Contract Publication Series 15-028

ADDENDUM REPORT: AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED BRIDGE REPLACEMENT ON FISHTRAP ROAD (KY 1441) OVER RACCOON CREEK AT COON CREEK (CR 1371) IN PIKE COUNTY, KENTUCKY (ITEM NO. 12-1115.00)

by
Russell S. Quick, PhD, RPA

Prepared for

KENTUCKY TRANSPORTATION CABINET

Prepared by

cra
cultural resource analysts, inc

Kentucky | West Virginia | Ohio
Wyoming | Illinois | Indiana | Louisiana | Tennessee
Utah | Virginia | Colorado

Contract Publication Series 15-028

ADDENDUM REPORT: AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED BRIDGE REPLACEMENT ON FISHTRAP ROAD (KY 1441) OVER RACCOON CREEK AT COON CREEK (CR 1371) IN PIKE COUNTY, KENTUCKY (ITEM NO. 12-1115.00)

by
Russell S. Quick, Ph.D., RPA
with a contribution by Heather D. Barras

Prepared for
David M. Waldner, P.E.
Director, Department of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40422
Phone: (502) 564-7250
Email: David.Waldner@ky.gov

Prepared by
Cultural Resource Analysts, Inc.
151 Walton Avenue
Lexington, Kentucky 40508
Phone: (859) 252-4737
Fax: (859) 254-3747
E-mail: cmniquette@crai-ky.com
CRA Project No.: K15K002

Charles M. Niquette, RPA
Co-Principal Investigator

Richard Herndon, RPA
Co-Principal Investigator

March 10, 2015

Lead Agency: Federal Highway Administration
Kentucky Transportation Cabinet Item Number 12-1115.00
Statewide Contract No. PON2 1500000058, Agreement 201487, Letter Agreement No. 9-DBD
OSA Project Registration No.: FY14_8205

ABSTRACT

On February 11, 2015, Cultural Resource Analysts, Inc., personnel completed an archaeological survey of proposed revisions to the project area for the bridge replacement on Fishtrap Road (KY 1441) over Raccoon Creek at Coon Creek (CR 1371) in Pike County, Kentucky (Item No. 12-1115.00). The addendum survey was conducted at the request of David Waldner on behalf of the Kentucky Transportation Cabinet. The project area began 204 m (670 ft) north of the intersection of Fishtrap Road (KY 1441) with Coon Creek (CR 1371) and ended approximately 107 m (350 ft) south the same intersection, a total distance of 305 m (1,000 ft) or .31 km (.19 mi). This addendum survey represents an expansion of an earlier archaeological survey conducted by Cultural Resource Analysts, Inc., on August 28, 2014 (Quick 2014). The original project area consisted of approximately .74 ha (1.83 acres) or 7,446 sq m (80,148 sq ft). The addendum project area consists of the remainder of three parcels that will be acquired by the Kentucky Transportation Cabinet totaling .14 ha (.35 acres). The purpose of the project is to improve safety and traffic operation by replacing the bridge over Raccoon Creek and modifying the intersection of KY 1441 with CR 1371.

Field methods consisted of pedestrian survey and screened shovel testing. The entire project area was surveyed. Land within the project area consisted primarily of public right-of-way, the Fishtrap Creek drainage, and residential properties. A records review was conducted at OSA for the initial survey. The review indicated that one archaeological investigation, but no sites, had been documented within the project area. Several historic map structures were documented adjacent to the project area; however, no archaeological sites were identified during the August 2014 survey. No archaeological sites were recorded as a result of the addendum survey; therefore, no archaeological sites listed in or eligible for listing in the National Register of Historic Places will be affected by the proposed construction activities. Archaeological clearance for the bridge replacement project is recommended.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

I. INTRODUCTION

On February 11, 2015, Cultural Resource Analysts, Inc. (CRA), personnel completed an archaeological survey of proposed minor revisions to the project area for the bridge replacement on Fishtrap Road (KY 1441) over Raccoon Creek at Coon Creek (CR 1371) in Pike County, Kentucky (Item No. 12-1115.00) (Figure 1). The survey was conducted at the request of David Waldner on behalf of the Kentucky Transportation Cabinet (KYTC). This addendum survey represents an expansion of an archaeological survey conducted by CRA on August 28, 2014 (Quick 2014). The original project area consisted of approximately .74 ha (1.83 acres) or 7,446 sq m (80,148 sq ft). The addendum project area consists of the remainder of three parcels that will be acquired by the KYTC totaling .14 ha (.35 acres). The fieldwork was completed by Russell S. Quick in 8 person hours. The field methods consisted of pedestrian survey supplemented with systematic screened shovel testing. Office of State Archaeology (OSA) Geographic Information Systems (GIS) data requested by CRA for the original survey on August 21, 2014, was returned on September 2, 2014. The results were researched by Heather Barras of CRA at the OSA on September 8, 2014. The OSA project registration number is FY15_8205.

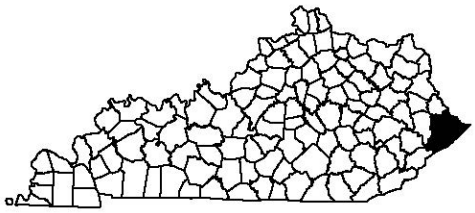

Figure 1. Map of Kentucky showing the location of Pike County.

Project Description

The project consisted of an archaeological survey for the reconstruction of the bridge over Raccoon Creek at the intersection of Fishtrap Road (KY 1441) with Coon Creek (CR 1371) near the community of Raccoon in Pike County, Kentucky (Figures 2 and 3). The project area began 204 m (670 ft) north of the intersection of Fishtrap Road (KY 1441) with Coon Creek (CR 1371) and ended approximately 107 m (350 ft) south the same intersection, a total distance of 305 m (1,000 ft) or .31 km (.19 mi). The purpose of the project is to improve safety and traffic operation by replacing the bridge over Raccoon Creek and modifying the intersection of KY 1441 with CR 1371. By utilizing the transportation planning and preliminary engineering procedures developed by the KYTC, the project has been advanced to the phase I design and environmental process.

