PHASE I

ARCHAEOLOGICAL SURVEY ALONG KY 11, BETWEEN MILE POINTS 0/14.343 – 1.082/17.44, LEE AND OWSLEY COUNTIES, KENTUCKY (KYTC ITEM # 10-292.1)

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Kentucky Office of State Archaeology Project Number: FY17-9052



Phase I Archaeological Survey along KY 11, between Mile Points 0/14.343 – 1.082/17.44, Lee and Owsley Counties, Kentucky (KYTC Item # 10-292.1)

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Archaeology Report

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Abstract

In accordance with the Kentucky Heritage Council's *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment* (Sanders 2006), this is an abbreviated technical report describing a no-find resulting from a Phase I archaeological survey conducted on January 30th - February 1st, 2017, and the results of that survey.

At the request of the Kentucky Transportation Cabinet, archaeologists from CDM Smith conducted a Phase I archaeological survey along KY 11 from KY 30 at Levi in Owsley County to 0.5 Mile south of KY 587 in Lee County, Kentucky (KYTC Item Number 10-292.10). The 147-acre (59.49 ha) Area of Potential Effect (APE) for this project lies on both the east and west sides of KY 11 as well as along several side roads extending from KY 11.

The archaeological survey involved a visual inspection of the entire APE, systematic shovel probing in areas of less than 15 percent slope and without standing water, and surface inspection. More than half of the APE was sloped at greater than 15 percent. In the sloped portions, rock outcroppings and overhangs within the APE were inspected, but no cultural material were identified. Disturbances were recorded in about 11 percent of the APE. These included gas line and gas meter installation, road construction and ditching, in-ground fiber optic cable installation, pond construction, demolition of buildings and recent erosion/washout. At the time of the survey, a small portion of the project area was located in wetland areas with standing water.

Three hundred and twenty-eight shovel probes were excavated in total. The entire APE was visually inspected. The survey identified one Isolated Find (IF 1), but no archaeological sites were found to be within the APE. No further archaeological work is recommended within the APE.

Not all portions of the APE were surveyed. Two properties (Parcels No. 116 & No. 506) were not surveyed because entry permission was denied.

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Acknowledgements

The Principal Investigator for the archaeological survey was Mr. J. David McBride, RPA. Howard Beverly, RPA served as Field Director and was assisted in the field by Ann Wilkinson, Robert Ball and field staff from AECOM. Reason Martin generated maps and Robert Ball formatted the report.



Section 1 -

Introduction

In accordance with the Kentucky Heritage Council's *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment* (Sanders 2006), this is an abbreviated technical report describing a no-find Phase I archaeological survey.

CDM Smith was asked by the Kentucky Transportation Cabinet (KYTC), to conduct a Phase I archaeological survey for the reconstruction of KY 11 from KY 30 at Levi in Owsley County to 0.5 Mile south of KY 587 in Lee County, Kentucky (KYTC Item Number 10-292.10). The 147 acre (59.49 ha) Area of Potential Effect (APE) for this project lies on both the east and west sides of KY 11 as well as along several side roads extending from KY 11.

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, Protection and Enhancement of the Cultural Environment (16 U.S.C. 470; supp. 1, 1971).

1.2 Purpose and Scope of Work

KY 11 is a narrow, two lane roadway with little to no shoulders. The purpose of the project is to reconstruct KY 11 from KY 30 at Levi in Owsley County to 0.4 mile north of KY 587 in Lee County.

The area of potential effect (APE) is defined as the ROW extension and temporary construction easement comprising of approximately 147 acres (59.49 ha).

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

1.3 Project Area Description

The project location is in Owsley and Lee Counties, Kentucky (Figure 1-1), and can be found on the USGS Beattyville and Booneville, Kentucky 7.5-minute Quadrangle topographic maps (Figure 1-2). It is located along KY- 11 between KY 30 at Levi in Owsley County to 0.5 Mile north of KY 587 in Lee County (Figure 1-3). In addition, a portion of the APE extends up the following roads that intersect KY 11; KY 587, Mays Subdivision Road, Long Branch Road, KY 3332, Rocky Hill Road, Silo Road, Hummingbird Road and Hill Road.

