OMB No. 10024-001

NPS Form 10-900
(Oct. 1990)

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Nuttallburg Coal Mining Complex and Town Historic District

other names/site number

2. Location

street & number State Route 85/2 ☐ not for publication

city or town Edmonds ☐ vicinity

state West Virginia code WV county Fayette code 019 zip code 25837

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☐ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☐ nationally ☐ statewide ☐ locally. (☐ See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this property is: Signature of the Keeper Date of Action

- ☐ entered in the National Register.
  - ☐ See continuation sheet.
- ☐ determined eligible for the National Register.
  - ☐ See continuation sheet.
- ☐ determined not eligible for the National Register.
- ☐ removed from the National Register.
- ☐ other, (explain): _____

5. Classification

Ownership of Property
(Check as many boxes as apply)
- ☐ private
- ☐ public-local
- ☐ public-State
- ☑ public-Federal

Category of Property
(Check only one box)
- ☐ building(s)
- ☑ district
- ☐ site
- ☐ structure
- ☐ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
3		buildings
4		sites
15		structures
1		objects
23		Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY/EXTRACTION: extractive facility

DOMESTIC: village site

Current Functions
(Enter categories from instructions)

7. Description

Architectural Classification
(Enter categories from instructions)

No style

Materials
(Enter categories from instructions)

foundation: CONCRETE STONE

walls: METAL

roof: METAL

other: WOOD

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☑ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☑ **B** Property is associated with the lives of person significant in our past.
- ☑ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☑ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☐ **B** removed from its original location.
- ☐ **C** a birthplace or a grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☐ **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

INDUSTRY

ENGINEERING

SOCIAL

ARCHEOLOGY

Period of Significance

1873-1958

Significant Dates

1873, 1892, 1920, 1923-1924, 1925-1926, 1930

Significant Person

(Complete if Criterion B is marked above)

John Nuttall

Cultural Affiliation

N/A

Architect/Builder

Roberts and Schaefer Company, Chicago, IL

Fairmont Mining Machinery Company, Fairmont, WV

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # _____
- ☑ recorded by Historic American Engineering Record # WV-51

Primary location of additional data:

- ☑ State Historic Preservation Office
- ☐ Other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Name of repository:

10. Geographical Data

Acreage of Property 90 acres

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	17	496855	4211709
2	17	496898	4211051
3	17	496875	4210878
4			

☑ See continuation sheet (p. 45)

Verbal Boundary Description
Continuation sheet, p. 45
Continuation sheet
Boundary Justification
Continuation sheet, p. 46

11. Form Prepared By

name/title Rita Walsh, Sr Preservation Planner
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Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name

street & number _____ telephone

city or town _____ state _____ zip code

The Nuttallburg Coal Mining Complex and Town Historic District is located in Fayette County, West Virginia on the east side of the New River at the north end of New River Gorge National River. The Nuttallburg Coal Mining Complex and Town Historic District consists of 90 acres and includes, the Nutallburg Mine Complex colliery structures, a bank of 46 coke ovens, the town's residential and commercial areas at the bottom of the gorge including the piers of the foot bridge that linked Nuttallburg to South Nuttall on the west side of the river, and sidings of the former Chesapeake and Ohio (C&O) or "Chessie" railroad. The boundary extends to the east shore of the New River.

The primary elements of the Nuttallburg Coal Mine Complex and Town are included in this nomination. These include the 1925-26 headhouse and related elements at the top of the gorge linked to the coal seams, a 1925-1926 conveyor measuring 1,385 feet in length that brought coal from the mine to the bottom of the gorge, and a 1923-1924 tipple and related elements that sorted coal discharged from the Conveyor and directed it to rail cars below. Sections of two railroad lines closely associated with the operation of the mine and nearby mines are also included. These railroad lines are the three abandoned railroad sidings adjacent to a section of the active CSX railroad line in the bottomlands next to the New River and a section of the right-of-way of the abandoned Keeney's Creek branch railroad line, including its dramatic switchback west of the conveyor and two c. 1930 trestle bridges that cross over Short Creek in two places. A circa 1892 stone retaining wall on the Keeney's Creek line is included in the district, as well as a line of circa 1873 coke ovens west of the Tipple that parallel the former railroad sidings north of the active CSX railroad line. These coke ovens, of which 46 of the original 80 remain, apparently stood idle after 1919 and are the only remaining mining structures built by John Nuttall, the original mine founder.

The underground elements of the Nuttallburg Mine are not included in this nomination. The 1906 Clark & Krebs map shows that the Nuttallburg Mine was laid out in room and pillar configurations that reached well beyond the surface boundaries of the New River Gorge National River. The mines have been sealed off since 1958 and are presumed to be in a collapsed state following 85 years of extractive activities and abandonment.

John Nuttall began developing a coal mine at the confluence of Keeneys Creek and the New River in 1870 in anticipation of the construction of the C&O Railroad through New River Gorge. Coal from this mine was the second to be shipped from the gorge on the C&O Railroad (HAER, 1992, 22). Nuttall developed a second mine that opened in 1874 adjacent to Short Creek that he

named the Nuttallburg Mine. When the C&O Railroad was completed through the area in 1873, Nuttall had already constructed 17 two-family dwellings and 80 single-family dwellings. At the Nuttallburg Mine he erected 80 coke ovens, a scale house and scales, a drumhouse or headhouse, blacksmith shop, carpentry shop, slate dump, and a tipple located on the railroad sidings that branched off the C&O mainline. These buildings were constructed in the vicinity of the Nuttallburg Mine at Short Creek in the unincorporated town of Nuttallburg. The remnants of the town are primarily located in close proximity to the Nuttallburg Mine Complex. The topography of the town directly affected the spatial organization of Nuttallburg. Due to the steep walls of the gorge and narrow bottomland along the New River, there was relatively little level land on which to build. The remaining buildings that Nuttall constructed were in and around the Nuttallburg Mine. Because of the concentration of mining interests on both sides of the New River, a pedestrian suspension bridge constructed by the Roebling Bridge Company, was built across the New River in 1899, connecting Nuttallburg to South Nuttall or Browns, West Virginia.

As the town developed after 1873, the level area adjacent to the C&O Railroad tracks was dedicated to railroad and industrial activities. The buildings and structures that were built included railroad sidings, tipples, and coke ovens. Houses and other buildings were built along the inclined and switchback circulation system in the town. Many of the dwellings in town were perched on piers adjacent to narrow roads that went 100' to 200' up the east slope of the gorge. At the turn of the century, Nuttallburg was a bustling mining town with a doctor, blacksmith, carpenter, schools, churches, and a company store. By 1895, Nuttallburg was segregated with the white workers settled on the west side of Short Creek and the black workers settled on the east side and on the river side of the C&O tracks. Each racial group had its own church, grade school, and club or boarding house. Wealthier families had more prominent homes in Nuttallburg. Historic photographs reveal that these structures were two-story wood frame buildings that included ornamented porches and clapboard fenced yards. Remarkably, the town of Nuttallburg saw few major changes during the period of its occupation from 1873 to 1958.

Although the coal processing buildings at Nuttallburg are the only above ground structures remaining, the mine and town retain the same spatial organization they had during Nuttallburg's period of significance. Primary refuse deposits and privies occur in direct association with residences, churches, and schools throughout the district. One large secondary refuse dump occurs on a slope near the Nuttallburg conveyor. In addition, the roads still pass under the conveyor, branching to connect to the locations of numerous foundations.

Deterioration from the weather or fires may account for the absence of intact wood frame residences and structures in the town, although local residents say that the lumber and other building materials were salvaged by the residents who built new houses on top of the gorge. Despite this, Nuttallburg is replete with stone building foundations, masonry stone walls, concrete pillars, roadways, railroad sidings, and other architectural features that provide a clear sense of the community's historic layout.

Mining in the New River Gorge posed an enormous challenge for the engineering design of mine structures because of the horizontal and vertical distance of the mine portals from the railroad tracks. The mine conveyance systems in the gorge generally had three principal elements: a headhouse just below the rim of the gorge at the level of the coal seam; a conveyor to carefully transport the highly friable New River coal between the headhouse and tipple; and a tipple to sort and load the coal at the bottom of the gorge adjoining the railroad. Paralleling many of the conveyors was a separate inclined rail tram or haulage to carry workers, supplies, and mine mules to and from the mines.

There is sparse evidence of the two earlier mine conveyor systems that John Nuttall built at the Nuttallburg Mine. Historical photographs, however, show that they were both constructed using cross-braced timbers. The conveyor at Nuttall's first mine at Nuttallburg was built between 1873 and 1874 and connected to a wooden tipple that stood over the side track adjacent to a long bank of coke ovens. Photographs of the first conveyor also show two shorter banks of coke ovens parallel to it on either side of the tipple. These coke ovens are absent in the photograph of Nuttall's second Nuttallburg Mine Conveyor. The second Nuttallburg Mine Conveyor differed from the first in having a rail line that curved down to the side track for the coke ovens.

Historical records indicate that the Nuttallburg mine conveyor carried their coal down to the tipple in twin "monitors." Monitors were basically cylindrical tubes with a door at one end that was fastened shut with a heavy steel bar. When the monitor reached the tipple, the bar was tripped, opening the door emptying it of its coal. After Henry Ford tore down Nuttall's second Nuttallburg mine conveyor in the early 1920s, he replaced it with a steel conveyor that employed an innovative "rope and button" technology, which increased the capacity of the conveyor while reducing the fragmentation of the coal.

The National Park Service acquired the mining complex and town and surrounding property from the Nuttall Estate in 1998 for inclusion in the New River Gorge National River that was

originally established in 1978. The existing Ford-era structures of the Nuttallburg Coal Mining Complex are located on the northeast slope and lowland bench of the New River Gorge. The steep hill side in and around the Nuttallburg conveyor system is overgrown with invasive shrubs and volunteer trees, although the immediate area around the conveyor was cleared during the decades of its operation. Short Creek, which steeply cascades down the slope in a series of waterfalls, lies a short distance to the east of the Nuttallburg mining structures. Two of the railroad trestles of the Keeney's Creek branch railroad line cross over this creek.

Passage to the Nuttallburg Mine bench is limited to two narrow roads, one to the headhouse from the Edmonds, West Virginia area and one following a northwest to southeast road along the mine bench. Within the town, the roads, including State Route 85/2, are passable only by foot, as is the route of the abandoned Keeney's Creek branch railroad line

Description of Individual Resources of Nuttallburg Coal Mining Complex and Town Historic District

The Nuttallburg Coal Mining Complex and Town Historic District encompasses the:

- Nuttallburg Coal Mining Complex and Ancillary Structures, including the Nuttall Coke Ovens
- Town of Nuttallburg
- A .85 mile section of the Keeney's Creek Branch Railroad

The historic district's historic resources on the mine bench level are located below the rim of the gorge from just east of the Nuttallburg Headhouse and follow northwest to the Nuttallburg Mine Fan House. They are also located on the lowland bench and adjacent hillside from the housing at "Seldom Seen" southeast to the area east of Short Creek and encompassing the stone pylons of the Roebling Pedestrian Bridge. The specific historic resource descriptions that follow include their resource type classifications and dates of construction.[1]

[1] Most of the information on the historic resources associated with **Nuttallburg Mine Complex and Town** is documented in *The Nuttallburg Coal Mine Complex: Documentation Project*, by the Institute for the History of Technology and Industrial Archeology (IHTIA), December 1992 and the National Park Service Northeast Regional Office's 2006 Nuttallburg Cultural Landscape Inventory. The sheets referred to herein are in its report and are attached at the end of this nomination (NER 2003).

Nuttallburg Coal Mining Complex and Ancillary Structures
The most significant and intact remnant of Nuttallburg's mine operation are the colliery structures at the Nuttallburg Mine, which Henry Ford (1863-1947) built during the early 1920s. Ford's innovative "rope and button" conveyor system replaced the second of two conveyor systems that John Nuttall had built in the same location. Nuttall's first two conveyors at Nuttallburg apparently used "monitors" to transport coal down to their tipples (Nuttall 1961). The current resources included in this nomination include the 1925-26 headhouse and related elements at the top of the gorge linked to the coal seams, a 1925-1926 conveyor measuring 1,385 feet in length that brought coal from the mine to the bottom of the gorge, and a 1923-1924 tipple and related elements that sorted coal discharged from the conveyor and directed it to rail cars below. All of these structures are steel construction on concrete piers. Factors contributing to the conveyor system's deterioration include the lack of maintenance, the cumulative adverse effects from exposure to the weather, and the encroachment of natural vegetation.

