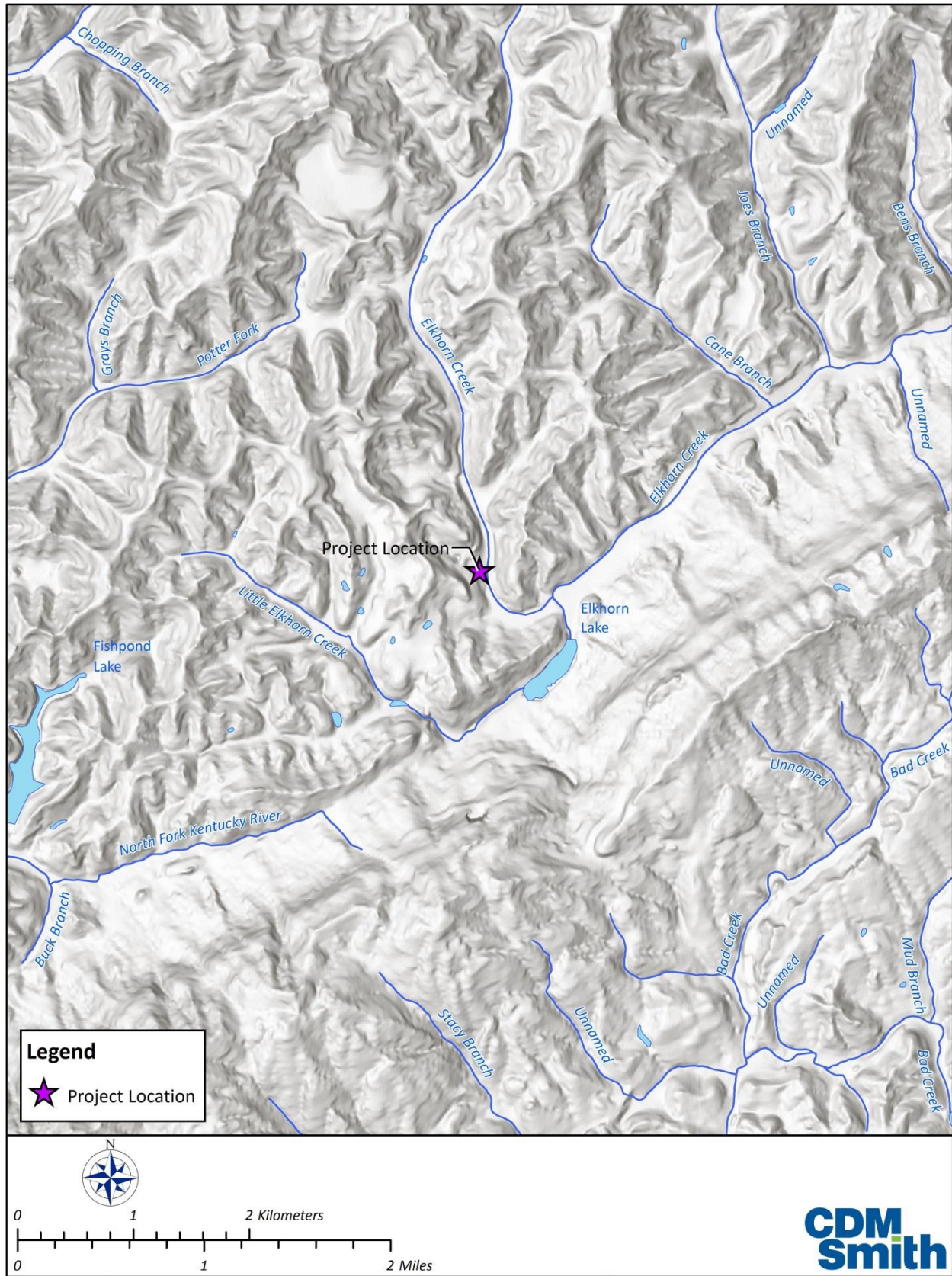


Figure 2-4. Hydrology.



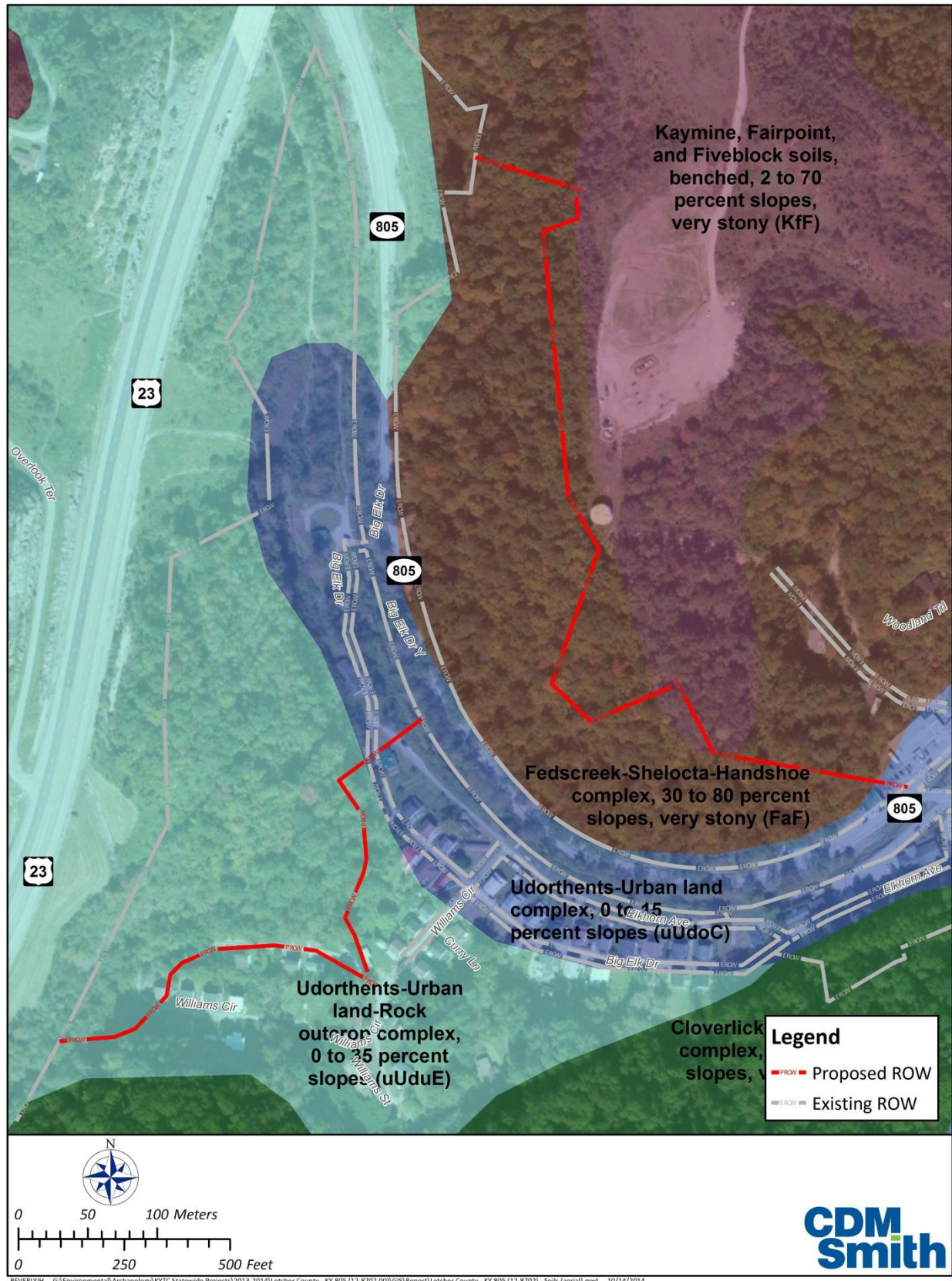


Figure 2-5. Soils in the Project Area.

Rock outcrop (15%), Shelocta (5%), Cutshin (3%), and Gilpin (2%)). Udorthents, unstable fill component is found on mountain slopes that have a slope less than 35 percent. The soil is well drained and not flooded. It is not ponded. The parent material consists of loamy skeletal mine spoil or earthy fill derived from interbedded sedimentary rock (USDA 2014).

## 2.5 Cherts

Chert is found as thin discontinuous beds in the Newman Limestone in Mississippian-aged deposits in the area along and south of Pine Mountain (Rice 1973). Newman Limestone is also found in the Quaternary-aged landside deposits that blanket the north slope of Pine Mountain (Rice 1973).

## 2.6 Prehistoric Climate Conditions

The beginning of the Holocene Age, dating between 12,700 and 11,300 B.P., is believed to be associated with major and rapid warming temperatures, decreases in cloud cover, and generalized landscape instability (Delcourt 1979:270). Estimated temperature increases during this period are three times greater than later Holocene fluctuations. During the early Holocene, rapid increases in boreal plant species occurred on the Allegheny Plateau in response to the retreat of the Laurentide ice sheet from the continental United States (Maxwell and Davis 1972:517-519; Whitehead 1973:624). At lower elevations, deciduous species were returning after having migrated to the southern Mississippi Valley refugia during the Wisconsin advances (Delcourt and Delcourt 1981:147). The climate during the early Holocene seems considerably cooler than the modern climate, and extant species in upper altitude zones of the Allegheny Plateau reflect conditions most similar to the Canadian boreal forest region (Maxwell and Davis 1972:515-516).

Conditions at lower elevations were probably less severe and favored the transition from boreal to mixed mesophytic species. Middle Holocene (8,000 to 4,000 B.P.) climate conditions appear to have been consistently drier and warmer than twentieth century conditions (Delcourt 1979: 271; Wright 1968). The influx of westerly winds during this Hypsithermal climatic episode contributed to periods of severe moisture stress in the Prairie Peninsula and to an eastward advance of prairie vegetation (Wright 1968). Delcourt has identified Middle Holocene moisture stress along the Cumberland Plateau in Tennessee, but indicated that upland barrens did not expand appreciably as did the Midwestern prairies (Delcourt 1979:274). Changes in Archaic settlement patterns in both central and northern Missouri have been associated with possible decreases in upland resource availability during the Hypsithermal.

The earliest distinguishable Late Holocene climatic episode began circa 5,000 to 4,000 B.P. and ended around 2,800 B.P. This episode is associated with the establishment of modern deciduous forest communities in the southern highlands and increased precipitation across most of the mid-continental United States (Delcourt 1979:270; Maxwell and Davis 1972:517-519). Beginning around 2,800 B.P., warm conditions similar to the modern climate prevailed until the onset of the Neo-Boreal episode around 700 B.P. Fluctuations in this Late Holocene Pacific episode appear to have varied locally, with either increased or decreased temperatures and precipitation (Delcourt 2002). Certain fluctuations have been associated with adaptive shifts in midwestern prehistoric subsistence and settlement systems. An example is Struever and Vickery's (1973) suggestion of a possible correlation between the onset of a cooler and moister period circa 1,600 B.P. and increased use of polygonum species (smartweed) by Late Woodland groups in the Midwest (Struever and Vickery 1973:1215-1216). Researchers have inferred warmer temperatures for the Great Plains and drier conditions for the Upper Great Lakes during this same period (1,600-1,300 B.P.) (Delcourt 2002). Other fluctuations during the Pacific episode are

similarly non-uniform across the mid-continental United States; however, the interfaces of all fluctuations are generally consistent.

Local paleoecological evidence is required to determine the kinds of climatic fluctuations Woodland populations experienced during the Pacific episode. Given evidence of fluctuations elsewhere, it is most likely that changes occurred circa 1,700 B.P., 1,300 B.P., and 900 B.P., with a possible fourth change around 2,300 B.P.

Studies of historic weather patterns and tree ring data by Fritts (1971) have indicated that climatological averages are “unusually mild” when compared with seventeenth and nineteenth century trends. His study suggests that winters were generally colder, weather anomalies were more common, and severe winters were more frequent between A.D. 1602 and 1899 than after 1900. These cooler, moister conditions are associated with the Neo-Boreal episode, or Little Ice Age, which began around 700 B.P. and coincided with minor glacial advances in the northwest and Europe.

The effects of the Neo-Boreal episode, which ended during the mid- to late nineteenth century, have not been studied in detail for this region. Despite this, it appears that the area experienced less radical temperature decreases during the late Neo-Boreal than did the upper Midwest and northern Plains (Fritts 1971). Related changes in extant vegetation should therefore be more difficult to detect. It is probably safe to assume, however, that average temperatures were at least a few degrees cooler during the late Prehistoric and early Historic periods. The frequency of severe winters and average winter precipitation were probably greater as well.

## 2.7 Current Climate Conditions

The current climate of Letcher County has moderately cold winters and warm, humid summers. In winter the average temperature is 28 F degrees (-2 degrees C). Temperatures often drop below freezing in the winter and rarely rise above 90 F degrees (31 degrees C) in the summer. The average temperature during the summer months is 85 F degrees (29 degrees C). Precipitation averages about 41 inches (104 cm) per year (Kentucky Cabinet for Economic Development 2009).

## 2.8 Prehistoric and Present Flora and Fauna

The project area is included in the Western Mesophytic Forest Region, which is transitional between the extremely diverse Mixed Mesophytic Forest of the Appalachian Mountains and the Tall-Grass Prairies of the Midwest. The Western Mesophytic Forest contains a wide variety of vegetation climaxes and subclimaxes throughout its range, with oak and hickory as the dominant species. Trees commonly occurring in the project area include chinquapin, red oak, water maple, honey locust, elm, black cherry, hackberry, Kentucky coffeetree, walnut, shagbark and butternut hickory, basswood, sycamore, box elder, willow, and cedar. Common shrubs include sumac, blackberry, poison ivy, Virginia creeper, pawpaw, spicebush, plum, hornbeam, redbud, wild grape, and buckberry. Some of the common native herbaceous plants are ironwood, milkweed, cane, nettle, white snakeroot, bloodroot, spring beauty, trillium, violets, cardinal flower, wild strawberry, goldenrod, and May apple.

These forest communities have produced and supported a wide variety of animals, such as white-tailed deer, red fox, raccoon, squirrel, rabbit, groundhog, other mammal species, birds, reptiles, amphibians, fish, and mollusks (Barbour and Davis 1974; Esarey et al 1992:4). During prehistoric times white-tailed deer was by far and away the most important animal resource. Other species were also exploited, including turkey, fish, waterfowl, and mollusks (Fenton et al. 1996).

## Section 3 -

# Cultural Context, Previous Investigation, and Summary of Known Sites

In this chapter, the culture history of Letcher County and this region of Kentucky are reviewed. The research methodology used to develop this background and context involved archival research at the Office of State Archaeology, and research at the University of Kentucky's various libraries. Included within the culture history section are reviews of the known prehistory from the State Plan for this part of the Commonwealth (Applegate 2008; Jefferies 2008; Maggard and Stackelbeck 2008; and Pollack 2008) followed by a consideration of the major historic time periods and subperiods (McBride and McBride 2008). This general review of the culture history of the region is followed by a synopsis of the cultural resource management recommendations for sites already documented within the archaeological APE and within two km of it. These recommendations are in accordance with the Kentucky Heritage Council specifications (Sanders 2006).

The prehistoric cultural chronology of Kentucky is divided into a series of periods that generally correspond to major shifts in subsistence procurement strategies, social organization, technology, and settlement patterning. They are also linked to distinct material cultural styles, particularly in projectile point shapes and (in later times) ceramic vessel form and decoration. These periods form a convenient framework for the discussion of human societies in eastern North America.

Since the Late Pleistocene, humans have occupied all areas of the continental U.S., adapting to the regionally diverse ecosystems and the long-term changes brought about by human occupation. Only the past 500 years is historically documented in any fashion; most of the past 15,000 years can be documented only by the study of prehistoric sites. This period of prehistory is commonly divided into four major chronological periods, which are discussed below.

## 3.1 Prehistoric Period

This section examines general prehistory of the archaeological APE area. The prehistory of the archaeological APE area can be usefully divided into four major periods – Paleo-Indian, Archaic, Woodland, and Late Prehistoric. Each of these periods is discussed below.

### 3.1.1 Paleoindian Period

The Paleoindian period begins around 13,000 B.C. and continues to circa 8,000 B.C., coinciding with the end of the Pleistocene and the beginning of the Holocene. The earliest documented inhabitants of the continental U.S. crossed from Asia sometime before 13,000 B.C. and rapidly colonized all of North and South America. The arrival of humans in the region was probably linked to the movements of the Pleistocene glaciers. During the Paleoindian period, the last of these glacial advances and retreats, called Great Lakes Stadial (after 9,900 B.C.), occurred. Although the glaciers never actually extended south of the Ohio River, the climatic effects were felt. A cooler, moister climate affected the composition and distribution of floral and faunal communities (Delcourt and Delcourt 1982; Klippel and Parmalee 1982).

Clovis projectile points are the hallmarks of the early part of the Paleoindian period. The hafted bifaces are distinctively lanceolate-shaped and often fluted. In addition to the Clovis point, unifacially and

bifacially chipped tools such as knives, scrapers, spokeshaves, end scrapers with spurs, drills, and graters have also been recovered. Archaeologists infer that artifacts and tools of wood, bone, and shell were used, although rarely preserved in the archaeological record. A number of these tools were manufactured for the killing and butchering of extinct fauna, including megafauna. For instance, at the Adams Mastodon site in Harrison County, Kentucky, the remains of a single mastodon were found in association with large limestone slabs and cut marks on the bones. The configuration of the skeletal remains, in addition to the above evidence, has been interpreted as possible human butchering (Duffield and Boisvert 1983; Walters 1988).

The Paleoindian period is poorly understood in Kentucky and in the Southeast as a whole. Much of the information concerning Paleoindian subsistence, settlement patterns, and chronology comes from information outside of Kentucky because dated Paleoindian material in the Eastern Coal Fields is limited. Twelve Paleoindian sites have been recorded for the Upper Kentucky/Licking Management Area. Five sites have been recorded in the Interior Mountain Section and none in Letcher County (Maggard and Stackelbeck 2008).

For example, archaeological research in various parts of the U.S. has documented large numbers of surface finds of fluted points diagnostic of this period. Far fewer Paleoindian sites with subsurface cultural materials have been documented. In a recent survey of Paleoindian sites in the U.S., Anderson (1990) reports very few sites in the Southeast. Of these, slightly more than 50 sites are known to retain more than surface scatters of lithic materials. Although few sites have been thoroughly excavated and reported, some information on Paleoindian lifeways is available. Recent analysis of Paleoindian tool assemblages has established chronologically significant tool types to identify three temporal subdivisions of the Paleoindian time period (Anderson 1990; Sanders 1983, 1988; Tankersley and Isaac 1990).

Despite a refinement of the chronology, the temporal range and spatial distribution of these point types is poorly understood. Some inferences may be drawn, however, from the frequent isolated finds and paucity of large Paleoindian sites in the Southeast. Meltzer (1988, cited in Anderson 1990) has suggested two models of Paleoindian settlement patterns, one appropriate to the Northern Tundra-Spruce Parkland zone, and one to the Southern Boreal-Deciduous Forest zone. Meltzer's model of Southeastern Paleoindians, cited in Anderson (1990), suggests they were generalized foragers, exploiting the diverse plant and animal resources of the Boreal-Deciduous forests. As a result of this foraging strategy, the dense accumulation of animal bone and lithic materials that characterize sites in the Western plains (e.g., Olson-Chubbuck, Colby), and some of the Northeastern sites (e.g., Delbert, Vail, Bull Brook), is absent. According to Anderson, under Meltzer's model, southeastern Paleoindian occupations are characterized by light lithic scatters, with some functional diversity in the tool assemblage. Although Meltzer's model of Paleoindian period settlement is reasonable, several large Paleoindian sites or site clusters have been documented in the Southeast (e.g., Adams site, Big Bone Lick, Pine Tree, Quad, Thunderbird, Well Creek Crater), although none has yet been intensively excavated (Anderson 1990; Sanders 1983, 1988; Tankersley and Isaac 1990). Current excavation at the Thunderbird site in Virginia may provide more detailed information on Paleoindian lifeways in the Boreal-Deciduous Forest zone.

### 3.1.2 Archaic Period

The Archaic period includes a long span of time during which important cultural changes took place. Because of the growing evidence for the existence of transitional cultural manifestations, it is agreed generally that Archaic cultures evolved from late Paleoindian expressions of the Southeast and Midwest



(Funk 1978:19). These manifestations probably occurred in response to environmental changes that took place at the close of the Pleistocene. The Archaic period is customarily divided into three sub-periods: Early (8,000-6,000 B.C.); Middle (6,000-4,000 B.C.); and Late (4,000-1,000 B.C.). As of 2008, 359 Archaic period sites had been identified in the Upper Kentucky/Licking Management Area (Jefferies 2008).

### 3.1.2.1 The Early Archaic Period

During the Early Archaic, the last glaciers retreated, and the arctic-like boreal forest began developing into the eastern deciduous forest. By the Middle Archaic, the environment was warmer and drier than it is today. In response to the changing environment, with its associated changes in plant and animal life, Late Archaic peoples developed a more diversified subsistence strategy based on local choices from a variety of subsistence options including hunting, plant food gathering, fishing, and in some areas, the beginnings of plant domestication in a planned seasonal round exploitation strategy. Caldwell (1958:6-18) has called this Archaic subsistence approach “primary forest efficiency.” This strategy appears to have continued well into the Woodland period.

The limited amount of Early Archaic material found at most sites and the general absence of middens, features, and burials, suggests that most occupations were of short duration. Early Archaic social units were small, probably consisting of bands comprised of related individuals. The relatively high percentage of projectile points in Early Archaic assemblages made from non-local cherts suggests that social groups were highly mobile. Items manufactured from non-local chert would have been incorporated into tool kits when groups traveled near the source areas. Some tools manufactured from certain kinds of high quality chert were used and curated for an extended period of time and later discarded far from the source area (Binford 1979; Jefferies 1990:151).

Except for the adoption of new projectile point styles, Early Archaic tool kits are nearly identical to those of the Paleoindians. The fact that projectile point styles are found over a very large area suggests that little regional subsistence diversity occurred during the Early Archaic. Rather, subsistence strategies are believed to have been similar to those employed by Paleoindian peoples, although a greater variety of game was hunted. The scarcity of tools associated with the preparation of plant foods and fishing in the early part of the Archaic indicates that hunting was probably still the major subsistence activity (Dragoo 1976:II). Archaeological investigations at a number of deeply buried sites in the Southeast like the Longworth-Gick Site near Louisville, Kentucky (Collins 1979) have provided important information on Archaic lifeways and their changes through time.

### 3.1.2.2 The Middle Archaic Period

The environment during the Middle Archaic sub-period was dryer and warmer than modern conditions. By the beginning of the Middle Archaic period, environmental remnants of the Pleistocene had disappeared and animal and plant communities more closely resembled those present at the time of European-American contact. Pollen records from some parts of the region indicate that drier climatic conditions associated with the Hypsithermal interval reached their maximum around 6,500 B.P. (King and Allen 1977). The subsequent reduction of arboreal communities and the influx of grass and herb communities appear to have affected Middle Archaic settlement and population distributions (Conaty 1985; Janzen 1977; Jefferies 1983; Nance 1985).

Increasing regionalization of artifact inventories and the addition of new artifact classes and projectile point styles implies the development of extensive exploitation strategies. The Middle Archaic is marked by the introduction of groundstone artifacts manufactured through pecking, grinding, and polishing. A

number of these groundstone tools, such as manos, mortars and pestles, and nutting stones, are interpreted as plant food processing artifacts, indicating an increasing utilization of plant food resources during the Middle Archaic.

New projectile point styles appeared during this sub-period. Stemmed and corner notched points appear. A variety of bone tools, including antler projectile points, fishhooks, and gouges, suggests an improved efficiency in exploiting local resources. Middle Archaic sites tend to contain larger accumulations of materials than those of earlier periods, suggesting an increased group size and/or longer periods of occupation (Cohen 1977:191). Chapman (1975) has suggested that projectile points were probably used in conjunction with the atlatl, a device that increases the distance and accuracy of a thrown spear. The recovery of bone and groundstone objects (banner-stones) in Middle Archaic contexts that are interpreted as atlatl weights tends to support his suggestion (cf. Neuman 1967:36-53). Certain classes of chipped stone tool artifacts, such as scrapers, uniface, drills, and gouges, indicate a continuation of their importance from the Paleoindian period.

In the middle Ohio Valley there appears to be at least two Middle Archaic horizons, although the second is not particularly well documented. The first is the North Carolina sequence, first defined by Coe (1964). The second Middle Archaic manifestation is represented by corner-notched and side-notched Brewerton-like points, which are typically thought of as Late Archaic points, but they may well have first appeared during the Middle Archaic (Hemmings 1977, 1985; Wilkins 1978).

### 3.1.2.3 The Late Archaic Period

The Late Archaic was a time of continued cultural expansion and growing complexity. Dragoo (1976:12-15) has discussed several Late Archaic traditions for the Eastern Woodlands. Their distinctiveness stems from varied regional responses reflected in material culture. Straight-stemmed, basal-notched, or contracted-base projectile point types characterize the Late Archaic. Judging from the greater number of sites that have been recorded, an increase in population can be postulated. Evidence of longer and more intensive site occupation suggests, in some cases, extended habitation within an area.

