

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC Nassawango Iron Furnace Archaeological Site

AND/OR COMMON

2 LOCATION

STREET & NUMBER Nassawango Creek near intersection
Old Furnace Road and Md. 12

CITY, TOWN

Snow Hill

___ VICINITY OF

First

STATE

Maryland

CODE
24

COUNTY
Worcester

CODE
047

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
<input type="checkbox"/> DISTRICT	<input type="checkbox"/> PUBLIC	<input checked="" type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input checked="" type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL	<input checked="" type="checkbox"/> PARK
<input checked="" type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL	<input type="checkbox"/> PRIVATE RESIDENCE
<input checked="" type="checkbox"/> SITE	<input type="checkbox"/> PUBLIC ACQUISITION	<input type="checkbox"/> ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT	<input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT	<input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input checked="" type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY	<input type="checkbox"/> OTHER:

4 OWNER OF PROPERTY

(See continuation sheet)

NAME

(1) Worcester County Historical Society, Joseph E. Moore, President

STREET & NUMBER

Market Street

CITY, TOWN

Snow Hill

___ VICINITY OF

STATE

Maryland

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Worcester County Courthouse

STREET & NUMBER

CITY, TOWN

Snow Hill

STATE

Maryland

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

Maryland Register of Historic Sites and Landmarks

DATE

___ FEDERAL ___ STATE ___ COUNTY ___ LOCAL

DEPOSITORY FOR
SURVEY RECORDS

Maryland Historical Trust

CITY, TOWN

Annapolis

STATE

Maryland

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input checked="" type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input checked="" type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Nassawango Iron Furnace Archaeological Site is located at the intersection of Nassawango Creek, Old Furnace Road and Millville Road east of Snow Hill, Maryland. The western boundary is a north-south line located approximately 750 feet west of the intersection of Old Furnace Road and Millville Road, the northern boundary is an east-west line located approximately 1,000 feet north of the intersection of Old Furnace Road and Millville Road; the southern boundary is an east-west line located 1,750 feet south of the same intersection terminating at its eastern end in the center of Nassawango Creek; the eastern boundary follows the center of Nassawango Creek north to a point 250 feet south of Old Furnace Road; the boundary then parallels Old Furnace Road for 1,125 feet and then turns north to intersect the northern boundary.

The site consists of one furnace stack, slag piles, cellar ruins, piles of brick, fragments of glass, brick, ceramics, shell and slag, and foundations.

The furnace stack is made of stone on brick. The upper portion retains the iron hot blast tubes as well as a majority of the integral hot blast apparatus.

Foundation ruins extend north of the stack on the east side of the private road. The head of the race was located in the middle of this area. The casting bridge ramp site is located to the west of the stack; a wheel pit site exists immediately to the south. Slag piles extend south east from the stack and exist on the north side of Old Furnace Road.

Evidence from a 1877 Worcester County map points strongly to the existence of foundations of two structures one on the west side of Millville Road and another on the east side of the unused county road which extends south from Old Furnace Road and two more on the south side of Old Furnace Road.

Four piles of brick exist (A-D) along the east side of the unused county road. One pair above the intersection with the private road and one pair below.

Six possible cellar foundations have been positively identified (1-6) along the unused county road near the furnace.

(See Continuation Sheet No. 1)

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> HISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 100-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input checked="" type="checkbox"/> INVENTION		

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

Nassawango Furnace was erected in 1830 by the Maryland Iron Company to smelt iron from the bog ore formations in the immediate vicinity. It is the only furnace in Maryland ever to make extensive use of bog ore. It operated only until 1849, and was reported to be in dilapidated condition by 1859.

The furnace produced about 700 tons of iron per year, but the quality and distribution of the bog ore may have caused the several financial failures which the ironworks underwent.

The most significant fact about the furnace is that it made use of hot blast techniques only a few years after the idea was developed in England in 1828-1830. If the Nassawango Furnace was built with the hot blast gear installed from the beginning, and not later converted, it would have to be one of the first hot blast furnaces in America. Even if the equipment was added late in the life of the furnace, it would still qualify as a very early example of the hot blast technology. Mr. Edward Heite, historical registrar of the State of Delaware, has studied Nassawango Furnace and has suggested that the blast apparatus was likely added to the existing stack during a time of ownership change, either in 1837 or 1840.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

W0-10

Bastian, Tyler. "Suggested Boundaries for the Proposed Nassawango Furnace Archaeological-Historical District, Worcester County, Maryland." April 1, 1975, files of the Maryland Historical Trust, Annapolis, Maryland.