Land within the project area primarily consisted of public right-of-way, the Fishtrap Creek drainage, and residential properties. Disturbance within the project area was associated with coal mining, the reconstruction of U.S. 119, and residential occupation of the area. Most of the residential yards had been landscaped. Some had concrete, asphalt, or gravel parking areas or were covered in layers of crushed stone. The northernmost portion of the revised project area abutted the extant CSX Transportation, Inc. (CSX), railroad.

Purpose of Study

The study was conducted to comply with Section 106 of the National Historic Preservation Act. This transportation project is federally funded and is, therefore, considered an undertaking subject to 106 review. The purpose of this assessment was to locate, describe, evaluate, and make appropriate recommendations for the future treatment of any historic properties or sites that may be affected by the project. For the purposes of this assessment, a site was defined as "any location where human behavior has resulted in the deposition of artifacts, or other evidence of purposive behavior at least 50 years of age" (Sanders 2006:2). Cultural deposits less than 50 years of age were not considered sites in accordance with *Archeology and Historic Preservation: Secretary of the Interior's*

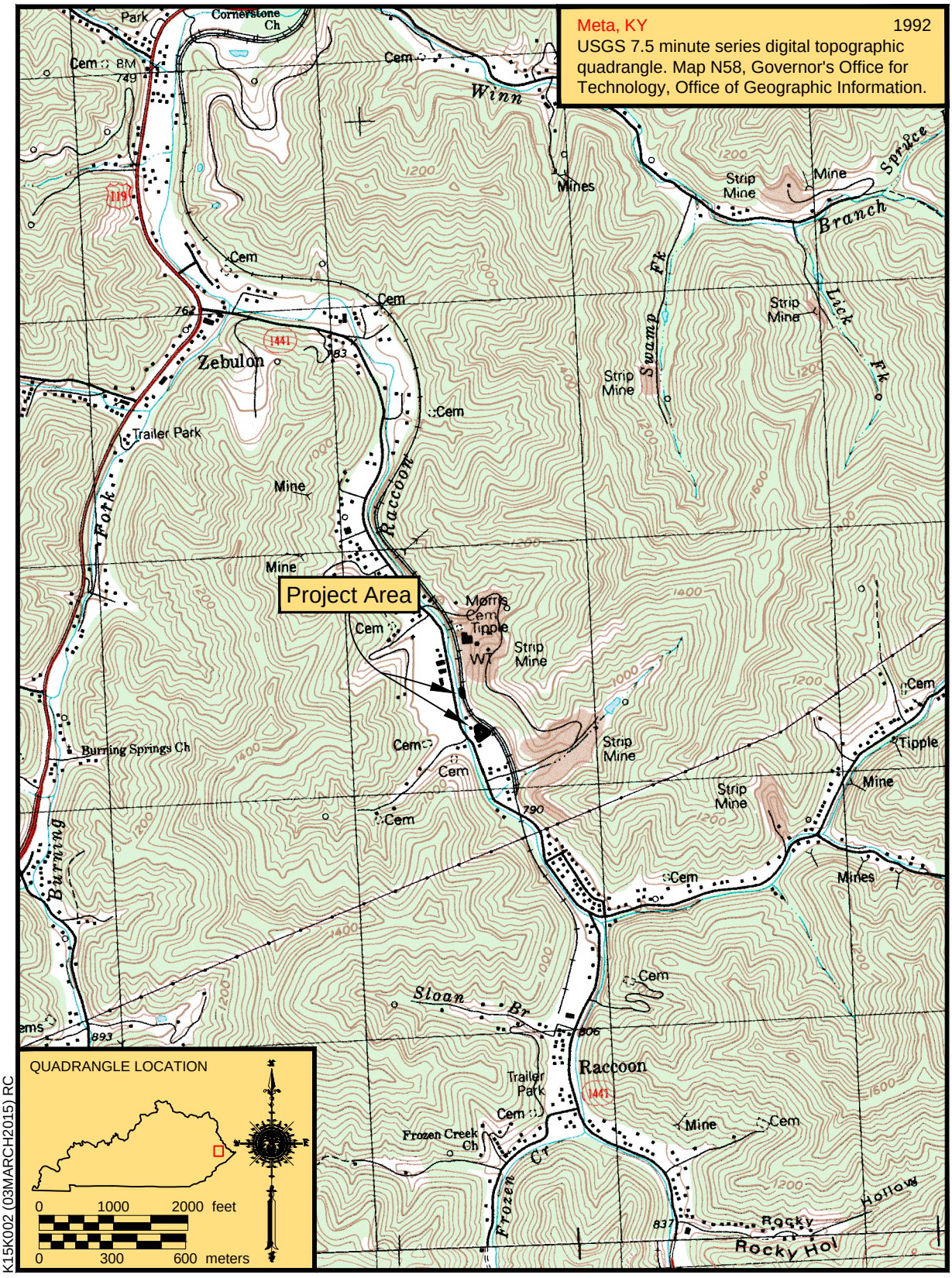

Figure 2. Location of project area on topographic quadrangle.

Figure 3. Project area plan map.

Standards and Guidelines (National Park Service 1983).

A description of the project area, the field methods used, and the results of this investigation follow. The investigation is intended to conform to the *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports* (Sanders 2006).

Summary of Findings

Prior to the field research, a records review was conducted at OSA. The review indicated that one archaeological investigation, but no sites, had been documented within the project area. No archaeological sites were recorded during the August 2014 survey or the February 2015 addendum survey. No archaeological sites listed in or eligible for listing in the National Register of Historic Places (NRHP) will be affected by the proposed construction, and archaeological clearance is recommended.