Aside from hickory nuts, a variety of other nuts, fruits, and seeds were exploited. The increased dietary significance of certain starchy seeds, such as goosefoot, marshelder, and knotweed, has been noted in the Eastern Woodlands (Cowan 1985:229-230). These seasonally available food resources were exploited at appropriate times during the social group's annual settlement/subsistence cycle. Group organization and movement were structured to efficiently accomplish these tasks. The occasional presence of native and tropical cultigens at some sites suggests that some Late Archaic groups were experimenting with horticulture (Chomko and Crawford 1978; Cowan et al. 1981; Watson 1985).

A series of related Late Archaic sites that serve to define the Skidmore phase in eastern Kentucky have been investigated in Rowan and Powell counties, adjacent to the Bluegrass. These include the Bluestone site complex (15R035-36) (Brooks et al. 1979), and the Skidmore (15P017) and Zilpo sites (Rolingson and Rodeffer 1968). Diagnostic projectile points of the phase have been referred to in a variety of ways, but these are generally broad-bladed with stubby, contracting stems. Turnbow and Jobe (1981) suggest a maximum age range of 2,400 to 1,650 B.C. for the Skidmore phase.

The Grayson site covered about 6 hectares (15 acres) of a broad second terrace overlooking the Little Sandy River near Grayson, Kentucky. Machine stripping and block excavation revealed a relatively discrete Maple Creek base camp that was occupied during the fall and winter. The site was far less substantial than the Maple Creek site described by Vickery (1976) for the Ohio River near Cincinnati. Diagnostic artifacts recovered included small Merom-Trimble points and absolute dates spanning the

period from 1,700 to 1,250 B.P. Two rectangular pit houses with rounded corners were excavated. These ranged from six meters x seven meters to 10 meters x 11 meters (20 feet x 23 feet to 33 feet x 36 feet) in size, and were constructed with unevenly spaced posts around an open area. A single large pit containing a small central hearth was found in each structure. The houses were surrounded by medium – to large – sized pits. Similar structures occur at Late Archaic sites (9WR4 and 9WR11) in Warren County, Georgia (Ledbetter 1991).

Population increase and, in some parts of Kentucky, an inferred increase in mortuary ceremonialism, have led some to suggest that a more complex social organization was developing in some areas of the eastern United States. Along the Green River in west-central Kentucky, large shell mound sites such as Chiggerville (Webb and Haag 1939), Indian Knoll (Webb 1946), and Carlson Annis (Webb 1950) contain hundreds of human burials and evidence of complex mortuary practices and rich ceremonial life. The development of inter-regional trading networks is indicated by the recovery of copper, marine shell, and other non-local artifacts from Late Archaic burials (Winters 1968) which testify to the growing complexity of burial ritual and the interaction of many groups (Dragoo 1976:17).

The appearance of cultigens in Late Archaic contexts has been interpreted as evidence of early plant domestication and use of these plants as subsistence resources. Evidence of early cultigens has been documented at such sites as Koster in central Illinois (Brown 1977:168), at the Carlson Annis and Bowles sites along the Green River in west-central Kentucky (Marquardt and Watson 1976:17), and at Cloudsplitter shelter in Menifee County (Cowan et al. 1981).

Struever and Vickery (1973) have defined two plant complexes domesticated at the close of the Archaic, which continued in use into the Woodland period. One consisted of non-native plants such as gourd and squash, occurring sporadically but early, and corn, which did not become important in the Ohio Valley until circa A.D. 1000. The other was a group of native plants, such as *Chenopodium*, marsh elder, and sunflower. Recent research in Missouri, Kentucky, and Tennessee suggests that squash was under cultivation in the mid-south by the late third millennium B.C. (Adovasio and Johnson 1981:74), and that by the second half of the second millennium B.C., evidence from Illinois, Kentucky, and Tennessee demonstrates that squash, gourd, and sunflower were well established (Adovasio and Johnson 1981:74), although some view these plants as two different groups of cultigens: the East Mexican Agricultural complex and the Eastern United States Agricultural complex. The latter includes sunflower (*Helianthus annuus*), sumpweed (*Iva annua*), chenopod (*Chenopodium* sp.), may grass (*Phalaris* sp.), and knotweed (*Polygonum* sp.). The East Mexican Agricultural complex includes squash (*Curcubita pepo*), bottle gourd (*Lagenaria siceraria*), and maize (*Zea mays*). Watson (1976), like Struever and Vickery (1973), suggests that corn, squash, and bottle gourd were domesticated in Mexico and imported into the eastern United States by way of the Gulf of Mexico and then up the Mississippi River and its tributaries. The native cultigens consist of local species whose seeds recovered from archaeological contexts are much larger than those which grow in a natural state; hence, cultivation is inferred.

Plant domestication was an important factor in Late Archaic cultural development. Recent research at Cloudsplitter shelter has documented early plant domestication. Desiccated squash rind was found in a Late Archaic deposit associated with a radiocarbon date of 3728 +/- 80 B.P. (1778 +/- 80 B.C.) (UCA 2313- K) (Cowan et al. 1981:71). Seeds of the Eastern Agricultural complex (sunflower, sumpweed, may grass, and erect knotweed) are sparse in the Late Archaic levels in the site, but after 3000 B.P. (1050 B.C.), all members of the Eastern Agricultural complex underwent a sudden and dramatic increase in the rate at which they were being deposited in the site, perhaps indicative of a wholesale introduction of the complex into the region at this time. The Late Archaic and Early Woodland inhabitants of Cloudsplitter

seem to have followed a similar trajectory in cultivated plant usage experienced in several other river drainages in the East (Cowan et al. 1981:71).

The data from Cloudsplitter suggest that squash may not have diffused into the East or Southwest from Mexico as previously postulated by Struever and Vickery (1973), but that it may have evolved in situ from North American stock (Cowan et al. 1981:71). This interpretation seems to be substantiated by more recent investigations conducted throughout the southeastern and Midwestern United States.

There are a number of projectile point styles, considered to be terminal Late Archaic, that extend into the Early Woodland period, i.e., from about 2000-1500 B.C. to about 500 B.C. (see below). On the whole, they have been found in contexts without Woodland pottery, a situation that leads archaeologists to place them in the Late Archaic rather than Early Woodland. This may not be the case.

### 3.1.3 Woodland Period

Although initially there was very little difference between Late Archaic and Woodland period settlement, over the two millennia of the period, Woodland cultures in the Ohio Valley diverged sharply from their Archaic beginning. Kentucky shared in this development that produced burial mounds and earthwork enclosures, some of the more notable prehistoric monuments in the Ohio Valley of Kentucky. These went along with intensification in the earlier efforts at plant domestication present in the Archaic period, the development of fired clay ceramic containers (first used as ceremonial containers, later used more widely), and the intensification of trade with distant regions of the Midwest in materials used specifically as burial offerings.

The Woodland period is customarily divided into Early (1000 B.C. – 300 B.C.), Middle (300 B.C. – A.D. 400), and Late (A.D. 400 – A.D. 1000) sub-periods. Of these, the Early Woodland is the least known, but reflects its Archaic origins. During the Middle Woodland, Kentucky was characterized by large burial mounds and earthwork complexes that are termed “Adena” and have counterparts north of the Ohio River. Towards the end of this sub-period, a few sites reflect the Hopewellian cultural florescence, best known again from Ohio in the major earthworks of the Scioto valley. During the Late Woodland, a distinctive cultural adaptation developed with similar variants throughout the Middle Ohio River valley.

In Kentucky, the introduction of shell tempered pottery and maize-based field agriculture characterized the upper boundary of the Woodland period. The adoption of pottery technology occurred between cal 1606 and 802 B.C. in the Salt River Management Section, cal 1258-829 B.C. in the eastern Ohio River II Section, and cal 1432-950 B.C. in the Southeastern Mountains Section (Applegate 2008).

Three hundred and thirty-two Woodland period sites have been documented for the Upper Kentucky/Licking Management Area. Sixty-six percent of the sites are located in rockshelters and thirty-one percent are open habitation sites without mounds (Applegate 2008).

#### 3.1.3.1 Early Woodland

Variation exists in accepted beginning and ending dates for the Early Woodland subperiod throughout regions of Kentucky. In the Mississippi River, Northern Bluegrass, and Lower Big Sandy sections, Kreisa and Stout (1991), Duerksen et al. (1994, 1995), and O'Steen et al. (1991) determined that the subperiod dated between 1000-200 B.C. In the Ohio River II Section, deNeeve (2004) placed the dates at 1000-150 B.C. The Central Bluegrass was dated to 1000 B.C.-A.D. 1 (Schlarb 2005), and the Gorge and Lower Big Sandy sections ranged between 800-200 B.C. (Gremillion 1993, 1998; Ison 1988; Applegate 2008; O'Steen et al. 1991; Railey 1991).

Pottery technology, the hallmark of the Early Woodland subperiod, surfaced at different times across Kentucky. In fact, some Early Woodland sites are without pottery while some Late Archaic sites do have pottery technology. The impact of pottery on cultural adaptations varied as well. In rugged terrains, such as portions of the Upper Green River Section, pottery would hinder travel while baskets and squash/gourd containers were a more practical option (Carstens 1996:10; Applegate 2008).

Another technological change during the Early Woodland subperiod included a shift from chipped stone end scrapers to bone beamers, and a shift from grooved axes to ungrooved celts (Applegate 2008). A celt requires less maintenance than a grooved axe which needs to be continuously relashed. The ungrooved celt and bone beamer remained in use until the Historic period.

Other groundstone tools utilized during the Early Woodland subperiod did not deviate from those used in previous periods. Pestles, nutting stones, atlatl weights, and hammerstones all continued to serve a purpose (Applegate 2008). Bone and shell also were used by Early Woodland groups as seen in bone awls, flakers, reamers, handles, bowls, shell spoons, scrapers, beads, and gorgets (Applegate 2008).

In Kentucky, the earliest textiles were recovered from Terminal Archaic to the Early Woodland sites. The textiles were located in caves and rockshelters in the Upper Green River and Gorge sections. A variety of clothing, foot wear, and bags were woven during this subperiod (Applegate 2008).

Trade networks had existed since the Late Archaic, but towards the end of the Early Woodland, an increase in the frequency of copper, mica, and exotic cherts was recorded.

Subsistence strategies did not differ much from previous periods, with hunting and gathering being the focus. Garden products also were a part of their diet, and an increase in cultivation of weedy plants and cucurbits developed. Deer, box turtle, small mammals, birds, fish, and mussels were all consumed.

Projectile points that mark this sub-period are dominated by notched and stemmed forms including Kramer, Wade, Savannah River, Adena, and Turkey-tail. While the majority of these point types date the early portion of the Early Woodland, the Adena point type is more common towards the end of the sub-period (Railey 1990:250).

Early Woodland populations tended to live in upland, ridge top, floodplain, rockshelters, and cave vestibules. Rockshelters were used in eastern and western Kentucky. Cave exploration and mineral mining, which began in the Late Archaic, intensified during the Early Woodland. As documented at Mammoth and Salts cave, gypsum, mirabilite, and epsomite were all mined from caves. Mining has been documented in the Upper Green River, Pennyroyal, and Lake Cumberland sections (Applegate 2008).

Some of the earliest known Early Woodland sites in Kentucky and in the Ohio Valley include Peter Village in Fayette County (Clay 1984, 1985, 1987) and the West Runway site in Boone County (Duerksen et al. 1995). Quite different sites, Peter Village was an enclosure first surrounded by a post stockade, later by a ditch and internal bank, while the West Runway site was a campsite with multiple hearths, suggesting a series of short-term occupations. Radiocarbon dates place the occupation of West Runway possibly as early as 600 B.C. and Peter Village at about 350-400 B.C. While West Runway, in the types of features and their clustering in this upland location, is not that different from a Late Archaic site, the Peter Village enclosure marks a sharp break with Archaic settlement systems.

At both sites, that hallmark of the Woodland period occurs: thick and relatively crude ceramics representing quite large containers. First called Fayette Thick pottery from its occurrence at the Peter Village site (Griffin 1943), the pottery occurs widely, though sparsely, across central and eastern



Kentucky (cf. Clay 1980) with some variation suggesting different pottery-making groups. The type even occurs in small and early burial mounds, for example the Hartman mound in Boone County (Webb 1943) where it may date to ca. 400 B.C. At the Peter Village enclosure, it is hypothesized by Clay (1987) that groups gathered to mine a source of barite and galena that was then fashioned into pigments and objects for personal use and for trading with other groups. The large ceramic vessels represented at the site may have been “feast containers” made to serve large work crews on the spot. The occurrence of thick pottery at the Hartman burial mound suggests also that the pots may have been made to serve funeral parties during the course of burial ceremonies, the first indication of customs that would become common in the Middle Woodland.

### 3.1.3.2 Middle Woodland

In most parts of the Southeast and Midwest, the development of Hopewell is a distinguishing difference between the Early and Middle Woodland subperiods. However, in Kentucky, Hopewell does not have a deep effect on Woodland populations, and as a result, considerable continuity exists between the Early and Middle subperiods (Applegate 2008). In addition, regions within Kentucky seem to differ with the beginning and ending dates for the Middle Woodland as did the Early Woodland. In the Mississippi River Section, Kreisa and Stout (1991) set the subperiod at 200 B.C.-A.D. 400, and in the Ohio River II Section, deNeeve (2004) gives the subperiod at 150 B.C.-A.D. 500. The Central Bluegrass Section has been given ranges of 400 B.C.-A.D. 400 and A.D. 1-500 (Richmond and Kerr 2005; Schlarb 2005). Gremillion (1993) gave the Middle Woodland subperiod in the Gorge Section a range from 300 B.C.-A.D. 500.

In the Bluegrass, Upper Kentucky/Licking, and Big Sandy areas, ceramic vessels tend to have plain exterior surfaces during the early Middle Archaic. Cordmarked, cord-wrapped dowel-impressed, or fabric-impressed exterior surfaces are common in the Purchase, Green River, and Upper Cumberland areas (Applegate 2008). In the Salt River and Ohio River I Sections, sherds that exhibit Havana-like or Hopewellian decoration were documented, and southeastern stamped ceramics were found throughout the state but at low frequencies. Late Middle Woodland ceramic vessels tend to have subconoidal or subglobular jars, with outflaring, recurved, or direct rims. Jars usually have cordmarked or plain exterior surfaces, and small quantities of simple stamped or check stamped sherds are present. Complicated stamped, brushed, or rocker stamped sherds are also found in small quantities, but are often used as indicators for the late Middle Woodland subperiod.

Robbins, Motley, Gary, and Adena Stemmed (cal 88 B.C.-A.D. 239 [Dowell 1981] points area all found in both the Early and Middle Woodland subperiods. Copena and Copena Triangular, which are Triangular/Lanceolate forms, are considered diagnostic of the Middle Woodland subperiod along with corner-notched forms, such as Snyders (cal 1258 B.C.-A.D. 425 [Mocas 1992]) and Affins Snyders (Applegate 2008). Late Middle Woodland contexts demonstrate expanding stemmed and shallow side notched types, such as Steuben, Bakers Creek, Lowe, and Chesser (cal A.D. 268-887 [Crane and Griffin 1966]). In addition, chert bladelets are also considered diagnostic of the Middle Woodland subperiod (Applegate 2008).

In mortuary-ritual deposits, exotic raw materials continued to be used, and seemed to peak in the early Middle Woodland, but then decline again during the late Middle Woodland. These exotic raw materials included copper bracelets and breastplates/gorgetts, copper and mica head ornaments, marine shell beads, and Vanport chert bladelets (Applegate 2008).

Subsistence strategies did not differ much from the Early Woodland subperiod. The Middle Woodland populations continued to rely on wild foods more than cultigens. Settlement patterns saw an increase in usage of floodplain zones. Activity areas are suggested by midden deposits and feature clusters. In

western Kentucky, earthworks were sometimes associated with habitation areas, and in the Lower Big Sandy, Upper Big Sandy, and the Central and Eastern Bluegrass, postmold patterns have been discovered that suggest small, single- and double-post circular and square/rectangular houses (Applegate 2008). In the Gorge Section, rockshelter occupations appear to decline. Settlement hierarchies have been noted in the Mississippi River and Ohio River II Sections.

The Middle Woodland in Kentucky is marked notably by the construction of burial mounds that have been called Adena after a site in southern Ohio (Webb and Snow 1945; Webb and Baby 1957). Major mound excavations in the region of Fischer, Drake, Mt. Horeb, Morgan Stone, Wright, Ricketts, Camargo, and many others, have given archaeologists a detailed picture of burial customs during this time period (Clay 1986). Excavations at the small Auvergne mound in Bourbon County (Clay 1983) suggest that Native Americans from a larger area came together at the time of a death to feast at graveside.

Some of the large mounds, containing multiple burials, suggest that these groups often returned to the same mound to add more burials to the structure. At times the burial mound could, like the Wright mound in Montgomery County (Webb 1940), grow to an imposing size. Although we have considerable excavated evidence for burial customs, the total settlement system is not well understood (Clay 1998:13-19). Those responsible for the burial mounds may have lived widely dispersed throughout Kentucky in relatively small groups. Seen in this light, the elaborate burial sites (mounds) offered essential foci for scattered groups where they could meet and interact. There were also small, circular enclosures called ceremonial circles of which the Mount Horeb site in Fayette County (Webb 1941) is an excavated example. Late in the Middle Woodland, hilltop enclosures were constructed, such as Indian Fort Hill near Berea, Madison County, Kentucky. Still, daily domestic sites are very poorly understood, although examples dating to the time period have been found to the south on the Cumberland Plateau (Kerr and Creasman 1998).

Several Middle Woodland mortuary-ritual sites have been documented, such as the conical burial mounds. In the Bluegrass and Big Sandy areas, these conical burial mounds date to the early Middle Woodland, but in other areas, they date to the late Middle Woodland. Stone mounds date to the late Middle Woodland. Although rare, geometric earthworks and hilltop enclosures date to the late Middle Woodland. In the Central Bluegrass, non-mound ceremonial sites without burials have been documented, such as ritualistic feasting and ceremonial plant use (Applegate 2008).

### 3.1.3.3 Late Woodland

Defining the temporal parameters of the Late Woodland has not been an easy task, since clear boundaries have not been identified in the archaeological record, and diagnostic ceramic and lithic attributes, although widespread, show little temporal variability within this period. As a result, the transition from Middle to Late Woodland traditions was a gradual process and not an abrupt one, since no dramatic shifts in cultural practice or in styles of tools or ceramics occurs (Pollack and Henderson 2000). Changes that occurred between the Middle and Late Woodland are probably linked to changes in plant subsistence strategies, hunting technologies, long-distance trade networks, and the degree of ritual expression (Pollack and Henderson 2000:615).

While Pollack and Henderson's study demonstrates continuity in material culture, analysis of some site data suggests that population increase or at least localized aggregation occurred, which over time may have led to a smaller number of larger settlements, or increased inter-community violence. In other words, population cycles may have impacted lifeways and contributed to some changes in subsistence, settlement organization, and the duration of a particular settlement. A recent survey of available radiocarbon-dated sites in Kentucky and adjacent parts of West Virginia reveals some trends during the

Middle and Late Woodland that support (in part) a population increase, and possibly some subsequent population declines.

The above discussion has highlighted the fact that a large number of sites are assigned to the Late Woodland period, and that many have been dated. These dated sites suggest that the Late Woodland period, as Pollack and Henderson (2000) among others have suggested, can be subdivided into at least two sub-periods. This apparent division may reflect some cyclicity in population expansion, changes in subsistence, settlement re-organization, or the introduction or incorporation of new technologies such as corn agricultural and the bow and arrow into pre-existing cultural complexes. While these data provide a substantive framework that identifies some temporal parameters, recent syntheses, along with earlier studies of the Late Woodland period, suggest that within the region of southern Ohio, northern and central Kentucky, and extreme southern Indiana, a single cultural complex or phase was present: the Newtown tradition. In the following paragraphs, the culture history of this region between about A.D. 400 and A.D. 800 is examined to build a case for the interpretation of the cultural complex at Dreaming Creek as an early Late Woodland Newtown component. Griffin (1956:187), working on artifacts from the Turpin site in Ohio, recognized a previously undocumented cultural complex which he named “Newtown,” and which he considered to post-date the Middle Woodland Hopewell tradition and to pre-date the Fort Ancient tradition in the Middle Ohio Valley. Although he could not discern the length of the period during which this Late Woodland culture flourished, he did suggest that little cultural progress was made during this period (Griffin 1952). Owing to the paucity of Late Woodland archaeological data, Griffin was unable to characterize the Newtown culture or ascertain if distinctive regional variations existed (1952, 1956).

More archaeological data has been gathered since Griffin’s groundbreaking research, but considerable debate on the temporal and geographic extent of Newtown and other Late Woodland cultures still exists (e.g., Clay and Creasman 1999; Davis et al. 1997). Site assemblages throughout the region are linked by the occurrence of the ceramic complex known as Newtown Cordmarked, a type described by McMichael (1968) in the 1960s and characterized by large jars with thickened, angular shoulders. More recent research (e.g., Pollack and Henderson 2000; Seeman and Dancey 2000) indicates that while a thickened, angular shoulder may be a characteristic of some Newtown vessels, some site assemblages are considered Newtown even though they lack ceramic vessels with this particular characteristic.

Recent archaeological investigations at several sites in the region have revealed additional traits about Newtown phase assemblages (e.g., Ahler 1988; Dancey 1988, 1991, 1992; Henderson and Pollack 1985; Kreinbrink 1992; Railey 1984, 1990). Typically, Newtown lithic assemblages are characterized by Steuben, Lowe, or Chesser notched variety projectile points (see Justice 1987), thick stone bifaces, and small, triangular, shaped celts. The ceramic assemblage includes ceramic jars with incurvate to direct rims, flattened lips, and vertical cordmarking on their outer surfaces. Personal adornment, highly developed in the preceding Middle Woodland period, was apparently limited in the Late Woodland, as Newtown assemblages are distinguished by a lack of decorative and personal ornaments. Seeman and Dancey report “...Late Woodland societies created virtually nothing that can be considered artistic...” (2000:598). The few documented artifacts showing artistic style include some stone and bone gorgets, bone pins, small mica sheets, limestone elbow pipes, and stone and shell beads.

Pollack and Henderson’s recent review of the Late Woodland period in Kentucky offers current data on what the term “the Newtown phase/complex/tradition” (2000:625) means in Kentucky, while Seeman and Dancey’s review of southern Ohio Late Woodland traditions incorporates discussion of some northern Kentucky sites (2000:595). Pollack and Henderson focus their study on either side of the Falls

of the Ohio, which serves to demarcate two regions of Kentucky that appear to differ culturally, and which may have maintained distinct cultural traditions for a long period of time. Seeman and Dancey use the Ohio River and its tributaries as an organizing principal. In this review, Pollack and Henderson's geographic model is used, although mention is also made of Seeman and Dancey's findings where appropriate.

One of Pollack and Henderson's sub-regions is downstream of the Falls of the Ohio, and occupies the western portion of the state; the second sub-region, and the one which is more the focus of this review, is upstream of the Falls and is in the eastern portion of the state. This eastern region encompasses the Middle Ohio River valley, the Central and Inner Bluegrass region, and the Knobs and mountains of Eastern Kentucky. Major rivers in the region include the Ohio, as well as its Kentucky tributaries (Kentucky, Licking, and Big Sandy), all of which are deeply entrenched with narrow flood plains. Within this region, only one cultural complex is well documented for the early Late Woodland subperiod: the "Newtown phase/complex/tradition" (Pollack and Henderson 2000:625). Components associated with this phase are noted at several important Kentucky sites such as the Dreaming Creek site in Madison County, Hansen and Bentley sites in Greenup County, and the Pyles site in Mason County, as well as numerous smaller sites in the Bluegrass (e.g., Shelby Lake, Froman, and sites in the Cumberland Plateau such as Rock Bridge and Haystack rock shelters). Other Late Woodland cultural traditions (e.g., Beal's Run) in this region are only now being examined, since this period has typically been understudied (e.g., Pollack and Henderson 2000), so additional variation may be present that is only recently being documented.

Early and late Middle Woodland artifacts are very similar in most areas, but the late Middle Woodland tends to lack decorated ceramics. In Kentucky, early Late Woodland ceramics consist of subconoidal and subglobular cordmarked jars, and vessel rims are usually unmodified and lips are usually flattened and plain. Plain and cordmarked forms are common throughout Kentucky during the terminal Late Woodland subperiod, but variation does exist. Pottery vessels with zones of incised geometric designs on the jar necks are found in the lower Ohio River valley. In far western Kentucky, during the terminal Late Woodland, pan-shaped vessels and red film surface treatment begins to appear although these types are diagnostic of the Mississippian period. In the Bluegrass Management Area, vessels with angular shoulders continue to be used (Applegate 2008).