NUTTALLBURG MINE COMPLEX

Mine Headhouse (Building) – 1925-1926 (Contributing)
The current Nuttallburg Headhouse (NPS/CLI Sheet 1) is the third one on the site, replacing one which John Nuttall built in 1874 when the mine first opened, and another that was probably built sometime around the start of the 20th century. The main function of the headhouse was to receive, weigh and transfer coal to the conveyor prior to being sent down the steep slope of the gorge to the Tipple.

The Nuttallburg Mine Headhouse is situated on a mine bench at the1560 ft elevation roughly three-quarters of the way up the steep southwest-facing valley slope. A northwest to southeast road traverses the mine bench providing access to its drift mine portals, fan house, hoist house, electrical sub-station, and several other mine-related foundations and structures. Numerous motors and mine cars are present on the slope below the mine bench.

The Fordson Company replaced the original Nuttallburg Mine Headhouse in 1925-26 at the same time the conveyor was replaced. The headhouse is a three-level steel structure that is oriented north-south with a corrugated metal gable roof. The structure is located at the southern edge of the bench level, approximately in the same location as the original headhouse. The total length of the structure is 112'-7" long, seen in the uppermost level, with an overall width of 26'-11".

At the bench level, the height of the uppermost level (the only level directly at the bench level) is 8'-8-1/4". At the south end, where the run-out track for empty cars was located, the height of the headhouse is 13'-1/2". The uppermost level space was devoted to scales, check weigh man's room, car stop, and crossover dump. The second level down housed the reciprocating feeder that uniformly distributed coal onto the lower conveyor trough. The third, or bottommost, level was the location of the conveyor head sprocket and motor room adjoining the Nuttallburg Mine Conveyor that powered the button and rope conveyance system.

The mine headhouse is clad with corrugated steel with the main roof supported by king post trusses. The structural members used in the headhouse construction are rolled steel sections, with columns on concrete piers. Eight window openings, filled with six and nine pane fixed steel sash, are located on the west elevation; most of the sash survives, although some are bent. Some sash is still extant on the east elevation. Sections of corrugated steel siding are missing on the east elevation, although a historic photograph from the 1930s-1940s in the NERI library collection indicates that the northernmost bays were always open. The rails of the track that ran through the Nuttallburg Mine Headhouse remain, including sections of the run-out track at the southern end. The oak plank flooring is deteriorating in some areas, which leaves the structure open on the underside. Interior elements still extant inside the headhouse include the hoppers, scale, and car tipping mechanism.

As with other steel structures at Nuttallburg, the headhouse is deteriorating due to exposure to the elements and lack of maintenance over nearly a 50-year period. The metal roof and siding are mostly intact resulting in the relatively good condition of the structure. The horizontal beam and offset column that originally supported the corner was offset to allow the mine bench track to pass under the northeast corner of the Headhouse where clearance to the adjacent slope was very tight. The column was removed when the mine was abandoned and heavy equipment was brought in to close off existing mine portals with earth berms, resulting in the collapse of the roof at the northwest corner

Nuttallburg Mine Tipple (Building) – 1923-1924 (Contributing)
The extant Tipple (NPS/CLI Sheet 11), built for the Fordson Coal Company operations in 1923-1924 by the Roberts and Schaefer Company of Chicago, Illinois, is the third tipple at the complex. The earlier two tipples, constructed during John Nuttall's ownership of the mine, are no longer extant.

The current steel tipple has four main parts: a conveyor house, a screening room, a coal storage silo, and a loading room. In general, rolled structural sections with riveted joints are used throughout the tipple, which is topped with corrugated steel gable roofs. Wood flooring was used in some parts of the conveyor house and the screening room. The entire structure is clad with corrugated sheet steel. Three railroad sidings are located below the tipple, of which two are for lump coal and one for slack coal. Extant interior elements of the tipple include hoppers, including one for household coal for local use, and chutes and conveyor booms and counterweights.

The coal enters the tipple from the conveyor at the conveyor house, the northernmost part of the structure. The conveyor house is a rectangular plan structure with a massive concrete base with a two-story steel and corrugated metal structure above. The conveyor house is at right angles to the remainder of the tipple. It had two original levels, modified to four levels after the conveyor was constructed. The first level was where the retarding conveyor entered the tipple and coal was delivered; this section is approximately 14'-4" by 19'-8". The upper levels contained the conveyor tail sprocket and conveyor. The conveyor house section, along with the adjacent screening room and loading room to the south, are 14' above grade.

The coal was then moved south from the conveyor house via the Marcus Screening Equipment that extended into the conveyor house to the Nuttallburg Mine Conveyor delivery point. The coal was screened in the screening room and sorted by size using Marcus Screen Drives of various sizes to sort lumps of coal. The screening room measures 16'-11" by 52'-2" and was connected to the conveyor house by steel beams and wood flooring. Skylights in the ceiling provided illumination for the operations here.

The coal storage silo to the west of the screening room was used to store coal waiting for C&O railroad cars without interrupting the flow of work. The silo structure is nearly 50' tall with a footprint of 15'-4" by 15'-9". When ready to be loaded, the coal was taken from the silo or directly conveyed from the screening room to the loading room to the east.

The loading room is 30'-6" by 36'-11". The loading room was equipped with loading booms that were lowered and raised as needed. These loading booms were gently lowered into the C&O cars to convey the coal without breaking. An interior loading boom in the loading room also transported house coal via another conveyor to a smaller hopper at the northeast base of the tipple. This coal was sold to the residents

Modifications to the tipple after the Ford era included the addition on the west side of a steel and timber Belknap Chloride Washer for washing coal in 1952 and the replacement of the Marcus Screen Drives. The two main sections of the Belknap Chloride Washer are located on the west and north sides of the silo with a second section (washer section) west of the screening room that has collapsed. The structure is approximately at the same level above grade as the loading and screening rooms. The dimensions of the southern section are approximately 22' by 27'; the collapsed northern section was approximately 20' by 35'. The washer section has partially collapsed and poses a load on the remaining sections of the tipple. The structure has suffered considerable corrosion as a result of exposure to the weather. The steel used throughout the structure has, in many places, almost entirely rusted through.

Fan House (Building) – ca. 1945-1955
The extant fan house (NPS/CLI Sheet 3) was built by the Maryland New River Company in the late 1940s or early 1950s. The fan house ventilated the mine of the dangerous gases in the mines. The fan in the structure drew air through the mine and released it through the exhausthood on the east side of the structure. The concrete block L-plan structure is approximately 23' by 26' by 16' on the elevations outside of the mine opening. The exterior, south elevation of the building originally had blast doors leading to the mine opening.

Conveyor (Structure) – 1925-1926
The Conveyor (NPS/CLI Sheet 1, 11, 12) is a steel conveyance that features a "button and rope" or retarding mechanism that was popular in West Virginia as it minimized the breakage of the friable bituminous coal. In contrast, the nearby Kaymoor mine and original Nuttall mines had a monitor system, in which two coal monitors (coal cars) were connected to each other with a cable that was similar to an elevator and counterweight. One monitor was filled with coal and was lowered to the bottom, bringing the empty car to the top.

With Ford's Conveyor, after the coal was dumped into the crossover dump hopper, coal was fed into the retarding conveyor by a reciprocating feeder. The weight of the coal was sufficient to propel it down the conveyor trough. However, the button and rope system was designed to retard the coal from uncontrolled sliding down the trough and reduced fragmentation of coal as it descended to the tipple. This type of conveyor contributed to more efficient production of various sizes to be screened, lower operational costs, and quality control of the mining operation

as a well as a higher per ton return on the coal. The retarding system is still extant, although in some areas is dangling down from the conveyor housing.

The Fordson Company replaced the second of John Nuttall's wood conveyors with the current steel conveyor in 1925-1926. The gallery of the structure is constructed of steel channels for the bottom chords and steel angle irons for the top chords. Diagonal bracing and supports for the wood coal trough provide other structural support. The gallery is sheathed and roofed with corrugated steel. A catwalk with wood flooring was originally mounted on the east side. Cross-braced and angled towers on concrete piers spaced along the side of the gorge support the structure. These towers are spaced at 15-foot and 45-foot intervals. The conveyor is approximately at grade near the mine headhouse and about 25 feet above grade just north of the Nuttallburg Mine Tipple. The most distinctive feature of the conveyor is its two sweeping vertical curves at the top and bottom of its length.

At the time, the conveyor, measuring at 1,385 feet, was one of the longest ever erected at a mine complex. In addition, except for the Edwight Mine Conveyor in Raleigh County, its rope and button conveying mechanism is the only example still known to exist in the state. The Nuttallburg Conveyor was designed and built by the Fairmont Mining Machinery Company of Fairmont, West Virginia. It was constructed from steel in an era when most similar conveyors were still constructed of wood frame and timber. The steel framing of the conveyor has rusted in many areas, and in some locations, the steel has rusted through, and trees have grown around the steel columns. The steel sheeting enclosing the conveyor belt also shows signs of deterioration and is missing in many areas.

Mine Opening (Structure) – 1873
This opening is the original main mine portal (NPS/CLI Sheet 1). An adjacent portal to the east was probably used as a ventilation shaft. Both portal openings have been closed. The main opening is covered with an open steel bat gate that was installed sometime after 1958 when the mine was permanently closed. Approximately 17 other possible mine portals exist along the adjacent bench road.

Cap House (Structure) – 1925-1926
The cap house (NPS/CLI Sheet 2) stored the detonating caps used to blow down coal during the mining process. It is a small concrete block structure with exterior stucco covering and is built into the hillside. It has a curved concrete roof that terminates on the sides in a concrete cap that extends out slightly from the walls. A single door opening with metal hardware is located in the front wall.

Powder House (Structure) – 1925-1926
The powder house (NPS/CLI Sheet 2) stored the black powder used in blowing down coal in the mining process. It is quite similar to the nearby cap house. It is also of concrete block construction with an exterior stucco coating and, like the cap house, is built into the slope to direct any explosions outward and away from the mine. The structure has a curved concrete roof and a single entry with steel blast door in the front wall.

Railroad Sidings (Structure) – 1873
Three railroad sidings (NPS/CLI Sheet 9, 11, 14, 15) ran underneath the tipple and continued through to the extant bank of coke ovens. The sidings are located just north of the active CSX railroad line. Most of the rails and ties are intact although the switch at the mainline track has been removed. There is at least one switch remaining. Today, vegetation obscures the railroad sidings.

Mine and Motor Cars (Structure) – Circa 1925– 1955
Mine cars and tracks (NPS/CLI Sheets 1, 2) are overturned in the path and down the hillside adjacent to the headhouse. As many as 14 coal cars or electric conveyance engines, know as "mules" have been discarded in the area.

Hoist House (Structure) – 1925-1926
The hoist house (NPS/CLI Sheet 1) was used to move workers and supplies from the tipple level to the mine bench level. The hoist house was connected to a narrow haulage track that ran parallel to and west of the Nuttallburg Mine Conveyor. Little remains of the haulage line. The hoist house is located above the main mine opening and has a poured concrete foundation and shed roof covered with corrugated steel. The walls are made of cut sandstone. The structure's dimensions are approximately 16 feet by 13 feet, and approximately 8'tall. The structure still contained its hoisting engine, which was of the friction clutch-and-brake type.

Substation (Structure) – 1925-1926
The substation (NPS/CLI Sheet 1) converted the standard alternating current (AC) to a weaker direct current (DC) for use in operating the mine equipment. The substation is a single-story structure with extant walls of cut stone and interior brick walls on a poured concrete foundation. The concrete slab roof is supported by I-beams.