II. DESCRIPTION OF THE PROJECT AREA

The project area is located .8 km (.5 mi) north of the community of Raccoon, along Raccoon Creek (see Figures 2 and 3). The project area began 204 m (670 ft) north of the intersection of Fishtrap Road (KY 1441) with Coon Creek (CR 1371) and ended approximately 107 m south the same intersection, a total distance of 305 m or .31 km. The original project area was approximately .74 ha or 7,446 sq m in size. The addendum project area consists of the remainder of three parcels that will be acquired by KYTC totaling .14 ha (.35 acres). Elevations in the project area range from 235 m (770 ft) above mean sea level (AMSL) along Raccoon Creek to approximately 245 m (804 ft) AMSL adjacent to the CSX railroad. Levisa Fork and its tributaries drain the project area.

Land within the project area consisted primarily of public right-of-way (Figure 4)

Figure 4. Overview of project area, looking southeast.

and residential properties (Figures 5 and 6). Disturbance within the project area was associated with coal mining, the reconstruction of U.S. 119, and residential occupation of the area. Most of the residential yards had been landscaped or covered with fill (Figure 7). Some properties had concrete or asphalt parking areas or were covered in layers of crushed stone (Figure 8). The northernmost portion of the addendum project area was in the Fishtrap Creek drainage abutting the extant CSX railroad (Figure 9). Vegetation within the project area consisted primarily of residential lawns, secondary growth, and weeds.

Two soil series, Rowdy silt loam and Udorthents, have been defined in the project area. Soils are classified by the amount of time it has taken them to form and the landscape position in which they are found (Birkeland 1984; Soil Survey Staff 1999). This information can provide a relative age of the soils and can express the potential for buried archaeological deposits within them (Stafford 2004). The soil order and group classifications for each soil series are used to assist with determining this potential.

The Rowdy soil series is classified as an Inceptisol, which are found on landforms that formed during the late Pleistocene or Holocene time periods (Soil Survey Staff 1999:489–493). These may have deeply buried and intact archaeological deposits, depending upon the landform on which they formed (e.g., sideslope compared to alluvial terrace). The Rowdy series soils are primarily located on the west side of Raccoon Creek; however, the northernmost portion of the current project area, east of Raccoon Creek and adjacent to the CSX railroad, is also mapped as Rowdy soils. Recent aerial photos depict an older manufactured house close to this location.

The Udorthents soils in the project area are classified as Entisols, which formed very recently in unconsolidated parent material, such as sandy or recent water-deposited sediments or disturbed soil and rock material associated with coal mining. These soils have not been in place long enough for pedogenic processes to form distinctive horizons except

Figure 5. Overview of residential portion of project area, looking east.

Figure 6. Overview of residential portion of project area, looking north.

Figure 7. Overview of disturbed residential property in the project area, looking east (note evidence of soil removal along fence line).

Figure 8. Overview of disturbed residential property in the project area, looking southwest (note foundation for modular house).

Figure 9. Overview of project area in Fishtrap Creek drainage, looking north.

an A horizon (Soil Survey Staff 1999:389–391). Because of their recent age and the level of disturbance, Entisols rarely have buried and intact prehistoric archaeological deposits. The majority of the soils in the project area (i.e., on the east bank of Raccoon Creek) were classified as Udorthents.

Soils found in shovel probes on floodplains in the project area generally conformed to the description of loamy Udorthents. These probes generally revealed a thin brown (10YR4/3) silt loam Ap horizon to a depth of 5–7 cm (2–3 in) over a 5–10 cm (2–4 in) layer mottled yellowish brown (10YR 5/6) sandy clay with gravel and coal inclusions to a depth of approximately 35 cm (13 in) below ground surface (bgs). All of the soils in the project area appeared disturbed by a variety of anthropogenic activities and natural processes. The Thacker parcel is known to have been bulldozed flat to facilitate the installation of a modular home (see Figure 7).

III. RESULTS OF THE FILE AND RECORDS SEARCH AND SURVEY PREDICTIONS

Previous Research in Pike County

Heather D. Barras

Prior to initiating fieldwork, a search of records maintained by the NRHP (available online at: http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome) and the OSA (FY15_8205) was conducted to: 1) determine if the project area had been previously surveyed for archaeological resources; 2) identify any previously recorded archaeological sites that were situated within the project area; 3) provide information concerning what archaeological resources could be expected within the project area; and 4) provide a context for any archaeological resources recovered within the project area. A search of the NRHP records indicated that no archaeological sites listed in the NRHP were situated within the current project area or within a 2 km radius of the project area. The OSA file search was conducted between August 21 and September 2, 2014. The work at OSA consisted of a review of professional survey reports and records of archaeological sites for an area encompassing a 2 km radius of the project footprint. To further characterize the archaeological resources in the general area, the OSA archaeological site database for the county was reviewed and synthesized. The review of professional survey reports and archaeological site data in the county provided basic information on the types of archaeological resources that were likely to occur within the project area and the landforms that were most likely to contain these resources. The results are discussed below.

OSA records revealed that six previous professional archaeological surveys had been conducted within a 2 km radius of the project area, including the previous survey for the project. One archaeological site had been recorded in this area also. Site 15Pi329 is a prehistoric open habitation without mounds. The 2 km radius included areas within the Meta quadrangle.

Previous Archaeological Investigations

During June, July, and August of 1973, Western Kentucky University personnel conducted an archaeological survey for the proposed relocation of U.S. 119 in Pike County, Kentucky (Schock et al. 1976). At the request of the KYTC, the project area was investigated with informant interviews and pedestrian survey. The project area consisted of approximately 40.4 km (25.1 mi) in length with a 61 m (200 ft) right of way width. Nine archaeological sites were documented during the survey, one of which is located in the 2 km radius, but not within the boundaries of the current project area (15Pi329).

Site 15Pi329 was an open habitation without mounds with diagnostic artifacts dating to the Middle Woodland, Late Woodland, and Late Archaic periods. The site was not going to be affected by the proposed project and, therefore, no further work was recommended (Schock et al. 1976).