In the terminal Late Woodland subperiod, the 'true arrowheads' begin to appear in Kentucky (Applegate 2008). Point types found at Late Woodland sites, including several from dated contexts, are Jacks Reef (cal A.D. 442-776, cal A.D. 548-859 [Ahler 1987], and cal A.D. 675-938 [Ledbetter and O'Steen 1992]), Raccon (cal A.D. 663-1151 and cal A.D. 695-1223 [Ledbetter and O'Steen 1992]), Hamilton (cal A.D. 223-592 and cal A.D. 569-768 [Des Jean 2004]), and Levanna.

Wild animals and plants continued to be the mainstay of the subsistence strategy utilized during the early Late Woodland subperiod. Cultivation of native plants continued and maize appears during the Middle and early Late Woodland contexts, but not as a significant source until the terminal Late Woodland (ca. A.D. 800) (Applegate 2008). In Kentucky, maize cultivation appeared mostly in the Purchase and Green River management areas.

Regional variability dictated settlement patterns within the Late Woodland subperiod. In the Pennyroyal Section, domestic structures included rectangular and circular single-post forms and possible Late Woodland wall trench structure (Applegate 2008). Late Woodland sites in the Bluegrass Management Area concentrated on upland ridges, while other areas continued a focus on floodplain zones. Two- and three-tiered settlement hierarchies have been documented in the Purchase Management Area during

the terminal Late Woodland subperiod. In contrast, nucleated settlements are more common in the early Late Woodland in central and northeastern Kentucky.

By A.D. 500, the construction of large earthen or stone enclosures had ceased. In contrast, construction of stone mounds increased during the Late Woodland. In western, southern, and parts of northern Kentucky, stone box grave cemeteries became common.

### 3.1.4 Late Prehistoric Period

Both the Mississippian and Fort Ancient cultural manifestations are widespread in the Midwest and are characterized by distinctive settlement patterns. Mississippian society is characterized by a hierarchical social organization, in contrast with the non-hierarchical social organization evident in Fort Ancient society. Examination of site structure, settlement pattern and mortuary behaviors confirm these distinctions. Generally, Mississippian and Fort Ancient cultures were spatially discrete. Mississippian societies are documented in western Kentucky, Illinois, and states further south, whereas Fort Ancient societies are documented from western West Virginia to southeastern Indiana and from south-central Ohio to north-central and eastern Kentucky (Griffin 1978:551). More specifically within Kentucky, Fort Ancient is present within the Salt River, Bluegrass, Big Sandy, and Upper Kentucky/Licking River management areas (Sharp 1990:467).

The Late Prehistoric archaeological complex of the middle Ohio Valley is Fort Ancient, which spans the time period from approximately A.D. 1000 to about A.D. 1700. Geographically, Fort Ancient extends from western West Virginia to southeastern Indiana and from south-central Ohio to north-central and northeastern Kentucky (Griffin 1978:551). In the Bluegrass, Fort Ancient is divided into the early Osborne Phase (circa A.D. 950 – A.D. 1200), Middle Fort Ancient (A.D. 1200 – A.D. 1400) and Madisonville Horizon (A.D. 1400 – A.D. 1700). The Osborne Phase is known in the Bluegrass from the Muir and Dry Run sites (Sharp 1984) in Jessamine and Scott counties. Middle Fort Ancient sites include Buckner, Gilfoil, and Florence (Fassler 1987).

The development of Fort Ancient and its relationship to Late Woodland cultures has been a debated issue. Two hypotheses have been offered in explanation for the relationship between Fort Ancient and Late Woodland cultures. One hypothesis suggests that Fort Ancient represents the florescence of an indigenous Late Woodland culture (Graybill 1980:55-56; Rafferty 1974). Others (e.g., Essenpreis 1978:154-155) suggest that Fort Ancient represents an influx of Mississippian peoples from the lower Ohio River Valley. Although the question has yet to be resolved, it is entirely possible that each of these hypotheses may be correct, depending upon the data set and region employed to address the problem. Essenpreis (1978), for example, has suggested that these two hypotheses are appropriate for explaining Fort Ancient manifestations at different times during the Late Prehistoric. In this scenario, Fort Ancient is viewed as a florescence of Mississippian-influenced Late Woodland culture during the early phases (Baum, Anderson, and Feurt) and as an influx of Mississippian peoples during the later Madisonville phase (Essenpreis 1978:164).

Fort Ancient reflects an elaboration of Late Woodland subsistence activities and social organization. Settlements were much more nucleated, as evidenced by large village sites (Mayer-Oakes 1955). Village sites tend to be situated in valley bottoms along the main stems of the region's larger drainage (Graybill 1978, 1979). On the other hand, smaller sites tend to be located throughout tributary drainage and are thought to represent seasonal camps and resource procurement activity stations. A number of sites along the Ohio River, or close to it, were fortified; and many have central courtyards or plaza areas (Griffin 1978:552).

Fort Ancient subsistence is characterized for the first time by a reliance on the cultivation of maize, coupled with beans and squash. Despite the increased importance of horticulture, hunting provided an important source of food. Deer was the main meat source; at some sites it made up to 80 percent of the game consumed (Griffin 1978:552). The cultural material assemblage included elaborate ceramic styles (usually tempered with crushed mussel shell, although limestone and grit-tempered ceramics also occurred), triangular arrow points, mussel shell tools (e.g., knives, scrapers, and hoes), and bone tools (e.g., bone reamers), which also serve to distinguish Fort Ancient cultures from Late Woodland occupations.

Although Fort Ancient subsistence, like that of Mississippian populations, was based on the cultivation of corn and other cultigens, other aspects of Fort Ancient clearly distinguish it from the contemporary Mississippian occupations: Fort Ancient sites lack large ceremonial centers and earthworks, although Early and Middle Fort Ancient sites (through circa A.D. 1250) exhibited burial mounds. For example the Rowena Site, flooded by Lake Cumberland, was described as a small Mississippian regional center, possibly occupied from A.D. 1300-1400 (Weinland 1980: 133). The artifact assemblage indicated the site was influenced strongly by eastern Tennessee cultures throughout most of its history, especially the Dallas cultures (Weinland 1980:131). Other Mississippian sites along the Cumberland, like Crowley-Evans (Jefferies 1995; Jefferies and Flood 1996), were built around low platform mounds on which the house of a local chief was constructed. However, the complex settlement hierarchy found in the Mississippian, some sites having mounds, others with none, does not occur in Fort Ancient. Villages and hunting camps have been the only Fort Ancient site types defined thus far.

Within the Upper Kentucky/Licking area considerably more Fort Ancient sites have been found within the Gorge Section than the Interior Mountains Section. Very little information is known still about the Fort Ancient chronology in this region. However, the Fort Ancient material culture of the Mountains region appears to resemble the culture from the more well documented Bluegrass and Ohio Valley sites (Sharp 1996:178).

There were 22 Fort Ancient sites in the Upper Kentucky/Licking Management Area. Twenty-seven percent of the sites are open habitations without mounds and sixty-nine percent are rockshelters. Eighty-three Fort Ancient sites were recorded in the Interior Mountain Area (Henderson 2008).



## 3.2 Historic Period

### 3.2.1 Exploration and Early Settlement (ca. 17th Century-1820)

The Native American tribe that was first contacted by Europeans in Kentucky is believed to be the Shawnee (Turnbow 1980:17). It has been traditionally and historically maintained that the earliest routes into Kentucky followed buffalo and game trails frequented by Native Americans (Boisvert 1984:46-49, Brown 1929:4). It was quickly discovered by European Americans that these early trails were easy to follow and that they invariably led to salt and water.

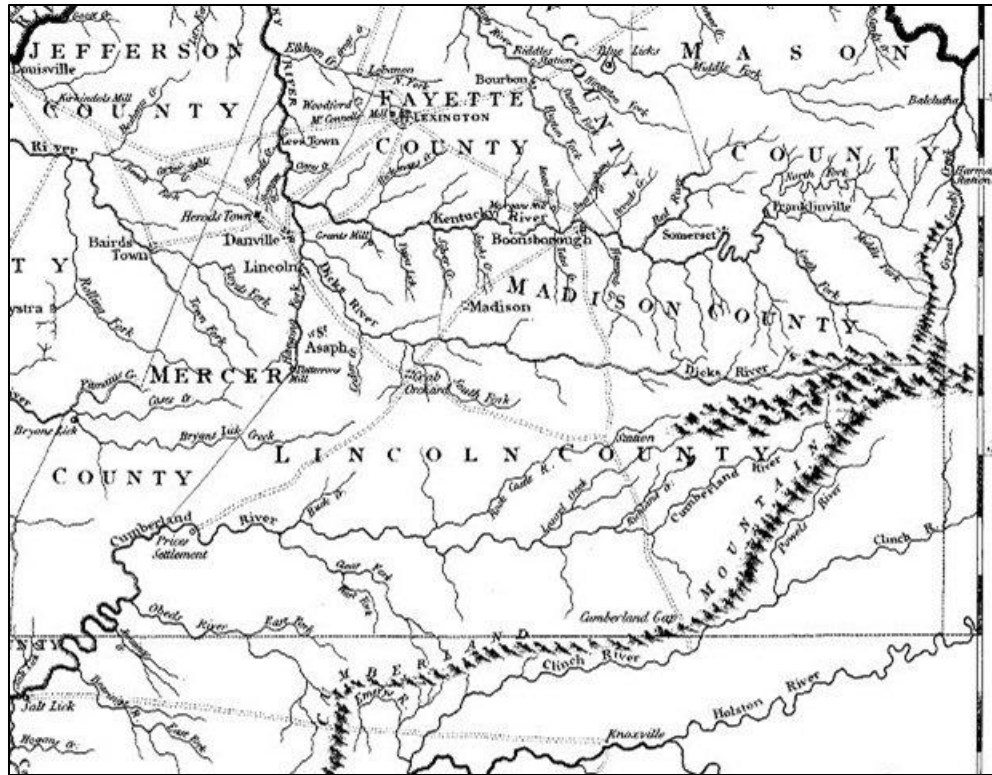
Other important early routes into Kentucky went overland through the Cumberland Gap while a major water route proceeded down the Monongahela River, then the Ohio River (Figure 3-1). The exploration and the ultimate European American settlement of Kentucky began in earnest in 1750 when Dr. Thomas Walker explored some of eastern Kentucky. Dr. Thomas Walker led the first recorded expedition from Virginia into eastern Kentucky, and camped in present day Paintsville in 1750. According to Walker, French cabins were discovered at the mouth of Paint Creek at this time. His party reached the confluence of the Red and Kentucky Rivers. He was followed in rapid succession by a number of other Englishmen, Christopher Gist in 1751, John Finley in 1752, and Daniel Boone in 1769. In 1775, Boone established the first permanent European American settlement in Kentucky at Boonesborough in Madison County. Both the overland and water routes were considered dangerous during the eighteenth century due to intermittent Indian attacks.

By the late 1760s, “Long Hunters” from the eastern United States were venturing into the area via the Cumberland Gap (McBride and McBride 1990:587). Daniel Boone, negotiating with the Cherokee, built the Wilderness Road, which became the primary overland route through Kentucky from 1775 to 1818 (Ison et al. 1991:11). The Wilderness Road passed through the Gap, down Yellow Creek, through the Little Log Mountain gap, on through Ferndale, up Moore’s Branch, through the Big Log Mountain gap, through the “Narrows” south of Pineville, through Cumberland Ford in Pineville, the Cumberland River to Flat Lick, and finally on to Boonesborough (Fuson 1947). An earlier traveler’s account described the land after passing through the Gap:

*“From thence (from Cumberland Gap) until you pass Rockcastle River there is very little good road; this tract of country is very mountainous, and badly watered along the trace, especially for springs. There is some good land on the water-courses, and just on this side Cumberland River appears to be a good trace, and within a few years I expect to have a settlement on it. Some parts of the road is very miry in rainy weather. The fords of Cumberland and Rockcastle are both good unless the waters be too high.” (William Brown in 1782, Fuson 1947:2).*

A second gap, Pound Gap, also played a significant role in the settlement of Kentucky and the western frontier. Pound Gap is an opening in Pine Mountain and is located in northeast Letcher County above Jenkins on the border with Virginia. It was a route that became known as the Kentucky Trace which branched off the Wilderness Road at Castles Woods (Castlewood, VA) to Indian Creek and from there through the Gap and into Kentucky. Most of those settlers who moved to the hills of eastern Kentucky called this “the Pound” (Mohn 2005).

With increasing European American settlement in the region, the struggle for control between the French, British, and Native Americans led to the steady decline of Native populations, primarily resulting from introduced Old World diseases, such as smallpox, chicken pox, influenza, measles, and the common cold, to which they had no developed resistance.



**Figure 3-1. Map Showing the Area of Letcher County in 1795 (Anderson).**

The area that is now Letcher County was part of Virginia when the first settlers arrived. Settlements initially began along the Wilderness Road after the Road was established (Fuson 1947:5). These settlers were of English, Irish, Scottish, French and German extractions, and predominantly from Colonial American lineages. Initially early stations or forts like Martin's Station (1769), Gibson's Station (1785), Wilderness Road Block House (1775), Fort Watagua (1775), and Fort Chiswell (1758) were established east of the mountains to protect the settlers from Indian attacks. In 1776, the Virginia General Assembly created Kentucky County out of Fincastle County (Clark 1992:xix). Lincoln County was established afterwards. With the increasing settlers moving into Kentucky on the Wilderness Road, more forts and stations were needed. Kentucky was established as a state in 1792.

Agricultural products included corn, cane, hemp, oats, flax, and tobacco which were almost all grown on flood plain. Within the mountains of eastern Kentucky, agriculture remained at a subsistence level much longer than elsewhere in the state (McBride and McBride 1990:592). The Wilderness Road greatly benefitted these early settlers of Kentucky as it served as a commercial road connecting Kentucky with neighboring states like North Carolina, Virginia, and further on to Maryland. Livestock such as horses, cattle, sheep and hogs, and furs and surplus crops were transported via the road to markets east of the mountains. Beef had become a main source of income for farmers in central Kentucky as it became popular in Eastern cities (Kinkaid 1992:187; McBride and McBride 1990:590). To further benefit the settlers, efforts made by Governor Isaac Shelby led to an improvement in communication when a postal route was opened in 1792 connecting Bean Station, Tennessee via the Cumberland Gap with Danville, Kentucky in the Bluegrass. Mail and news from and to the settlements was now possible. Although eastern Kentucky saw growth, significant growth was primarily in central Kentucky or the Bluegrass where soils were more fertile.

Although not as great as the remainder of the state, the mountains of eastern Kentucky did see growth in population between 1810 and 1820. Population of eastern Kentucky went from 20,297 to 34,602. The eight eastern counties did practice commercialized agriculture and were producing grains, livestock, hides, and fur for trade in the Ohio Valley, central Kentucky's Bluegrass, and western Virginia. However, towns in the mountain region remained comparatively small to the towns elsewhere in the state (McBride and McBride 1990:596).

In what is today Letcher County, Peter Whitaker built the first known cabin on Whitaker's Branch in 1795 (Cornett 1992). Other early settlers to the area included George Ison II, Benjamin Webb of Maryland, James Caudill of Virginia, and William Stamper of North Carolina. Almost every main creek area had settlers by 1806, and by 1810, over one hundred different families were living within the county. Figure 3-1 shows the area of Letcher County in 1795.

### **3.2.2 Antebellum (1820-1861)**

While river and railroad transportation routes were opened up in the first part of the nineteenth century by steamboats and trains, eastern Kentucky became more remote. Small steamboats were able to traverse the Big Sandy after 1837 and some road improvement occurred, but the mountainous part of Kentucky did not benefit from the revolutionary transportation improvements in the rest of the state. It was at this time that a "distinct Appalachian subculture" evolved (McBride and McBride 1990:601).

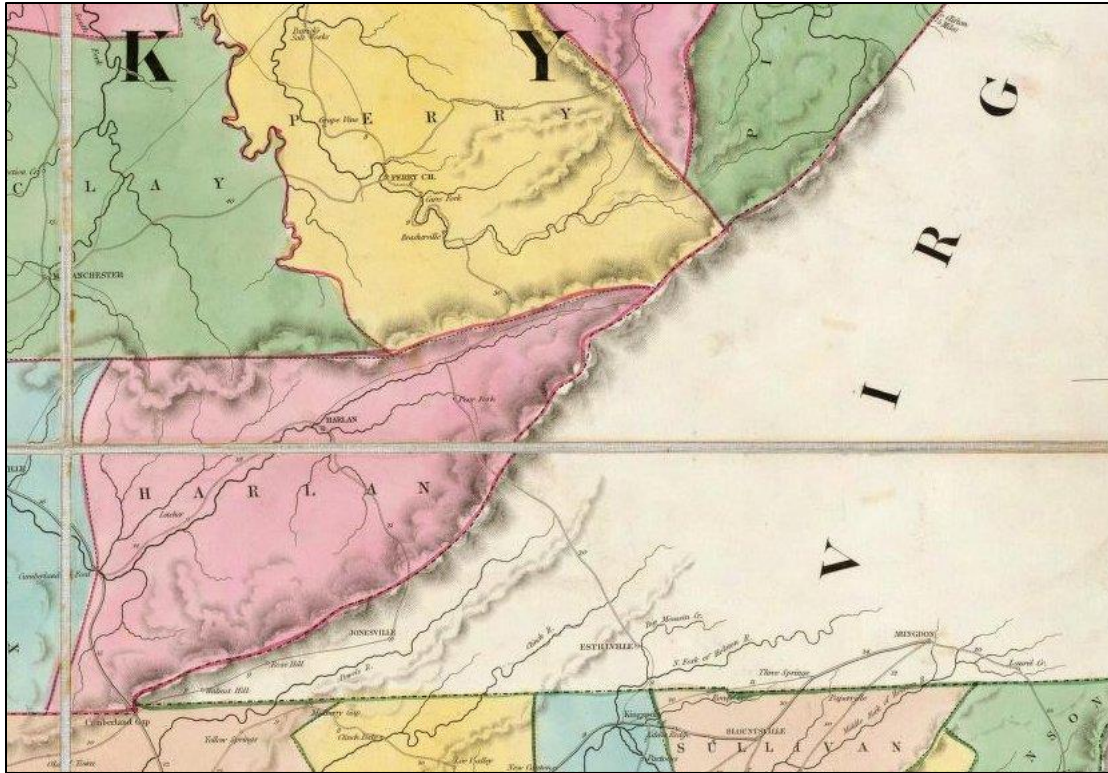
Agriculture did not change significantly for the people of eastern Kentucky and most crops and livestock were produced for home consumption. Hog was the meat of choice, but some cattle were still bred (McBride and McBride 1990:605). An abundance of timber was also sold. By 1840, small commercial coal mines were present in eastern Kentucky. In 1845, the first large coal mine community, Peach

Orchard, located in Lawrence County in the northeastern part of the state, was established. Its success would lead to many similar communities in eastern Kentucky. Here coal mining companies constructed dwellings along with commercial necessities like a grocery store, gristmill, and sawmill (McBride and McBride 1990:605). By 1860, urban development of eastern Kentucky was still poor with very few cities. Of the cities that did exist, most were very small and associated with the commercial mines. The only well populated towns in this region of Kentucky were located on the Ohio River where more traffic was seen.

After a slow start, the population grew quickly between 1810 and 1840 in what is today Letcher county, especially in the area of the community of Mayking (Cornett 1992). Mayking is approximately two miles to the northeast of Whitesburg. In 1842, Letcher County was founded by an act of Kentucky Legislature, and formed out of Harlan and Perry Counties in Kentucky (Cornett 1992). Letcher County's name is derived from Governor Robert P. Letcher, Kentucky's Governor from 1840 to 1844 (Cornett 1992). Whitesburg was declared the county seat in 1842 as well, and the town is named in honor of Clay County politician John Daugherty White. Figure 3-2 shows the area of Letcher County in 1839 (Burr).

### **3.2.3 Civil War (1861-1865)**

During the Civil War, both sides recognized the importance of the Cumberland Gap and its strategic value. As a result, there was a constant battle for its possession with both sides occupying the Gap at different times during the war. The mountain inhabitants of Kentucky sided strongly with the Union since they had few to no slaves. Some of these mountain inhabitants were part of the first blow against the Confederacy in Kentucky at Wildcat Mountain. Known as the Battle of Wildcat Mountain, this



**Figure 3-2. Map Showing the Area of Letcher County in 1839 (Burr).**

engagement took place in October of 1861 with principal commanders U.S. Brig. Gen. Albin F. Schoepf and C.S.A. Brig. Gen. Felix Zollicoffer. In mid- September 1861, Zollicoffer and his 5,400 men occupied the Cumberland Gap and took control of Cumberland Ford at Pineville, defeating a group of home guard volunteers from the town of Barbourville in the process. Responding to the Confederates, a detachment of Kentuckians led by Col. Theophilous Garrard was sent for three reasons: 1) to secure the ford on the Rockcastle River, 2) establish a camp at Wildcat Mountain, and 3) obstruct the Wilderness Road. Garrard, greatly outnumbered, would have been forced to retreat had not Gen. A. Schoepf arrived with reinforcements. On the morning of October 21, Confederate troops attacked and Union soldiers repelled the Confederates successfully. Another Confederate offensive later that afternoon was also repelled by the Union forces and later that night, the Confederates finally withdrew. The battle was considered the first Union victory in Kentucky as well as the first engagement of regular troops in Kentucky (Fuson 1947).

Despite its remote location, Letcher County was not untouched by the Civil War. Pound Gap played a strategically important part during the Civil War; both the Union and Confederate armies utilized it. On March 16, 1862, Brig. General James A. Garfield and seven hundred Union troops defeated General Humphrey Marshall's Confederate army of five hundred troops. Other skirmishes took place near Whitesburg in 1863 and at Pound Gap in 1864, when John Hunt Morgan's cavalry forced out Union troops (Cornett 1992).

During the war, an extermination of the rebels in the region began, but the Confederate sympathizers retaliated in turn by killing Federal soldiers. The Civil War ended, but left behind hostility and anger, which sometimes manifested into long-term feuds. After the war, relations of those killed began to settle the matter by killing others. Long-standing feuds broke out in different parts of the mountains, but only a very small part of the population was engaged at any or all times in these feuds (Fuson 1947). The



Wright-Jones feud began in 1886 in Knott County, but carried over into Letcher County. The two groups called a truce in 1895. The truce held until 1897 when violence erupted between the Wrights and Reynolds families, but by 1900, feuding was less common in the area.

The economic effects of the war were probably more significant to people in Kentucky than the physical devastation. Many farmers and merchants were hurt by the curtailment of trade with the south (McBride and McBride 1990:609). There were also transportation system disruptions due to war damage or to Union control. Throughout Kentucky, the Louisville and Nashville (L&N) Railroad suffered considerable damage during the war (Castner 1992:579). The L & N survived the war in reasonably good conditions since it became part of the vital supply route supporting Union troops advancing through the south (Castner 1992:579). The largest single factor in the deterioration of Kentucky's agriculture and industry was the loss of the labor force. About 100,000 Kentucky men entered the Union Army and up to 40,000 entered the Confederate Army (McBride and McBride 1990:610). Almost one third of those enlisted died. Slaves escaped across the Ohio River in the early years of the war. In 1864, the U.S. Government granted freedom to any slave that enlisted in the U.S. Army. The male slaves also brought their families to the encampments (McBride et al. 2003). Figure 3-3 shows Letcher County in 1861.



Figure 3-3. Map Showing Letcher County in 1861 (Campbell & Barlow).

### 3.2.4 Postbellum Industrialization (1865-1914)

The Postbellum period brought with it changes in social and economic systems that greatly affected Kentucky (McBride and McBride 1990:615). During this period the state began to deal with the emancipation of African-Americans and their role in the society. The agricultural system began to change with the introduction of white burley tobacco (McBride and McBride 1990:615). There were significant developments in communication and transportation, growth in industry and commerce and

increased urbanization (McBride and McBride 1990:615). Like the rest of the mountainous region of eastern Kentucky, however, population slowly grew during the late nineteenth century.

In Letcher County and most of eastern Kentucky, both the logging and mining industries played vital roles. Both industries started up in the 1880s and by the early twentieth century they were thriving. Around 1885, coal speculation began in the area, and soon mineral rights were being deeded to large coal companies such as Consolidation, Elkhorn, and South-East (Bowles 1949). By 1892, over 60 percent of the land in Letcher County was owned by non-resident taxpayers (Eller 1982). They soon established their own towns of Jenkins, Fleming and Seco among many others.

Many mountain people refused to work in the coal and lumber industry and remained farmers. However, eroded soils became more common and losses forced many farmers into part time work for coal and lumber companies. This in turn had an effect on the production of food and availability of livestock, much of which now had to be shipped in to the area (McBride and McBride 1990:624).