Three hundred and twenty eight shovel probes were excavated in total. The entire APE was visually inspected. Archaeological resources were found to be absent from the APE. No further archaeological work is recommended within the APE.





Figure 1-1. Project Location within Owsley and Lee Counties.





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



Figure 1-3. Aerial Map showing Project Location.



The area of potential effect (APE) is defined as the limits of the proposed right-of-way and proposed temporary and permanent easements. These areas were identified on design sheets provided by KYTC to CDM Smith and total approximately 149 acres (59.49 ha). The project area is located in the Cumberland Plateau (Eastern Coalfields) physiographic region of Kentucky. The area is situated from 880 to 1,100 ft. above mean sea level (AMSL).

Vegetation within the APE consisted of pasture grasses, mown hayfield grasses, secondary growth trees and understory brush, mown residential lawn, and wetland grasses and foliage (see Figure 1-6 through Figure 1-10).

1.4 OSA Records Research

On January 9th, 2017, the site files and survey records at the Office of State Archaeology (OSA) were accessed and researched.

1.5 Principal Investigator

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

1.6 Field and Laboratory Crew

The field crew consisted of Howard Beverly (field director), Ann Wilkinson, Robert Ball and four personnel supplied by AECOM. Reason Martin prepared the final maps and Robert Ball formatted the report. The fieldwork took approximately 168 person hours to complete.

1.7 Curation

A copy of this report will be curated at the William S. Webb Museum of Anthropology, University of Kentucky, in Lexington.

1.8 Summary of Investigations

At the request of the KYTC, archaeologist from CDM Smith conducted a Phase I archaeological survey along KY 11 11 from KY 30 at Levi in Owsley County to 0.5 Mile south of KY 587 in Lee County, Kentucky (KYTC Item Number 10-292). The archaeological survey involved a visual inspection of the entire APE, systematic and judgmental shovel probing in areas of less than 15 percent slope, and surface inspection. More than half of the APE was sloped at greater than 15 percent. In the sloped portions, rock outcroppings and overhangs within the APE were inspected and no cultural material was identified.

Two property owners with land included within this APE denied permission to survey the property upon request. These two parcels (Parcels No. 116 & No. 506) are described in Table 1-1. Both properties were residential lots with the APE falling into the backyard and/or side yard along KY 11 and KY 587. One of the properties held outbuildings within the portion involved in the APE. Both offered level ground in lawn that could be subjected to shovel probing.

Disturbances were recorded in about 11 percent of the APE. These included gas line and gas meter installation, road construction and ditching, in-ground fiber optic cable installation, pond construction, demolition of buildings and recent erosion/washout. At the time of the survey, a small portion of the project area was located in wetland areas with standing water.





Figure 1-4. General project area. North of Baker Bar Road, from west side of KY 11 looking south. Also depicts secondary growth trees, understory brush and residential yards.



Figure 1-5. General project area. Rolling hills setting, west side of KY 11, looking southwest. Also depicts vegetation of mown hayfield grasses.





Figure 1-6. General project area. Maintained pasture, small creek and secondary growth trees and scrub brush to the east of the creek. East side of KY 11, looking north.



Figure 1-7. General project area. Pasture grasses, west side of KY 11, looking south.





Figure 1-8. General project area. Secondary growth trees and pasture, west side of KY 11, looking south.



Figure 1-9. General project area. Secondary growth trees and scrub brush, west side of KY 11, looking north.





Figure 1-10. General project area. Residential lawn areas with drainage running alongside of KY 11, west side of KY 11, looking north.

Parcel No.	Portion of Parcel Included in APE	Property Address	Owner Name	Mailing Address	Phone	Result
116	2,384 square meters (25,664 square feet)	433 Highway 587 Beattyville, KY 41311	Bobbie C. White	433 Highway 587 Beattyville, KY 41311	unknown	Per KYTC, parcel under condemnation thus no access.
506	13,387 square meters (144,100 square feet)	Highway 11 Beattyville, KY 41311	Dale & Virginia Callahan	PO Box 1036 Booneville, KY 41314	606-560-8622	Phone conversation with Virginia Callahan where she refused entry.