Between October 29 and November 22, 1996, Cultural Horizons, Inc., personnel conducted an archaeological survey of the proposed realignment of U.S. 119, approaches to existing roads, and potential hollow-fill areas in Pike County, Kentucky (Thomas et al. 1996). The survey was conducted at the request of Palmer Engineering and consisted of approximately 12.0 km (7.5 mi) in length with a width varying from approximately 85 m (279 ft) to 1,000 m (3,281 ft). The project was investigated with a pedestrian survey supplemented with shovel testing. One twentieth-century cemetery was identified within the project boundaries, but no state site number was assigned. Project clearance was recommended.

On June 7, 2005, CRA personnel conducted an archaeological survey for a proposed coal mine operation along Ramey Fork in Pike County, Kentucky (Hand 2005). The survey was conducted at the request of Keith Spears of Summit Engineering, Inc., on behalf of C & N Mining, LLC. (Permit Application Number 898-4208). The project area consisted of 3.67 ha (9.08 acres) and was investigated with an intensive pedestrian survey supplemented with screened shovel testing. No archaeological sites were identified and project clearance was recommended.

On March 29, 2012, Apogee Environmental & Archaeological, Inc., personnel completed an archaeological survey of 4.7 ha (11.6 acres) of proposed surface mining along Winns Branch in Pike County, Kentucky (Winterhoff 2012). The survey was conducted at the request of Alpine Engineering on behalf of Landmark Mining, Inc. (Permit Application Number 898-4362). The project was investigated with an intensive pedestrian survey supplemented with screened shovel testing. No archaeological sites were identified and project clearance was recommended.

Between July 9 and July 11, 2013, Apogee Environmental & Archaeological, Inc., personnel conducted an archaeological survey for a proposed surface mining project along Winns Branch in Pike County, Kentucky (Winterhoff 2013). At the request of Landmark Mining, Inc., (Permit Application Number 898-0856 NW) 232.88 ha (575.46 acres) were investigated with an intensive pedestrian survey supplemented with screened shovel testing. No archaeological sites were documented during the survey and no further work was recommended.

On August 28, 2014, CRA personnel completed the initial archaeological survey of the proposed bridge replacement on Fishtrap Road (KY 1441) over Raccoon Creek at Coon Creek (CR 1371) in Pike County, Kentucky (Item No. 12-1115.00) (Quick 2014). The survey was conducted at the request of David Waldner on behalf of the KYTC. The project area consisted of approximately .74 ha (1.83 acres). The purpose of the project is to improve safety and traffic operation by replacing the bridge over Raccoon Creek and modifying the intersection of KY 1441 with CR 1371. Field methods consisted of pedestrian survey and screened shovel testing. The entire project area was surveyed. Land within the project area primarily consisted of public right-of-way and commercial and residential properties. No archaeological sites were recorded as a result of this survey and archaeological clearance was recommended. Subsequent to the August 2014 survey, revisions were made to the project area that resulted in the addendum survey documented in this report.

Archaeological Site Data

The OSA records show that prior to this survey, 253 archaeological sites had been recorded in Pike County (Table 1). The majority of these sites were recorded as historic farm/residence sites (n = 116; 45.85 percent) and open habitation sites without mounds (n = 83; 32.81 percent).

Table 1. Summary of Selected Information for Previously Recorded Sites in Pike County. Data Obtained from OSA and May Contain Coding Errors.

Site Type:	N	%
Cemetery	20	7.91
Earth Mound	2	0.79
Historic Farm/Residence	116	45.85
Industrial	4	1.58
Isolated Burials	2	0.79
Open Habitation with Mounds	1	0.4
Open Habitation without Mounds	83	32.81
Other	2	0.79
Other Special Activity Area	1	0.4
Rockshelter	14	5.53
Stone Mound	2	0.79
Undetermined	6	2.37
Total	253	100
Time Periods Represented	**N**	**%**
Paleoindian	2	0.73
Archaic	13	4.73
Woodland	26	9.45
Late Prehistoric	21	7.64
Indeterminate Prehistoric	47	17.09
Historic	161	58.55
Unspecified	5	1.82
Total	275*	100
Landform	**N**	**%**
Dissected Uplands	41	16.21
Floodplain	86	33.99
Hillside	31	12.25
Other	41	16.21
Terrace	41	16.21
Undissected Uplands	1	0.4
Unspecified	12	4.74
Total	253	100

** One site may represent more than one time period.*

Cemeteries (n = 20; 7.91 percent) were the third most common type followed by rockshelters (n = 14; 5.53 percent). The remaining site types were classified as undetermined (n = 6; 2.37 percent), industrial sites (n = 4; 1.58 percent), earth mounds (n = 2; .79 percent), isolated burials (n = 2; .79 percent), stone mounds (n = 2; .79 percent), open habitation sites with mounds (n = 1; .4 percent), other special activity areas (n = 1; .4 percent), and other/unspecified (n = 2; .79 percent).

The landform locations of sites in Pike County were also examined to determine the likelihood of encountering sites on similar landforms within the project area. The majority of sites in Pike County are located on floodplains (n = 86; 33.99 percent) followed by other (n = 41; 16.21 percent), dissected uplands (n = 41; 16.21 percent), terraces (n = 41; 16.21 percent), and hillsides (n = 31; 12.25 percent).

The current project area is located on the floodplain of Raccoon Creek. Most of the sites situated on floodplains are open habitation sites without mounds (n = 55; 63.22 percent) and historic farm/residences (n = 26; 29.89 percent) followed by other (n = 2; 2.3 percent). Other site types including stone mounds, isolated burials, non-mound earthworks, and undetermined accounted for one site each (1.15 percent).