### 3.2.5 Twentieth Century

The beginning of this period was very similar to the previous period. Kentucky was still a leader among the southern states in agricultural products and a continued production pattern in industrialization and manufacturing also occurred. The coal industry began to expand and develop into a vital force within eastern Kentucky and with it brought improvements in transportation to the area. Railroads were constructed and roads improved. It also attracted a population influx to the area. Many of the mine workers were immigrants from Eastern Europe and African Americans from the south.

Consolidated Coal would become a large player in the coal industry in Letcher County. The company was incorporated in 1860 in Maryland (Bowles 1949). In 1911, Consolidated Coal planned and began building the town of Jenkins for the sole purpose of extracting coal from the surrounding mountains. Initially materials were hauled in over land by horseback and then subsequently by railroad that Consolidated Coal constructed. Jenkins was named after George C. Jenkins who was the owner of Consolidated Coal. All aspects of town life was constructed: houses, schools, churches, power plants, water systems, tipples roads and bridges. Figure 3-4 shows an image of a Consolidated Coal Company tipple at Mine No. 241 in Jenkins, Kentucky (Kentucky Foundation 2007a).

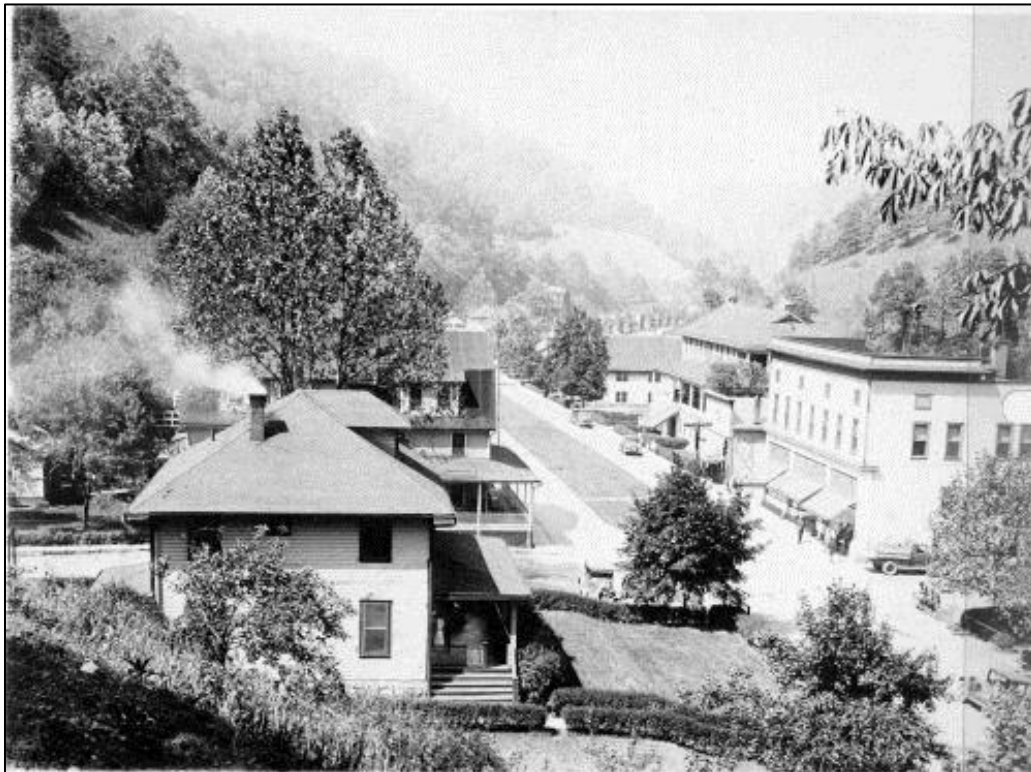
In 1912, Consolidation Coal Company built the town of McRoberts along the upper reaches of Wrights Fork of Boone, a tributary of the North Fork of the Kentucky River in Letcher County. The town was given the name of Samuel Roberts who would later become the company's director. Before any coal was mined, the company began to build a water system, power plant, offices, tipples, houses, roads, schools, and churches. In other words, the company built a town for the future workers to live in where no town had been before. Two circular sawmills were constructed to produce the lumber for all the construction, and a brick plan was quickly established. By 1914, 1,600 men were working in the McRoberts mine, and that number increased to 2,500 by 1916. During early 1916, a waiting list was kept for people waiting for their houses. If you worked for the mine, you received a house, but sometimes it took up to eight months. Also by 1916, the company store, recreational building, church, and barber shop were open for business. The mine continued to thrive through the 1920s before the economy caused the community to suffer (Kentucky Foundation 2007b; Rennick 1984). Figure 3-5 shows an image of the town of McRoberts (Kentucky Foundation 2007b).

In 1913, the Elkhorn Coal Corporation built the community of Fleming as a coal town. The town was named after George W. Fleming, the company's first president. The nearby community of Chip served as a post office in the area between 1902 and 1915, and became a trading center that served both Fleming





**Figure 3-4. Consolidated Coal Company Tipple at Mine No. 214 in Jenkins, Kentucky (Kentucky Foundation 2007a).**



**Figure 3-5. View of the town of McRoberts, Kentucky (Kentucky Foundation 2007b).**

and McRoberts. In 1926, the post office in Chip became known as Neon, and by 1978, Fleming and Neon had merged together (Kentucky Atlas & Gazetteer 2014a; Rennick 1984).

Coal soon came to dominate the landscape and most residents relied upon it for the livelihood. In 1916, Letcher County was the leading coal producer within the state of Kentucky. The Great Depression hit the area hard. To make matters worse, in May of 1927, a large flood added to the devastation. Works Progress Administration (WPA) alleviated some of the struggle by creating other work, but World War II brought real relief. The county saw its greatest period of growth in the early to mid-twentieth century when the industrial wave created by World War II hit the region and the demand for coal surged. Letcher County's population swelled to over 40,000 by 1940 (Cornett 1967).

Between 1940 and 1950, the county population greatly declined, and continued to decline through the 1960s. Coal production was down, and the coal companies began to sale off the company towns to private hands. The county received national attention after Harry Caudill's *Night Comes to the Cumberlands* was published. Harry Caudill was a lawyer in Whitesburg, and his interpretation of Letcher County's economic depression lead in part to Lyndon B. Johnson's War on Poverty. In 1964, Johnson pledged to fight poverty and began his campaign visiting an unemployed coal miner in Inez, Kentucky. The campaign lasted nearly a decade, and brought in millions of dollars of federal aid into Kentucky, promoting various anti-poverty projects. The campaign also promoted the preservation of the history and culture of Appalachian Kentucky (Glen 1992).

Table 3-1 presents the population growth of Letcher County from 1850 to 2000. A drastic population increase occurred between 1890 and 1900 as the coal industry expanded. However, by 1950, the population started to decline and continued to decline steadily until 1980, but that increase was short-lived as the population began to decline again in 1990. The population continued to decline into the twenty-first century (Kentucky Atlas & Gazetteer 2014b).

In the latter part of the twentieth century, Letcher County's population steadily declined as people left the region searching for work and more economic opportunities to the north. Places like Cincinnati, Dayton and Chicago became their new home. Coal continued to dominate the economy in the 1990s. Few manufacturing jobs existed in the area, and most of the jobs were either in mining, quarrying, wholesale, and retail. Letcher County remains a mostly rural county, and today, the area is trying to capitalize on it. Tourism and outdoor recreation is the new focus for the region's economy, but only time will tell what kind of impact this new direction will have on the county.

### 3.3 Historic Map and Aerial Photography Research

USGS maps available were the 1954, 1992 7.5 minute topographic maps for the Jenkins West, KY quadrangle, the 1912 15 minute topographic map for Pound, VA quadrangle. Also available were a 1941 and 1952 *Highway and Transportation Map of Letcher County, Kentucky* (Kentucky Transportation Cabinet 1941, 1952), and the 1950, 1958, 1960, and 1974 aerial photos used by the United States Department of Agriculture.

### 3.4 Previous Archaeological Research

The survey report files at the Office of State Archaeology (OSA) were consulted on July 25th, 2014. There were two prior archaeological surveys recorded within a 2 km radius of the archaeological APE (Figure 3-6).

**Table 3-1. Population changes for Letcher County, Kentucky.**

Census Year	Total Population
1850	2,512
1860	3,904
1870	4,608
1880	6,601
1900	9,172
1910	10,623
1920	24,467
1930	35,702
1940	40,592
1950	39,522
1960	30,102
1970	23,165
1980	30,687
1990	27,000
2000	25,277
2010	24,519



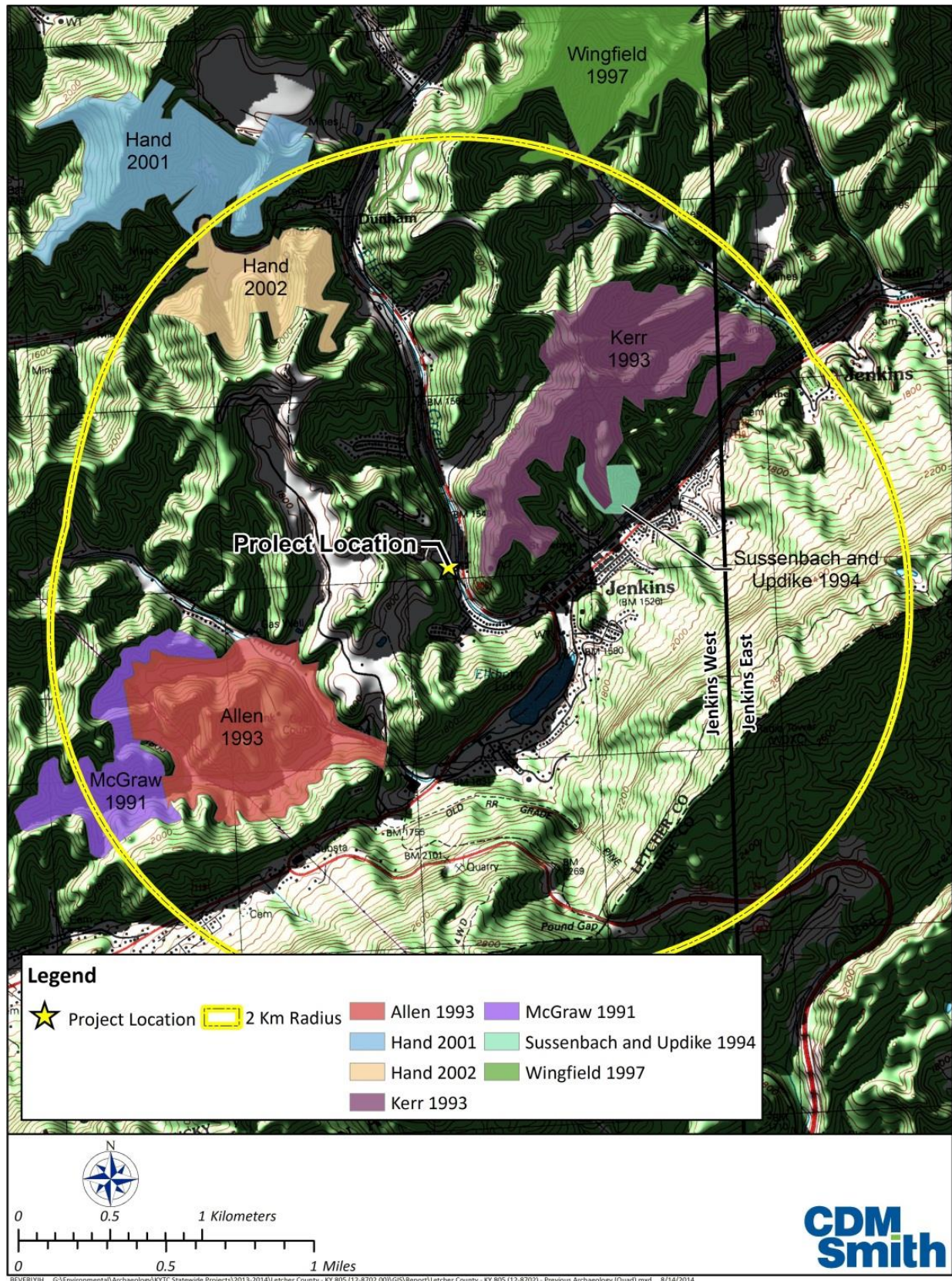


Figure 3-6. Locations of Previous Archaeological Investigations.

In 1991, at the request of Mine Management Consultants, Inc., Betty J. McGraw conducted a Phase I archaeological survey for the Manning Coal Corporation. The project area consisted of about 138.33 acres within the Child's Branch coal mining project area in Letcher County, Kentucky. The survey utilized pedestrian reconnaissance over the entire area with exception of an existing road, but no cultural material was observed. No further archaeological work was recommended (McGraw 1991).

In 1993, Cultural Resource Analysts conducted a Phase I archaeological assessment along Elkhorn Creek north of the community of Jenkins in northeastern Letcher County, Kentucky. The project area consisted of about 256.4 acres but only 241.4 acres were surveyed. The remaining acreage consisted of auger acreage. The survey utilized intensive pedestrian reconnaissance supplemented with shovel testing. The survey identified only one site, Site 15LR40, which is an early twentieth century dump and mine. The mine shaft is believed to be one of the original shafts from when the town of Jenkins was founded in 1911. The hollow bottom was also likely used as a landfill by the early residents of the Jenkins. The dump area appears intact and was only used for a short span of time, and the coal town of Jenkins is historically significant. As a result, the site was recommended for Phase II excavations to determine whether it meets the criteria for inclusion in the National Register of Historic Places (Kerr 1993).

In 1994, the Program for Cultural Resource Assessment conducted a Phase II archaeological investigation at the Shop Hollow dump site, Site 15LR40, in Letcher County, Kentucky. The site consisted of a historic dump and a mining adit located in two small hollows within the Elkhorn Creek drainage of southeastern Kentucky. The dump and mining adit are associated with a large mining complex developed by the Consolidation Coal Company in the town of Jenkins in 1911. The site boundaries were changed to only include the boundaries of the historic dump in Shop Hollow. The mine adit was found to be disturbed and no dumping was indicated at the mine adit. The dump covered an area of about 45 x 24 m and dated between 1911 and 1930. The material deposited was believed to be from the downtown commercial district of Jenkins, such as the hotel, butcher shop, hospital, other commercial establishments, and residences of employees in the vicinity. The residences were mostly in the Lake Shore area which would have housed the mine manager and other supervisory personnel. The majority of the deposits were between the late 1910s and early 1920s. Site 15LR40 was deemed eligible for inclusion to the National Register of Historic Places, and further work was recommended, including excavations, archival research, and the collection of oral histories (Sussenbach and Updike 1994).

In 2001, at the request of D. Edward Brown Engineering, Inc. and on behalf of Premier Elkhorn Coal Company, Cultural Resource Analysts conducted a Phase I archaeological survey of a proposed coal mining operation near the community of Dunham in Letcher County, Kentucky. The project area consisted of about 180.69 acres. The survey utilized intensive pedestrian survey supplemented with the use of shovel testing. The survey identified one previously unrecorded historic archaeological site, Site 15LR71. The site consists of four localities, which included two house foundations (Locality A and B) and two small historic surface scatters (Locality C and D). The two house foundations produced cultural material when shovel probes were excavated in the area. In addition to the four localities, five standing structures and one non-site locality were documented within the study area, but none of the structures were over fifty years of age at the time of the survey. The site lacked archaeological integrity and no subsurface features or midden were identified. Therefore, the site was not deemed eligible for inclusion in the National Register of Historic Places, and no further work was recommended. Clearance was recommended to the proposed project (Hand 2001).

In 2002, at the request of Alpine Consulting & Engineering and on behalf Premier Elkhorn Coal Company, Cultural Resources Analysts conducted a Phase I archaeological assessment for a proposed

coal mine operation along Potter Fork near the community of Dunham in Letcher County, Kentucky. The project area consisted of 99.3 acres. The survey utilized intensive pedestrian survey supplemented with shovel testing. No cultural material was identified during the survey, and clearance was recommended for the proposed project (Hand 2002).

In 1993, at the request of TJ Engineering and on behalf of Premier Elkhorn Company, Inc., Cultural Resource Analysts conducted a Phase I archaeological assessment of a proposed coal mining operation in the vicinity of Jenkins Golf Course/Elkhorn Country Club in Letcher County, Kentucky. The survey utilized intensive pedestrian survey supplemented with shovel testing, and portions of the survey area were disturbed previously by timbering and mining activities. No cultural material was identified during the survey, and clearance was recommended (Allen 1993).

In 1997, at the request of Environmental Design Consultants, Inc. and on behalf of Premier Elkhorn Coal Company, Cultural Resource Analysts conducted a Phase I archaeological assessment of a proposed coal mine above Joes Branch near the community of Dunham in Letcher County, Kentucky. The project area consisted of about 184.31 ha (460.78 acres) of surface mining and 82 ha (205 acres) of underground mining. The project area was disturbed previously by logging activities, road construction, natural gas pipeline construction, powerline construction, and previous mining operations. The survey utilized intensive pedestrian survey supplemented with shovel testing. The survey identified only a single isolate find, IF 1, and two modern structures. Therefore, clearance was recommended for the proposed project (Wingfield 1997).

### 3.5 Known Archaeological Sites

The site files at the OSA were consulted on July 25th, 2013. There were not any previously recorded archaeological sites documented within the project area, but one site had previously been recorded within a two-kilometer radius of the APE. Site 15LR40 is described below.

15LR40 is a historic dump and a mining adit located in two small hollows within the Elkhorn Creek drainage of southeastern Kentucky. The dump and mining adit are associated with a large mining complex developed by the Consolidation Coal Company in the town of Jenkins in 1911. After the Phase II excavations, the site boundaries were changed to only include the boundaries of the historic dump in Shop Hollow. The mine adit was found to be disturbed and no dumping was indicated at the mine adit. The dump covered an area of about 45 x 24 m and dated between 1911 and 1930. The material deposited was believed to be from the downtown commercial district of Jenkins, such as the hotel, butcher shop, hospital, other commercial establishments, and residences of employees in the vicinity. The residences were mostly in the Lake Shore area which would have housed the mine manager and other supervisory personnel. The majority of the deposits were between the late 1910s and early 1920s. Site 15LR40 was deemed eligible for inclusion to the National Register of Historic Places, and further work was recommended, including excavations, archival research, and the collection of oral histories (Sussenbach and Updike 1994; KY Archaeological Site Form for 15LR40). The site is also discussed above.





## Section 4 -

# Methodology

In this chapter, the methods employed during the course of this study are described. These methods include the fieldwork activities, their application in different portions of the archaeological APE reflecting conditions encountered, and an evaluation of their effectiveness in conducting initial National Register evaluation of the archaeological site. Laboratory methods are discussed in the following section (Section Five) along with the site assemblage and a discussion of the associated contexts of recovery and interpretation. This section also presents an overview of the requirement for nomination to the National Register of Historical Places and concludes.

## 4.1 Implemented Field Methods

The field methods implemented for the Phase I investigations conform to the Kentucky Heritage Council's specifications for conducting a Phase I survey (Sanders 2006). The field methods included systematic shovel probes and visual inspection. Systematic shovel test probes (STPs) were excavated where possible. All soil excavated from the STPs was screened through ¼ inch mesh screens with the intention that any and all artifacts retained in the screen would be collected and bagged according to provenience. Areas of 15 percent or greater slope were visually inspected for surface remains and potential rock shelters.

### 4.1.1 Field Conditions

The entire APE was subjected to visual inspection. Shovel probing was conducted in areas where less than fifteen percent slope and not disturbed. The project area was covered by forest or other vegetation or developed, or disturbed. Most of the project area had slopes greater than fifteen percent. Other areas were disturbed by construction activities and previously surface mined areas. The field conditions within the APE are shown in Figure 4-1. Figure 4-2 through Figure 4-7 show the typical conditions within the APE.

### 4.1.2 STP Locations

A total of fourteen (14) STPs were excavated. Nine of the shovel probes were positive. Letcher County is in the Eastern Mountains and most of the project area consisted of steep slopes greater than fifteen percent. The location of all the shovel probes is located on an aerial photograph in Figure 4-8.

### 4.1.3 Evaluation of Field Methods Used

Shovel testing and visual inspection were used to identify and define approximate site limits within the survey area. The methods were successful in identifying site location, delineating site boundaries, and obtaining a sample of cultural materials from the site.

## 4.2 National Register Evaluation of Archaeological Sites

Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on properties listed or eligible for listing in the National Register and to give the Advisory Council on Historic Preservation a reasonable opportunity to comment. While it does not require the preservation of such properties, it does require that their historic or prehistoric values be considered in weighing the benefits and costs of federal undertakings to

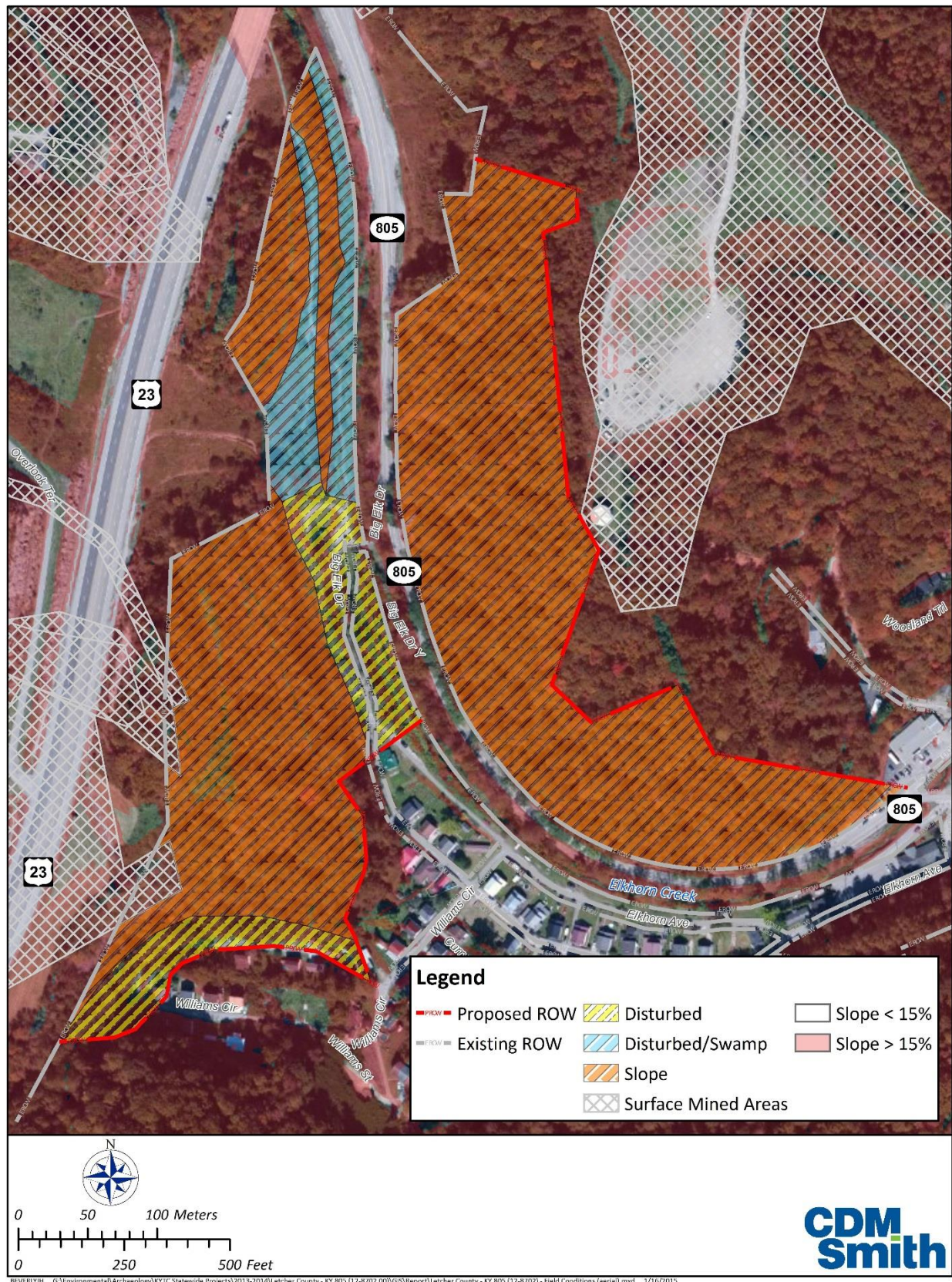


Figure 4-1. Field Conditions.