(See continuation Sheet no. 1)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 190

UTM REFERENCES

A	18	45,9	4,0,0	4,2	2,8	8,3,0	B	18	45,9	4,3,0	4,2	2,7	92,0
	ZONE	EASTING		NORTHING				ZONE	EASTING		NORTHING		
C	18	45,8	4,6,0	4,2	2,7	9,2,0	D	18	45,8	4,5,0	4,2	2,8	8,2,0

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Nancy Miller, Historian

April, 1973

ORGANIZATION

Maryland Historical Trust

DATE

STREET & NUMBER

21 State Circle

TELEPHONE

267-1438

CITY OR TOWN

Annapolis

STATE

Maryland 21401

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL STATE LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE State Historic Preservation Officer

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

CONTINUATION SHEET 1 ITEM NUMBER 4 PAGE 1

OWNER OF PROPERTY - ITEM NO. 4

- (2) Glatfelter Pulpwood Company
P. O. Box 1971
Salisbury, Maryland 21801
- (3) Maryland Forest Service
Adna R. Bond, Director
Department of Natural Resources
Tawes State Office Building
Annapolis, Maryland 21401
- (4) Estate of Georgia S. Foster
c/o Mercantile-Safe Deposit & Trust Co.
2 Hopkins Plaza
Baltimore, Maryland 21202

7. DESCRIPTION, continued

Two modern logging trails exist, one paralleling the boundary of the Pocomoke State Forest and the other the Old Furnace Road meeting at the intersection of the Forest and the Road. Debris relating to the iron industry have been found in this area.

The boundaries of the Nassawango Site are extended beyond the immediate furnace area so as to include all known features related to the iron production as well as relevant cultural material as yet undiscovered. Fragments of glass, brick, shell and slag exist scattered throughout the boundaries. The boundaries include a church site on the west side of the unused county road and the dam site.

9. MAJOR BIBLIOGRAPHICAL REFERENCES, continued

Robbins, Michael W. "The Maryland Iron Industry." 1972. Manuscript prepared for the Maryland Bi-centennial Commission, Annapolis, Maryland.

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM**

(Type all entries - complete applicable sections)

STATE: <u>Maryland</u>
COUNTY: <u>Worcester</u>
FOR NPS USE ONLY
ENTRY DATE

1. NAME

COMMON:
Nassawango Iron Furnace

AND/OR HISTORIC:

2. LOCATION

STREET AND NUMBER:
Nassawango Creek near intersection Old Furnace Road and Md. 12

CITY OR TOWN:
Snow Hill

CONGRESSIONAL DISTRICT:
First

STATE: Maryland CODE: 24 COUNTY: Worcester CODE: 047

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input type="checkbox"/> Building <input checked="" type="checkbox"/> Site <input checked="" type="checkbox"/> Structure <input type="checkbox"/> Object	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	<input checked="" type="checkbox"/> Occupied <input type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input checked="" type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Comments _____

4. OWNER OF PROPERTY

OWNER'S NAME:
Worcester County Historical Society, Joseph E. Moore, President

STREET AND NUMBER:
Market Street

CITY OR TOWN:
Snow Hill

STATE: Maryland CODE: 24

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC:
Worcester County Courthouse

STREET AND NUMBER:

CITY OR TOWN:
Snow Hill

STATE: Maryland CODE: 24

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY:
Maryland Register of Historic Sites and Landmarks

DATE OF SURVEY: Federal State County Local

DEPOSITORY FOR SURVEY RECORDS:
Maryland Historical Trust

STREET AND NUMBER:
2525 Riva Road

CITY OR TOWN:
Annapolis

STATE: Maryland CODE: 24

SEE INSTRUCTIONS

STATE: <u>Maryland</u>
COUNTY: <u>Worcester</u>
FOR NPS USE ONLY
ENTRY NUMBER
DATE