Map Data

In addition to the file search, a review of available maps at the private collection at CRA was initiated to help identify any historic structures that may have been located within the project area. The following maps were reviewed:

1891 Warfield, West Virginia-Kentucky, 30-minute series topographic quadrangle (USGS);

1915 Williamson, Kentucky-Virginia 15-minute series topographic quadrangle (USGS 1915);

1918 Williamson, Kentucky-Virginia 15-minute series topographic quadrangle (USGS 1918);

1937 General Highway Map of Pike County, Kentucky (Kentucky Department of Highways [KDOH]);

1951 Aerial Photograph Entity # 1NC0000040027 (USGS 1951);

1952 Aerial Photograph Entity # 1TH0000010021 (USGS 1952);

1952 General Highway Map of Pike County, Kentucky (Kentucky State Highway Department [KSHD]); and

1954 Meta, Kentucky, 7.5-minute series topographic quadrangle (USGS 1954).

The maps may have provided useful information about the presence of former structures and alerted the crew to the possible existence of historic deposits within a general area. Seven historic map structures (MS) were located within, or adjacent to, the current project area on the reviewed maps and aerial

photographs (Figures 10–12). No structures are depicted on the 1891 Warfield, West Virginia-Kentucky, 30-minute series topographic quadrangle (USGS 1891). MS 1–4 were initially depicted on the 1915 Williamson, Kentucky-Virginia 15-minute series topographic quadrangle (USGS 1915) (Figure 10). The same four map structures are depicted on the 1918 Williamson, Kentucky-Virginia 15-minute series topographic quadrangle (USGS 1918). The 1937 General Highway Map of Pike County (KDOH 1937) depicts as many as three map structures, including MS 1, 3, and 4; however, the small scale of the early highway maps makes it impossible to be sure of their precise locations. In addition to MS 1, 3, and 4, three other structures (MS 5–7) were depicted on a 1951 aerial (USGS 1951) and possibly the General Highway Map of Pike County (KSHD 1952). The same problem of scale applies to the 1952 highway map. Outbuildings are shown with MS 1, 3, 4, and 5 on the 1951 aerial. Only MS 1 and MS 6 appear to be within the current project area on the aerial photographs; MS 1, 3, 5, and 7 are clearly outside and away from the original and addendum project areas (USGS 1951, 1952). MS 1 and MS 3–7 are all depicted on the 1954 Meta, Kentucky, 7.5-minute series topographic quadrangle (USGS 1954). MS 1 and MS 6 were depicted as residences on the 1954 topo.

None of the structures depicted on the historic maps is extant. A structure stood in the location of MS 6 until at least August of 2009, when it was still visible on Google Street View. That structure was not MS 6, but a modular home that had been placed in the same location as MS 6 after the construction of the CSX railroad (Vipperman 2015, personal communication). It is not known when MS 6 was demolished, but, as noted earlier, the location was leveled to install modular housing. The locations of structures within the project area were investigated with screened shovel tests. Only modern materials (e.g., plastic chain, asphalt, rusted bits of metal, and concrete kibbles) were identified.

Local Informants

Glen Vipperman, who owns the southern parcel within the current survey area, provided important information regarding the house that used to stand in that location (MS 1). As mentioned in the Map Data section, it had been built prior to 1915. After his mother's death, Mr. Vipperman razed the property (Vipperman 2015, personal communication). The home site lies beneath his current (asphalt) driveway. Shovel tests in front of the home's location were impeded by the old (gravel) driveway that serviced the 1915 house. The house was oriented such that back yard deposits from the home, if any, would most likely lie in the Maynard property to the south or beneath the current Vipperman residence and driveway. No historic materials were recovered from the three shovel tests excavated around the former house location.

Survey Predictions

Considering the known distribution of sites in the county, the available information on site types recorded, and the nature of the present project area, certain predictions were possible regarding the kinds of sites that might be encountered within the project area. Prehistoric open habitations and historic farm/residences were the primary site types expected to be encountered within the project area. Historic cemeteries were also considered a slight possibility.

IV. METHODS

Prior to conducting the survey, electronic mapping provided by KYTC was entered into a hand held global positioning system (GPS) with 1–3 m horizontal accuracy. The GPS was used as a guide for conducting the fieldwork. The entire survey was conducted on private lands. Prior to the conduct of the survey, a call was placed to Kentucky 811, which determined that there were no subsurface utilities to mark within the project