Table 1-1. Summary of Denied and No Access Proper

Section 2 -

Prior Investigations and Summary of Known Sites

This chapter provides a summary of all previous archaeological investigations and all previously recorded archaeological sites in the area. The research methodology involved archival research at the Office of State Archaeology (OSA) and research of previous studies of archaeological sites.

2.1 Historical Documentation

A review of historic maps was conducted online and at the University of Kentucky's Geological Sciences Library and Map Collection. Available were the 1950 Kentucky Department of Highways (KDH) Highway and Transportation Map of Lee and Owsley Counties, Kentucky (KDH 1950); the 1952 and 1961 USGS Beattyville, Kentucky 7.5-minute quadrangle maps (USGS 1952 and 1961); and the1953 and 1961 USGS Booneville, Kentucky 7.5-minute quadrangle maps (USGS 1953 and 1961). Historic property use within or adjacent to the APE was indicated by these historical resources. The potential for encountering historic surface or archaeological remains was considered moderate as several structures were inside the APE. Although, the scale of these maps is problematic and these structures may actually be located just outside the APE. Nonetheless, these areas were identified prior to fieldwork, allowing for added scrutiny during the survey. The highway map also indicated residential properties along KY 11 in the vicinity of the APE, but the scale of these maps made it too difficult to determine much else.

2.2 Previous Archaeological Investigations

A summary of recorded archaeological surveys within the APE and the surrounding two kilometer buffer was requested from the Office of State Archaeology (OSA) and was received on January 5th, 2017. The OSA reported a total of eleven previously conducted surveys within said area, as reported by Ray and Schock (1976), Janzen (1987), Rotenizer (1989), Boedy (1991), Wingfield (1997), McKelway (1997), Gillespie (2001), Bundy (2003), Crider (2003), Fiegel (2004), and Goodman (2015) (Figure 2-1). The physical site files at the OSA were consulted on January 9th, 2017, and the results of that research is described below.

Archaeologists from Western Kentucky University conducted a Phase I survey in February 1975 for the proposed relocation of a 2.7 mile-length of KY 11 in Owsley County, Kentucky. The survey resulted in the identification of one site, 150w300. Area A of 150w300 was within the project area and the surveying archaeologists recommended further investigation of this portion of the site before the project proceeded. The landowner informed surveyors that a mound once was visible adjacent to the site area (Ray and Schock 1976).

On May 21, 1987, a Phase I survey of the proposed KY 587 relocation project area in Lee County, Kentucky was conducted by archaeologists with JANZEN, Inc, on behalf of the Kentucky Transportation Cabinet. The survey corridor measured 3,000 feet in length with a varying width of between 450 and 100 feet. Pedestrian survey was the method employed across the majority of the project area which consisted of steep hillside and slope vegetated with oak-hickory forest that had been extensively cut. A flat area that measured 50 by 300 feet allowed for shovel probe



Figure 2-1. Previous Archaeological Surveys within 2km of Project Area.

testing. In addition, three rock overhangs were inspected for signs of cultural use. All areas of the projects were found negative for cultural resources and no further work was recommended (Janzen 1987).

A Phase I archaeological survey was conducted by archaeologists with Cultural Resource Analysts, Inc. (CRAI) of the 226.2 acres included within Kentucky Department of Surface Mining Permit #865-0063. The permit was in regard to a proposed coal mining operation along Duck Fork and Elk Lick in southwestern Lee County, Kentucky and the work took place on December 11 and 12, 1989. The terrain elevation ranged between 782 and 1,140 feet above mean sea level (AMSL) as it crossed a series of upland ridges and stream valleys. Intensive pedestrian survey and opportunistic shovel probing were the methods used to determine that there were no cultural resources within the project area and to recommend no further work (Rotenizer 1989).

A total of 27.71 acres (11.1 hectares) of a proposed coal Mining Permit Area (Application # 865-0057) in Lee and Owsley Counties were subjected to a Phase I survey on February 8, 1991 by Department of Surface Mining Reclamation and Enforcement (DSMRE) staff archaeologists. The work was requested by Crossroads Mining Company, Inc. The survey area included ridgeline in secondary growth woods as well as terrace land and floodplain planted in legumes. Pedestrian survey and shovel probing were the survey methods employed. There were no cultural materials identified within the APE during this survey, although an 1878-1984 cemetery was mentioned adjacent to but outside of the APE. No further work was recommended (Boedy 1991).