**Figure 4-2. Project Area near STPs 12 to 14.**



**Figure 4-3. Disturbed Area within Project Area.**





**Figure 4-4. Project Area showing slope and road construction.**



**Figure 4-5. Vegetation and slope within Project Area.**



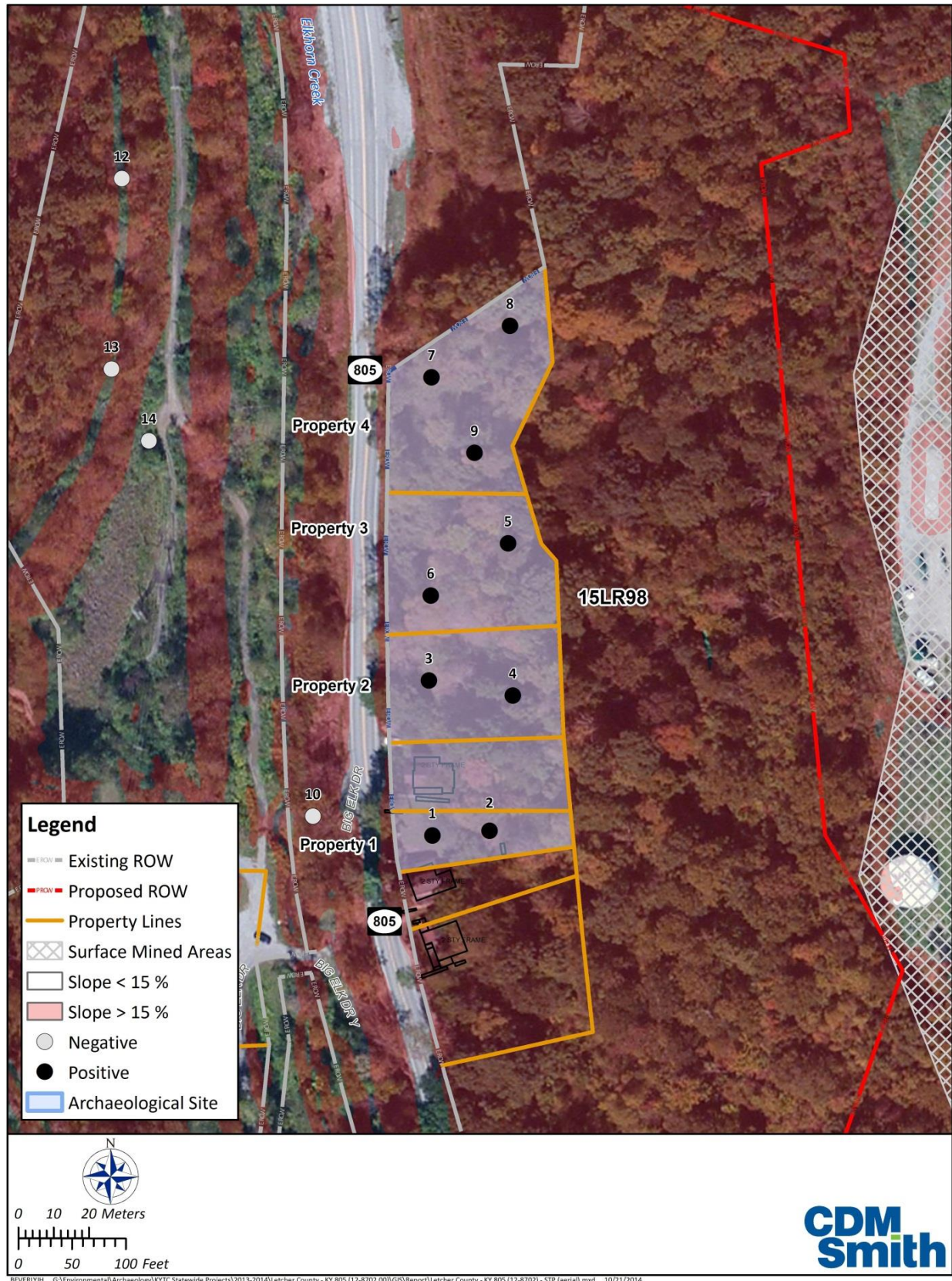


**Figure 4-6. Site 15LR98 looking south from Property 2.**



**Figure 4-7. Site 15LR98 looking east at Property 1.**





determine what is in the public interest. Section 106 is invoked when “any project, activity, or program that can result in changes in the character or use of historic properties” (36 CFR Part 800) whether federal agency jurisdiction is direct or indirect.

Pursuant to the October 1992 Amendments to the National Historic Preservation Act (Section 110 of NHPA 1980, amended 1992) an “undertaking” means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including (A) those carried out by or on behalf of the agency; (B) those carried out with federal financial assistance; (C) those requiring a federal permit, license, or approval; and (D) those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- that are associated with events that have made a significant contribution to the broad patterns of our history; or
- that are associated with the lives of persons significant in our past; or
- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- that have yielded, or may be likely to yield, information important in prehistory or history.

Mere association with historic events or trends is not enough, in and of itself, to qualify under Criterion A-the property's specific association must be considered important as well. Often, a comparative framework is necessary to determine if a site is considered an important example of an event or pattern of events.

In order to qualify under Criterion B, the persons associated with the property must be individually significant within a historic context. As with all Criterion B properties, the individual associated with the property must have made some specific important contribution to history.

To be eligible under Criterion C, a property must meet at least one of the following requirements: the property must embody distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion D requires that a property “has yielded, or may be likely to yield, information important in prehistory or history.” Most properties listed under Criterion D are archaeological sites and districts, although extant structures and buildings may be significant for their information potential under this criterion. To qualify under Criterion D, a property must meet two basic requirements:

- The property must have, or have had, information that can contribute to our understanding of human history of any time period;
- The information must be considered important.

The use of Criteria A, B, and C for archaeological sites are appropriate in limited circumstances and have never been supported as a universal application of the criteria. However, it is important to consider the applicability of criteria other than D when evaluating archaeological properties. It is important to note that under Criteria A, B, and C the archaeological property must have demonstrated its ability to convey its significance, as opposed to sites eligible under Criterion D, where only the potential to yield information is required.

## Section 5 -

# Materials Recovered

In this section the laboratory procedures and analytic methods are discussed and the materials recovered are presented. The analytic methods involve the use of an artifact classification scheme that creates useful analytic categories for evaluating National Register eligibility. The artifact assemblages are also discussed with the site descriptions and results in Section Six.

## 5.1 Laboratory Methods

Artifacts recovered during field investigations were brought to the CDM Smith archaeology laboratory in Lexington, Kentucky, for washing, cataloging, and initial analysis. Materials were washed and sorted by general material type (e.g., historic vs. prehistoric). Historic artifacts were washed and sorted into major material categories. These were then cataloged according to the system of artifact-function association modified from South (1977). All artifacts were assigned to the functional groups (kitchen, architecture), then to a material class (e.g., ceramic, glass, metal), to a type (e.g., base of bottle, jar lip), and to a subtype (e.g., color, decoration type). Historic specimens were identified by J. Howard Beverly.

In the following discussion, each of the major categories of artifacts is defined, the standard classifications of historic artifacts developed by South are utilized (1977).

### 5.1.1 Historic Artifact Assemblages

In accordance with South (1977), artifacts are ascribed to functional groups reflecting their association with the dwelling (architecture); food preparation, serving, and preserving (kitchen); personal items; clothing items; furnishing; jobs/activities; arms; transportation; and finally fuel and miscellaneous categories.

Ninety-two historic artifacts were recovered from 15LR98. Table 5-1 shows the various groups of artifact classes recovered.

**Table 5-1. Historic Artifacts Recovered from 15LR98.**

Functional Group	Total
Architecture	22
Kitchen	53
Furniture	3
Personal	2
Other	12
Total	92

#### 5.1.1.1 Kitchen Group

This group consists of artifacts used in the preparation, consumption, and/or storage of foods and beverages. For the most part, this group comprises container glass and ceramics. As most of these are manufactured, there is significant variation in decorative style and manufacturing techniques over time. This chronological variation forms the basis for the assignment of individual sites to historic time periods.

15LR98 contained 53 Kitchen Group related artifacts consisting of container glass and refined ceramics (Table 5-2).

**Table 5-2. Kitchen Artifacts from 15LR98.**

Group	Type	Total
Kitchen	Bottle/Jar	38
	Porcelain	2
	Ironstone	5
	Whiteware	8
Total		53

#### *5.1.1.1.1 Container Glass*

Container glass, like ceramic sherds, constitutes one of the most important components of a historic assemblage. Like domestic ceramics, these artifacts convey significant chronological, functional, and social information. Analysis offers an important source of data about the period of occupation of the site, the kinds of activities undertaken there, and potentially the social or ethnic status of the occupants. Studies of bottle glass have isolated the significant chronological characteristics of these vessels. Jars and other glass containers are discussed in a separate section.

#### *5.1.1.1.2 Bottle Glass*

European and American bottles were free blown and shaped to the vessel form, or were blown into simple dip molds. Dip molds are single component iron or wooden molds that give the body of the vessel its shape. These molds can only be square or cylindrical with the basal area being smaller or the same width as the shoulder area. Dip molds continued to be used as late as 1860 (Deiss 1981:12-18). Multipart molds having dip molded bodies (Rickett's molds) were produced into the 1920s (Jones and Sullivan 1985). To finish the neck of these early bottles, a glass-tipped rod (pontil) was attached to the bottle base to provide a means of holding it. Early types of finishing included fire-polished, flanged, folded, and applied string. All of these finishes persisted until the 1840s-1870s, when they were replaced by improved methods (Deiss 1981:18-24; Jones and Sullivan 1985; Jones 1971).

English bottle manufacturers used simple two-piece molds to make proprietary medicine bottles since the mid-1700s, and by 1800, American bottle makers were also using two-piece molds. These molds were hinged at the base or shoulder and may be referred to as open and shut molds. Bottles could be shaped in any form, such as square, round, or multi-sided. Consequently, polygonal bottle forms were very popular in the mid-nineteenth century (Deiss 1981:62). These molds enabled embossed lettering to be put on the fronts, backs, sides, and shoulders of the bottles (Jones and Sullivan 1985) and Gothic-style lettering was the most common style used until circa 1850 (Deiss 1981:48-49). Liquor flasks made in two-piece molds were introduced circa 1810 and were very popular by 1830. Embellished with a wide variety of molded or pictorial images, flasks remained popular until after the mid-1800s (Deiss 1981:62-65). Removable plates or panels that could be inserted into the mold were patented in 1867 (Jones and Sullivan 1985). These panels or plates were often embossed with the manufacturer name, product name, and city of manufacture, and could be used to personalize large shipments of bottles. This became popularly used on pharmaceutical and bitters bottles.

Two-piece molds were eventually eclipsed by multipart open and shut molds by 1850. These molds are similar to two-piece molds, but have a separate base plate. During the period 1840 to 1860, the two-



piece and multi-part open and shut molds were the most popular mold types (Jones and Sullivan 1985). Vessel finishes (lip and necks) could still be hand formed by applying additional glass to the vessel and hand shaping a lip. By the 1820s, lipping shears were being used to shape the inside of the bottle, producing a standardized form known as an applied-tooled finish, which was most common from about 1840 to 1870.

Open and shut molds, dip molds, and multipart dip molds were all popularly used molds during the nineteenth century. Another mold, the turn-mold or turn-paste mold was developed and used in France on wine bottles as early as 1860 (Jones and Sullivan 1985). This mold type leaves no mold seams. In America, this mold type was most frequently used for wine and other beverages from 1870 to the 1920s (Jones and Sullivan 1985).

Even though molds are the most often used method to establish the manufacturing date of glass vessels, changes in the glass formula and innovations in overall glass vessel manufacture can aid in establishing chronology. For example, although the soda-lime formula was in use to make moderately clear glass for many centuries, a modified form of the soda-lime formula was developed in 1864 that revolutionized the glass industry in that it was less brittle and could be molded, cut, and engraved easily (Jones and Sullivan 1985). Because of this new formula, decorated and highly colored glass became cheaper and easier to produce, allowing it to be affordable and subsequently popular after the 1870s (Jones and Sullivan 1985; Innes 1976). By 1880, manganese oxide was used in molten glass as a decolorizer. Glass containers made with manganese oxide turn purple or amethyst when exposed to sunlight. Selenium began replacing manganese oxide as a decolorizer by 1915, and the replacement was complete by 1918 (Deiss 1981:78-83). Selenium glass when exposed to ultraviolet rays becomes a straw yellow color.

Another turning point in the glass industry occurred between 1850 and 1860, with the development of a device called the snap case. This implement held the vessel while the neck and lip were finished. No longer was a pontil rod attached to the base of a glass vessel. Other innovations occurred to revolutionize glass production. By the 1870s, finishes incorporated in the mold had become common. This type, involving the reheating and tooling of the finish to eradicate mold seams on the lip, is referred to as the improved-tooled finish. Improvements in annealing ovens also helped to totally fuse the lip to the neck. Bottle lips were no longer distinctly separate bits of glass. Molds with incorporated finishes predominated until the early twentieth century, when automated glass vessel manufacture replaced less efficient processes (Deiss 1981:54-59).

By circa 1884 to 1892, semi-automatic manufacture of wide and small mouth containers was possible. The only difference between semi-automatic manufacture and automatic manufacture is the way that the melted glass is passed to the machine. In semi-automatic manufacture, the glass is introduced by laborers and in automatic manufacture; the glass is introduced mechanically to the machine. It was not until the perfection of the Owen's machine in 1903 that fully automatic bottle manufacture was possible. This machine leaves a distinct mark on the base of the vessel. By 1917, 50 percent of glass containers were made using this machine (Miller and Sullivan 1984). Vessels made using the Owen's machine are not found in archaeological contexts after 1970 (Miller and Sullivan 1984). Also, during the late nineteenth and early twentieth centuries, semi-automatic machines continued to be used and modified for automatic manufacture through the development of glass feeding devices like the Peeler Paddle Gob Feeder (Miller and Sullivan 1984). Vessels made by semi-automatic machines are indistinguishable from vessels made on other machines (except the Owen's machine). The precision of automatic manufacturing enabled the standardization of continuous thread finishes, and screw caps replaced other forms of nonpressurized sealing.

Kitchen glass recovered from Site 15LR98 consisted of 36 fragments of bottle/jar glass and two fragments of milk glass lid liners. Sixteen fragments were machine made and the remainder was of unidentified manufacture. One of the machine-made rims had a threaded lip. One of the body fragments was part of a Mason jar.

The machine-made bottle/jar fragments can only be dated to the twentieth century. No amethyst glass was recovered which suggests a post-1914 occupation. Other fragments recovered were not any more temporally diagnostic.

#### 5.1.1.1.3 Ceramics

Domestic ceramics are one of the most important chronologically diagnostic artifact categories from archaeological sites. In addition, these materials offer important clues to functional and social status variation among sites and cultural or ethnic components. For this reason, the ceramics are described in detail in the following chapter. Typically, ceramics are divided into two major groups: refined and unrefined earthenware. Refined earthenware was primarily used as serving vessels, such as dinner and tea services, or toiletry items. Refined wares treated here included delft or Tin-enameled ware, porcelain, creamware, pearlware, whiteware, and ironstone. Unrefined earthenware was used for storage and food preparation, such as mixing bowls, churns, and milk pans.



**Figure 5-1. Kitchen Group Artifacts: A-B) Ironstone; C) Transfer Printed Whiteware; D) Molded Whiteware; E) Undecorated Whiteware.**

#### 5.1.1.1.3.1 Whiteware

Whitewares are non-vitreous and semi-vitreous, white-paste earthenwares usually having a clear, colorless glaze. Whitewares were first manufactured in England circa 1800, had become popular by 1820, remained common throughout the 1800s, and are still being manufactured today. The period of greatest popularity of whiteware was 1830 to 1890 (Majewski and O'Brien 1987:119-125; Miller 1980:16-17; Noel-Hume 1969:130-131; Price 1982). Whiteware occurs in virtually every decorative

type that was available in the nineteenth century, and decoration type and style can be used as relative temporal indicators.

Ceramics recovered from Site 15LR98 consisted of two undecorated body fragments, one blue glazed body fragment, one hand-painted rim, one transfer printed rim, and three undecorated rims (Figure 5-x). The transfer-printed sherd appears modern and the other specimens are not particularly diagnostic.

#### 5.1.1.1.3.2 Porcelain

Porcelains are vitreous white-paste, usually glazed, wares of a variety of compositions. Porcelain was a very expensive ware until the late twentieth century, and therefore is typically rare on sites. Moreover, porcelain on twentieth century sites can include pieces made in North America, Great Britain, continental Europe, China, and Japan. Porcelains are divided into two basic types, hard paste and soft paste, with several varieties of each paste type. The difference between these is body composition and firing temperature. Hard paste porcelains are composed of kaolin and feldspathic clays and are fired at a high temperature. Chinese export porcelain is a hard paste variety that can be readily distinguished from other European and Japanese hard pastes. The major period of Chinese export trade to America was circa 1784 - 1820 and declined sharply after 1830 (Palmer 1983:25). Painted underglaze wares were exported to England until 1840, and painted overglaze enamels were exported into the 1820s (Palmer 1983:16). Bone china is a type of soft paste porcelain that has been continuously produced since 1794. This ware is composed of feldspathic clays and calcined cattle bone fired at a lower temperature than hard paste porcelains. It appears with many decorative preparations including underglaze blue painted, overglaze polychrome painted, gilding, transfer printing, lustre, and decals. Because of porcelain's long history of manufacture, it has limited potential as a temporal indicator (Majewski and O'Brien 1987:124-127) but is a good indicator of economic status or wealth. Small quantities of English bone china and French porcelains were imported to the United States throughout the late eighteenth and nineteenth centuries (Miller et al. 1994). According to Miller et al. (1994), these wares represent the upper range of expensive ceramics available at the time. In fact, gold banded French porcelain of the 1830s was fifteen times more expensive than creamware (Miller et al. 1994:228), and Chinese export porcelain was three times more expensive (Wall 1994).

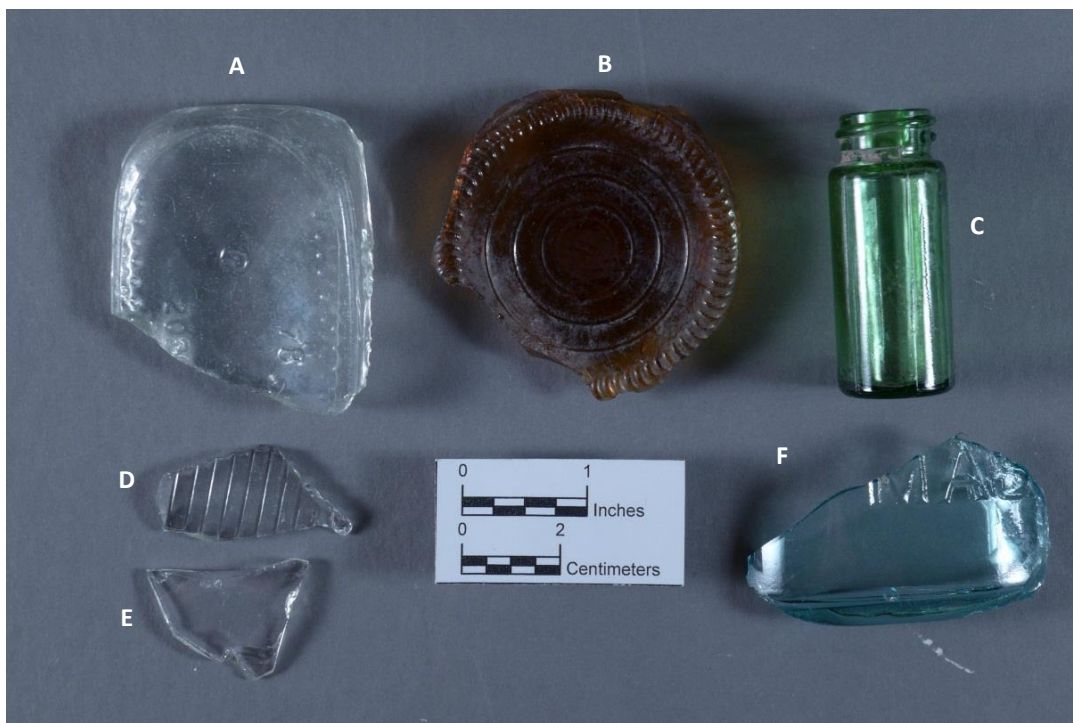
Two undecorated porcelain sherds were recovered. One was a base fragments and the other was a body fragment. Neither specimen was diagnostic.

#### 5.1.1.1.3.3 Ironstone

Ironstone is a term used to refer to a semivitreous ware intermediate in hardness between earthenware and porcelain, a hardness caused by the addition of china stone or petunse in the paste (Majewski and O'Brien 1987). Ironstone is often grouped together with whiteware in many analyses, since technological improvements in white ceramic bodies began about 1800 (Majewski and O'Brien 1987; South 1974). As a result of these improvements, many variants of nonvitreous- and semivitreous-bodied earthenwares coexisted throughout the rest of the nineteenth century and into the twentieth century (Majewski and O'Brien 1987:120). Josiah Spode made a commercial success, circa 1805, of marketing fine-grained, high-fired earthenware called "Stone China," which approximated porcelain in terms of hardness. Eight years later, Charles Mason began producing "Mason's Ironstone China" in England in 1813. Mason claimed his ware contained iron slag. John and William Turner had patented a similar ceramic body in 1800 and undoubtedly influenced both Spode's and Mason's inventions (Collard 1967:125-126). These early high-quality ironstones are usually not identified on early nineteenth century sites in the United States, however, and may be being missed by archaeologists (Majewski and O'Brien 1987). Two varieties of ironstone are now recognized: blue-bodied and white-bodied. Blue-

bodied ironstone was manufactured by British, and perhaps, by American firms. White-bodied ironstone was made by both British and American firms, but primarily by British ones. English heavy-bodied ironstones began appearing on American sites by 1840 to 1885. After 1850, heavy-bodied ironstone predominantly was undecorated, or was decorated with molded geometric, floral, or foliate motifs. There is a problem with dating ironstone because white-bodied ironstone had a long temporal span from 1800 into the twentieth century. At first, ironstone was almost exclusively produced by British firms. By the end of the nineteenth century, however, both British and American potteries were producing large quantities of lighter-weight, variably decorated white-bodied ceramics (Majewski and O'Brien 1987). Majewski and O'Brien (1987) suggest that the period of greatest popularity of embossed ironstone was 1840 to 1907, which is the date range currently used by many archaeologists for analysis. But ironstones were produced much earlier, and discerning the difference between early or late British ironstones and those produced by American potteries continues to be a problem in actually dating the occurrence of heavy- or lighter-bodied ironstones on archaeological sites (see Majewski and O'Brien 1987). As ironstone can be semi-vitreous and was produced in all the decorative types used on whiteware, discerning ironstone from whiteware can be difficult. In fact, South (1974) groups ironstone and whiteware together in many analyses.

Five pieces of ironstone were recovered from site 15LR98. Three were undecorated and two were decorated. Ironstone has a long temporal span, as mentioned above, which goes from the mid-19<sup>th</sup> century in to the 20<sup>th</sup> century.



**Figure 5-2. Kitchen Group Artifacts: A-B) Machine-Made Bottle/Jar Bases; C) Machine-Made Medicine Bottle; D-E) Clear Bottle-Jar Fragments; F) Mason Jar Fragment.**

#### 5.1.1.2 Architecture Group

Artifacts assigned to this group include all items associated with construction and hardware furnishings. Specimens include bricks, mortar, cement, window glass, doorknobs, faucet parts, and various nails. The major categories of this group are described below.

A total of 22 architectural artifacts were recovered during this survey from site 15LR98. Table 5-3 shows all architectural artifacts recovered. A sample of the artifacts is shown in Figure 5-3.

**Table 5-3. Architectural Artifacts.**

Group	Type	Total
Architecture	Flat Glass	13
	Wire Nails	3
	Shutter Hanger	1
	Porcelain Insulator	1
	Brick	2
	Plaster	1
	Linoleum	1
<b>Total</b>		<b>22</b>



**Figure 5-3. Architecture Group Artifacts: A-C) Wire Nails; C) Shutter Hanger.**

#### 5.1.1.2.1 Flat Glass

Flat glass fragments are presumed to have been used in window panes if no other function can be determined, such as for mirrors, table tops, picture frames, etc. Given a large assemblage from a site, flat glass has the potential to comprise an important, chronologically sensitive artifact. During the eighteenth century, flat glass appropriate for windows was cut from a large disk of glass which was then cut into panes. By the early nineteenth century, glass manufacturers produced broad glass, which may be distinguished by a slight thickening toward the plate margin, one surface slightly more opaque than the other, and bubbles in the glass usually distorted in straight lines. In the late nineteenth century,



machine-made glass, characterized by a uniform thickness, with occasional wavy lines of bubbles, was widely produced. In the early twentieth century, production of sheet pane glass eclipsed other manufacturing processes.

Thirteen window glass fragments were recovered from excavations at 15LR98. Although there was a small sample of window glass, the Moir (1987) formula ( $\text{Date} = 84.22 (\text{Thickness}) + 1712.7$ ) was used to determine construction dates. The average for the construction dates for the 13 window glass fragments is 1916. The window glass fragments consisted of aqua ( $n=7$ ), blue-green ( $n=2$ ), and clear ( $n=4$ ).

#### *5.1.1.2.2 Nails*

Nails form one of the most widespread categories of artifacts recovered from historic sites. As with many other materials, increasing industrialization has had a major impact on the manufacturing of nails and associated hardware. Archaeologists have devoted considerable attention to nails in order to identify their chronologically significant characteristics (Nelson 1968). These are identified by manufacturing process (wrought, cut, wire) and, when possible, by size.