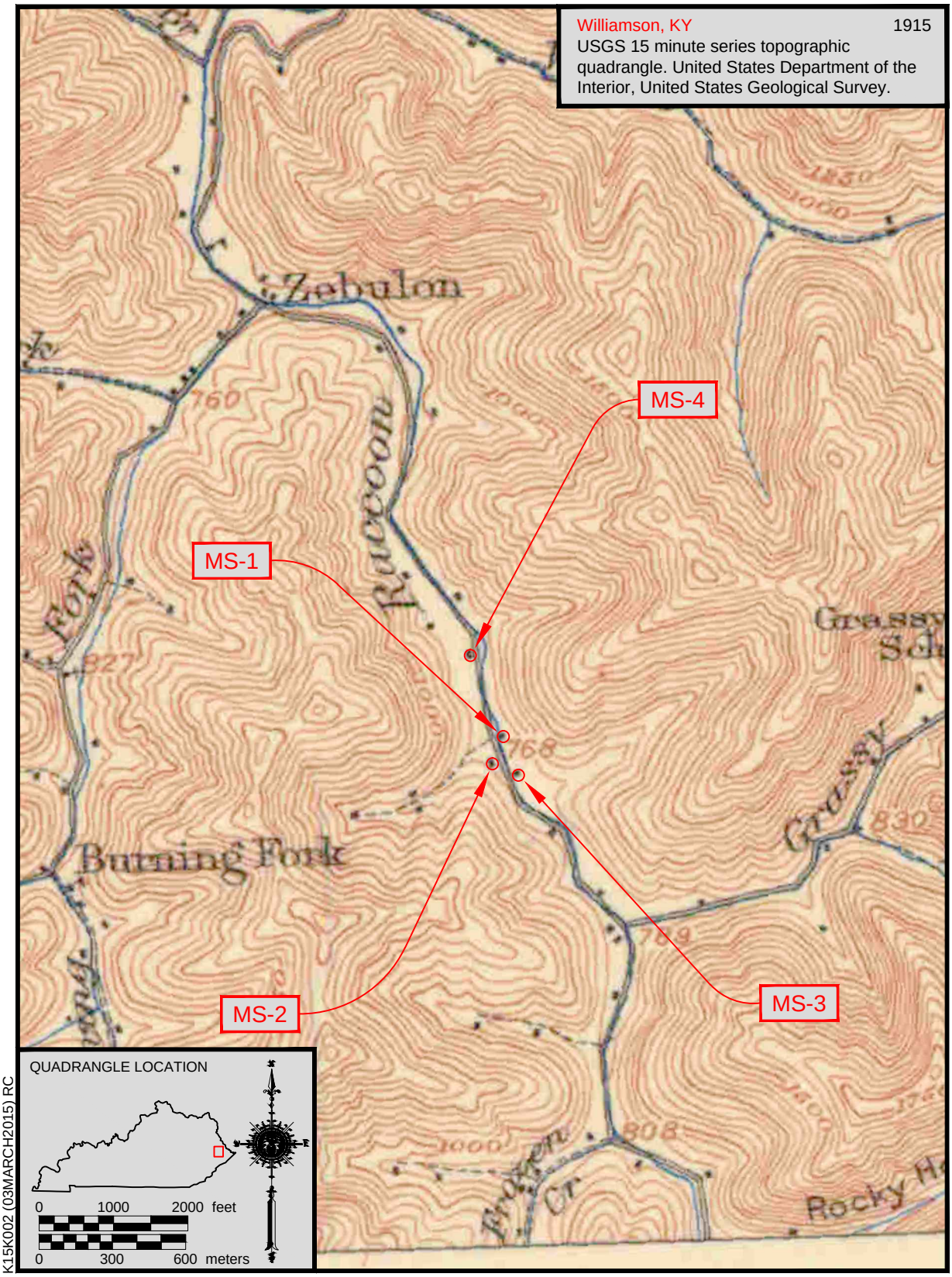

Figure 10. Historic map structure locations, 1915 Williamson 15-minute series quadrangle (USGS).

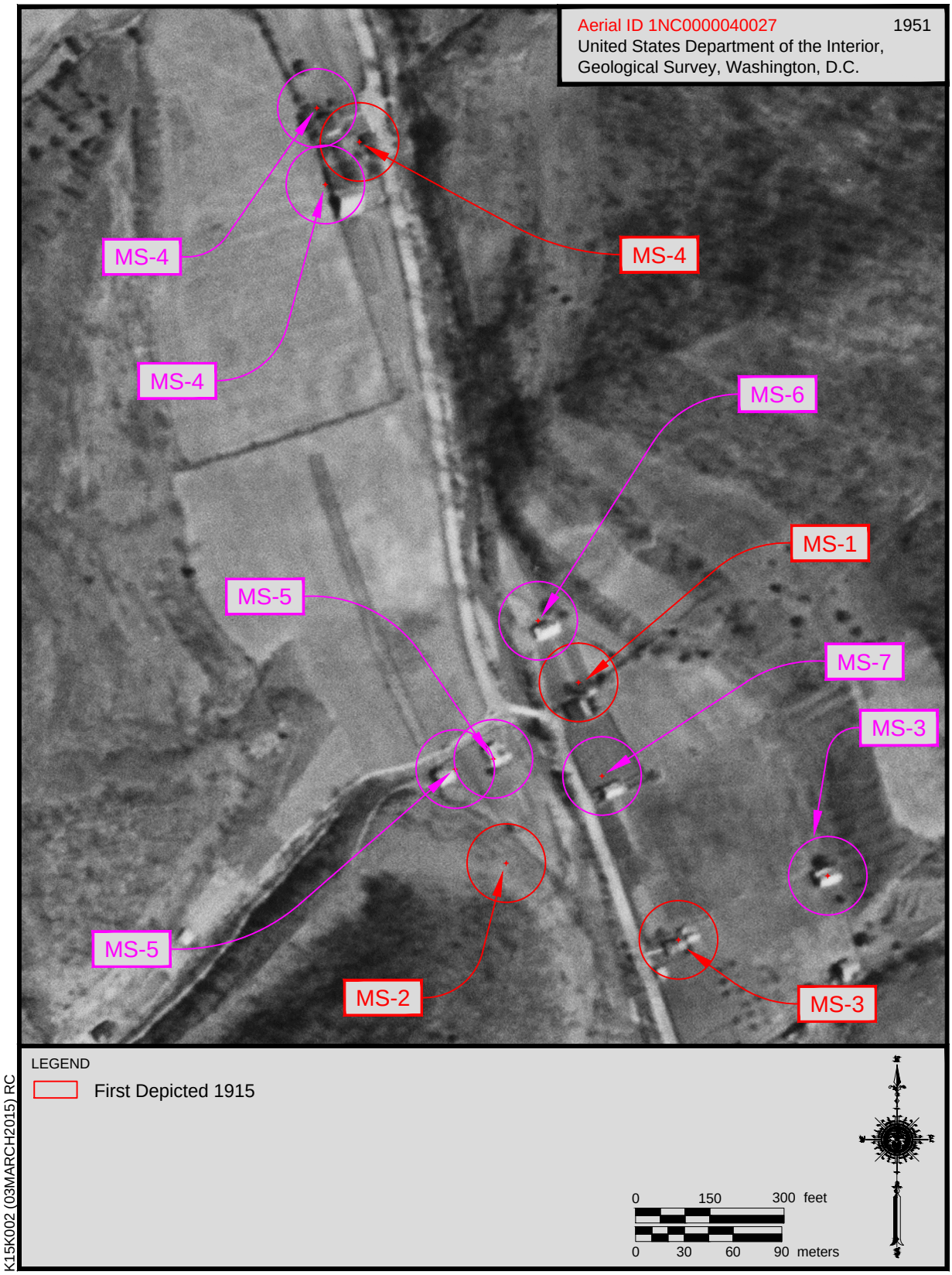

Figure 11. Historic map structure locations, 1951 aerial photograph (USGS 1951).