Archaeologists with CRAI conducted a Phase I survey on June 10, 1997 for the United States Postal Service in Owsley County. The survey covered a 0.58 hectare (1.46 acre) piece of land that sat at 285-292 feet AMSL on a nearly level bench along the sideslope of an unnamed ridge, three kilometers (2 miles) west-northwest of the county seat of Booneville. The location, drained by a tributary of Black Creek, was given an intensive pedestrian survey and 13 shovel probes were excavated. There were no archaeological or cultural resources identified as a result of this survey and no further work was recommended (Wingfield 1997).

In September of 1997, a Phase I survey of an 11.2 hectare (28 acre) parcel of land proposed to be developed as an industrial site was conducted by CRAI on behalf of the Kentucky River Area Development District. The APE was 3.2 kilometers (2 miles) south of Beattyville in Lee County. The project area, near the confluence of Long Branch and the Kentucky River, was grown up in very high weeds and grasses and some secondary growth hardwoods. The parcel sat at an elevation ranging between 940 and 1020 feet AMSL and was examined using pedestrian survey and the excavation of 26 shovel probes. The majority of the APE had suffered disturbance by modern bulldozing and logging; no cultural resources were identified within the APE and no further work was recommended (McKelway 1997).

A Phase I archaeological survey was conducted by archaeologists with CRAI ahead of a proposed water storage tank and access road construction near Booneville in Owsley County. The work occurred on June 21, 2001, and involved a 760.8 meter long by 9 meter wide proposed access road route, of which 82 meters of length were part of an existing access road; a 0.05 hectare (0.13 acre) proposed tank site; a 33.5 meter-long and 4.5 meter-wide proposed water line corridor; and a proposed access parcel measuring 0.2 hectare (0.49 acre). The entire project area was subjected to pedestrian survey and shovel probes were excavated where possible, as the terrain involved



steep hillside and a narrow ridge top overgrown with dense underbrush and secondary growth hardwoods. Elevation within the APE ranged between 895 and 1195 feet AMSL. Rock overhangs were inspected for signs of cultural use. The survey resulted in a no-find report, with no cultural resources identified within the APE and no further work recommended (Gillespie 2001).

Archaeologists with CRAI conducted an archaeological survey between May 16th and May 23rd, 2003 for the Kentucky Transportation Cabinet in Lee and Owsley Counties. The survey covered a 128.56 acres within all possible alternates to evaluate the potential of each alternate to impact significant archaeological resources. Three previously unrecorded sites were documented as a result of the survey. Two of the three were not recommended as eligible but one was considered eligible with a high research potential (Bundy 2003).

In February of 2003, an assessment of archaeological potential for the KY 11 relocation project in Lee and Owsley Counties was conducted by CRAI on behalf of KYTC. The new route would be seven miles in length from KY 30 at Levi to the north side of Beattyville. CRAI reviewed site files at of the Office of State Archaeology for previously recorded sites within the area and made recommendations on the potential for archaeological sites to fall within alternates and where target areas for investigations could occur (Crider 2003).

A total of 10.42 hectares (25.74 acres) proposed for the T&T Coal, Inc Contour Strip Mine Operation (Permit 865-0074) in Lee and Owsley County were subjected to a Phase I survey on December 11, 2003 by archaeologists from South Winter Research. In all, 22.14 acres were involved which crossed elevations ranging between 1000 and 1100 feet AMSL. Pedestrian survey and shovel testing identified the APE as entirely disturbed by previous logging and oil operations including oil wells, a tank, and transmission lines. The project was cleared as no cultural resources were found within the entire APE, and no further work was recommended (Fiegel 2004).