Coke Oven Bank (Structure) – 1873
The coke ovens (NPS/CLI Sheet 11, 14, 15) have been idle since the production of coke ceased when Henry Ford purchased the mining rights in 1920. A total of 46 coke ovens are visible in a contiguous bank to the west or downstream side of the Nuttallburg mine tipple. Other coke ovens may be removed or are hidden under deposits that cover the tipple level site. The mine originally had 80 beehive coke ovens, each with a five-ton capacity. Two shorter banks of coke ovens were located on the upstream and downstream sides of the tipple. The ovens were constructed of rough cut stone blocks and set into the bench north of the remains of a railroad siding. The openings to the coke ovens have an arch opening and lintels made from narrow gauge rail with framing for iron doors. A circular opening for loading the coal is still intact atop some of the coke ovens. The interiors of the coke ovens are lined with fire brick. The stone and brick masonry has collapsed in many of the ovens. In some of the ovens, the entry arch remains intact, but most of these have collapsed as well. Portions of the stone retaining wall between the individual ovens are collapsing as the individual units deteriorate. The ovens were serviced from a rail siding on the downhill side of the array that terminated to the northwest at the company store.

Mine Superintendent's Office (Site) – 1920s
The concrete block foundation (NPS/CLI Sheet 1) is all that remains of this structure built adjacent to the substation. An undated photograph (panorama of mine workers at Dunbree Mine #4 (attached) shows that the structure was wood frame with a rectangular plan. It had a side gable roof and a single door and window in the front elevation.

Sand House (Site) – 1920s
The Sand House (NPS/CLI Sheet 1) was used both for drying and storing sand. Sand was an important commodity to the mine site, since it was used by both mine haulage and railroad locomotives for extra traction in rainy, icy or snowy conditions. Extra traction was gained by applying sand beneath the drive wheels. The Sand House was a low brick structure with a shed roof, and probably dates to the 1920s (Ford era) renovation. It is divided into three areas with a raw sand bin, sand dryer and dry sand bin. Today only a concrete pad, approximately 10' x 45', and some brick wall ruins remain.

Lower Sand House (Site) – 1920s
The Lower Sand House (NPS/CLI Sheet 11) was also used both for drying and storing sand and was located to the west of the Tipple. Physical and photographic evidence suggests that this was a low structure with a shed roof. The Sand House's function was probably similar to that of its counterpart by the headhouse. Today the only remaining vestiges are stone walls and a large quantity of sand. The remains are approximately 43'-0" x 15'-5".

TOWN OF NUTTALLBURG

Town of Nuttallburg (Site) – Circa 1873 – 1958
The town (and mine complex) of Nuttallburg was founded by John Nuttall in 1873 and occupied until around 1958. The physical evidence of the town consists of over 100 building foundations, retaining walls, property fence lines, roads, privies, primary and secondary refuse deposits, C&O property marker monuments, and the pillars of a former pedestrian foot bridge that crossed the New River to South Nuttall. [redacted]

[redacted]

The buildings and structures in the town of Nuttallburg served a variety of residential and commercial functions. These included single-family residences, club or boarding houses, churches, schools, a company store, and at least one automobile garage. The cemetery for the town of Nuttallburg was located outside the gorge above Nuttallburg.

Over time the size and composition of the Nuttallburg Community varied. Between 1873 and 1900 the community primarily consisted of people living in company-built houses on the hillside and along the C&O Railroad close to John Nuttall's first two mine conveyors. Other members of the community lived in the Lansing-Edmonds area on level land above the rim of the gorge and in the towns of Winona and Lookout, West Virginia, which are located a few miles up Keeney's Creek. The people living in Winona and Lookout traveled to Nuttallburg via State Route 85/2 (Keeney's Creek Road) and the Keeney's Creek branch railroad, both of which were built around 1892.

The physical evidence in Nuttallburg nevertheless suggests that its inhabitants had a well developed community life. Over its 85 year life span, the community in the town of Nuttallburg interacted with populations in South Nuttall and the surrounding area. Although coal mining was prone to boom and bust cycles, the town's infrastructure indicates a sense of permanence that is probably reflected in having families who lived and worked there for two or more generations. Sometime during the early 20th century, decisions were made to build standardized concrete-lined privies throughout the town and to construct water lines with hydrants east of the Nuttallburg Mine Tipple. Probably about the same time, American Electric Power Company (AEP) began supplying electricity to the entire town.

A foot bridge constructed across the New River in 1899 united Nuttallburg's community to the people living in South Nuttall (Browns), West Virginia (Jakkula 1941). Sometime in the early 1930s, additional housing was built in Nuttallburg at "Seldom Seen" at the northwest terminus of State Route 85/2 further expanding the size of the community. The Nuttallburg community consisted of American-born whites, European immigrants, and blacks, the latter of whom primarily lived on the river side of the main C&O Railroad line and along State Route 85/2 southeast of Short Creek. Census records from 1880 and 1900 indicate that the population in the unincorporated town of Nuttallburg rose from 277 to 335 people, and that most worked as miners, homemakers, servants, cokers, railroad employees, and as teachers, telegraph operators, and company store employees. During this period the records also indicate that the town had 100 to 150 children.

The housing for mine workers was primarily located on the lowland bench and lower slopes of the New River Gorge. These dwellings were basically simple single family one-story constructions, although there were also two-story single family houses and two-story club or boarding houses. Typical one-story houses consisted of four rooms: a kitchen, a dining room, and two bedrooms. Two-story structures were similar, consisting of a kitchen, dining room, and bedroom downstairs with two bedrooms upstairs. Porches faced the New River on many of these structures as seen in the historic panorama (attached). These houses were very cheap and roughly constructed with few amenities. Yards were often fenced and decorated with apple trees and ornamental plants that included daffodils, quinces, and yucca. One-hole and two-hole privies and primary refuse deposits are also associated with worker housing and other buildings throughout the historic district. No new houses were built during the Ford era; however, the Fordson Coal Company painted all of the buildings and even whitewashed the rocks. Ford also built wooden garages for employees who owned automobiles.

The Nuttall, Holand, and Taylor families who were responsible for founding and operating the mine lived in more elaborate houses in the town of Nuttallburg. Their houses were considerably larger than worker housing and often included architectural ornamentation and picket fencing.

Associated Contributing Building and Structure Retaining Walls and Foundations

A Maryland New River Coal Company map dated July 10, 1922 (NERI archives) indicates 73 numbered buildings at Nuttallburg bottom. The numbering on the Coal Company map is discontinuous and only 64 building footprints are shown. Buildings 60 through 64 are located on private property and are not included in this nomination.

The building foundations are primarily of mortared ashlar sandstone. The masonry retaining walls are structural features that are numerous and ubiquitous in the landscape of the historic district. The walls generally consist of uncut and dry laid sandstone rocks although some are mortared. A few were made from cribbed railroad ties as well. Retaining walls were built to stabilize the steep topography for houses and yards, churches, schools, the company store, industrial buildings and structures, and roadways. The design and implementation of retaining walls was therefore essential to the success of the design of the town and mining and railroad operations. Due to the extensive number of the foundations and retaining walls and the fact that all are of the same era and are considered contributing, the NPS/CLI maps are included as an attachment to this nomination.

Foundations for Buildings 1 through 13 – circa 1920 - 1930
A series of similar dormitory style buildings built are shown on the 1922 Maryland New River Coal Company map. The dormitory buildings provided additional worker housing [redacted] The buildings, which do not appear in any of the known photographs, were approximately 24' x 35'. The foundation ruins consist of mortared, random ashlar sandstone piers, measuring 1'-6" x 1'-6" that vary in height according to the slope of the site. There are typically three to four piers across the front and four along the side of each building. A larger foundation, presumably for stoves, typically 4' x 4' and as tall as the adjacent pier elevation, is found in all of these buildings. In six of the buildings the foundation hearths are located in the center of the footprint and are oriented diagonally with the outside walls. The other seven buildings have the foundation hearth located toward the back of the building and oriented parallel to the perimeter of the building. These building foundations, though unprotected from the elements for perhaps 50 years or more, remain in good condition.

Foundations and Associated Retaining Walls for Buildings 14 through 48, and 50 through 59 – circa 1897-1900
The foundations of buildings 14 through 48, and 50 through 59 are primarily residential buildings that comprised the unincorporated town of Nuttallburg. These are typical miner's houses, as described above consisted of one-story with four rooms. Other houses were two-stories, with three rooms downstairs and two rooms upstairs.

Almost all of the non-industrial buildings in Nuttallburg were built on moderately to steeply sloped lots. Dry stacked stone retaining walls were used to either hold back the slopes where building lots were scooped out or to hold in fill when lots were terraced. Many inhabitants had gardens adjacent to their homes, which were also leveled using stone retaining walls.

Company Store) – circa 1897-1900
The company store was a two-story wood frame building, the foundation and cellar of [redacted] Its cellar was constructed on grade with the coke ovens and approximately 6' above their side tracks. The company store provided food and supplies to the residents in exchange for scrip. It also functioned as a community center.

Building 49 – circa 1873 – 1900
The larger cut stone foundation of Building 49 (NPS/CLI Sheet 8) and an associated foundation of a two-bay garage on a driveway above it, for example, indicate that it was one of the more prominent houses in the town. A historical photograph and contacts with members of the Nuttall estate indicate that Building 49 was a two-story house built by the Taylors, who were related through marriage to the Nuttall family (Thomas Eiff personal communication 5/22/2005).

White Clubhouse – circa 1873 – 1900
According to historic maps and photographs, the White Clubhouse (NPS/CLI Sheet 7) was a segregated boarding house situated west of Short Creek along State Route 85/2 just above the Nuttall Station or train depot. This structure was a two-story wood frame structure complete with a porch wrapping around at least the west and south sides. The physical evidence consists of a foundation and extensive retaining wall system.

HAER documentation mentions a Black Clubhouse in the town of Nuttallburg. However, its location has still not been determined. Based on the segregation of much of the Nuttallburg, which was south of Short Creek, it may have been located near the Black Church and Black School buildings just southeast of the Short Creek bridge. As with the White Clubhouse, the primary function of the Black Clubhouse was probably as a boarding house for single or transient mine workers.

Black Church – circa 1873 – 1900
The HAER documentation also mentions two separate and segregated churches in Nuttallburg (IHTIA 1992). The foundation of the ***Black Church*** (NPS/CLI Sheet 6) is located [redacted]

White Church – circa 1873 – 1900
The foundation of the ***White Church*** (NPS/CLI Sheet 9) is located on leveled hillside [redacted] A photograph of the White Church shows that it was a small wood frame structure with arched gothic windows and a small square porch and steeple on the east side.

Black School – circa 1873 – 1900
The town of Nuttallburg also had two segregated schools. HAER documentation indicates the Black School (NPS/CLI Sheet 6) was a wood frame one-room structure. The cut stone

foundation of the Black School is located west of State Route 85/2 southeast of Short Creek. At the southwest corner of its foundation are four C&O property monuments.

White School – circa 1873 – 1900
The foundation of the White School (NPS/CLI Sheet 10) is located on a leveled hillside [redacted] Similar to the Black School it was a wood frame one-room structure.

Nuttall Station – circa 1900
The Nuttall Station or depot (NPS/CLI Sheet 7) was located along the C&O railroad below the White Clubhouse sometime around 1900. The station was the main destination for railroad passengers coming to or leaving the town of Nuttallburg. A 1935 historical photograph shows that the depot was a wood frame structure with an octagonal tower located at its west end. Abandoned by the C&O Railroad in 1962, nothing remains of Nuttall Depot except for a level area beside the mainline.

Associated Contributing Objects

Cast Iron Water Hydrants – circa 1897-1900 (NPS/CLI Sheet 10, 12) Due to the potential of fire around the mining and railroad operations, the town of Nuttallburg had an extensive water system. John Nuttall had a water flume constructed to carry water into the town from Short Creek. This flume supplied drinking water to Nuttallburg's residents from reservoirs. Part of this water system included the placement of water hydrants and fire traps around the town. Only two hydrants remain today although historical maps indicate the presence of many more than this.