Wrought nails are the earliest form of iron nails, and were made by hand, usually in a local smithy or forge. Typically these nails are square or rectangular in cross section, and taper on all four sides towards the point. Wrought nails were in common use until approximately the 1830s and 1840s.

All nails were assigned to one of these three major categories; unidentified fragments were assigned to a miscellaneous category. The presence of cut nails at a site suggests a mid-nineteenth century occupation rather than an early nineteenth century occupation; the presence of significant numbers of wire nails indicates that some portion of a site occupation postdates the 1880s and continues into the twentieth century.

Three nails were recovered from Site 15LR98 (Table 5-3, above, and Figure 5-3). All three were complete wire nails. Two of the nails (8d and 12d) were unaltered and one (9d) was pulled.

#### *5.1.1.2.3 Brick*

Two brick fragments were recovered from the excavations at 15Me98 (Table 5-3). The manufacturing of bricks changed from locally crafted, handmade varieties to machine-produced during the nineteenth century. With this chronological information in mind, bricks are classified according to method of manufacture (Gurke 1987). The nature of most brick fragments often precludes an accurate assessment of age. The bricks recovered were too fragmentary to determine the method of manufacture.

#### *5.1.1.2.4 Hardware and other Building Material*

The hardware group includes metal items such as nuts, bolts, hinges, locks, knobs, bands, braces, brackets, pipe, washers, pintle, and wire (Priess 1971, 2000). The other building materials category includes items made of various materials, including mortar, plaster, roofing materials, building stone, etc.

The hardware and other building material recovered from the excavations at 15LR98 consisted of a porcelain electrical insulator, a complete metal shutter hanger, a plaster fragment, and a linoleum fragment.

### 5.1.1.3 Furniture Group

A variety of artifacts associated with furnishings and household fixtures are often recovered in small numbers from historic sites. Examples of these include lamp globe or chimney parts, mirror glass, faucet parts, fireplace equipment, clock parts, draw pulls, flower pots and similar items (Thuro 1976).

Two glass chimney fragments and one carpet fragment were recovered (Table 5-3, above).

### 5.1.1.4 Other Group

This category includes all materials that are not readily assignable to a major group or that are unidentifiable. Items in this category include, for example, unidentified rusted metal artifacts and fragments of synthetic materials such as plastic, etc.

Twelve Other Group artifacts were recovered from Site 15LR98 (Table 5-3, above). Four of the artifacts were unidentified metal fragments, four were unidentified plastic fragments, two were glass fragments, one was unidentified rubber and one was tin foil.

### 5.1.1.5 Personal

This category includes objects typically reserved for one person's exclusive use, which often could be carried in a pocket or purse, such as smoking pipes, eyeglasses, clasp knives, gaming pieces, toys, jewelry, combs and brushes, coins, etc. (Bradley 2000).

One machine made glass marble and one late twentieth century toy car fragment were recovered (Table 5-3, above, and Figure 5-4).

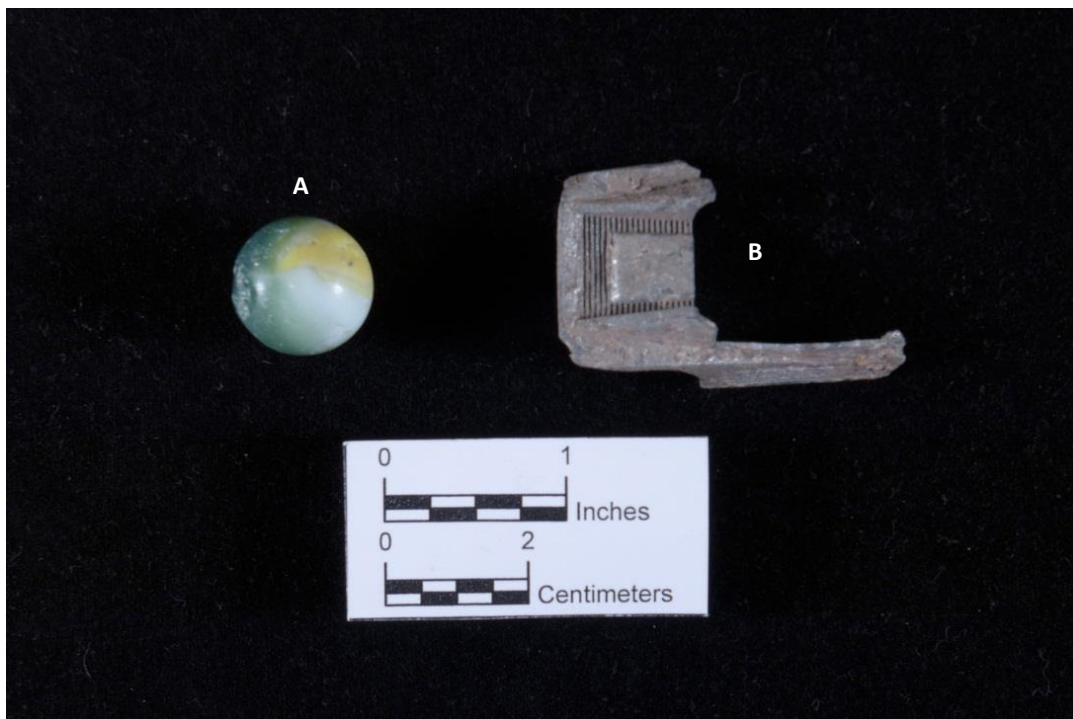


Figure 5-4. Personal Group Artifacts: A) Marble; B) Toy Car.



## Section 6 -

### Results

One archaeological site (15LR98) was located within the APE. The following is a description of the findings.

#### 6.1 Site 15LR98

Site 15LR98 consists of four historic properties which dates from c. 1911 to the present based on artifacts and archival data. The site consists of four residences associated with the coal industry in Jenkins, KY.

##### 6.1.1 Location

Site 15LR98 can be found on the USGS Jenkins West, Kentucky, 7.5' quadrangle map (Figure 6-1). The UTM coordinates (Zone 17 NAD 27) for the center of the site are N4115135.280371, E354331.297437. The site is located along KY805 between the intersection with US 23 and KY 3086 (Figure 6-2 and Figure 6-3). The site measures 0.10 acres (0.04 hectares). Figure 6-4 through Figure 6-6 shows the site area.

Site 15LR98 is located within the corporation limits of Jenkins. There are numerous towns and communities within those limits. McRoberts, Dunham, and Burdine were towns within the Jenkins corporate limits (Figure 6-7). Communities within Jenkins include Mudtown, Camden, and Gaskill (Figure 6-7). Site 15LR98 is located near an area designated No. 5 Row, which appears to be distinct from Mudtown or Smoky Row (Check Board 1950). No documentary evidence was located to link Site 15LR98 to either Mudtown or Smoky Row (Brosky 1923; Check Board 2004; Shipley 2008; Sussenbach and Updike 1994). The 1912 USGS Pound 15' quadrangle map shows Site 15LR98 and Jenkins (Figure 6-8). On this map, the site appears to be spatially distinct from Mudtown.

##### 6.1.2 Site Description

The site consists of an area that encompasses four former house lots and one lot with an extant house. The area to the north and south of the site are occupied by extant buildings (Figure 6-4 and Figure 6-5). The entire site is a slope with a higher level area that would have been above the residence towards the tree line. A pile of building materials was present near the bottom of the slope along KY 805. The site area was strewn with historic materials resulting from the demolition of the residence. In the tree line was the foundation of an outbuilding associated with the demolished house (Figure 6-9). In the 1954 Jenkins West USGS quadrangle, several houses are visible in the general area of the site (Figure 6-1).

###### 6.1.2.1 Property 1

Fifty-eight artifacts were recovered from the house lot. Twenty-three artifacts were recovered from two positive shovel test probes and thirty-five artifacts were recovered from the surface collection (Table 6-1 and Figure 6-10 through Figure 6-12). The material recovered included wire nails (n=3), brick (n=1), bottle/jar glass (n=19), flat glass (n=11), other group (n=7), whiteware (n=5), ironstone (n=3), porcelain (n=2), shutter hanger (n=1), toy car (n=1), furniture group (n=2), and milk glass (n=2). STP 2 was located near a concrete foundation with a concrete floor (Figure 6-9).



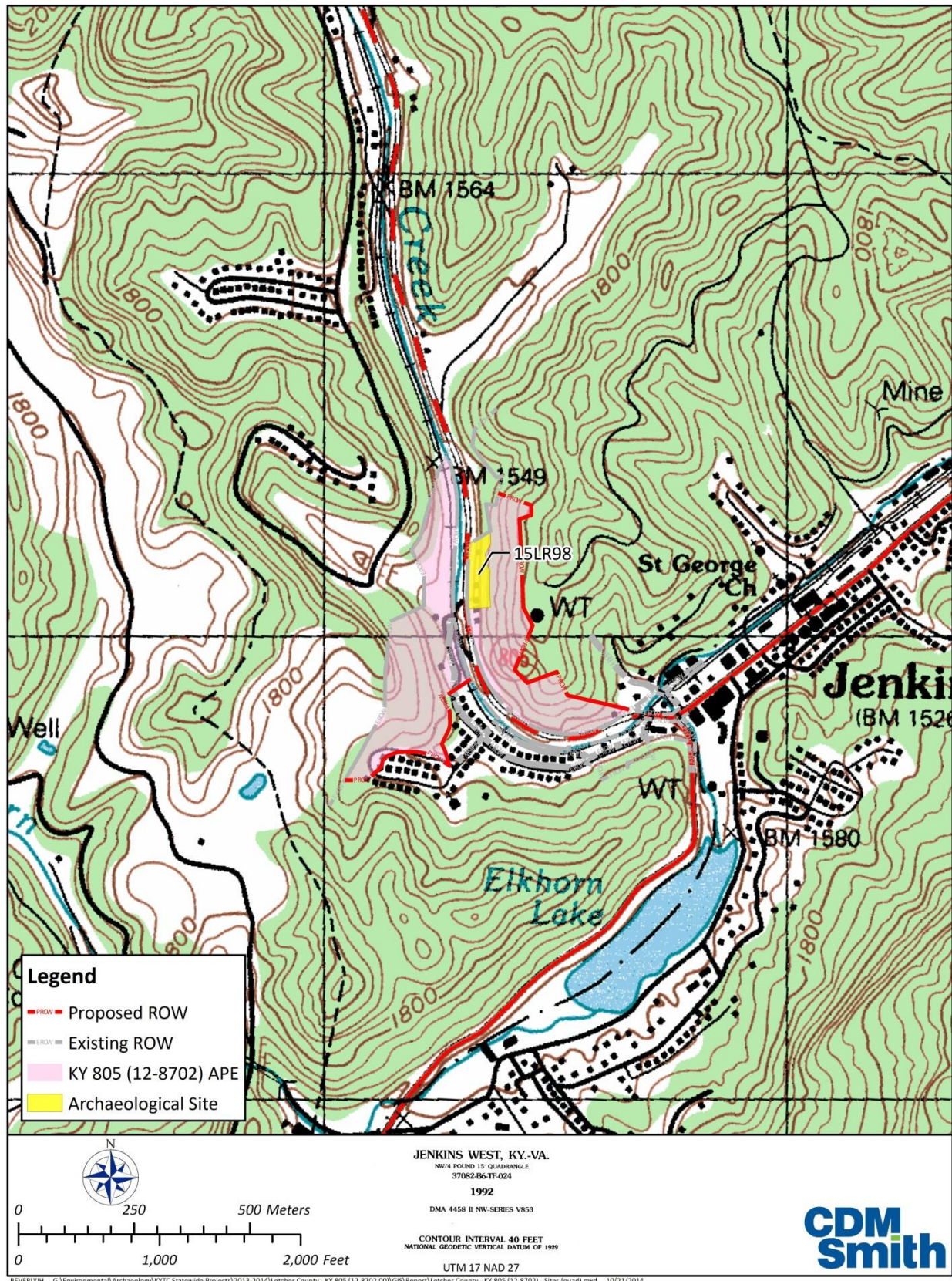


Figure 6-1. Location of 15LR98 Site on USGS Topographical Map.



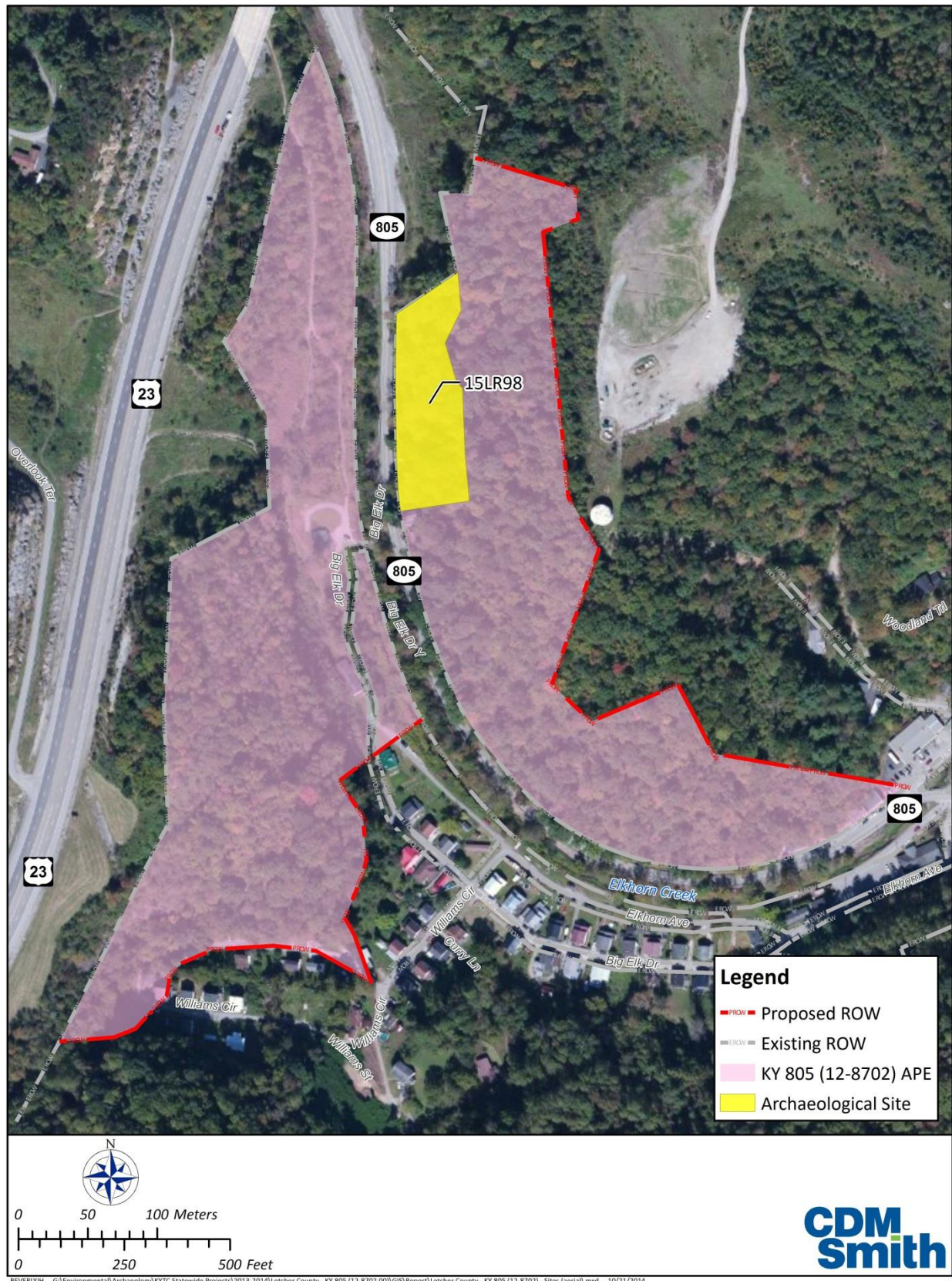


Figure 6-2. Location of 15LR98 Site on Aerial Photo.



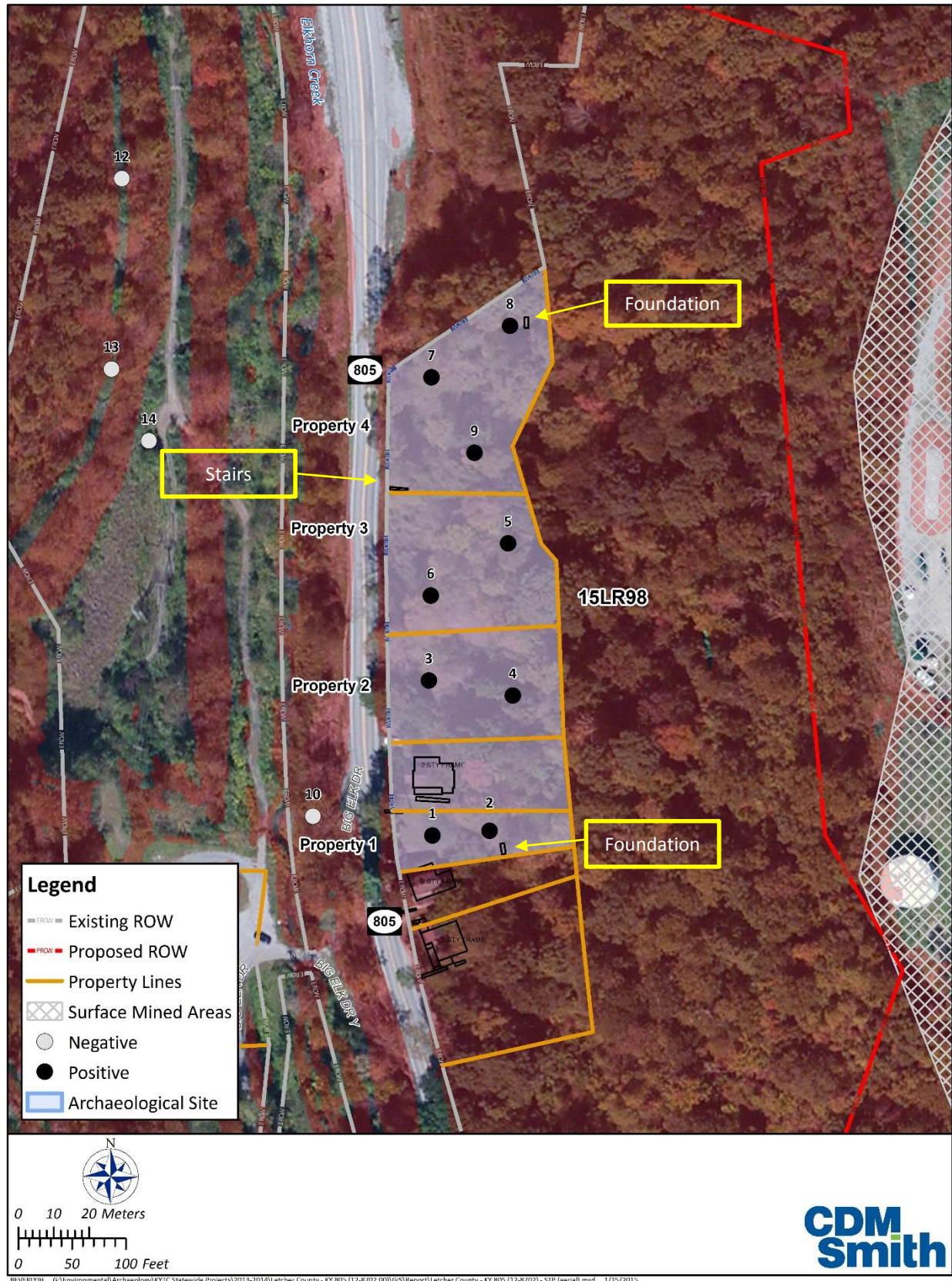


Figure 6-3. Site 15LR98 with STPs on Aerial Photo.





Figure 6-4. Site area, looking East.



Figure 6-5. Site Area, looking West.





Figure 6-6. Site Area, looking North.

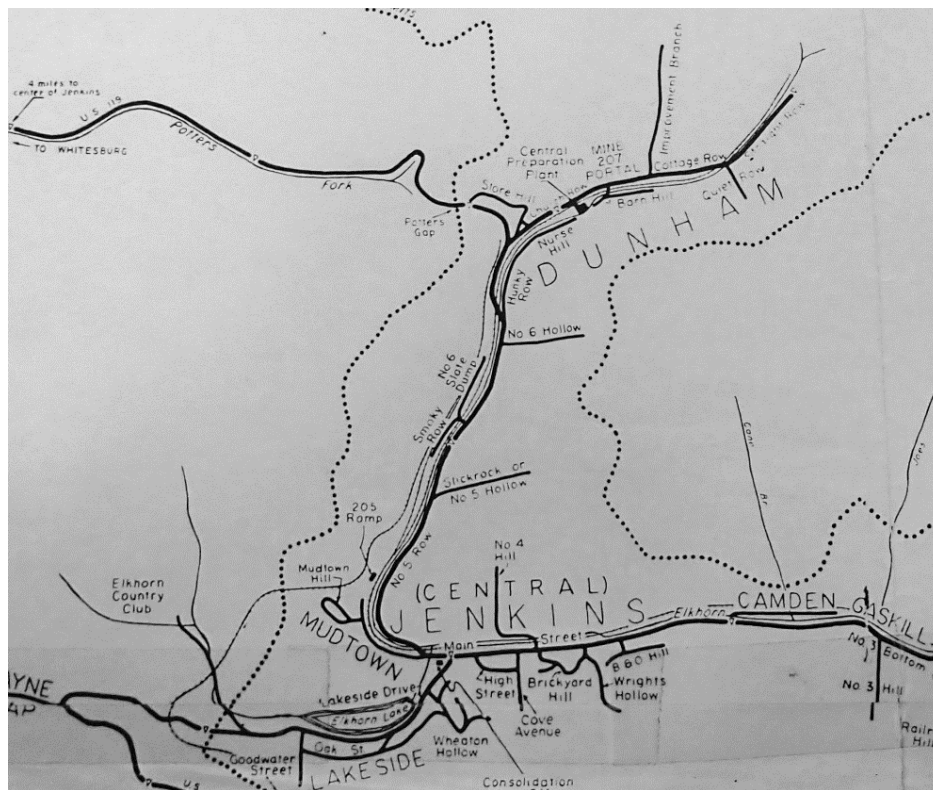


Figure 6-7. Check Board 1950, Map of Jenkins.



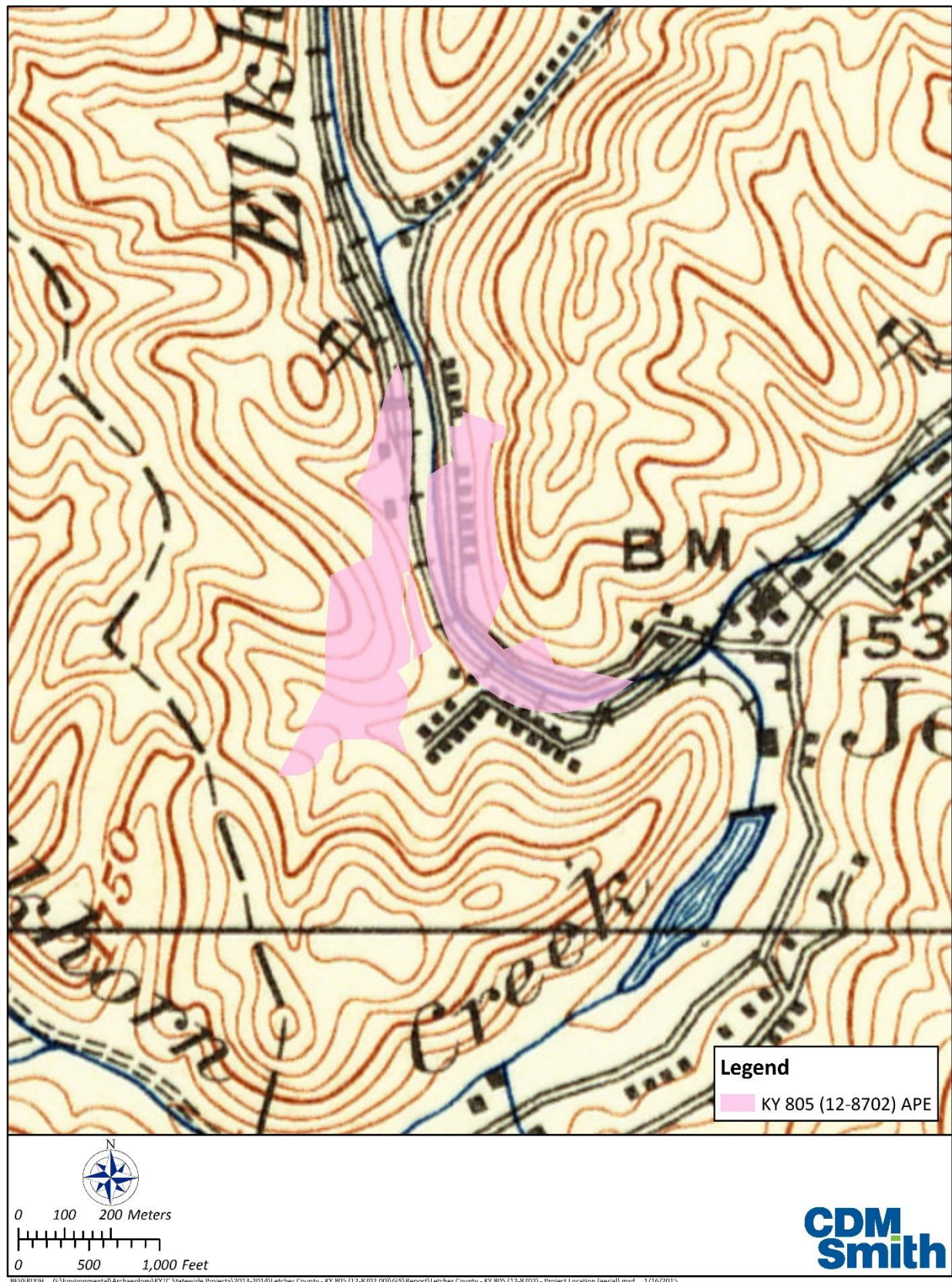


Figure 6-8. 1912 USGS Pound 15' quadrangle map shows Site 15LR98 and Jenkins.