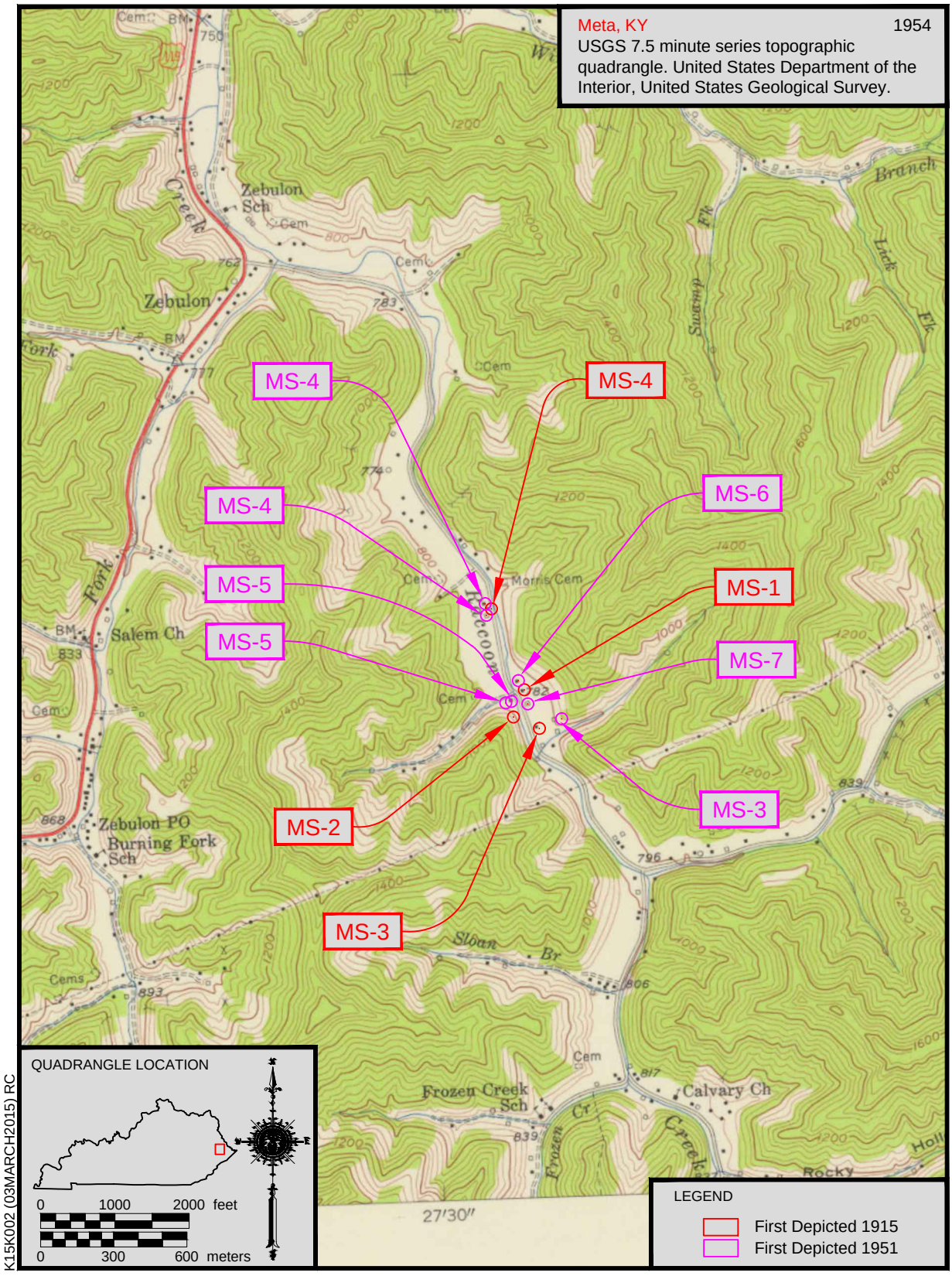

Figure 12. Historic map structure locations, 1954 Meta 7.5 minute series quadrangle (USGS).

area. The entire project area was subjected to intensive pedestrian survey supplemented with screened shovel testing (see Figure 3). Dirt roads and all exposed areas were walked and visually examined for indications of cultural material and features. None were found. Bucket augering was not conducted due to a lack of appropriate soil types, the level of soil disturbance, and the shallow depth to bedrock.

Shovel Testing

Shovel testing is often used to identify sites during survey. There has been much discussion in recent years about the reliability and usefulness of shovel testing as a site discovery method (e.g., Kintigh 1988; Krakker et al. 1983; Lightfoot 1986, 1989; Nance and Ball 1986; Shott 1985, 1989). Problems and biases aside, shovel testing still appears to be the "most efficient discovery technique now available for detecting buried cultural remains on a regional scale" (Lightfoot 1989:413).

In all cases, shovel tests measured not less than 35 cm in diameter and extended well into subsoil (Figures 13 and 14). Shovel tests were excavated in levels. The Ap horizon (plow zone) was removed as one level. After the plow zone was removed, 10-cm arbitrary levels were excavated. All fill removed from the tests was screened through .25-inch mesh hardware cloth, and the sidewalls and bottoms were examined for cultural material and features. Only modern (e.g., plastic chain from a toy, asphalt, and concrete kibbles) and un-datable (e.g., coal fragments and rust kibbles) materials were identified in shovel tests.