Contributing Circulation Related Structures

State Route 85/2 (Structure) – 1892
The section of State Route 85/2 within the historic district traverses the lowland bench above the CSX tracks from just southeast of the Short Creek Bridge approximately 1.2 miles west-northwest to the end of its 30' right-of-way (Fuerst 2005). Historically, the only modes of transportation for workers and people in and out of the town of Nuttallburg were State Route 85/2, the main line of the C&O Railroad, the Keeney's Creek Branch Railroad, and the road that descended Nuttallburg Mine. State Route 85/2 was built in 1892 and originates in Winona, West Virginia, which is located in the upper Keeney's Creek drainage. The road parallels the C&O railroad from the Keeney mine tipple to its termination in "Seldom Seen", a cluster of houses at the western end of the town of Nuttallburg.

State Route 85/2 was the "main street" through Nuttallburg and integrated the residential, commercial, and industrial parts of the town. Secondary roads split off of State Route 85/2 to provide access to the residential and community structures situated in the slopes above. As noted, miners could reach the Nuttallburg mine headhouse and mine entrance using the mine haulage running along the west side of the Nuttallburg Conveyor or the road that descends to it from the Edmonds, West Virginia area. State Route 85/2 also connected the townspeople to the pedestrian suspension bridge that crossed the New River to South Nuttall (Browns), West Virginia.

Short Creek Bridge (State Route 85/2) – (Structure) – 1892
The original stone abutments of the vehicular bridge over Short Creek have been preserved; however, the deteriorated steel beams and wood planking fragments were removed when a new steel and wood-decked bridge were constructed in 2005 (NPS/CLI Sheet 6).

Pedestrian Suspension Bridge Towers (Structure) – 1899
The 340' long Nuttallburg pedestrian suspension bridge was built in 1899 by the John A. Roebling's Sons Company of New York, the famous bridge company responsible for erecting the Brooklyn Bridge. It connected Nuttallburg with South Nuttall, or Browns, on the south side of the New River. The cables of the bridge were cut in the early 1960s although there are still vestiges of its cable and anchorage system (C&O Historical Magazine 1998, 7). The bridge

featured two sets of cut stone masonry pillars on either side of the river and joined at the top with iron girders.

On the east side of the New River, the south pillar is 22' high while the north pillar is 16'-6" high. Each tower is approximately 5'- 3" square at the base. The six-foot wide walkway was suspended from 1-1/4" cables carried on cast iron saddles and anchored at each shore in solid bedrock. The saddles were capped with pyramidal-shaped metal covers. The floor system was further stiffened with wind guys that are also anchored in bed rock. The westside towers and anchoring system is still extant, but it is difficult to access and is not included in this nomination.

Keeney's Creek Branch Railroad Line (Structure) – 1892
Keeney's Creek Branch Railroad was built by John Nuttall in 1892 and refurbished around 1930. Its use continued until 1962 (Andre 1998). The approximately 30' wide route of this standard gauge, branch railroad originally ran from Nuttallburg to Lookout, West Virginia in a 7.8-mile corridor that serviced several mines in the Keeney's Creek watershed. Approximately .85 miles of this distance is within the historic district. The railroad line splits from the active CSX railroad mainline just north of the confluence of Keeney's Creek and New River, and proceeds up on a gentle grade up the steep slope of the gorge. The portion of the rail grade that is located in the historic district begins where the line intersects with State Route 85/2. The line crosses Short Creek and proceeds under the Nuttallburg mine conveyor to a switch back. It then turns to the southeast and continues to ascend the grade crossing Short Creek again at a higher elevation and exists the historic district approximately 1000 feet beyond the Short Creek . (See attached overview map.) Most of the rail tracks and ties of this standard gauge line have been removed, but the rail corridor is quite visible.

Trestle 1 (Short Creek– Keeney's Creek Branch Railroad) (Structure): – 1892
This trestle, one of two park-owned trestles on the Keeney's Creek Branch Railroad, is approximately 130' long and 30' above the creek at the highest point. It spans between two massive concrete and stone abutments. The span contains eight heavy timber creosote crossed braced bents at 12' on center and there are two steel plate girders that are 54" deep by 14" wide and 34' long that support the bridge where it spans the creek. The typical bent consists of three vertical columns in the center, a raked column at each side, and a diagonal brace to provide lateral stability. The members are generally 12" in diameter. The 12" columns support a 13 ½" by 12" beam which has a tapered top piece added to provide cross slope where the rail is on a curve. The top piece varies from 4" to 12" thick and is 14" wide. The abutments support six 8"

by 16" longitudinal wood beams, three beams under each rail. The longitudinal beams in turn support the 8" by 8" railway ties, which are at 12 inches on center. There is an 8" by 4" wooden curb (typical on all of the bridges) that parallels the rail tracks and is fastened to the outside edge of the rail ties. The width of the bed is 9'-8". The standard gauge rails have been removed, but the safety rails, which are typical on railroad bridges and lie inside the main rails at 3'-0" on center, are still intact. These safety rails keep the train on the bridge in the event of a derailment. Horizontal and diagonal braces between the trestles provide longitudinal bracing to the wood bridge structure.

Trestle 2 (Short Creek– Keeney's Creek Branch Railroad) (Structure): – 1892 This trestle is the first one after the switchback on the upper Keeney's Creek branch railroad where it crosses over Short Creek for the second time. The trestle is approximately 130' long and approximately 30' above the creek at the highest point. It is supported by a combination of heavy timber beams that span between similar wood cross-braced bents at approximately 12 feet on center. The two steel plate girders, 75" deep with a 14" flange width and made of ¾" thick steel, span approximately 46 feet over the creek. The width of the bed is 9'-8". The standard gauge rails have been removed, but the safety rails at 3'-0" on center remain intact.

Masonry Stone Retaining Wall, Keeney's Creek Branch Railroad – 1892
A cut stone retaining wall is located in the slope on the north side of the right-of-way in the lower section of the railroad line right-of-way. The wall is approximately 10' long and 4' high.

Contextual Background and History

The Nuttallburg Coal Mining Complex and Town is located within the National Coal Heritage Area, which encompasses Summers, Mercer, McDowell, Wyoming, Mingo, Logan, Boone, Raleigh, Fayette, Wayne, and Cabell counties in West Virginia.

Industrial scale coal mining in the New River Gorge became economically viable with the arrival of the Chesapeake & Ohio (C&O) Railroad in January 1873, which provided the earliest means for efficient and economical transport of the area's ample coal deposits. Despite its late entry in the coal industry, the New River Gorge fields and the other coal producing fields of southern West Virginia are acknowledged to yield some of the finest coal in the world (www.appalachianpower.com). Although the local people were aware of the abundance of the coal seams, visible along the high gorge walls, mining of the resource was limited to local consumption due to lack of transportation and access (IHTIA 1992:17-18). The earliest mines in Fayette County were the Big and Little Sewell, first opened in the 1840s. Others were opened in the 1850s and 1860s, with over 25 companies by 1860 in western Virginia (IHTIA 1992:18).

The C&O, the only railroad line in the New River Gorge initially, caused an immediate increase in West Virginia's total coal production for 1874. Prior to the opening of the railroad through the New River Gorge, the coal production averaged 600,000 tons annually. In 1874, the tonnage nearly doubled to 1,120,000 tons (IHTIA 1992:17). Population in Fayette County also jumped, from 6,700 in 1870 to 11,700 by the following decade (IHTIA 1992:14-15). Many early investors were from Britain and Pennsylvania, areas where coal mining had been carried out for many decades prior to the arrival of the C&O Railroad in the New River Gorge.

The New River field was opened much later than others in the northeastern part of the state and in other parts of the country, although it was the first to be developed in Southern West Virginia. Other fields in the area, including the Pocahontas and Williamson fields, followed after the Norfolk & Western Railroad was opened in the 1880s and 1890s. The construction of a branch line of the C&O Railroad and the Virginian Railroad led to the opening of mines in the Logan and Winding Gulf fields in the first decade of the 20th century. In 1906, the Greenbrier-Gauley field was the last one to be opened (IHTIA 2004:17). Other mines near the Nuttallburg Mine were opened in the 1890s and in the early years of the 20th century as a result of the construction of the C&O Railroad line on the south side of the New River and the Keeney's Creek branch line

of the C&O Railroad. By the turn of the century, there were approximately fifty mining towns in the New River Gorge.

The coal in the area was prized for its low volatility, which enabled it to burn with little smoke. The desirability of this "smokeless" coal caused the New River field to be one of the most productive fields in the state by the 1890s. The field, along with others in West Virginia and Kentucky, entered their most productive period in the early 20th century as a result of the stiff competition and overexpansion that characterized the coal industry. In 1927, West Virginia exceeded Pennsylvania as the country's leading coal producing state, providing 28 percent of national production in that year (IHTIA 2004:14; http://www.coalheritage.org/draftplan.html).

Soon after the state reached this milestone, the industry began its long decline during the Great Depression. World War II produced a brief boom for the coal industry; in 1948, Fayette County's highest tonnage of 15,171,500 was reported. But by 1960 the output of coal in Fayette County was only 4,402,741 tons (IHTIA 1992:69). In 1973, Kentucky succeeded West Virginia as the leading producer (Unrau 1996:8).

Establishment and Early Development of the Nuttallburg Mine (1873-1920)

John Nuttall, an English immigrant and Pennsylvania capitalist, was the second coal operator to ship coal from the New River Coal Field. He began acquiring land in the New River Gorge in November 1870. He had previously opened and operated over six mines in Pennsylvania over a ten-year period (IHTIA 1992:21). At the time, the C&O was not completed and the sites could not be fully readied and operated as mines since some of the equipment had to be brought in by train (IHTIA 1992: 20-22). Nuttall opened his first mine in West Virginia at Keeney's Creek. The Keeney's Creek Mine began shipping coal out of the valley in February 1873, the second mine to do so in the area (IHTIA 1992:23). In late June 1873, Nuttall purchased an additional 600 acres on the north side of New River. The first tract of land containing 179 acres was located on the east and west sides of Short Creek. The second tract of 295 acres contained land from the New River to the canyon rim. The third tract of 126 acres was located on Ferrin (Fern) Spring. These tracts formed the core of land from which Nuttallburg was created (IHTIA 1992:22). Soon thereafter, Nuttall decided to start production on a second mine at Short Creek that he named the Nuttallburg Mine. Nuttallburg was John Nuttall's second mine in West Virginia and was the third mine to ship coal out of the New River Gorge.

Nuttallburg was a drift mine, as were the majority of the mines in the New River field. In drift mining, the outcrop of the coal seams and the mine are opened by driving directly into the coal seam. Coal is continuously mined, following the seam throughout its course or until it disappears (IHTIA 1992:36). The coal seams at Nuttallburg were located near the top of the gorge, requiring a complex operation in order to extract the coal at upper levels and transport to the lower level of the gorge, where the C&O Railroad provided the means of transport. The original Nuttallburg Mine included a tipple, headhouse, conveyor system, and a series of connected brick and stone beehive ovens for coking coal. Nuttallburg was one of the most productive mines in the gorge, with about 4.3 million tons mined between 1897 and 1958 (IHTIA 1992:63). The westernmost bank of coke ovens is the only mining related structure built by John Nuttall that remains at the Nuttallburg Coal Mining Complex and Town.

In 1873- 74 John Nuttall erected a number of one- and two- family dwellings at his two mines and continued development of mining operations. The village of Nuttallburg was established at the Short Creek mine and a smaller settlement was established at Keeney's Creek. At Nuttallburg, people lived down at the bottom of the gorge or up at the rim. The wood frame houses and institutional buildings built by Nuttall were erected close to the coal mining complex, with segregated churches, schools, and living areas for white and black workers. The combined mines employed 235 people in various mining capacities (IHTIA 1992:23). Only the foundations and retaining walls of these houses and institutional buildings remain.

The most intact above-ground features associated with the Nuttall era are the battery of coke ovens built adjacent to the railroad sidings on the west side of the current tipple. These structures have a stone exterior and brick lined interior that is endemic to the New River Gorge, the center for coking in Southern West Virginia. Most beehive ovens built for coking coal were modeled on the Connellsville, Pennsylvania coke region beehive ovens that were the standard for most areas and date from the 1880s and later (Davis, personal communication, 2005). The difference between them was the use of all stone, as opposed to partially brick, on the exterior of the ovens in the New River Gorge, possibly as a result of the widespread availability of the material in the gorge (Davis, personal communication, 2005). The coke ovens at Nuttallburg were initially constructed in 1873; although these structures needed to be periodically rebuilt due to the generally continuous firing process, their date of rebuilding is unknown at this time.