DESCRIPTION		
CONDITION	(Check One) <input type="checkbox"/> Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Deteriorated <input type="checkbox"/> Ruins <input type="checkbox"/> Unexposed	
	<table border="1"> <tr> <td>(Check One) <input checked="" type="checkbox"/> Altered <input type="checkbox"/> Unaltered</td> <td>(Check One) <input type="checkbox"/> Moved <input checked="" type="checkbox"/> Original Site</td> </tr> </table>	(Check One) <input checked="" type="checkbox"/> Altered <input type="checkbox"/> Unaltered
(Check One) <input checked="" type="checkbox"/> Altered <input type="checkbox"/> Unaltered	(Check One) <input type="checkbox"/> Moved <input checked="" type="checkbox"/> Original Site	
DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE		
<p>Nassawango Furnace is located on a creek of the same name, about five miles northwest of Snow Hill and near the intersection of Old Furnace Road and Maryland Route 12.</p> <p>There are few remains on the site, but what is there is a significant survival of the 19th century iron industry. A furnace stack, with much of its integral hot blast apparatus intact, is still standing on the south bank of Nassawango Creek. The stack is constructed of stone and brick, with iron hot blast tubes build into the top portion. It appears that some modern repair has been performed on the stack, especially near the top. None of the auxiliary buildings remain.</p> <p>Foundations of the dam are now serving as a causeway for Old Furnace Road. There are signs of a race, extending from the aforementioned road to the furnace stack, along the west bank of the creek.¹</p>		
<p>¹ Michael Robbins, "The Maryland Iron Industry," 26</p>		

SEE INSTRUCTIONS

SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

- | | | | |
|--|---------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Pre-Columbian | <input type="checkbox"/> 16th Century | <input type="checkbox"/> 18th Century | <input type="checkbox"/> 20th Century |
| <input type="checkbox"/> 15th Century | <input type="checkbox"/> 17th Century | <input checked="" type="checkbox"/> 19th Century | |

SPECIFIC DATE(S) (If Applicable and Known)

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political | <input type="checkbox"/> Urban Planning |
| <input type="checkbox"/> Prehistoric | <input type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Historic | <input checked="" type="checkbox"/> Industry | <input type="checkbox"/> Science | _____ |
| <input type="checkbox"/> Agriculture | <input checked="" type="checkbox"/> Invention | <input type="checkbox"/> Sculpture | _____ |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian | _____ |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater | _____ |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Military | <input type="checkbox"/> Transportation | _____ |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Music | | _____ |
| <input type="checkbox"/> Conservation | | | _____ |

STATEMENT OF SIGNIFICANCE

Nassawango Furnace was erected in 1830 by the Maryland Iron Company to smelt iron from the bog ore formations in the immediate vicinity. It is the only furnace in Maryland ever to make extensive use of bog ore. It operated only until 1849, and was reported to be in dilapidated condition by 1859.

The furnace produced about 700 tons of iron per year, but the quality and distribution of the bog ore may have caused the several financial failures which the ironworks underwent.

The most significant fact about the furnace is that it made use of hot blast techniques only a few years after the idea was developed in England in 1828-1830. If the Nassawango Furnace was built with the hot blast gear installed from the beginning, and not later converted, it would have to be one of the first hot blast furnaces in America. Even if the equipment was added late in the life of the furnace, it would still qualify as a very early example of the hot blast technology. Mr. Edward Heite, historical registrar of the State of Delaware, has studied Nassawango Furnace and has suggested that the blast apparatus was likely added to the existing stack during a time of ownership change, either in 1837 or 1840.

The property is currently owned and maintained by the Worcester County Historical Society.

SEE INSTRUCTIONS

¹ Michael Robbins, "Maryland Iron Industry," 27.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Robbins, Michael W. "The Maryland Iron Industry." 1972. Manuscript prepared for the Maryland Bi-centennial Commission, Annapolis, Maryland.

10 GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY				O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES				
CORNER	LATITUDE				LONGITUDE				
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
NW	38 °	12'	21"	75 °	28'	17"			
NE	38 °	12'	21"	75 °	28'	11"			
SE	38 °	12'	14"	75 °	28'	10"			
SW	38 °	12'	14"	75 °	28'	16"			

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 10 acres

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME AND TITLE: Nancy Miller, Historian

ORGANIZATION: Maryland Historical Trust DATE: April 16, 1973

STREET AND NUMBER: 2525 Riva Road

CITY OR TOWN: Annapolis STATE: Maryland CODE: 24

12 STATE LIAISON OFFICER CERTIFICATION **NATIONAL REGISTER VERIFICATION**

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National State Local

Name _____

Title _____

Date _____

I hereby certify that this property is included in the National Register.