A Phase I archaeological survey was conducted by archaeologists with CRAI of the 193 acres included within the United States Army Corps of Engineers jurisdictional areas and excess fill material areas. The project was for the reconstruction of KY 30 between KY 847 and KY 11 in Owsley County, Kentucky and the work took place between March 9 and 19, 2015. The terrain elevation ranged between 850 and 1,150 feet above mean sea level (AMSL) as it crossed a series of upland ridges and stream valleys. Intensive pedestrian survey and opportunistic shovel probing were the methods used to identify three archaeological sites and three historic isolated finds. All three sites were not recommended as eligible and no further work was recommended (Goodman 2015).

2.3 Known Archaeological Sites

A summary of recorded archaeological sites within the APE and a surrounding two kilometer buffer, was requested from the OSA and received on January 5th, 2017. The physical site files at the OSA were consulted on January 9th, 2017. At the time of research, three archaeological sites had been previously recorded within a two-kilometer buffer of the current project area; these are described below. No previously recorded sites are located within the current project boundaries.

Site 15Le254 is the historic Gray family cemetery, first documented by Paul D. Bundy in a 2003 survey for the proposed KY 11 reconstruction project. It is located at 995 feet AMSL on a fairly level ridge top

in a cleared area. The cemetery measures 128 square meters in area and contains ten burials dating from 1934 to 1998. The surveyor recommended that the cemetery be avoided if possible and relocated if the area had to be impacted. The site was deemed ineligible for nomination to the NRHP (KASSF 15Le254; Bundy 2003).

Site 150w156 is an historic farmstead that was recorded by Will Goodman in a 2015 survey for jurisdictional areas and excess fill material areas for the proposed reconstruction of KY 30. The site occupies about 6000 square meters of a level to sloped landscape adjacent to KY 30. Surface features include a standing sandstone chimney, foundation remains, an outhouse and four associated structures. Twenty two artifacts were found in the subsurface tests and no evidence for intact, subplow zone features or midden, leading to the surveyor's conclusion that the site did not have much further information to offer and the site was listed as an inventory site with no further work recommended.

Site 150w157 is an historic farmstead that was recorded by Will Goodman in a 2015 survey for jurisdictional areas and excess fill material areas for the proposed reconstruction of KY 30. The site occupies about 1,500 square meters of a level landscape adjacent to KY 30. Surface features include a partially fallen "log cabin style" wood outbuilding. Three artifacts were found in the subsurface tests and no evidence for intact, sub-plow zone features or midden, leading to the surveyor's conclusion that the site did not have much further information to offer and the site was listed as an inventory site with no further work recommended.

Section 3 -

Field Methods

In this section, the field methods employed during the course of this study is described. These methods include the fieldwork activities, their application in different portions of the project area reflecting conditions encountered, and an evaluation of their effectiveness.

3.1 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). Systematic shovel test probes (STPs) were to be excavated where possible and areas of 15 percent or greater slope were visually inspected for surface remains and potential rock shelters. Systematic surface inspection was utilized in areas with a high surface visibility. The entire APE was visually inspected. The location of all STPs and the field condition encountered during the survey are shown in Figure 3-1 through Figure 3-15. Examples of the field conditions encountered are shown in Figure 3-16 through Figure 3-24.

3.1.1 Investigations

The entire APE was visually inspected. Access was not granted at two properties within the APE, resulting in no survey of the 3.9 acre (1.58 hectare) that these totaled in area. Both of the properties were residential lots, one fronting along KY 11 and the second along KY 587. The parcels consisted of sloped and level, maintained, residential lawns and one contained outbuildings. Approximately 16 shovel probes would have been possible on the two parcels barring finding anything within them.

Shovel probes were excavated in portions of the APE that were not sloped at greater than 15 percent, had no standing water, offered less than 50 percent ground surface visibility, and were not clearly disturbed by modern activities. In total, 328 shovel probes were excavated within the APE where permission to access the property had been granted. The tested portions of the project area were probed at 20 meter intervals where more than one shovel probe was necessary. When the ground was visibly disturbed, a single shovel probe was excavated to document the disturbance. The APE contained areas with more than 15 percent slope, creek beds, and wetland. Modern ground disturbance within the APE included industrial development, commercial development, residential construction and landscaping, utility lines, and road construction.