Although coke ovens were desirably in constant operation, they were obviously not in use in 1894, when the ovens built by Nuttall provided overnight lodgings for some of the men who

joined Coxey's Army in their citizen's march to Washington D.C. Coxey's Army, led by Ohio businessman Jacob Coxey, was composed of over 500 members who traveled to the capitol to present his federally financed economic recovery plan in the wake of the severe depression of the early 1890s. Although the march was quickly snuffed out on the grounds of the U.S. Capitol building, several other armies were formed, including several from the west coast that succeeded in reaching Washington D.C. The event is credited with publicizing the dire unemployment situation, although no legislative objectives were achieved (www.college.hmco.com; www.enquirer.com).

The Nuttallburg Coal Mining Complex was one of several mine properties in West Virginia and Kentucky purchased and largely updated by the Fordson Coal Company in the 1920s. Research to date reveals that the Fordson Coal Company acquired additional existing coal mine properties in West Virginia and Kentucky between 1920 and 1922 for the Rouge Plant operation in Dearborn, Michigan.

The first two mine properties, located in Wallins Creek (Harlan County) and Tisdale (unknown county), Kentucky, were purchased in the summer of 1920 (Nevins 1957:220; *New York Times,* April 15, 1928:135). Both were owned by Banner Fork Company, which became a Ford subsidiary and initially operated them.

With the acquisition of the Nuttallburg Mine later in the same year, the company could have produced all of the fuel necessary for their major factories and the DT & I Railroad, although not quite all the varieties needed (Nevins 1957:220). However, a nationwide fuel shortage in 1922 that Henry Ford maintained had "not come about naturally" caused him to acquire other coal mines to supplement and maintain his fuel supply (Nevins 1957:220-221). Three groups of mines were acquired between November 1922 and April 1923. These were the Pond Creek Mines in Stone, Kentucky (its associated company town is listed in the National Register of Historic Places) and the Twin Branch mines in the Pocahontas coal district in McDowell County, West Virginia. The Pond Creek mines were the largest producing mines for the company, while the Twin Branch mines were among the largest shipping mines in the Pocahontas coal fields. In the same period, Ford was also rumored to be looking at undeveloped tracts in Tazewell, Virginia, in the Pocahontas coal field, but no other information was found to confirm this purchase (*Coal Age,* Vol. 22, No. 20, November16, 1922:821).

In 1923, the coal mines were centralized under the ownership of the Fordson Coal Company, a Ford subsidiary that was incorporated in Dover, Delaware. The company had a capitalization of $15,000,000 and was organized to "mine and sell coal and coke" in the mines purchased by Henry Ford in West Virginia and Kentucky (*Coal Age*, Vol. 23, No. 7, February 15, 1923:309; *New York Times,* Feb. 10, 1923:1). By 1928, the company also owned 120,000 acres of land in the Red River area of Kentucky (*New York Times,* April 15, 1928:135). The headquarters of the company were based in Stone, Kentucky, where the Pond Creek mines were located.

The least information is known about the coal mining properties in Kentucky initially purchased by Ford in the summer of 1920. The Wallins Creek coal mine was previously owned by the Banner Fork Coal Corporation and was later renamed Kentenia. The mine in Kentenia, Kentucky, was in operation by the Fordson Coal Company from 1924-1927 and employed 400 men (www.rootsweb.com). However, the mine is mentioned in a 1928 article, when a dust explosion in a nearby mine caused Fordson Coal company workers from Wallins Creek to help in the rescue efforts (www.angelfire.com). The mine was also mentioned in a 1928 New York Times article, which noted that the mine produced over 2,200 tons of coal per day of coking coal. The location of the mine in Tisdale, Kentucky, cannot be determined, nor was other information found about it. The current status of these mines and the extant nature of their structures were not able to be determined.

The Pond Creek mines in Pike County, Kentucky, were purchased on January 1, 1923 from the Pond Creek Mining Company owned by Boston, MA, businessman, Galen Stone. The coal mining operations here, which initially began around 1911, were the Fordson Company's largest group of mines producing an average of 7,800 tons of coal per week and a work force of over 1300 men (*New York Times*, April 15, 1928:135). Several mining communities near Pond Creek were included in the Fordson operations, including Pinsonfork (Mine No.5); McVeigh (Mine No. 7); McAndrews (Mines No. 4 and 8); and Stone (Mine No. 3). The Fordson Coal Company employed over 8,000 miners at these mines. Stone became the location of the Fordson Coal Company's headquarters.

The company constructed three large brick buildings in 1925 for offices, a company store, and entertainment facilities that included a movie theatre, a pharmacy, barber shop, and post office. The mines were sold in 1936 to the Eastern Coal Company (Taylor & Taylor Associates 2001:Section 8:4). The three Fordson Coal Company buildings and the adjacent residential area, largely constructed before the company's ownership, are listed in the National Register of

Historic Places. No coal mining structures were included in the nomination, as none appear to be extant. As of 2003, only Fordson Mine No. 8 was still in operation and was operated by an independent contractor (Taylor & Taylor Associates 2003: Section 8:11). No industrial mining structures are known to exist at any of the other mine properties (Taylor, personal communication, 2004).

The only other coal mine property in West Virginia acquired by Henry Ford was the former Dexcar Pocahontas Coal Company mines at Twin Branch. Five mines were included in this property, which collectively produced double or triple the amount of coal produced at the Nuttallburg Mine. In 1928, the mines produced 1,600 tons of coal per day (*New York Times*, April 15, 1928:135). The Twin Branch Mines produced between 228,000 and 443,929 tons of coal each year between 1923 and 1928 (IHTIA 1992:71). The mines also employed over 1000 men (www.memory.loc.gov). Like the rest of the coal plants, an existing set of coal mining structures were already on site as the properties were in operation previous to Ford's acquisition.

However, Ford did build a freshwater dam for operating power, a tipple, and a button and rope conveyor similar to the one at Nuttallburg. The mines were in operation by the Fordson Coal Company until 1934. They were closed in that year due to unionization attempts by some of the miners, a concept vehemently rejected by Ford at all of his plants in the early years of the Great Depression. A series of photographs of the town and some of the mining structures in 1938 shows the abandoned wood frame tipple, powerhouse, community building and company store, churches, and houses. The mines were subsequently leased out to others and finally sold to the Carter Land Company, followed by the Olga Coal Company. During the 1970s, the tipple, powerhouse, and dam were still standing. By the mid-1980s, the West Virginia Abandoned Mines Program took down the tipple and powerhouse and modernized the dam. No structures remain today and the mines have been reclaimed (Rose, personal communication 2004).

These "captive mines" as they were called at the time because they were owned by and supplied the needs of a single company, were quite efficient during a period of intense overproduction and competition among coal mines. Although the complete annual production for the other Fordson Coal Company mines is not known, Nuttallburg's production was at its height during Ford's ownership. The highest production was achieved in 1925 with an output of 240,820 tons of coal (IHTIA 1992:68). Ford paid the highest wages and was able to offer a workweek of four and five days, as opposed to the lower wages and two and three day-work weeks of other mines. Another factor was the company's overarching discipline, including such matters as attendance,

cleanliness around the mines and the town itself, and high expectations for individual productivity (*New York Times* April 15, 1928:135).

The structures at the Nuttallburg Coal Mining Complex retain the engineering features that were devised to meet the challenges of New River Gorge mining in the early 20th century. Although coal mining has been carried out in over 35 states, the extraction and transport of coal varies due to the location of coal seams, topography, and the location and modes of shipping. The layout of the New River Gorge coal mining structures resulted from the need to securely transport the coal from the upper reaches of the gorge slopes to the tipple and railroad lines in the bottomlands, the only wide expanse of flat land, adjacent to the New River.

The structures form a mining assemblage that is one of the most intact representatives of the facilities required to produce coal in the early 20th century and also have a strong association with one of the most important ventures in the automotive industry. The Nuttallburg Coal Mining Complex and Town retain all of the major elements associated with the historic activities conducted here, including the mine opening, tipple, headhouse, conveyor, railroad sidings and coke ovens and thus represent the highest level of integrity. The complex possesses integrity as an intact mining system as all of the major components of the coal mining process remain.

The Nuttallburg Coal Mining Complex and Town historic district retains far more extant structures than any others in the New River Gorge. This distinction includes Kaymoor mine, an early 20th century coal mine on the opposite bank of the New River not far from Nuttallburg to the west that was listed in the National Register of Historic Places in 1990. The resources in the nomination included the abandoned coal mine, associated machinery and structures, and the site of the related coal town. Two of the main structures, the headhouse and the preparation plant, have since collapsed, although the foundations of the coal town buildings and other underground features are presumed to be intact (IHTIA 2005:39).

None of the other coal mines in the New River Gorge were associated with the Fordson Coal Company's activities to provide necessary raw materials for their River Rouge automobile plant. Only one other coal mine complex in West Virginia has been identified to date that was acquired by the Fordson Coal Company during the 1920s. This was a series of five mines in Twin Branch, McDowell County in southwestern West Virginia. No extant aboveground remains are left that are associated with this mine property.

Only one other intact coal mine in the state from the early 20th century was identified at the time this nomination was prepared. The Edwight Mine Complex in Raleigh County was built between 1900 and 1950 and includes 100 wooden mine cars, a headhouse, and an intact "rope and button" conveyor system. This mine complex and Nuttallburg retained the only two extant conveyor systems of this type in the state (Davis 2004). The Edwight Mine has been extensively documented as part of the Section 106 mitigation process as it is slated for demolition in 2006 by the West Virginia Department of Environmental Protection, Special Reclamation Division.

Other coal mining complexes in the state have also been recorded, but have been demolished and reclaimed by the West Virginia Department of Environmental Protection (Davis 2004). The Elkins Coal and Coke Historic District in Preston County, West Virginia, which received National Historic Landmark designation in 1983, is the site of the nation's last known operating beehive ovens for coking coal. Its condition was precarious in 2003 when many of the elements were removed by the WV Department of Environmental Protection due to the hazardous condition the deteriorated structures presented to visitors at the site. In 2004, the over 140 coke ovens and coke loader were still intact, although the threat level was noted as being in an emergency state (http://tps.cr.nps.gov/nhl).

The Nuttallburg Coal Mining Complex and Town is also distinguished as one of only a small number of early 20th century coal mining complexes that still remain in this country to illustrate the means of extracting, processing, and transporting coal in this period. Others identified include the Berwind-White Mine 40 in Cambria County, Pennsylvania, probably the most intact early 20th century coal mining facility in the state. The coal mining structures include the powerhouse, hoist house, and several structures, including a steel conveyor, that were used in processing coal (Kuncio 1992: Section 7:2). The structures remain in fair to good condition today, 13 years after the nomination was prepared (Barclay, personal communication 2005). Pennsylvania's historic coal mining resources listed in the National Register of Historic Places are primarily the patch communities, the company towns built near the coal mining facilities, which include the Marianna Historic District in Washington County, Slickville Historic District in Westmoreland County, Colver Historic District in Cambria County, and the Shoaf Historic District in Fayette County. In these historic districts, the industrial coal mining structures are only partially extant.

In the adjacent coal mining states of Ohio and Kentucky, the emphasis on National Register listing and inventory is also on the residential sections of coal mining facilities, mainly because

that is what has remained in use and is most intact. As noted above in the discussion of other coal mines owned by the Fordson Coal Company, only the residential, institutional and commercial areas of Stone, Kentucky, were nominated to the National Register of Historic Places, as little is known to remain of the industrial structures. Like Pennsylvania, it is the company towns that constitute most of Kentucky's coal mining resources listed in the National Register. These towns include the Benham and Lynch Historic Districts in Harlan County, and Wheelwright Historic District in Floyd County (Perry, personal communication, 2005).