Director, Office of Archeology and Historic Preservation

Date _____

ATTEST:

Keeper of The National Register

Date _____

SEE INSTRUCTIONS

Nassawango Furnace
archaeological site
U.S.G.S. 7.5 minute map
scale 1:24000
1966

WO-10

Nassawango
Furnace

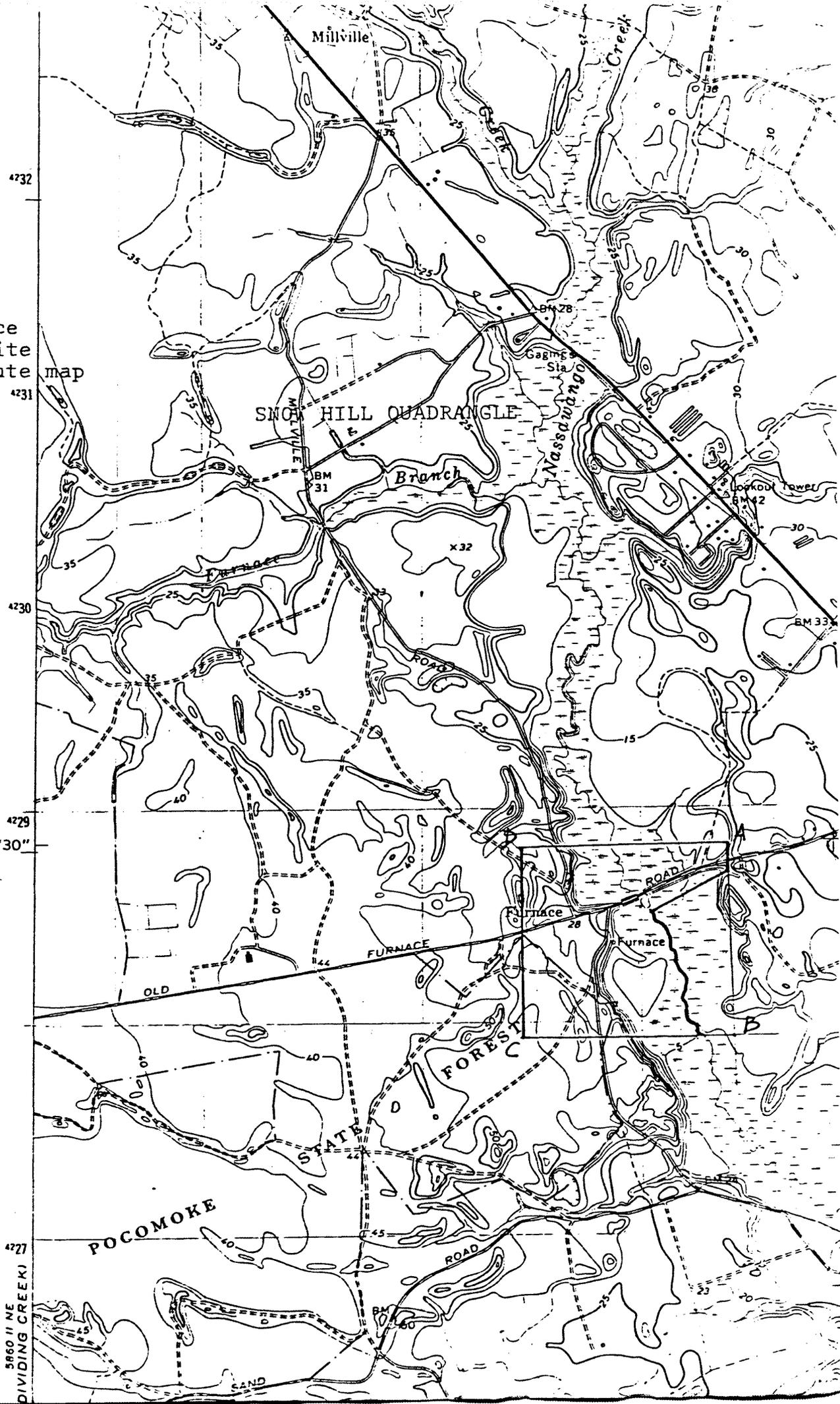
UTM References

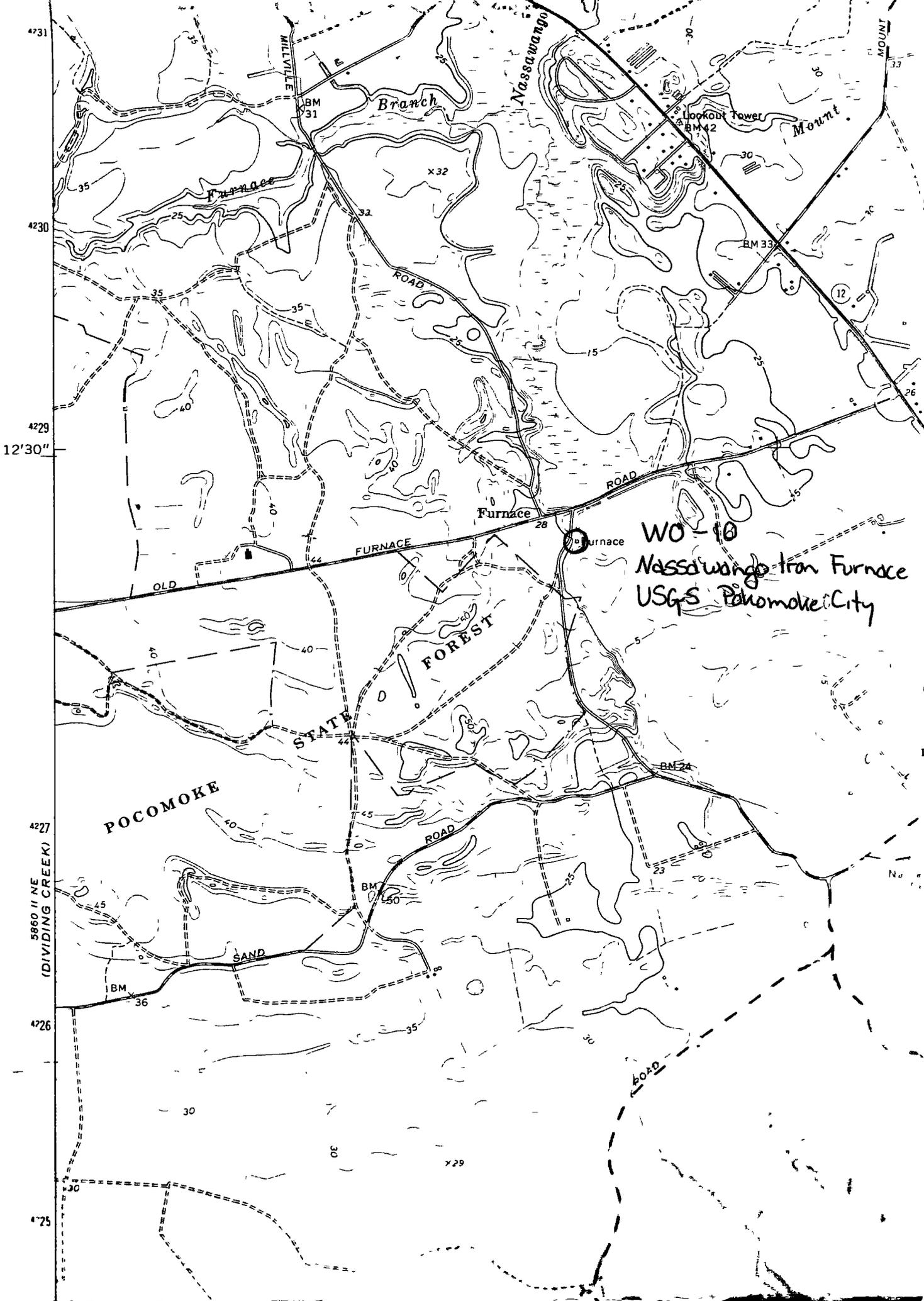