3.2 Evaluation of Field Methods

Visual inspection resulted in the presence of one rock outcropping within the APE (Figure 3-24). Five shovel probes were placed beneath the outcropping, all resulted in no cultural material being discovered. Disturbances associated with modern residential high activity areas and structure demolition were recorded via shovel probing and surface inspection. The portions of the APE subjected to shovel probing did not produce any cultural artifacts nor intact prehistoric or historic cultural deposits. One isolated artifact was recovered from a topsoil context and was recorded in this report as IF 1. There were no archaeological sites identified during the survey and no further work is recommended.







Figure 3-2. Location of APE, STPs, and Field Condition on Aerial Map, Page 2.



Figure 3-3. Location of APE, STPs, and Field Condition on Aerial Map, Page 3.



Figure 3-4. Location of APE, STPs, and Field Condition on Aerial Map, Page 4.



Figure 3-5. Location of APE, STPs, and Field Condition on Aerial Map, Page 5.



Figure 3-6. Location of APE, STPs, and Field Condition on Aerial Map, Page 6.



Figure 3-7. Location of APE, STPs, and Field Condition on Aerial Map, Page 7.



Figure 3-8. Location of APE, STPs, and Field Condition on Aerial Map, Page 8.



Figure 3-9. Location of APE, STPs, and Field Condition on Aerial Map, Page 9.



Figure 3-10. Location of APE, STPs, and Field Condition on Aerial Map, Page 10.



Figure 3-11. Location of APE, STPs, and Field Condition on Aerial Map, Page 11.



Figure 3-12. Location of APE, STPs, and Field Condition on Aerial Map, Page 12.



Figure 3-13. Location of APE, STPs, and Field Condition on Aerial Map, Page 13.



Figure 3-14. Location of APE, STPs, and Field Condition on Aerial Map, Page 14.



Figure 3-15. Location of APE, STPs, and Field Condition on Aerial Map, Page 15.





Figure 3-16. Example of Slope, Creek, and Testable Floodplain Pasture within the APE. Looking Northeast.



Figure 3-17. Example of Side Slope, and Secondary Growth Vegetation within the APE. Looking Northeast.





Figure 3-18. Example of Creek with Secondary Growth Vegetation within the APE. Looking South.



Figure 3-19. View of Slope Area and Road Cut.





Figure 3-20. View of Ground Surface of Disturbed Area within APE.



Figure 3-21. Example of Testable Pasture Inside the APE.



Figure 3-22. Example of Tested Maintained Lawn within APE.







Section 4 -

Summary and Recommendations

4.1 Summary

At the request of the KYTC, archaeologist from CDM Smith conducted a Phase I archaeological survey for the reconstruction of KY 11 from KY 30 at Levi in Owsley County to 0.5 Mile south of KY 587 in Lee County, Kentucky (KYTC Item Number 10-292.10). The 147 acre (59.49 ha) APE for this project lies on both the east and west sides of KY 11 as well as along several side roads extending from KY 11.

The archaeological survey involved a visual inspection of the entire APE, systematic shovel probing in areas of less than 15 percent slope and without standing water, and surface inspection. More than half of the APE was sloped at greater than 15 percent. In the sloped portions, rock outcroppings and overhangs within the APE were inspected, but no cultural material was identified. Disturbances were recorded in about 11 percent of the APE. These included gas line and gas meter installation, road construction and ditching, in-ground fiber optic cable installation, pond construction, demolition of buildings and recent erosion/washout. At the time of the survey, a small portion of the project area was located in wetland areas with standing water.

One isolated find was recorded within the APE. Findings are discussed below.

4.1.1 Isolated Find 1

The location of Isolated Find 1 (IF 1) can be found on the USGS Booneville, Kentucky, 7.5-minute quadrangle map (Figure 4-1). The UTM coordinates (Zone 17 NAD 27) for IF 1 are N 4154421, E 258510. STP 1449 produced IF 1, and was located 396 m (1,300 ft.) south of the intersection of KY 11 (Paint Creek Road) with Hill Road, on the west side of KY 11.

IF 1 is one prehistoric lithic debitage flake (Figure 4-2) recovered from a context with no associated subsurface features. This artifact is nondiagnostic and cannot be assigned to any temporal or cultural association.

