

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service



NATIONAL REGISTER

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

1. Name of Property

historic name Dale Furnace and Forge Historic District

other name/site number: Dale Iron Works, Mt. Chalfont Furnace

2. Location

street & number: Forgedale Rd. (N/A) not for publication

city, town: Washington Township (N/A) vicinity

state: PA code: PA county: Berks code: 011 zip code: 19504

3. Classification

Ownership of Property: private

Category of Property: district

Number of Resources within Property:

<u>Contributing</u>	<u>Noncontributing</u>	
<u>6</u>	<u>1</u>	buildings
<u>1</u>	<u>—</u>	sites
<u>—</u>	<u>—</u>	structures
<u>—</u>	<u>—</u>	objects
<u>7</u>	<u>1</u>	TOTAL

Number of contributing resources previously listed in the
National Register: 0

Name of related multiple property listing: Iron and Steel
Resources in Pennsylvania 1716-1945

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X 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 X meets does not meet the National Register criteria. See continuation sheet.

Brent D. Glass

7/3/91

Signature of certifying official

Date

Brent D. Glass Pennsylvania Historical & Museum Commission

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official

Date

State or Federal agency and bureau

5. National Park Service Certification

 entered in the National Register

I, hereby, certify that this property is:

entered in the National Register.

Henry M. Rapley

9/6/91

 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):

for Signature of Keeper

Date of action

6. Function or Use

Historic Functions

10 industry

01 domestic

09 agriculture

Current functions

98 vacant/not in use

01 domestic

09 agriculture

Subfunctions

10A manufacturing facility

01A single dwelling

09B storage

Subfunctions

01A single dwelling

09B storage

7. Description

Architectural Classification

other: 99 iron furnace

Materials

foundation	<u>stone</u>	<u>40</u>	roof	<u>slate</u>	<u>45</u>
walls	<u>stone</u>	<u>40</u>	other	<u>N/A</u>	

Describe present and historic appearance:

X see continuation sheet

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

_ Nationally X Statewide _ Locally

Applicable National Register Criteria: A, C, D

Criteria Considerations (Exceptions): N/A

Areas of Significance: 160 industry
030 architecture
023 archaeology-historic-non aboriginal

Period(s) of Significance: 1791-1868

Significant Dates: 1791

Years of Alterations: N/A

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

X See continuation sheet

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 7 Page 1Dale Furnace & Forge HD

Dale Furnace and Forge Historic District is located north of the village of Dale along the West Branch of the Perkiomen Creek. It lies in a valley, with a steep hill to its west, and land gradually sloping off to its east. The district consists of both architectural and archaeological resources. These include the furnace mansion, barn, horse barn, office, a worker's house, and the archaeological remains of an additional worker's house. There are also the remains of two iron furnaces, a forge, and the dam breast. The resources in this district are primarily constructed of stone.

We are fortunate that there is an excellent map of Dale Furnace and Forge available that dates back to 1835, showing the location of the principal structures of the iron plantation. Shown on the map, flanking the creek are the ironmaster's house, the barn, horse barn, bake oven, wash house and smoke house, worker's housing, furnace, forge, charcoal house, counting house, and the dam. A number of additional dwellings and attendant structures were located north of the furnace but are no longer standing.

With the number of resources in the district which are still extant, or whose location is still readily apparent, Dale has excellent integrity.

The complex includes the following resources. (See corresponding numbers on district site map.)

1. horse barn c. 1850

The horse barn measures 36' by 20'. It is constructed of stone. At this time the building is roofless.

2. bank barn c. 1850

The barn measures 65' by 35 1/2'. This is a rather typical bank barn, with stone ends and vertical plank siding.

3. shed 20th. century - noncontributing

This is a frame shed with batten siding.

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Continuation SheetSection number 7 Page 2Dale Furnace & Forge HD4. ironmaster's mansion 1791, 1827.

The north end of the mansion, which is three bays wide, was built in 1791, in the Federal style. This is also reflected in the interior detailing and mantels. The south end of the mansion, which is two bays wide, and its attendant porches and ell were added in 1827. The interior detailing reflects that period. Overall, the house is five bays wide and four bays deep, the fourth bay in the ell. The main house has a chimney in each end wall, while the ell has one in the rear. The stone on the south end of the house has been stuccoed. The building retains many of its original details, including the arched front doorway with keystone, which dates from the 1791 mansion. On the south end the basement wall is exposed, and there is a two story gallery.