A 18/459400/ 12'30"
4228830

B 18/459430/
4227920

C 18/458460/
4227920

D 18/458450
4228820





WO-10
Nassawango Iron Furnace
USGS Pocomoke City

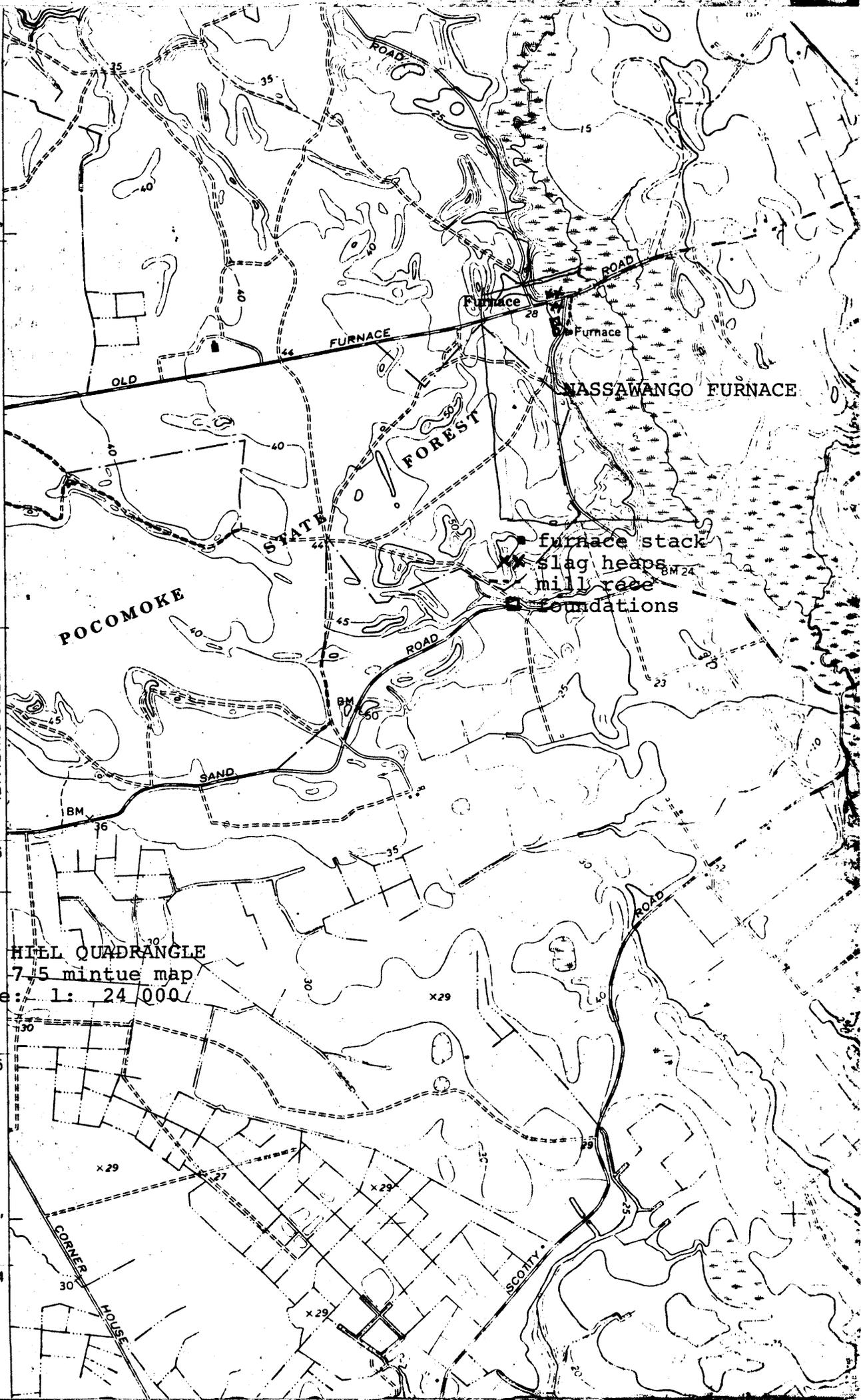
5860 II NE
(DIVIDING CREEK)

12'30"

W0-10

SNOW HILL QUADRANGLE
USGS 7.5 minute map
scale: 1: 24,000
1966

4229
12'30"
4227
5860 II NE
(DIVIDING CREEK)
4226
4225
10'
4224



NASSAWANGO FURNACE

1. Furnace stack, looking southeast.
2. Detail, hot air apparatus, looking northeast.
3. Detail, hot air apparatus, looking east.
4. Furnace casting hearth, looking west.
5. Interior of furnace stack, looking up.
6. Race, looking south from Old Furnace Road.