The Blue Heron Mining Community near Stearns, Kentucky within the Big South Fork National River and Recreation Area includes a restored coal tipple and connecting bridge, although no other components of the facility, including its company town, are extant. The tin siding on the tipple is part of its rehabilitation in the 1970s, but much of the original supporting infrastructure is still intact (Steve Seven, personal communication, 2005). The coal facility and town, in existence from 1937 until 1962, is creatively interpreted on site and on the park's website. In Ohio, there are few National Register listings or Section 106-related inventories or studies.

A Multiple Property Documentation form entitled *Historic Resources of the Little Cities of Black Diamonds, 1870-1950, Athens, Hocking, and Perry Counties, Ohio* in the southeastern part of the state acknowledges that coal-related industrial structures are rare and rapidly diminishing. The registration requirements stated that, "most extant properties of this type will qualify for listing, even if they are in a partially ruined condition or have been noticeably altered" (Darbee and Reechie 1999:65). In Belmont County, Ohio a Phase III investigation was conducted at an early 20th century deep mine known as the Clarkston Coal mine. Strip mining subsequently destroyed the mine, although it was determined eligible for the National Register of Historic Places under both Criteria A and D (Keener 2003:i).

Remnants of several coal mining facilities in Illinois have been recorded in the state inventory, including a strip mine derrick in Perry County, a mine shaft of the Lovington coal mine in Moultrie County, and a mine dump of the Zeigler Mine #1 in Franklin County. No coal mining resources are known to be listed in the National Register of Historic Places in the state.
In Tennessee, the only mining resource listed in the National Register of Historic Places is the Burra Burra Mine Site in Ducktown, Polk County. An early 20th century copper mine, the site includes a powder house and a hoist house, but no other industrial structures associated with the mining operations (http://www.state.tn.us/environment/hist/stateown/ducktown.php).

In Montana, no coal related industrial structures are listed in the National Register, although the Smith Coal Mine in Carbon County, an early 20th century underground coal mine, was recommended eligible for the National Register. The mine was the scene of one of the worst coal mine disaster (a 1943 methane gas explosion) in the state's history and, despite that incident, is basically intact, unlike similar resources in the state (Joseph Warhank, personal communication, 2005). In central Washington State, several extant early 20th century coal mines in the Roslyn-Cle Elum Coal Field were investigated (Dennis Griffin, personal communication, 2005). Few, however, had intact above ground industrial features and other mines in this coal field are presumed to be in poor condition with no extant aboveground features (Thomas Churchill, personal communication, 2005).

In summary, it is apparent that safety and environmental measures, changes in mining technology and processes, and abandonment, have all contributed to the rapid deterioration, demolition, and reclamation of resources around the country that were similar to the Nuttallburg Coal Mining Complex and Town. The Nuttallburg Coal Mining Complex and Town is an extremely precious representative of this country's coal industry and one that deserves national recognition and immediate and sustained preservation measures.

Significance

The Nuttallburg Coal Mining Complex and Town derives National Register significance, at the national level, under Criterion A for its association with the Fordson Coal Company's innovative system of vertical integration and Criterion C, engineering as a rare survivor of a once common coal mining complex type. The complex and town derives additional significance, at the local level, under Criterion B for its association with John Nuttall, a local coal mining entrepreneur, and Criterion D, archaeology, for its potential to reveal significant information regarding the town of Nuttallburg. The period of significance extends from 1873, the year construction began, until 1958, when the mine ceased operation. The Nuttallburg Coal Mining Complex and Town retains sufficient integrity to convey its significance throughout the entire eighty-five year period of active mine operation.

The Nuttallburg Coal Mining Complex and Town is nationally significant under Criterion A: Business for its association with Henry Ford's (1863-1947) revolutionary experiment to control the supply and flow of raw materials and transportation necessary to manufacture automobiles at his Rouge River Plant in Dearborn, Michigan from 1920-1928.

In 1920, Henry Ford acquired the mining rights of the Nuttallburg Smokeless Fuel Company and its mine to supply his River Rouge Plant in Dearborn, Michigan. The Short Creek mine, which he called the Nuttallburg Mine, was one of the earliest coal mines he purchased for the Rouge plant operations and the first in West Virginia. In early 1921, after visiting Nuttallburg and examining its facilities, Ford made a decision to close and dismantle the mines. The mine was closed from October 1921 through November 1922. Although the official explanation for this decision is not known, various hypotheses offered have included the lack of profitability, Ford's desire to control union activities, or his possible intent to sell the property. A 1922 article in the trade journal, *Coal Age* (November 16, 1922:821), suggested the reason was that it was not as profitable as the other mines in the region. The mine had produced 50,923 tons of coal in 1921 and 10,665 tons for the less than six-month period it was open in 1923.

Although the three coal mines already owned by the company produced sufficient supply for the Ford plants in 1922, a fuel shortage in that year resulted in Ford's acquisition of an additional three groups of mines in 1922 and 1923. After November 1922, Ford started buying other mines in Kentucky and West Virginia to protect his coal supply due to a shortage "artificially caused by Wall Street interests" and further complicated by restrictions on coal shipping to automobile plants by the Interstate Commerce Commission.

At the same time, Ford made the decision to reopen the Nuttallburg Mine and to begin making improvements in 1923 that swiftly improved production. The Fordson Coal Company, chartered in February 1923, almost completely replaced all of the mining structures at the mine, including a new steel tipple, conveyor, and headhouse – the primary components of a New River Gorge Mining Complex. The total cost of these improvements was over $300,000; the conveyor alone was reported to have been over $100,000. These improvements, installed between 1923 and 1926, are the structures and associated extant equipment that remain today, with few changes, at the mining complex. Before 1920, the Nuttallburg production averaged slightly over 50,000 tons/year. After 1924, it reached 90,000 tons/year and peaked at 240,820 tons in 1925.

Ford's River Rouge Plant in Dearborn, Michigan, indisputably the most famous automobile plant in the world, is designated a National Historic Landmark (6/02/78). The plant is a paradigm of the concept of vertical integration, the process of consolidating the different components of a business or industry within a hierarchy under a single owner. The relatively short time span of the use of vertical integration at the Rouge, roughly 1920 until the late 1930s, was a notable

period in the Ford company's history and the Nuttallburg Mine represents a significant extant element of that venture.

The objective of the vertical integration system in the plant became "buying insurance against nonsupply" as well as controlling the flow of both raw materials and its transport necessary to manufacture automobiles at this location. This objective was spurred by Henry Ford's experience with material shortages and burgeoning price increases during World War I, coupled with his realization that he would soon need a larger automotive manufacturing facility than his pioneering Highland Park Assembly Plant. The Rouge plant was distinguished from other large plants and industrial complexes by Ford's concept of flow, specifically the supply and transportation of materials to the point of manufacture. Ford meant to control the flow of both materials and their transportation to his new automobile plant through his ownership of them.

Ford's ventures in ownership of most, if not all, of the major raw materials used in the manufacturing of automobiles began with the purchase of two coal mines in southeastern Kentucky in the summer of 1920. These purchases were followed shortly by the purchase of timber tracts and iron mines in the Upper Peninsula of Michigan and the Nuttallburg Mine in West Virginia. Almost concurrently with these acquisitions, Ford bought the financially struggling Detroit, Toledo, and Ironton (DT &I) Railroad, which had connections to the Chesapeake & Ohio, Baltimore & Ohio, and Norfolk & Western Railroads that provided access to the coal mines in West Virginia and Kentucky at a time when he was also divesting ownership of some of the coal mines.

At the same time that Ford was pursuing his highly celebrated activities to control and centralize flow and raw materials to the Rouge Plant, he was also seeking ways to decentralize operations. Ford sponsored the creation of village industries - small factories in rural areas, run exclusively on water power that produced automobile parts to supply his manufacturing plants and supplied alternative employment to farmers.

Despite the company's enormous investment, the Fordson Coal Company sold the mine to the Maryland New River Coal Company in the summer of 1928, after only eight years of ownership. It is not certain why Ford sold Nuttallburg, but one speculation was that transportation of the coal from West Virginia became too difficult due to the restrictions placed on the DT&I by the Interstate Commerce Commission and the Railroad Association. These restrictions controlled the distribution of coal cars and Ford could not control the transportation of coal from his

West Virginia mines. He therefore decided to divest himself of the West Virginia mines and get his coal from his mines in Kentucky.

The Nuttallburg Coal Mining Complex and Town Historic District is nationally significant under Criterion C: Engineering, for Ford's use of engineering innovations, which streamlined his operations at every level. The new systems employed by Ford were not only state-of-the-art for their time, but in many cases reduced or eliminated the need for operators, which reduced labor costs.

The most visible example of Ford's many innovations is the 1385' long "rope and button" conveyor at Nuttallburg. The Nuttallburg Conveyor was pictured in an advertisement in the 1928 *Keystone Coal Mining Catalog,* for the Fairmont Mining Machinery Company of West Virginia. "The coal is conveyed without breakage, being dumped only once from the mine car into the feed hopper – in marked contrast to the monitor plane system where coal is dumped three times without attaining the same capacity, safety and economy" (*Keystone Coal Mining Catalog,* 1928:232). A 1927 article in *Coal Age* that describes improvements at Nuttallburg, states that the Fairmont Mining Machinery Company designed and constructed the Nuttallburg conveyor and that the company specialized in building conveyor systems designed to meet the client's specific needs.

The article stated that the price of prepared sizes of bituminous lump coal could be between 25 to 100 per cent higher than that of coal screenings or pulverized coal (*Coal Age*, May 5, 1927:629). The new rope and button conveyor was a significant improvement over the standard conveyance systems of the day, not only because it significantly reduced the breakage of the highly friable New River coal, but also because it reduced the amount of labor and energy required in its operation. The original monitor plane system, also used across the river at the Kaymoor mine and at Nuttall's Keeney's Creek mine, consisted of monitor cars that carried the coal down the steep slope of the gorge to the tipple at the bottom. The monitor cars worked in tandem on narrow gauge tracks with the weight of the loaded car pulling the empty car to the top as it simultaneously descended to the bottom.

The system required a skilled laborer called a "Drumrunner" who rode the loaded monitor car down the slope on the loaded monitor car and controlled the speed of descent with a wooden lever. "The drumrunner had to become an expert in gauging his stopping point almost to the inch for if those ten tons hit the dumping cradle at the bottom, the least bit too hard it would tear

out the cradle" (Nuttall 1961:74). "Since coal mined from the Sewell seam is very friable, the retarding conveyor's purpose was to convey coal to the bottom of the New River Gorge with a minimum of breakage. Minimizing coal breakage, translated into increased production of sizes to be screened, lowered operating costs and uniformly delivered coal to the tipple. Equally important was the ease of the conveyor's operation. The conveyor operator did not need any particular skills since the conveyor was basically self-operating, that is, it was either on or off. On the other hand a great deal of skill and dexterity was required in operating the previous Monitor System to ensure a gentle delivery of the coal. This ease of operation reflected the Ford philosophy of streamlining production at the Nuttallburg Mine." (IHTIA 1992:44) The new conveyor was also very economical to operate. The "rope speed" of the conveyor was 80 feet per minute and was capable of delivering 125 tons of coal per hour. Though the conveyor was powered by a 440 volt induction motor, rated at 75 horsepower, the electric motor was only used to start the operation. Gravity and the weight of the coal provided the energy to power the conveyor." (IHTIA 1992:44).

Another example of Ford's innovations to streamline production at Nuttallburg was the installation of two electrical substations. The electricity was originally supplied by steam powered dynamos located down at the tipple level. One new station was located within the mine close to the electrical underground haulage equipment and the other was located outside the mine in a cut-stone and brick building just west of the main mine portal. This building, with its concrete roof was considered a fire-proof enclosure to protect the employees in case the electrical equipment overheated and caused an explosion.

The new substations were used to rectify or convert electricity purchased from Virginia Power Company, from alternating current (AC) to direct current (DC) and to step down the voltage for use in the conveyor, mine haulage and other mine equipment. The electrical system had a synchronous-converter that automatically maintained a constant AC supply to the converter, thus furnishing a constant power level to the DC equipment that was prone to overheating and causing fires. The automatic controls could respond faster to power fluctuations that the older manual controls and it eliminated the need to have a laborer man the facility. It also economized the use of copper wire for electrical distribution throughout the mine.