Figure 13. Photograph of a representative STP on the Vipperman property (note plastic chain).

Figure 14. Photograph of a representative STP on the Thacker property (note gravelly fill).

V. RESULTS AND CONCLUSIONS

Note that a principal investigator or field archaeologist cannot grant clearance to a project. Although the decision to grant or withhold clearance is based, at least in part, on the recommendations made by the field investigator, clearance may be obtained only through an administrative decision made by the lead federal agency in consultation with the State Historic Preservation Office (the Kentucky Heritage Council [KHC]).

The August 2014 records search revealed no previously recorded archaeological sites or historic properties within the project area. No archaeological sites or historic properties were identified as a result of the initial August 2014 investigations or the February 2015 addendum investigation. Because no sites listed in or eligible for listing in the NRHP will be affected by the proposed construction, cultural resource clearance is recommended.

If any previously unrecorded archaeological materials are encountered during construction activities, the KHC should be notified immediately at (502) 564-6662. Furthermore, if human skeletal material is discovered, construction activities should cease and the KHC, the local coroner, and the local law enforcement agency must be notified, as described in KRS 72.020.

REFERENCES CITED

Birkeland, Peter W.
1984 *Soils and Geomorphology*. Oxford University Press, New York.

Hand, Robert B.
2005 *An Archaeological Survey of a Proposed Coal Mine Operation along Ramey Fork in Pike County, Kentucky*. Contract Publication Series 05-072. Cultural Resource Analysts, Inc., Lexington, Kentucky.

Kentucky Department of Highways
1937 Highway and Transportation Map of Pike County, Kentucky. Prepared by the Kentucky Department of Highways in cooperation with the Federal Works Administration, Public Roads Administration.

Kentucky State Highway Department
1952 General Highway Map of Pike County, Kentucky. Prepared in cooperation with the United States Department of Commerce, Bureau of Public Roads.

Kintigh, Keith W.
1988 The Effectiveness of Subsurface Testing: A Simulation Approach. *American Antiquity* 53:686–707.

Krakker, James K., Michael J. Shott, and Paul D. Welch
1983 Design and Evaluation of Shovel-Test Sampling in Regional Archaeological Survey. *Journal of Field Archaeology* 10:469–480.

Lightfoot, Kent G.
1986 Regional Surveys in the Eastern United States: Strengths and Weaknesses of Implementing Subsurface Testing Programs. *American Antiquity* 51(3):484–504.

1989 A Defense of Shovel-Test Sampling: A Reply to Shott. *American Antiquity* 54(2):413–416.

Nance, Jack D., and Bruce F. Ball
1986 No Surprises? The Reliability and Validity of Test Pit Sampling. *American Antiquity* 51(3):457–483.

National Park Service
1983 Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. *Federal Register* 48(190): 44716–44742. United States Department of the Interior, Washington, D.C.

Quick, Russell S.
2014 An Archaeological Survey of the Proposed Bridge Replacement on Fishtrap Road (KY 1441) over Raccoon Creek at Coon Creek (CR 1371) in Pike County, Kentucky (Item No. 12-1115.00). Contract Publication Series 14-448. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Sanders, Thomas N. (editor)
2006 *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports*. Kentucky State Historic Preservation Office, Kentucky Heritage Council, Frankfort.

Schock, Jack M., Gary S. Foser, and Richard L. Alvey
1976 An Archaeological Survey of the Relocation of US 119, Between South Williamson and Pikeville, Pike County, Kentucky. Western Kentucky University. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.

Shott, Michael J.
1985 Shovel-Test Sampling as a Site Discovery Technique: A Case Study from Michigan. *Journal of Field Archaeology* 12:458–469.

1989 Shovel-Test Sampling in Archaeological Survey: Comments on Nance and Ball, and Lightfoot. *American Antiquity* 54(2):396–404.

Soil Survey Staff
1999 *Soil Taxonomy, A Basic System of Soil Classification for Making and Interpreting Soil Surveys*. 2nd ed. Agricultural Handbook Number 436. United States Department of Agriculture, Natural Resource Conservation Service, Soil Survey Division, Washington, D.C.

Stafford, C. Russell
2004 Modeling Soil-Geomorphic Associations and Archaic Stratigraphic Sequences in the Lower Ohio River Valley. *Journal of Archaeological Science* 31:1053–1067.

Thomas, Paul, Richard Stallings, and Nancy Ross-Stallings
1996 A Phase I Archaeology Survey of the Proposed Realignment of KY 119, Zebulon to Bent Mountain, Pike County, Kentucky. Cultural Horizons, Inc., Harrodsburg, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.

United States Geological Survey
1891 Warfield, West Virginia-Kentucky, 30-minute series topographic quadrangle. United States Department of the Interior, Washington, D.C.

1915 Williamson, West Virginia-Kentucky, 15-minute series topographic quadrangle. United States Department of the Interior, Washington, D.C.

1918 Williamson, West Virginia-Kentucky, 15-minute series topographic quadrangle. United States Department of the Interior, Washington, D.C.

1951 Aerial ID 1NC0000040027 (04/23/1951). United States Department of the Interior, Geological Survey, Washington, D.C.

1952 Aerial ID 1TI0000020138 (03/20/1952). United States Department of the Interior, Geological Survey, Washington, D.C.

1954 Meta, Kentucky, 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, D.C.

Winterhoff, E. Quent
2012 A Phase I Archaeological Survey of the Proposed Landmark Mining, Inc., Mine Along Winns Branch (Permit 898-4362) in Pike County, Kentucky. Apogee Environmental & Archaeological, Inc., Whitesburg, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.

2013 A Phase I Archaeological Survey of the Proposed Landmark Mining Company, Inc., Surface Mine Located Along Winn Branch in Pike County, Kentucky. Apogee Environmental & Archaeological, Inc., Whitesburg, Kentucky. Manuscript on file, Office of State Archaeology, University of Kentucky, Lexington.