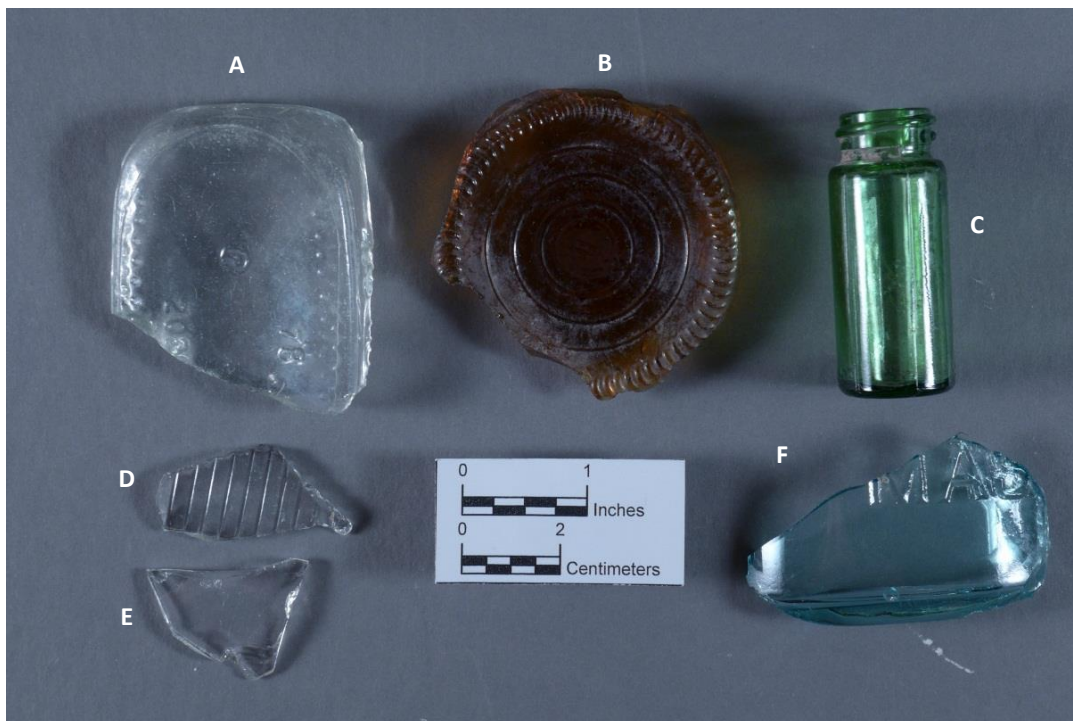
**Figure 6-9. Bounding Foundation remains within Site Area.**

Table 6-1. Artifacts from 15LR98, Property 1.

Functional Group	Material Class	Type	Subtype 1	Subtype 2	STP		Surface	
					1	2	Lower Level	Upper Level
Architectural	Ceramic	Porcelain	Electrical Insulator				1	
	Ceramic	Brick	Fragment	Unidentified				1
	Glass	Flat Glass	Fragment		4	1	2	4
	Metal	Nail	Wire	Complete	3			
		Shutter Hanger	Complete					1
Furniture	Cloth	Carpet			1			
	Glass	Lamp Chimney	Fragment	Machine Made	1			
Kitchen	Ceramic	Ironstone	base	Undecorated			1	
			Body	light blue/gray glaze			1	
			Rim	Undecorated			1	
		Porcelain	base	Undecorated			1	
			Fragment	Undecorated			1	
		Whiteware	base	Undecorated			1	
			Body	blue glaze				1
				Undecorated			1	
			Rim	hand painted, green	1			
				Transfer Print			1	
	Glass	Bottle/Jar	base	Machine Made			4	
			Body	Fragment	3			
				Machine Made		1		3
						1		4
			Fragment				1	
			Rim	Machine Made	2			
		Milk Glass	Fragment				1	1
Other	Glass	Car Headlight	Fragment				1	
	Metal	Metal	Fragment	Unidentified	1			
	Plastic	Plastic	Fragment				1	
					2			
	Rubber	Rubber	Fragment					1
	Tin	Tin Foil			1			
Personal	Toy	Metal Car part	Fragment		1			
Grand Total					20	3	19	16

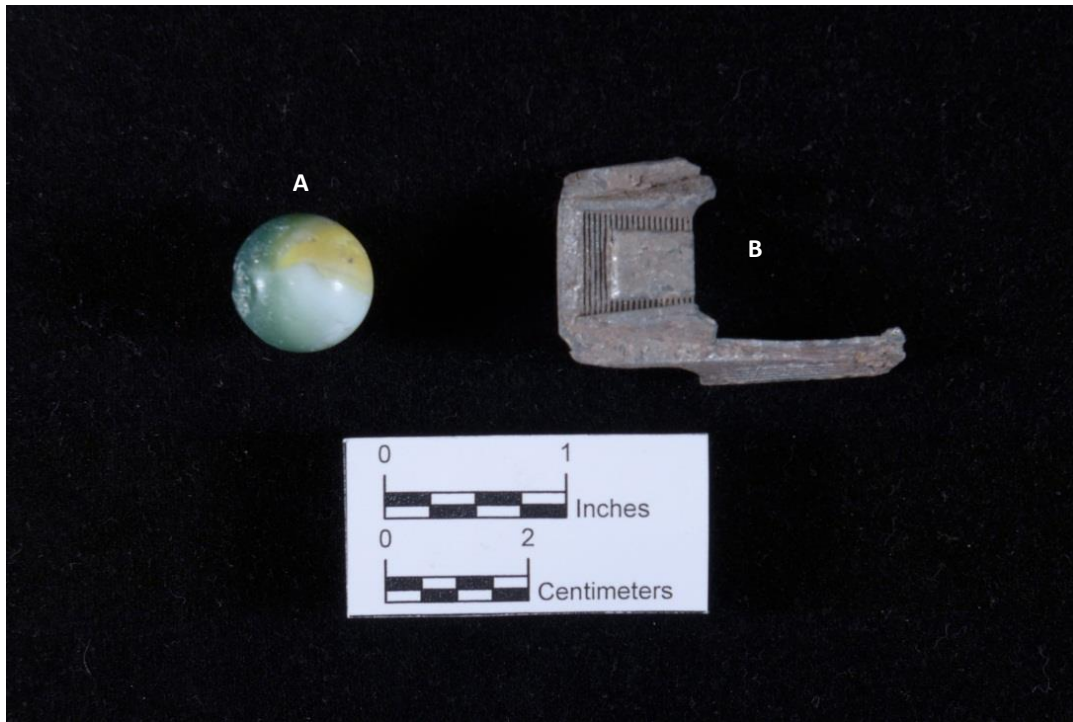


**Figure 6-10. Kitchen Group Artifacts: A-B) Ironstone; C) Transfer Printed Whiteware; D) Molded Whiteware; E) Undecorated Whiteware.**



**Figure 6-11. Kitchen Group Artifacts: A-B) Machine-Made Bottle/Jar Bases; C) Machine-Made Medicine Bottle; D-E) Clear Bottle-Jar Fragments; F) Mason Jar Fragment.**





**Figure 6-12. Personal Group Artifacts: A) Marble; B) Toy Car.**

### Property 2

Thirteen artifacts were recovered from two positive shovel probes (Table 6-2 and Figure 6-10 through Figure 6-12). The material recovered included plaster (n=1), linoleum (n=1), bottle glass (n=4), whiteware (n=3), ironstone (n=2), headlight safety glass (n=1), and unidentified plastic (n=1).

#### 6.1.2.2 Property 3

Three artifacts were recovered from two positive shovel probes (Table 6-3 and Figure 6-10 through Figure 6-12). The material recovered included flat glass (n=1), chimney glass (n=1), and unidentified metal (n=1).

#### 6.1.2.3 Property 4

Eighteen artifacts were recovered from three positive shovel probes (Table 6-4). The material recovered included bottle/jar glass (n=13), flat glass (n=1), glass marble (n=1), unidentified metal (n=1), and brick (n=1). STP 8 was located near a concrete foundation.

### 6.1.3 Stratigraphy

Nine shovel test probes were excavated in the area of Site 15LR98. The soil for the site is described as Urban land-Udorthents complex (UrC) with 0 to 15 percent slopes based on the disturbed nature. On the soil map the area is described as Feds creek-Shelockta-Handshoe soils complex (FaF) with 30 to 80 percent slopes. Urban land consists of areas covered by streets, parking lots, building, residences, and other structures. Udorthents consist of areas where the original soil material has been altered or mixed with underlying rock material and the major soil features are highly variable (McIntosh 2004:67). The site is on a slope and the probes were placed at locations at the upper level and the lower level. Zone I in the probes appears to be fill and/or landscaped for house construction, disturbed by the house destruction, and disturbed by colluvial activity. Zone II appears to be the B Horizon from the FaF soils. The material recovered from the probes indicates that the zones are mixed from the entire period of

**Table 6-2. Artifacts from 15LR98, Property 2.**

Functional Group	Material Class	Type	Subtype 1	Subtype 2	STP	
					3	4
Architectural	Plaster	Plaster	Fragment		1	
	Plastic	Linoleum	Fragment			1
Kitchen	Ceramic	Ironstone	Rim	green, hand painted	1	
				Yellow paint	1	
		Whiteware	Rim		3	
	Glass	Bottle/Jar	Body	Machine Made		1
						1
			Complete	Machine Made		1
			Fragment	Machine Made		1
Other	Glass	Safety Glass	Fragment			1
	Plastic	Unidentified	Fragment			1
Grand Total					6	7

**Table 6-3. Artifacts from 15LR98, Property 3.**

Functional Group	Material Class	Type	Subtype 1	Subtype 2	STP	
					5	6
Architectural	Glass	Flat Glass	Fragment		1	
Furniture	Glass	Lamp Chimney	Fragment		1	
Other	Metal	Unidentified	Fragment			1
Grand Total					2	1

**Table 6-4. Artifacts from 15LR98, Property 4.**

Functional Group	Material Class	Type	Subtype 1	Subtype 2	STP		
					7	8	9
Architectural	Ceramic	Brick	Fragment	Unidentified			1
	Glass	Flat Glass	Fragment		1		
Kitchen	Glass	Bottle/Jar	Fragment	Machine Made, unspecified	1		
				Unidentified	10	1	1
Other	Metal	Unidentified	Fragment		2		
Personal	Glass	Marble	Complete		1		
Grand Total					15	1	2

occupation and there was no evidence of intact cultural deposits. Three probes show the variation in the profiles for the site (Figure 6-3 and Figure 6-13).

### 6.1.3.1 STP 3

Shovel test probe 3 was located on the lower level on Property 2. It consisted of two zones (Figure 6-3 and Figure 6-13). Zone I extended from surface to 34 cmbs and consisted of 10YR3/4 dark yellowish brown silt loam. Zone II extended from 34 to 40 cmbs and consisted of a 10YR5/6 yellowish brown clay loam. Artifacts recovered from the STP included whiteware, ironstone, and plaster.

### 6.1.3.2 STP 8

Shovel test probe 8 was located on the upper level of Property 4 and consisted of two zones (Figure 6-3 and Figure 6-13). Zone I extended from surface to 15 cmbs and consisted of a 10YR3/3 dark brown clay loam. Zone II extended from 15 cmbs to 25 cmbs and consisted of a 10YR5/6 yellowish brown clay loam. Artifacts recovered from the STP included a bottle/jar glass fragment.

### 6.1.3.3 STP 7

Shovel test probe 7 was located on the lower level of Property 4 and consisted of two zones (Figure 6-3 and Figure 6-13). Zone I extended from the surface to 40 cmbs and consisted of a 10YR2/2 very dark brown silt loam with coal and cinders. Zone II extended from 40 to 46 cmbs and consisted of a 10YR5/6 yellowish brown clay loam. Artifacts recovered from the STP included bottle/jar glass, flat glass, unidentified metal, and a glass marble.

## 6.1.4 Features

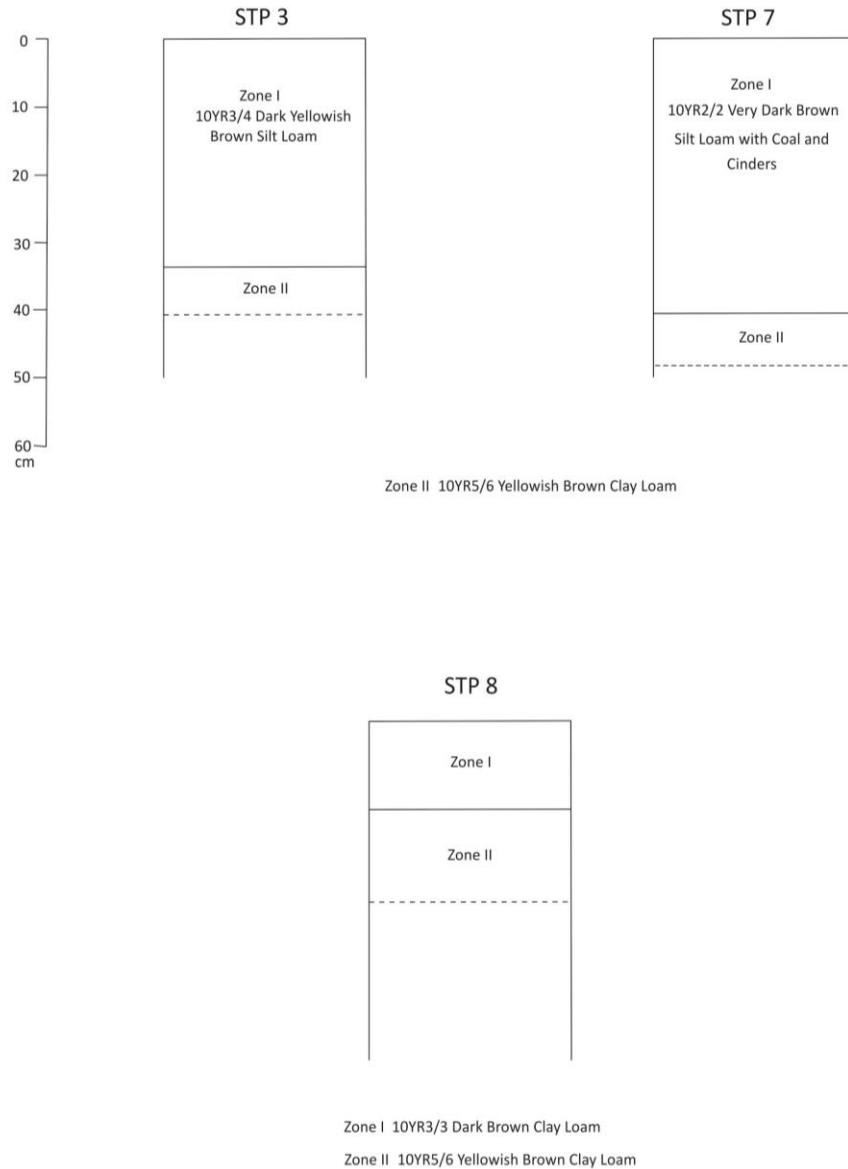
No features were located during the Phase I archaeological investigations.

## 6.1.5 Historic Interpretation

Site 15LR98 is associated with houses built in the early twentieth century with the creation of Jenkins as a coal town by Consolidated Coal. The houses may have been Consolidated Coal Company owned houses that were rented by the employees. The house sites were built on slopes which required landscaping and filling and may have been disturbed by demolition. The soil zones are mixed and show no evidence of features or intact cultural deposits. The artifacts recovered from properties 2, 3, and 4 were limited in number and consisted of ceramics and bottle/jar glass. Property 1 consisted of 58 of the 92 artifacts recovered and 35 of the artifacts were from a surface collection. The artifacts from Property 1 consisted of flat glass, ceramics, bottle/jar glass and a metal toy car fragment.

The temporally diagnostic material recovered was limited. Thirteen pieces of window glass were recovered and the Moir (1987) formula date is 1916. The ceramics included whiteware, ironstone and porcelain. Four of the specimens were decorated and 11 were undecorated. All of the ceramics could have been manufactured during the twentieth century. The bottle/jar glass was either machine-made (n=14) or unidentified (n=22). The machine-made specimens probably date to the twentieth century. Three wire nails were recovered from Property 1. A fragment of a metal toy car was also recovered from Property 1. It may be a Hot Wheels car manufactured by Mattel beginning in 1968.

Based on the material recovered and archival information the houses in Site 15LR98 were constructed during the first quarter of the twentieth century. The possible Hot Wheels toy car suggests that Property 1 was occupied at least until the late 1960s. The limited amount of material from properties 2, 3, and 4 make it difficult to determine how long the houses were occupied. Although Property 1 had more artifacts than the other properties, the amount and diversity of artifacts recovered from the area had limited research potential. Property 1 had the same type of soil profiles as the other properties and also was disturbed.



**Figure 6-13. Shovel Test Probe Profiles.**

### 6.1.6 National Register Eligibility

Site 15LR98 consists of a historic component. The historic component consists of four house sites dating to between 1911 and the present. The house site appear to have been disturbed by occupation or construction activities or by the demolition of the residences. The soil zones with cultural material are mixed with no intact cultural deposits. A third of the material recovered came from the surface. The site lacks integrity and has limited research potential. Therefore, Site 15LR98 is not considered potentially eligible for listing on the NRHP under Criterion D.

### 6.1.7 Recommendations

No further archaeological work is recommended for Site 15LR98.



## Section 7 -

# Summary and Recommendations

## 7.1 Summary

This report described the field and laboratory method and the results of a Phase I archaeological survey conducted at the request of the Kentucky Transportation Cabinet (KYTC) by archaeologists from CDM Smith for the realignment of KY 805 near Jenkins in Letcher County, Kentucky (Item Number 12-8702.00). This project is located along KY 805 in Letcher County, west of Jenkins and the intersection with US 23, in the Kentucky Department of Highways District 12. The project area is centered on existing KY 805 and to the south and east of Bik Elk Drive. The area of potential effect (APE) is defined as the limits of the proposed right-of-way and proposed waste area. The total area is 32.9 acres (13.3 ha). One site, 15LR98, was located and described.

The state agency sponsoring this survey is the KYTC; the lead federal agency is the Federal Highway Administration. The survey was conducted in compliance with the guidelines established by the Kentucky Heritage Council Guidelines (Sanders 2006) and the National Historic Preservation Act of 1966 (P.L. 89-655; 80 Stat. 915, 16 U.S.C. 470 et seq), the National Environmental Policy Act of 1969 (P.L. 910190; 83 Stat. 852, 42 U.S.C. 4321 et seq), Procedures of the Advisory Council on Historic Preservation (36CFR800), Executive Order 11593, and the Protection and Enhancement of the Cultural Environment (16 U.S.C. 470; supp. 1, 1971).

### 7.1.1.1 Site 15LR98

Site 15LR98 is associated with houses built in the early twentieth century with the creation of Jenkins as a coal town by Consolidated Coal. The houses may have been Consolidated Coal Company owned houses that were rented by the employees. The house sites appear to have been disturbed by demolition. The artifacts recovered from properties 2, 3, and 4 were limited in number and consisted of ceramics and bottle/jar glass. Property 1 consisted of 58 of the 92 artifacts recovered and 35 of the artifacts were from a surface collection. The artifacts from Property 1 consisted of flat glass, ceramics, bottle/jar glass and a metal toy car fragment.

Based on the material recovered and archival information the houses in Site 15LR98 were constructed during the first quarter of the twentieth century. The possible Hot Wheels toy car suggests that Property 1 was occupied at least until the late 1960s. The limited amount of material from properties 2, 3, and 4 make it difficult to determine how long the houses were occupied. Although Property 1 had more artifacts than the other properties, the amount and diversity of artifacts recovered from the area had limited research potential. Property 1 had the same type of soil profiles as the other properties and also was disturbed. Based on the limited number of artifacts and the lack of midden and other subsurface features and the apparent disturbances from the house demolition there is limited research potential and no integrity. As a result, the historic component at the site is not considered potentially eligible for listing on the NRHP under Criterion D or Criteria A, B, and C.

### 7.1.1.2 National Register Eligibility

Site 15LR98 consists of a historic component. The historic component consists of four house sites dating to between 1911 and the present. The house sites appear to have been disturbed by occupation or construction activities or by the demolition of the residences. The soil zones with cultural material are

mixed with no intact cultural deposits. A third of the material recovered came from the surface. The site lacks integrity and has limited research potential. Therefore, Site 15LR98 is not considered potentially eligible for listing on the NRHP under Criterion D.

## 7.2 Recommendations

No further archaeological work is recommended for Site 15LR98.

## Section 8 -

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Appendix A -

Artifact Inventory



Table A-1. Historic Artifact Catalog for 15LR98.