Surface inspection was not possible because of the thick lawn coverage, which offered less than 20 percent ground surface visibility. Negative shovel probes at ten and twenty meters isolate IF 1 to the north and east. A creek bed and steep slope isolate IF 1 to the south. Testing west of IF 1 was not possible due to APE limitations.

Excavation of STP 1449 revealed two zones (Figure 4-3). Zone I consisted of a 10YR 4/3 brown silt loam 39 centimeters thick. IF 1 was recovered from Zone I. Zone II consisted of a 10YR 5/6 yellowish brown silt clay loam and extended from 39 beyond the base of excavations at 49 cmbs.

For reasons of isolation of the artifact combined with its lack of diagnostic qualities, IF 1 is not considered eligible for nomination to the NRHP under Criterion D.

4.1.1.1 Recommendation

No further archaeological work is recommended for IF 1.

4.2 Recommendation

No further archaeological work is recommended.



Figure 4-1. Location of IF 1.





Figure 4-2. Artifact Recovered from STP 1449.



Figure 4-3. Profile of STP 1449.



Section 5 -

References

Boedy, Randall D.

1991 Archaeological Survey of 27.71 Acres in Lee and Owsley Counties, Kentucky, Archaeology Report #10. Department of Surface Mining Reclamation and Enforcement. Frankfort, Kentucky.

Bundy, Paul D.

2003 An Archaeological Survey of 3.8 Linear Miles (Targeting Areas of High Archaeological Potential) Within the Proposed KY 11 Relocation Project Boundaries in Lee and Owsley Counties, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Crider, Andrea D.

- 2003 Assessment of Archaeological Potential for the KY 11 Relocation Project in Lee and Owsley Counties, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.
- Fiegel, Kurt 2004 An Archaeological Survey of the Proposed T&T Coal, Inc. Contour Strip Mine Operation Near Standing Rock Church, Lee and Owsley County, Kentucky. South Winter Research, Frankfort, Kentucky.

Gillespie, Rebecca Miller

2001 An Archaeological Survey of a Proposed Water Storage Tank Site Near the Community of Booneville in Owsley County, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Goodman, H. William

2015 An Archaeological Survey of the United States Army Corps of Engineers Jurisdictional Areas and Excess Fill Material Areas for the Proposed Reconstruction of KY 30 Between KY 847 and KY 11 in Owsley County, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Janzen, Donald E.

1987 An Archaeological Survey of the KY 587 Relocation Project, Lee County, Kentucky. JANZEN, Inc., Danville, Kentucky.

McKelway, Henry S,

1997 An Archaeological Survey of the Proposed Industrial Site Near Beattyville, Lee County, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Ray, Jack M. and Jack M. Schock

1976 An Archaeological Survey of the Proposed Relocation of KY 11, Owsley County, Kentucky. Western Kentucky University, Bowling Green, Kentucky.

Rotenizer, David E.

1989 A Cultural Resource Assessment of a Proposed Coal Mining Operation Along Duck Fork and Elk Lick in Southwestern Lee County, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.



Wingfield, Derek M.

1997 An Archaeological Reconnaissance of the Proposed Booneville United States Post Office in Owsley County, Kentucky. Cultural Resource Analysts, Inc. Lexington, Kentucky.

Kentucky Department of Highways (KDH)

- 1950 Highway and Transportation Map, Lee County, Kentucky.
- 1950 Highway and Transportation Map, Owsley County, Kentucky.

Kentucky Archaeological Site Survey Forms (KASSF)

15Le254 150w156

150w157

Sanders, Thomas N.

2006 Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports. Edition 2.5. Kentucky Heritage Council, Frankfort.

Unites States Geological Survey (USGS)

- 1952 Beattyville, Kentucky, 7.5 minute Quadrangle topographic map.
- 1952 Booneville, Kentucky, 7.5 minute Quadrangle topographic map.
- 1961 Beattyville, Kentucky, 7.5 minute Quadrangle topographic map.
- 1961 Booneville, Kentucky, 7.5 minute Quadrangle topographic map.