Automated systems were used wherever possible throughout the complex to eliminate or reduce labor. In the headhouse a Streeter-Amet Weighing Recorder automatically printed the weight of each coal car on a paper tape. The company claimed that loads could be "weighed with much

greater rapidity, thereby, increasing the capacity output of the tipple. In some cases . . . as much as 300 per cent" (*Modern Mining.* May 1927:137). Variable speed motors powered the ventilation fans within the mine to compensate for changes in the outside air temperature. A novel system was developed at Nuttallburg where a remotely controlled automatic starter was installed on the fan with a control cable and push button located in the mine. This allowed the foreman to control the ventilation and eliminated "a man in constant attendance on the fan" (*Coal Age.*Vol. 29, No. 10:368).

The Nuttallburg Coal Mining Complex is believed to be the most intact coal mining complex of the mine properties owned by the Fordson Coal Company. Almost totally rebuilt during the era of the company's ownership, the complex has been largely unaltered since its construction, despite over 30 years of operation after the company sold the property. The complex is also considered to be the most intact property type of its kind in the New River Gorge and probably in the state or nation. The steel mine conveyor system erected by Henry Ford's company used an innovative "rope and button" technology that was specifically engineered to decrease the fragmentation and thus increase the efficient conveyance of the friable Sewell coal. It was thus a technology that addressed the unique characteristics of mining and transporting the coal down the steep slopes of the New River Gorge. The tipple, erected by Roberts and Schaefer Company, Chicago, and the headhouse and conveyor, erected by the Fairmont Mining Machinery Company, Fairmont, West Virginia, were the state-of-the-art technology in their time and were significant improvements over the standard mining systems of the day. The Fordson Coal Company built the Nuttallburg Mine conveyor system and associated buildings between 1923 and 1926. As such, they represent rare surviving examples of the types of coal mining structures built during this period, which is especially true of the Nuttallburg Conveyor. When it was built, the Nuttallburg Conveyor was the longest of its kind, and represented a notable engineering feature in its retarding or "rope and button" technology that more gently transported the friable bituminous coal down the steep slopes of the gorge.

During this period, the Nuttallburg Tipple and Headhouse, Hoist House, Substation, Powder and Cap houses were also built to replace earlier structures. Both the Nuttallburg Tipple and Headhouse were of steel construction at a time when the common practice was to construct wood frame structures. Built by the Roberts and Schaefer Co. of Illinois and the Fairmont Mining Machinery Company of West Virginia respectively, the tipple and headhouse are rare extant examples of these types of structures. Although the mine was operated for 30 years after Ford's sale of the property, few major changes were subsequently made to any of the structures

The Maryland New River Coal Company, headquartered in Philadelphia, had apparently expressed an interest in the Nuttallburg Mine in the 1920s and had earlier purchased the Nuttall Estate's Keeney's Creek Mine. The Maryland New River Coal Company, which renamed the Nuttallburg Mine "Dubree No 4", operated the mine over a 26-year period. The company made few physical changes to the complex during their ownership: a fan house on the bench level was added in the late 1940s and new mine portals were opened on the west side of the bench.

Of the primary mining components, only the tipple was altered. A Belknap Chloride Washer for washing coal was installed on the tipple's west side in 1952 and, at some point, the coal shaking screens in the center of the tipple were replaced. The property was then sold to Garnet Coal Company in 1954, four years before coal mining operations permanently ceased in 1958. The industrial facility was not used after that date and the houses in the town were soon abandoned. Despite the inevitable deterioration caused by nearly 50 years of non-use, the coal mining complex still retains all of the primary components that were employed in mining, processing, and transporting coal. Although similarly deteriorated, the coke ovens and railroad siding associated with the original Nuttallburg Mine still retain their integrity.

The Nuttallburg Coal Mining Complex and Town also derives significance under Criterion B, for its association with John Nuttall (1845-1897), who came to West Virginia from Pennsylvania and became a pioneering coal operator and early developer of the New River Coal fields. He founded Nuttallburg in 1873 to mine and produce coke from the "smokeless" coal of the Sewell coal seam. He purchased his first parcel of land in the New River Gorge in 1870 astride the Chesapeake and Ohio (C&O) railroad right-of-way at the confluence of Keeney's Creek and the New River. (Nuttall 1961) Like his contemporary, Colonel J. L. Beury who also established the town and coal mine at Beury, West Virginia, another prominent mine and coal town in the New River, Nuttall based his investment in coal mining and coke production on the anticipated completion of the C&O Railroad through the New River Gorge in 1873. Though Buery beat him as the first coal producer to ship coal on the new C&O mailine, he quickly followed with coal from his Keeney's Creek and Nuttallburg mines. In 1892 John Nuttall built the Keeney's Creek branch railroad that connected the young coal mines in the Keeney's Creek watershed with the C&O mainline.

Nuttall developed his mines in late 19th and early 20th century, a significant period in the nation's industrial development. Coke produced in Nuttall's coke ovens was shipped to northern industrial cities like Chicago where it was used to manufacture high-quality steel (Nuttall 1961).

The low percentage of volatiles and partings in Nuttall's Sewell coal produced superior coke even though the coke oven technology was replaced by blast furnaces at steel making plants during the 1910s. The "smokeless" characteristic of the New River coal made it sought after to heat the homes in major urban areas like Boston, Massachusetts (Nuttall 1961). In addition, during World War I, the U.S. Navy preferred the New River "smokeless" coal since it made the Navy's warships less visible to stalking German U-boats and surface ships.

The Nuttallburg Coal Mining Complex and Town historic district is locally significant under Criterion D: Archaeology for its potential to yield information on the social and industrial history of a late 19th and early 20th century coal mining complex in the New River Gorge and West Virginia, and one of the most complete coal related industrial sites in the United States

The town of Nuttallburg retains the spatial organization represented during its period of significance. The roads still pass through the town, branching to connect the numerous foundation ruins. Many of the retaining walls are in remarkable condition, despite overgrown vegetation. While the lumber used in the construction of the residential structures has deteriorated or has been salvaged by local residents, the building foundations remain intact.

The assessment of integrity of these resources is based on the results of an archeological reconnaissance and shovel testing in the district that stemmed from recommendations of the West Virginia State Historic Preservation Office. As the investigation report, *Archeological Reconnaissance and Shovel Testing* (Fuerst, April-May 2005) documents, the most salient finding of the investigation was the presence of intact primary refuse deposits in direct association with residences and other historic resources in the historic district.

Shovel testing in the town of Nuttallburg at the Black Church and a residence in Seldom Seen indicated that primary refuse deposits contain deep intact artifact-bearing soils. Although the archeological reconnaissance and testing did not analyze or curate any of the historic artifacts that were observed, their material types included leather, ceramic, glass, metal, and animal bone and reflect a variety of domestic activities. The archeological reconnaissance also discovered privies in specific association with the foundations of residential housing, churches, and schools throughout the town of Nuttallburg. In addition, a large secondary refuse deposit was found near the Nuttallburg Conveyor, which may provide an understanding about the age and disposal patterns of the community as a whole. Lastly, the archeological reconnaissance found the

greatest amount of land disturbance, or "made land," in the vicinity of the Nuttallburg Tipple owing to business-related transformations of the district's "industrial" landscape.

The potential that the intact primary refuse deposits have to address Nuttallburg's significance is accentuated by their provenience within deeded and functionally discrete properties, and the association of these properties with specific individuals and households. In some cases the histories of individuals and families who lived in Nuttallburg are recorded in oral histories (Bill Stone, personal communication 5/10/05). The potential value of primary refuse deposits is also heightened by the fact that the period and duration of occupation at houses are relatively short, and are easily keyed to bottles and insulators that are sensitive indicators of time. In short, these deposits have the potential to examine the nature of the Nuttallburg community and to understand what its social and political landscape was like during the period from1873 to 1958 when it contributed to the country's industrial development and national defense.

They also provide the basis for comparing the individual social histories of contemporaneous coal mining towns in the gorge. Themes that can be addressed within Nuttallburg's community and between its community and other communities in the gorge include: the nature of economic classes; ethnic differences; racial segregation; the formation and activities of labor unions; fraternal and religious organizations; corporate paternalism; households; gender roles within households; public architecture; religious practices; and commercial activities. For example, given the historical segregation of the races and possibly ethnic groups in Nuttallburg, it should be possible to determine material differences with respect to their access to consumer goods, diet, and domestic activities (Barile and Brandon 2004; Dobres and Robb 2000). The integrity of the district's primary refuse deposits also provides the basis for understanding community-level involvement in decisions affecting education, sanitation, water, fire fighting, and electrification.

The excellent preservation of the district's historic archeological resources supports their potential to address these theoretical perspectives. For example, given the segregation of the races in Nuttallburg, it should be possible to determine material differences with respect to domestic household activities (Barile and Brandon 2004; Dobres and Robb 2000). A similar testing program could investigate similarities and differences in economic classes in Nuttallburg, and compare these findings to other communities within and beyond the gorge. In conclusion, the excellent condition of associated primary refuse deposits combined with historical documentation strongly supports the significance of the Nuttallburg Coal Mining Complex and Town Historic District under Criterion D.

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(NPS Form 10-900)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Nuttallburg Coal Mining Complex and Town **_Fayette County, West Virginia__**
Name of Property County/State

Section number Photo Page 1

Name of Property: **Nuttallburg Coal Mining Complex and Town**
Address: **State Route 85/2**
Town: **Edmonds**
County: **Fayette**

Photographer: **Rita Walsh**

Date: **November 10, 2004**

Negatives: **National Park Service, New River National Gorge, Glen Jean, WV**

Photo 1 of 34: View of headhouse at bench or mine level, camera facing southeast

Photo 2 of 34: View of hoist house (on left) and major mine opening with bat gate, camera facing north

Photo 3 of 34: View of headhouse and conveyor, camera facing southeast

Photo 4 of 34: View of headhouse, camera facing south

Photo 5 of 34: View of headhouse, conveyor, and run-out track, camera facing west

Photo 6 of 34: View of substation and ruins of superintendent's office, camera facing northwest

Photo 7 of 34: View of powder house, camera facing northwest

Photo 8 of 34: View of upper trestle bridge of former Keeney's Creek RR branch line over Short Creek, facing southeast

Photo 9 of 34: View of stone retaining wall on corridor of former Keeney's Creek RR branch line over Short Creek, facing east

Photo 10 of 34: View of lower trestle bridge of former Keeney's Creek RR branch line over Short Creek, facing southwest

(NPS Form 10-900)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Nuttallburg Coal Mining Complex and Town _Fayette County, West Virginia__
Name of Property County/State

Section number Photo Page 2

Photograph list (continued)

Photo 11of 34: View of conveyor, camera facing west on corridor of former Keeney's Creek RR branch line

Photo 12 of 34: View of conveyor, camera facing southwest on corridor of former Keeney's Creek RR branch line

Photo 13 of 34: View of conveyor at lower level of gorge, camera facing northeast

Photo 14 of 34: View of tipple and conveyor at lower level of gorge, camera facing west from former railroad siding

Photo 15 of 34: View of tipple and conveyor, camera facing southeast

Photo 16 of 34: View of lower level of tipple showing location of railroad sidings directly underneath and active CSX line to the right, camera facing southeast

Photo 17 of 34: View of bank of coke ovens along former railroad siding west of tipple, camera facing northeast

The following are digital photographs. Copies are included on the CD that accompanies this nomination:
Photographer: **Richard Segars**

Date: **April 4, 2005**

Digital files: **National Park Service, New River National Gorge, Glen Jean, WV**

Photo 18 of 34: View of wood culvert and retaining wall along former Keeney's Creek RR branch line railroad, camera facing north

Photo 19 of 34: View of foundations of "White Clubhouse", camera facing north.

Photo 20 of 34: View of foundations of "barracks" style housing at "Seldom Seen", camera facing northwest.

Photo 21 of 34: View of the interior of the Head House showing the coal car scale mechanism below the tracks, camera facing east.

Photo 22 of 34: View of interior of conveyor showing catwalk on left, coal trough on right and ruins "rope and button" retarding cable (roof damage from rock slide), camera facing southwest (downhill).