Nassawango Furnace

WO-10



11/69

Michael BOURNE



W0-10

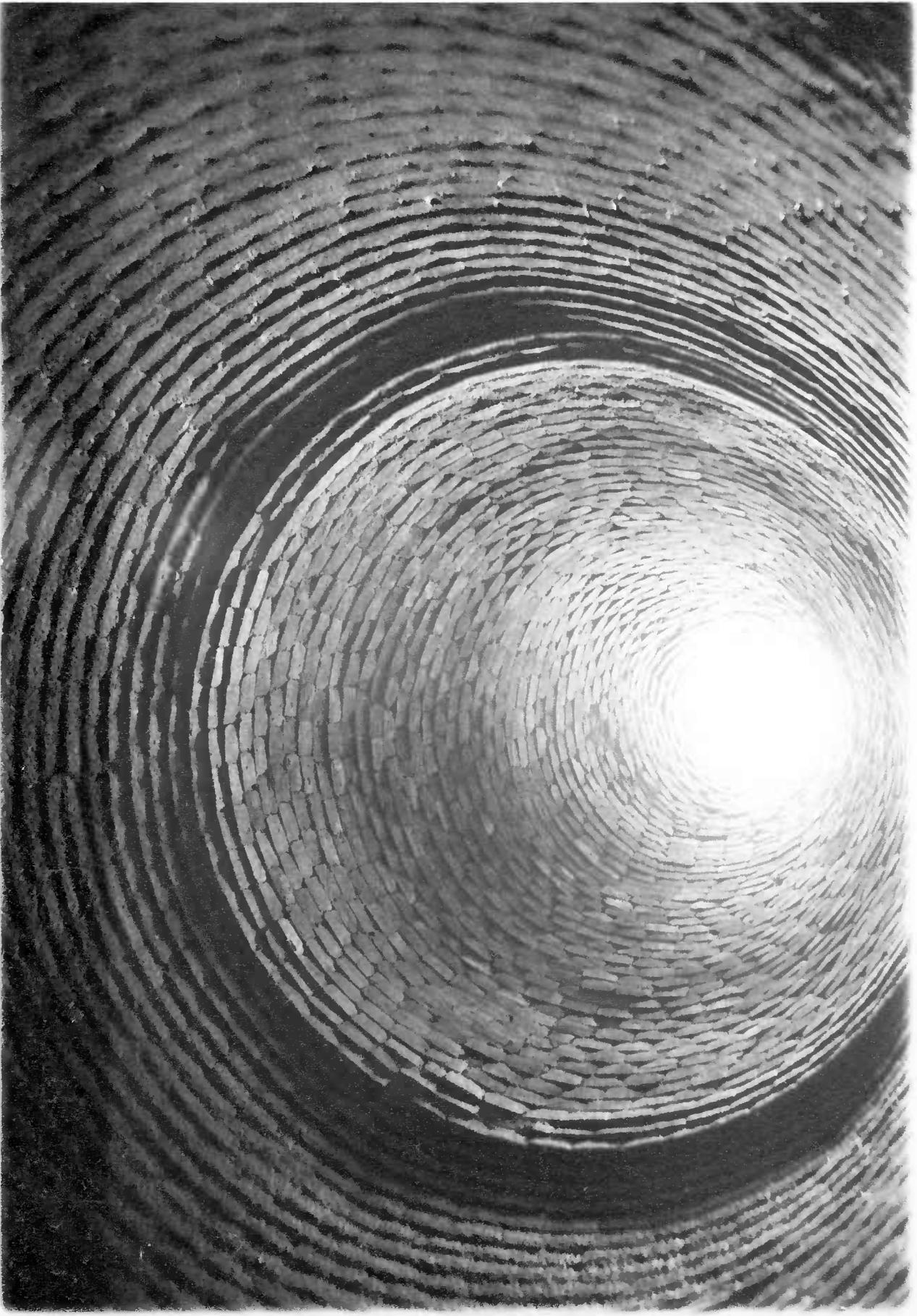
NASSAWANGO IRON FURNACE



**MICHAEL ROBBINS
PHOTOGRAPH**



MICHAEL KOBS: 3
PHOTOGRAPH



W0-10

**MICHAEL RUBBINS
PHOTOGRAPH**



6.

MICHAEL ROSEN
PHOTOGRAPH