Cat. #	STP #	Property	Level	Functional Group	Material Class	Type	Subtype 1	Subtype 2	Subtype 3	#	Thick (mm)	Weight (gm)	Comments
1	STP 3, lower probe	2	0-34 cmbs	Architectural	Plaster	Plaster	Fragment			1			
1	STP 3, lower probe	2	0-34 cmbs	Kitchen	Ceramic	Ironstone	Rim	green, handpainted		1			hollowware
1	STP 3, lower probe	2	0-34 cmbs	Kitchen	Ceramic	Ironstone	Rim	Yellow paint		1			
1	STP 3, lower probe	2	0-34 cmbs	Kitchen	Ceramic	Whiteware	Rim			3			Hollowware; broken from save vessel, mends, break is recent
1	Surface, Upper Level	1		Architectural	Ceramic	Brick	Fragment	Unidentified		1		5.4	
1	Surface, Upper Level	1		Architectural	Glass	Flat Glass	Fragment		aqua	1	2.3		
1	Surface, Upper Level	1		Architectural	Glass	Flat Glass	Fragment		aqua	1	2.36		
1	Surface, Upper Level	1		Architectural	Glass	Flat Glass	Fragment		aqua	1	2.34		
1	Surface, Upper Level	1		Architectural	Glass	Flat Glass	Fragment		aqua	1	2.37		
1	Surface, Upper Level	1		Architectural	Metal	Shutter Hanger	Complete			1			
1	Surface, Upper Level	1		Kitchen	Ceramic	Whiteware	Body	blue glaze	Undetermined	1			
1	Surface, Upper Level	1		Kitchen	Glass	Bottle/Jar	Body		clear	4			
1	Surface, Upper Level	1		Kitchen	Glass	Bottle/Jar	Body	Machine Made	clear	3			one has 'ON' embossed on it; all press molded with cross hatch pattern
1	Surface, Upper Level	1		Kitchen	Glass	Milk Glass	Fragment			1			
1	Surface, Upper Level	1		Other	Rubber	Rubber	Fragment			1			
2	STP 4, upper probe	2	0-25 cmbs	Architectural	Plastic	Linoleum	Fragment			1			
2	STP 4, upper probe	2	0-25 cmbs	Kitchen	Glass	Bottle/Jar	Body		Aqua	1			Mason Jar; embossed with 'MAS'
2	STP 4, upper probe	2	0-25 cmbs	Kitchen	Glass	Bottle/Jar	Body	Machine Made	Clear	1			
2	STP 4, upper probe	2	0-25 cmbs	Kitchen	Glass	Bottle/Jar	Complete	Machine Made	green	1			
2	STP 4, upper probe	2	0-25 cmbs	Kitchen	Glass	Bottle/Jar	Fragment	Machine Made	Clear	1			ribbed
2	STP 4, upper probe	2	0-25 cmbs	Other	Glass	Safety Glass	Fragment		aqua	1			
2	STP 4, upper probe	2	0-25 cmbs	Other	Plastic	Unidentified	Fragment			1			
2	Surface, Lower Level, House Area	1		Architectural	Ceramic	Porcelain	Electrical Insulator			1			
2	Surface, Lower Level, House Area	1		Architectural	Glass	Flat Glass	Fragment		clear	1	2.84		
2	Surface, Lower Level, House Area	1		Architectural	Glass	Flat Glass	Fragment		blue green	1	2.83		
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Ironstone	Rim	Undecorated	flatware	1			
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Ironstone	base	Undecorated	hollowware	1			
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Ironstone	body	light blue/gray glaze	Undetermined	1			
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Porcelain	Fragment	Undecorated	Undetermined	1			
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Porcelain	Base	Undecorated	Undetermined	1			possible vase, etc.
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Whiteware	Rim	Transfer Print	undetermined	1			transfer print, modern, burned
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Whiteware	Body	Undecorated	Undetermined	1			
2	Surface, Lower Level, House Area	1		Kitchen	Ceramic	Whiteware	base	Undecorated	flatware	1			
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Bottle/Jar	Fragment		blue	1			

Cat. #	STP #	Property	Level	Functional Group	Material Class	Type	Subtype 1	Subtype 2	Subtype 3	#	Thick (mm)	Weight (gm)	Comments
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Bottle/Jar	Base	Machine Made	green	1			embossed with '5'; embossed with small curved lines around base
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Bottle/Jar	Base	Machine Made	brown	1			embossed with small curved lines around base; valve mark
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Bottle/Jar	Base	Machine Made	clear	1			emobossed with '78', '202', and 'P' encircled; embossed with dot border
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Bottle/Jar	Base	Machine Made	frosted	1			embossed with 'ADE IN TAIW' on bottom of base
2	Surface, Lower Level, House Area	1		Kitchen	Glass	Milk Glass	Fragment			1			
2	Surface, Lower Level, House Area	1		Other	Glass	Car Headlight	Fragment			1			
2	Surface, Lower Level, House Area	1		Other	Plastic	Plastic	Fragment			1			
3	STP 2	1	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		blue green	1	2.36		
3	STP 2	1	0-40 cmbs	Kitchen	Glass	Bottle/Jar	Body	Machine Made	amber	1			
3	STP 2	1	0-40 cmbs	Kitchen	Glass	Bottle/Jar	body		clear	1			
3	STP 5, higher level, property 3	3	0-19 cmbs	Architectural	Glass	Flat Glass	Fragment		Clear	1	2.12		
3	STP 5, higher level, property 3	3	0-19 cmbs	Furniture	Glass	Lamp Chimney	Fragment		Clear	1			
4	STP 1	1	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		Clear	1	2.38		
4	STP 1	1	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		aqua	1	2.51		
4	STP 1	1	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		aqua	1	2.44		
4	STP 1	1	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		aqua	1	2.37		
4	STP 1	1	0-40 cmbs	Architectural	Metal	Nail	Wire	Complete		2			
4	STP 1	1	0-40 cmbs	Architectural	Metal	Nail	Wire	Complete	pulled	1			
4	STP 1	1	0-40 cmbs	Furniture	Cloth	Carpet				1			
4	STP 1	1	0-40 cmbs	Furniture	Glass	Lamp Chimney	Fragment	Machine Made	clear	1			
4	STP 1	1	0-40 cmbs	Kitchen	Ceramic	Whiteware	Rim	handpainted, green	flatware	1			burned
4	STP 1	1	0-40 cmbs	Kitchen	Glass	Bottle/Jar	Body	Fragment	Clear	3			
4	STP 1	1	0-40 cmbs	Kitchen	Glass	Bottle/Jar	rim	Machine Made	clear	1			thread lip closure
4	STP 1	1	0-40 cmbs	Kitchen	Glass	Bottle/Jar	rim	Machine Made	clear	1			drinking cup?
4	STP 1	1	0-40 cmbs	Other	Metal	Metal	Fragment	Unidentified	burned	1			
4	STP 1	1	0-40 cmbs	Other	Plastic	Plastic			black	1			
4	STP 1	1	0-40 cmbs	Other	Plastic	Plastic			white	1			
4	STP 1	1	0-40 cmbs	Other	Tin	Tin Foil				1			
4	STP 1	1	0-40 cmbs	Personal	Toy	Metal Car part	Fragment			1			
4	STP 6, lower level, property 3	3	0-40 cmbs	Other	Metal	Unidentified	Fragment			1			
5	STP 8, upper level, property 4	4	0-15 cmbs	Kitchen	Glass	Bottle/Jar	Fragment	Unidentified	clear	1			
6	STP 7, lower level, property 4	4	0-40 cmbs	Architectural	Glass	Flat Glass	Fragment		clear	1	2.22		
6	STP 7, lower level, property 4	4	0-40 cmbs	Kitchen	Glass	Bottle/Jar	Fragment	Machine Made, unspecified	clear	1			embossed with 'Ba', likely Ball jar
6	STP 7, lower level, property 4	4	0-40 cmbs	Kitchen	Glass	Bottle/Jar	Fragment		clear	1			orange peel texture
6	STP 7, lower level, property 4	4	0-40 cmbs	Kitchen	Glass	Bottle/Jar	Fragment	Unidentified	clear	9			



Cat. #	STP #	Property	Level	Functional Group	Material Class	Type	Subtype 1	Subtype 2	Subtype 3	#	Thick (mm)	Weight (gm)	Comments
6	STP 7, lower level, property 4	4	0-40 cmbs	Other	Metal	Unidentified	Fragment			2			
6	STP 7, lower level, property 4	4	0-40 cmbs	Personal	Glass	Marble	Complete			1			
7	STP 9, side probe, property 4	4	0-28 cmbs	Architectural	Ceramic	Brick	Fragment	Unidentified		1			
7	STP 9, side probe, property 4	4	0-28 cmbs	Kitchen	Glass	Bottle/Jar	Fragment	Unidentified	clear	1			



## Appendix B -

## Archaeological Site Forms



☐ Preliminary Form  
☒ Final Form  
☒ New Site  
☐ Repeat Visit

# KENTUCKY ARCHAEOLOGICAL SITE SURVEY FORM

Office of State Archaeology

## IDENTIFICATION

County Letcher

State Site No. 15LR98

Site Name \_\_\_\_\_

Other Site No. \_\_\_\_\_ Project Site No. CDMS 1

## LOCATION

1. Coordinate System 1 ☒ UTM

2 ☐ KPC

Zone if UTM, 16, ☒ 17  
 If KPCS, North, or 2 South

Northing 4115068.367

Easting 354328.9723

2. Quadrangle Name Jenkins West

Quadrangle Date 1992

3. Reliability of Site Location Information

0 ☒ good 1 ☐ approximate 2 ☐ location unknown

## OWNERSHIP

Name(s)

City of Jenkins; Russell & Jeanette Wright; Cleadus Cornett; Wendell & Sherry Mullins

Address and Phone

Lakeside Dr., Jenkins, KY, 606-832-4218; PO Box 1155, Jenkins, KY 41537; Unknown; PO

Box 812, Jenkins, KY 41537

Tenant (if any)

Address and Phone



Page 2.

Site No. 15LR98

## TEMPORAL - CULTURAL AFFILIATIONS

### 1. Cultural Periods Represented

- ☐ Unassigned  
☐ Paleo-Indian, undefined ☐ Early ☐ Late  
☐ Archaic, undefined ☐ Early ☐ Middle ☐ Late  
☐ Woodland, undefined ☐ Early ☐ Middle  
☐ Late Woodland/Mississippian  
☐ Historic Indian  
☒ Historic Non-Indian

### 2. Archaeological Cultures Represented

- ☐ Adena ☐ Hopewell ☐ Ft. Ancient ☐ Stone Grave  
☐ Mississippian ☐ Cherokee ☐ Pisgah ☐ Lost River  
☐ Caborn-Welborn ☐ Yankeetown ☐ Angel  
 OTHER (describe) \_\_\_\_\_

### 3. How were cultural affiliation and age determined (describe diagnostic artifacts, type names, and attach outline drawings)?

---



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Prehistoric materials collected: \_\_\_\_\_ total number of items

Type	Number		
ceramics	_____	other scrapers	_____
projectile points/fragments	_____	flakes/cores/chunks	_____
hafted scrapers/drills	_____	ground/pecked/battered	_____
other drills	_____	stone	_____
Bifaces/fragments	_____	worked bone/shell	_____
unifaces	_____	human bone/burials	_____
perforators/gravers	_____	faunal materials	_____
spokeshaves	_____		_____

Prehistoric materials observed but not collected (describe)

none

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---

Page 3.

Site No. 15LR98

8	9
---	---

## 4. Approximate Historic Site Date Range

- |                                      |                                       |  |
|--------------------------------------|---------------------------------------|--|
| 1 <input type="checkbox"/> pre 1600  | 6 <input type="checkbox"/> 1701-1750  | 11 <input checked="" type="checkbox"/> 1900-2000 |
| 2 <input type="checkbox"/> 1600-1700 | 7 <input type="checkbox"/> 1751-1800  | 12 <input type="checkbox"/> 1901-1950            |
| 3 <input type="checkbox"/> 1601-1650 | 8 <input type="checkbox"/> 1801-1900  | 13 <input type="checkbox"/> 1951-2000            |
| 4 <input type="checkbox"/> 1651-1700 | 9 <input type="checkbox"/> 1801-1950  | 14 <input type="checkbox"/> 1851-1950            |
| 5 <input type="checkbox"/> 1701-1800 | 10 <input type="checkbox"/> 1851-1900 | 15 <input type="checkbox"/> 1801-1950            |

Historic materials collected aqua/clear/blue/green container glass, mortar,  
amber bottle glass, coal, plastic, unidentified ceramic, window glass, metal toy, linoleum,  
canning jar lid liner, porcelain, whiteware, ironstone, wire nails, brick, unid. nails, marble.  
 Historic materials observed but not collected Container glass, brick, window glass,  
whiteware, coal, cinders, plastic, linoleum, concrete block, iron (home appliance).

## PHYSICAL DESCRIPTION

10	11
----	----

## 1. Site Type

- |   |  |
|---|--|
| 0 <input type="checkbox"/> undetermined                 | 10 <input type="checkbox"/> non-mound earthwork                |
| 1 <input type="checkbox"/> open habitation w / o mounds | 11 <input type="checkbox"/> workshop                           |
| 2 <input type="checkbox"/> isolated find                | 12 <input type="checkbox"/> isolated burials                   |
| 3 <input type="checkbox"/> rockshelter                  | 13 <input type="checkbox"/> cemetery                           |
| 4 <input type="checkbox"/> cave                         | 14 <input type="checkbox"/> other special activity area        |
| 5 <input type="checkbox"/> quarry                       | 15 <input type="checkbox"/> open habitation w/ mounds          |
| 6 <input type="checkbox"/> stone mound                  | 16 <input checked="" type="checkbox"/> historic farm/residence |
| 7 <input type="checkbox"/> earth mound                  | 17 <input type="checkbox"/> industrial                         |
| 8 <input type="checkbox"/> mound complex                | 18 <input type="checkbox"/> military                           |
| 9 <input type="checkbox"/> petroglyph/pictograph        | OTHER: _____   |

12
----

## 2. Midden

- |                                    |                                  |                                  |  |
|------------------------------------|----------------------------------|----------------------------------|--|
| 0 <input type="checkbox"/> unknown | 1 <input type="checkbox"/> earth | 2 <input type="checkbox"/> shell | 3 <input checked="" type="checkbox"/> absent |
|------------------------------------|----------------------------------|----------------------------------|--|

13
----

## 3. Evidence of recent vandalism (within the last month)

- |  |                                |
|--|--------------------------------|
| 1 <input checked="" type="checkbox"/> no | 2 <input type="checkbox"/> yes |
|--|--------------------------------|

14
----

## 4. Site Condition

- |  |  |
|--|--|
| 1 <input type="checkbox"/> apparently undisturbed  | 5 <input checked="" type="checkbox"/> 76-99% disturbed |
| 2 <input type="checkbox"/> less than 25% disturbed | 6 <input type="checkbox"/> totally destroyed           |
| 3 <input type="checkbox"/> 26-50% disturbed        | 7 <input type="checkbox"/> disturbed, % unknown        |
| 4 <input type="checkbox"/> 51-75% disturbed        |  |

17	18
----	----

## 5. Major Land Use

- |   |  |  |
|---|--|--|
| 1 <input type="checkbox"/> cultivated             | 8 <input type="checkbox"/> modern cemetery         | 16 <input type="checkbox"/> 14+15                    |
| 2 <input type="checkbox"/> pasture                | 9 <input type="checkbox"/> mining                  | 17 <input type="checkbox"/> commercial               |
| 3 <input type="checkbox"/> woods/forest           | 10 <input type="checkbox"/> inundated              | 18 <input type="checkbox"/> military                 |
| 4 <input type="checkbox"/> road/trail             | 11 <input type="checkbox"/> industrial             | 19 <input type="checkbox"/> logging/ logging related |
| 5 <input type="checkbox"/> ditch/dike/ borrow pit | 12 <input checked="" type="checkbox"/> residential | 20 <input type="checkbox"/> scrub/secondary growth   |
| 6 <input type="checkbox"/> landfill               | 13 <input type="checkbox"/> recreational           |  |
| 7 <input type="checkbox"/> modern                 | 14 <input type="checkbox"/> 1+2+3                  | Other _____  |
|   | 15 <input type="checkbox"/> 11+12+13               |  |

Page 4.

Site No. 15LR98

19

6. Amount of ground surface visible (*typically*)

- |   |                                      |
|---|--------------------------------------|
| 1 <input checked="" type="checkbox"/> less than 10% | 5 <input type="checkbox"/> poor      |
| 2 <input type="checkbox"/> 11-50%                   | 6 <input type="checkbox"/> fair      |
| 3 <input type="checkbox"/> 51-91%                   | 7 <input type="checkbox"/> good      |
| 4 <input type="checkbox"/> 91-100%                  | 8 <input type="checkbox"/> excellent |

Describe visibility The site was located in residential plot, the grass cover allowed for little ground surface visibility.

20

## 7. Physiographic Division

- |  |  |
|--|--|
| 1 <input type="checkbox"/> Inner Bluegrass               | 5 <input type="checkbox"/> Mississippi Plateau |
| 2 <input type="checkbox"/> Outer Bluegrass               | 6 <input type="checkbox"/> Western Coalfields  |
| 3 <input type="checkbox"/> Knobs                         | 7 <input type="checkbox"/> Jackson Purchase    |
| 4 <input checked="" type="checkbox"/> Cumberland Plateau |  |

## Landform Type

- |  |  |
|--|--|
| 1 <input type="checkbox"/> floodplain          | 4 <input type="checkbox"/> dissected uplands   |
| 2 <input type="checkbox"/> terrace             | 5 <input type="checkbox"/> undissected uplands |
| 3 <input checked="" type="checkbox"/> hillside | OTHER <input type="checkbox"/>                 |

## Locality Type

- |  |   |
|--|---|
| 1 <input type="checkbox"/> level       | 5 <input type="checkbox"/> bluff base       |
| 2 <input type="checkbox"/> knoll       | 6 <input type="checkbox"/> ridge            |
| 3 <input type="checkbox"/> closed      | 7 <input checked="" type="checkbox"/> slope |
| 4 <input type="checkbox"/> bluff crest | OTHER <input type="checkbox"/>              |

21

22

23 25  
26 28  
29 31

## 8. Soil Association

Soil Series ☐Soil Type Fedscreek loam, Shelocta silt loam, and Handshoe channery loamVegetation (*describe*) Yard grass & Tall Weeds

32 35  
36

9. Elevation 1600-1610 ft. AMSL

## Slope of Locality

- |   |   |
|---|---|
| 1 <input type="checkbox"/> less than 5°, flat | 4 <input checked="" type="checkbox"/> 26-50°                    |
| 2 <input type="checkbox"/> 6-10°              | 5 <input type="checkbox"/> greater than 51° bluff (rockshelter) |
| 3 <input type="checkbox"/> 11-25°             |   |

## Slope Direction (Aspect)

- |                                 |                               |  |
|---------------------------------|-------------------------------|--|
| 1 <input type="checkbox"/> Flat | 4 <input type="checkbox"/> E  | 7 <input type="checkbox"/> SW            |
| 2 <input type="checkbox"/> N    | 5 <input type="checkbox"/> SE | 8 <input type="checkbox"/> W             |
| 3 <input type="checkbox"/> NE   | 6 <input type="checkbox"/> S  | 9 <input checked="" type="checkbox"/> NW |

37

38 45  
46 47

10. Site Area (m<sup>2</sup>) 7,050

## Basis for site area estimate

- |   |                                    |  |
|---|------------------------------------|--|
| 1 <input type="checkbox"/> taped            | 3 <input type="checkbox"/> guessed | 5 <input type="checkbox"/> transit/alidade |
| 2 <input checked="" type="checkbox"/> paced | 4 <input type="checkbox"/> range   | 6 <input type="checkbox"/>                 |

## Confident of site boundaries:

- |                               |   |
|-------------------------------|---|
| 1 <input type="checkbox"/> no | 2 <input checked="" type="checkbox"/> yes |
|-------------------------------|---|

48

Page 5.

Site No. 15LR98

49 50

## 11. Drainage

- |   |   |  |
|---|---|--|
| 1 <input type="checkbox"/> Mississippi      | 6 <input type="checkbox"/> Green        | 11 <input type="checkbox"/> Kentucky             |
| 2 <input type="checkbox"/> Tennessee        | 7 <input type="checkbox"/> Western Ohio | 12 <input type="checkbox"/> Licking              |
| 3 <input type="checkbox"/> Lower Cumberland | 8 <input type="checkbox"/> Central Ohio | 13 <input type="checkbox"/> Little Sandy         |
| 4 <input type="checkbox"/> Upper Cumberland | 9 <input type="checkbox"/> Eastern Ohio | 14 <input checked="" type="checkbox"/> Big Sandy |
| 5 <input type="checkbox"/> Tradewater       | 10 <input type="checkbox"/> Salt        | 15 <input type="checkbox"/> Tygarts              |

51

Closest Water Source (name) Elkhorn Creek

- |  |  |
|--|--|
| 1 <input checked="" type="checkbox"/> permanent stream | 4 <input type="checkbox"/> intermittent spring             |
| 2 <input type="checkbox"/> intermittent stream         | 5 <input type="checkbox"/> lake/pond (historic sites only) |
| 3 <input type="checkbox"/> permanent spring            | 6 <input type="checkbox"/> slough/oxbow lake               |
|  | 7 <input type="checkbox"/> well (historic sites only)      |

53 54 55

Rank order of stream nearest site 1Distance to water from site 30 m

## REPORTING INFORMATION

56

## 1. Site reported by

- 1 ☒ professional/student  
 2 ☐ amateur  
 3 ☐ other informant

57

## 2. Investigation type

- 1 ☒ reconnaissance (surface survey, may include shovel tests)  
 2 ☐ intensive (surface survey and testing)  
 3 ☐ excavated  
 4 ☐ volunteered

58 59

3. Institution/person filing report CDM Smith

60 61 62

Site surveyed by Robert BallDate recorded June 25, 2014Time of day morning Time spent at site 4 hrs

66 67

## 4. Artifact Repository (name and address where artifacts are curated)

William S. Webb Museum of Anthropology

Name of curator at repository

George Crothers

## 5. Photos

- ☐ black/white ☐ no. of pictures  
☒ Color, digital ☐ 5 no. of pictures

Name and address of institution where photos are filed

William S. Webb Museum of Anthropology

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## 6. Name and address of local informants

7. Name and address of owners of other collections from site (*attach inventories of private collections.*)

## 8. Significance Status

- 1 ☐ National Register property  
 2 ☐ Eligible for National Register  
 3 ☐ Nominated to National Register by SHPO  
 4 ☐ Considered eligible but not nominated by SHPO  
 5 ☒ Inventory site (does not presently meet National Register criteria)  
 6 ☐ National Register status not assessed

Discuss the potential significance of the site (*does it meet National Register criteria in your opinion? why or why not? upon what evidence have you based your decision?*)

The site is associated with multiple historic residences, only one being still extant today, dating from the early twentieth century (c. 1911) with the development of the town of Jenkins by Consolidated Coal to the early twenty-first century when the residences were demolished. As a large number of similar resources are still extant and in use, the site does not offer much potential research value. Thus, it is being recorded as an inventory site and is not recommended for nomination to the NRHP. No further archaeology is recommended for the proposed road realignment activities involving the site area.

## 9. References

McBride, J. David  
 2014 Phase I Archaeological Survey for the Realignment of KY 805, Letcher County, Kentucky. KYTC Item # 12-8702.00. CDM Smith. Lexington, Kentucky.

Bowles, Isaac Anderson  
 1949 *History of Letcher County, Kentucky: Its Political and Economic Growth and Development*. Hazard, Kentucky.

## 10. Ownership

- 1 ☐ federal                      3 ☐ local government                      5 ☐ private  
 2 ☒ state                      4 ☐ government                      6 ☐ joint state/federal

11. Special status (*federal, state, county, etc.*)

- 1 ☐ forest                      5 ☐ wildlife preserve  
 2 ☐ park                      6 ☐ nature preserve  
 3 ☐ wilderness                      7 ☐ military preserve  
 4 ☐ wild river                      8 ☐ \_\_\_\_\_



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Site No. 15LR98

## DESCRIPTION OF SITE

Give a physical description of the site and its settings, including dimensions, features (with measurements), nature and location of artifacts and concentrations, extent and location of disturbances, etc.

15LR98 is located on a slope on the northwest side of existing KY 805 above the Elkhorn Creek (about 1600 ft. AMSL) in Jenkins, Kentucky. Elkhorn Creek passes within 30 meters of the site's western limit. Elkhorn Creek flows south from the site and then continues northeast, and eventually reaches the Russell Fork. The site is located in an area referred to as Mudtown, just to the west of downtown Jenkins. The site is associated with multiple house structures that are no longer extant and one house lot with an extant structure, all dating to the same period of time and located within the Jenkins Historic District. The houses were constructed around 1911 when the town of Jenkins was developed by Consolidated Coal (Bowles 1949). These structures would have housed employees of the coal company. The property with the extant house was not surveyed, but the house is one of multiple structures that are still standing within the area and were constructed by Consolidated Coal c. 1911.

Historic maps referenced were the USGS Jenkins West, Kentucky, 7.5' quadrangle maps from 1992 and 1954 as well as the Kentucky Department of Highways maps for Letcher County dating to 1954 and 1969. Houses were located in the vicinity of the site on all of these maps. Artifacts were recovered from nine positive shovel probes, judgmentally placed and a surface collection. In all, 94 historic artifacts were recovered. The historic artifacts were all domestic-related artifacts and were recovered from the plow zone, there were no subsurface features encountered. The artifacts roughly date to the early twentieth century and into the late twentieth century. Ruins of two outbuildings were observed and are believed to be associated with the site. They were both of concrete block construction. A concrete pad with linoleum applied was also observed. The site measures 7,050 m<sup>2</sup>.

Discuss the relationship between this site and other known sites in the area in terms of location, physical characteristics, size, etc.

At the time of survey there was one previously recorded site within two kilometers of the project area, Site 15LR40. Site 15LR40 is a historic dump and a mining adit located in two small hollows within the Elkhorn Creek drainage of southeastern Kentucky. The dump and mining adit are associated with a large mining complex developed by the Consolidation Coal Company in the town of Jenkins in 1911. After the Phase II excavations, the site boundaries were changed to only include the boundaries of the historic dump in Shop Hollow. The mine adit was found to be disturbed and no dumping was indicated at the mine adit. The dump covered an area of about 45 x 24 meters and dated between 1911 and 1930. The material deposited was believed to be from the downtown commercial district of Jenkins, such as the hotel, butcher shop, hospital, other commercial establishments, and residences of employees in the vicinity. The residences were mostly in the Lake Shore area which would have housed the mine manager and other supervisory personnel. The majority of the deposits were between the late 1910s and early 1920s. Site 15LR40 was deemed eligible for inclusion to the National Register of Historic Places, and further work was recommended, including excavations, archival research, and the collection of oral histories. Site 15LR40 is similar to 15LR98 in that they both are associated with Consolidation Coal Company and both correspond to the same period of time, although the dump mostly focuses on the downtown commercial district and was limited to 1911 to 1930 while the residences associated with 15LR98 were likely occupied into the late twentieth century.

## DATES

Absolute dates

Dating methods

Laboratory

Relative dates

References

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Site No. 15LR98**SKETCH MAP OF SITE**

Include north arrow and scale. Also attach section of U.S.G.S. quad map with site location.

See attached

## Directions to Site

	Terrain feature	Distance (km)	Direction/bearing
1.	<u>Int. of KY 805 and Old Hwy 23</u>	<u>.518 km</u>	<u>East by South</u>
2.	<u>Elkhorn Lake</u>	<u>.711 km</u>	<u>Southeast</u>
3.	<u>Int. of US 23 and KY 805</u>	<u>.427 km</u>	<u>North</u>