Photo 23 of 34: Interior detail view of conveyor showing large sprocket with voids in wheel to accommodate cast iron "buttons" on retarding cable, camera facing south on lower level of Head House where it interfaces with conveyor.

Photo 24 of 34: View of overturned electric locomotive or "mule" used to convey coal cars from mine to tipple, camera facing southeast at bench level.

Photo 25 of 34: View of Keeney's Creek RR branch line rail grade, camera facing southeast.

Photo 26 of 34: View of mile marker number 3 along Keeney's Creek RR branch line rail grade, camera facing southwest.

Photo 27 of 34: View of the roadbed of Trestle 3 along Keeney's Creek RR branch line rail grade, camera facing north.

Photo 28 of 34: View along the side of Trestle 3 along Keeney's Creek RR branch line rail grade, camera facing north.

Photo 29 of 34: Detail view of Trestle 3 showing cast iron structure encased and protruding from the west side of the current concrete pier, camera facing down.

Photo 30 of 34: View of Trestle 4 from drainage area below, camera facing northeast.

Photo 31 of 34: Detail view of Trestle 4 from drainage area below showing cast iron trestle structure, camera facing northwest.

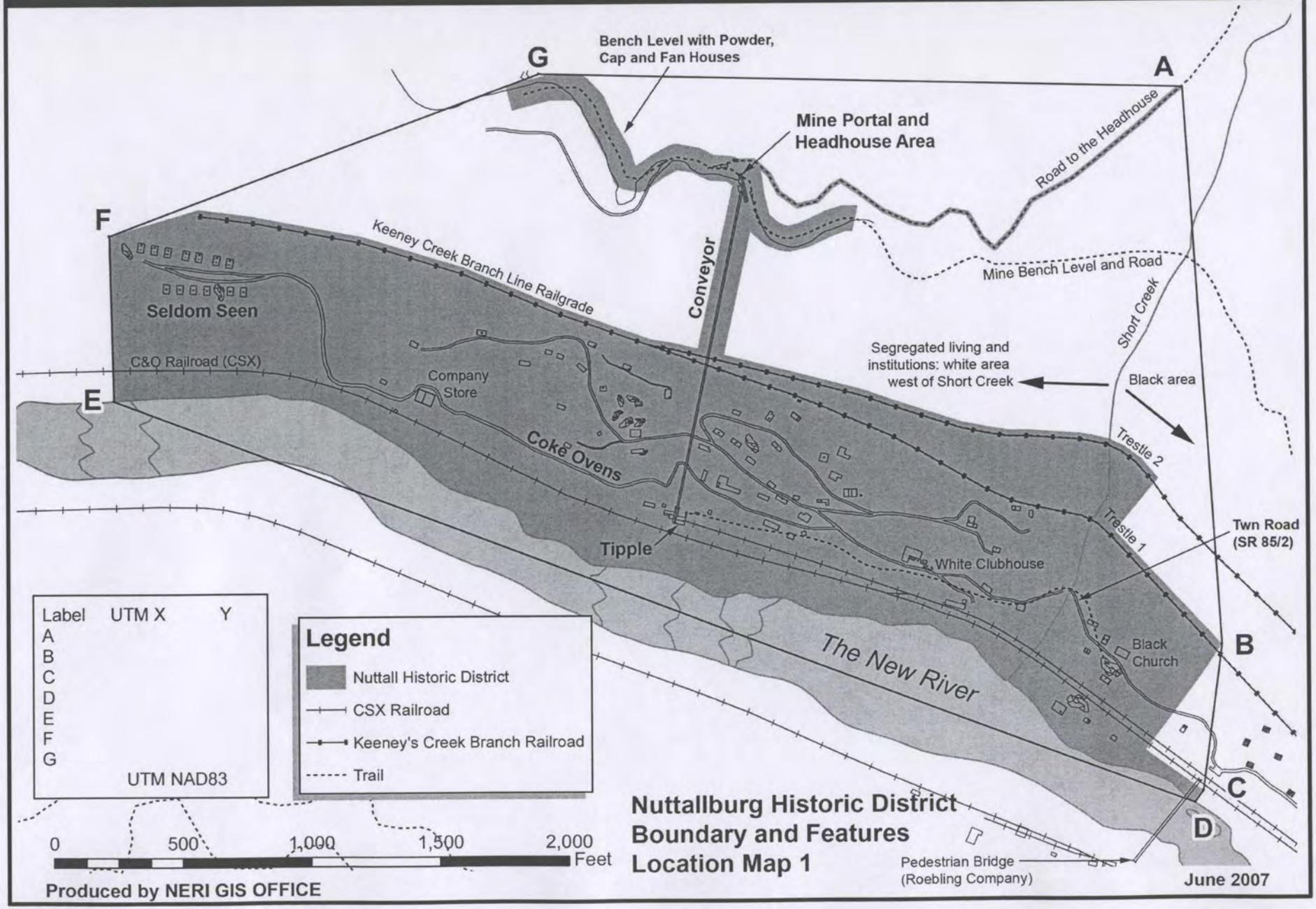
Photo 32 of 34: View of "Runaway Track" traveling uphill, camera facing northwest.

Photo 33 of 34: View of the roadbed of Trestle 5 along Keeney's Creek RR branch line rail grade, camera facing west.

Photo 34 of 34: View of Trestle 5 from Contrary Creek below, camera facing west.

New River Gorge National River
West Virginia

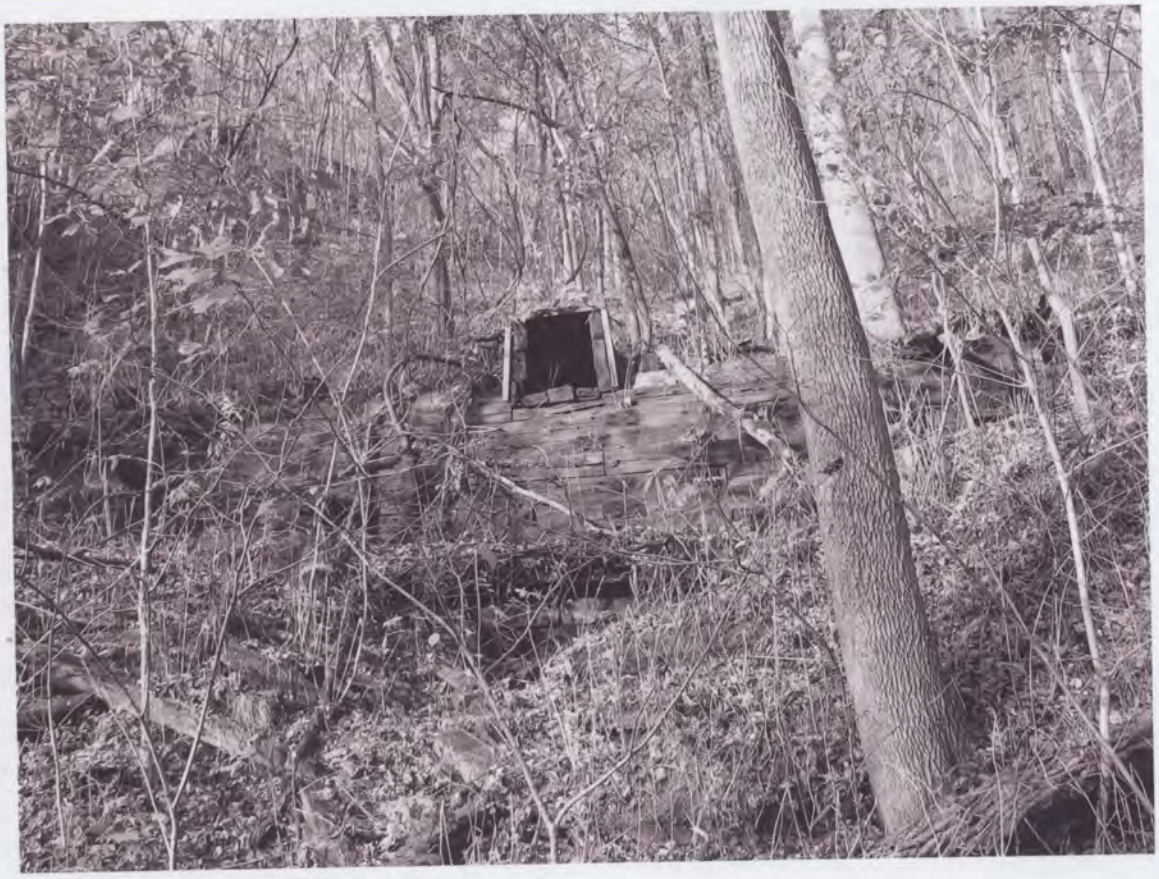
National Park Service
U.S. Department of the Interior



Nuttallburg Historic District
Boundary and Features
Location Map 1

June 2007

Produced by NERI GIS OFFICE

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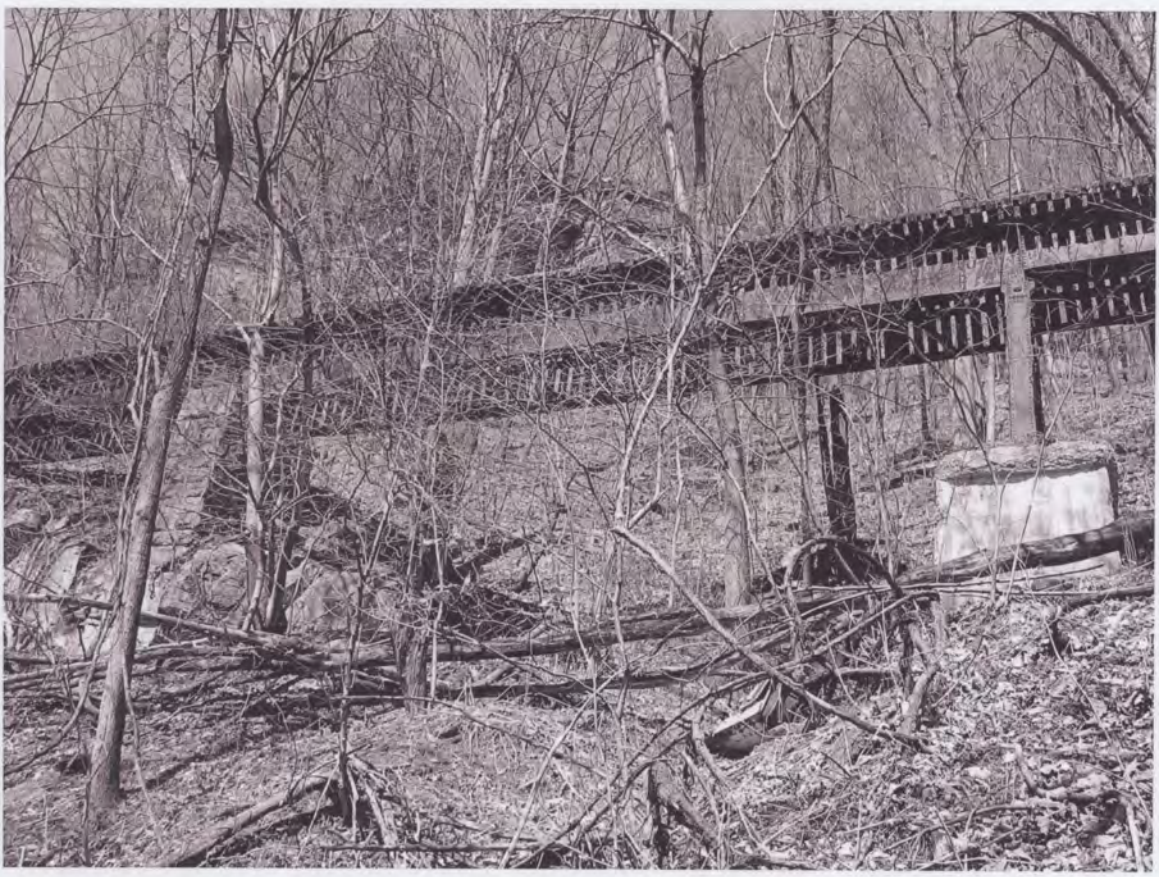


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