5. smoke house and wash house c. 1827

The wash house is constructed of stone which has been stuccoed, and has a slate roof. The building is banked, two stories high on the west side, one story on the east. The building is three bays wide and one bay deep, and is located at the southeast corner of the furnace mansion. There are doors on both levels. The stone smoke house is attached to the south side of the wash house. It is approximately 8' square, with a gable roof. Only the east side of what appears to be the original tile roof is still extant.

6. archaeological sites

6A. worker's house ruin This stone house appears to have been of similar construction to the extant worker's house directly to its west (no. 7). The walls are still standing to what appears to have been a two story stone house with gable, measuring 27' 3" by 16' 10".

6B. stone furnace stack c. 1791 Substantial remains of the furnace stack are located a short distance downstream from the forge foundations.

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6C. bank iron furnace 18th. century A short distance from the ruins of the forge, built into the bank, are the remains of an early furnace, lined with stone. The bosh of the furnace, which is clearly visible on top of the bank, measures nine feet in diameter. This may be the remains of Mt. Chalfont Furnace, which predated Dale.

6D. forge foundations and race c. 1804-1811 Only remnants of the forge building remain, principally one corner of the foundation and scattered traces of the rest of the foundation. The original building was 44' 9" by 41' 6", with 12' high walls. The races that served the two undershot water wheels are still largely intact, as are some of the masonry arches bridging the race.

6E. remnants of dam breast There are substantial remains of the stone dam which originally contained a pond which served the furnace and forge. The footprint of the pond is visible, but is not within the district.

7. worker's house c. 1830

Constructed of stone, this is the only extant worker's house in the furnace complex. It is two and a half stories, and measures 22' 10" by 17' 10". It has six over six windows. A porch, a clapboard ell, and dormers are all of more recent vintage.

8. counting house (furnace office and post office) 1827, 1854

The Carpenter Gothic furnace office building is stone covered with stucco. The office was built in 1827, and substantially rebuilt in 1854. The one and a half story building is approximately 15' by 20', with gable ends. An eclectic decorative cornice was apparently added at that time. There is a frame shed addition on the west side of the building which has batten siding, and appears to be 19th. century.

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Continuation SheetSection number 8 Page 1Dale Furnace & Forge HD

Dale Furnace, an iron plantation, is nominated under Criterion A for its significance in the area of industry. Dale Furnace and Forge represents an important and relatively well-preserved iron plantation of the late eighteenth and early nineteenth centuries. The complex retains its general layout and scale, although the industrial component is primarily archaeological. Those remains, which are significant under Criterion D, are distinct and well documented (particularly with the aid of the extant 1835 map of the complex), and have the potential to yield important information about the furnace layout, the products manufactured there, and the lifestyles of the workers and ironmaster. Dale Furnace is notable under Criterion C for its architectural significance. Its mansion is representative in quality of ironmaster's mansions. It is also one of the most sophisticated examples of Federal style residences in the local area. The building has excellent integrity both on the exterior and interior. Also notable is the Carpenter Gothic office building (1827/1854), with its unusual bargeboards, a delightful example of vernacular architecture.

The Dale Furnace was built by Joseph and Thomas Potts in 1791 on the West Branch of the Perkiomen Creek. In 1792 the assessment records indicate that the property consisted of 250 acres, 17 horses, 3 cows, a saw mill, and a furnace. By 1799, Dale Furnace was listed as the property of Miles and Hobart. Much of the ore for the furnace was brought from the Colebrookdale mines near present-day Boyertown. The furnace produced stoves, skillets, kettles, anvils, and other household items. By 1805, the property had increased to 318 acres.

A forge was constructed sometime between 1804-1811 and the works became known as the Dale Iron Works. There are accounts of ordnance being dug at the site, possibly supporting the claim that the furnace produced small cannon balls and canister shells during the War of 1812. By 1820, the furnace was owned by Dr. Jacob Loeser. Under his management, the furnace was "blown out" c. 1821-1822. Loeser died in 1823, but the property remained in his name until 1826, when it was sold to George Schall and his son David, who purchased the property for \$11,900. For almost forty-five years, David Schall ran Dale Forge.

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There is no evidence that the furnace was ever in blast after 1822. Instead, the center of activity became the forge. The forge was described as having two hearths, and two hammers - one of 500 pounds, and the other 600 pounds. They were each operated by undershot water wheels at the gable ends of the building. Blast for the hearths was supplied by two large bellows operated by an overshot wheel. Most of the pig iron used in the forge after the closing of the furnace came from Mary Ann, with some from Joanna and Hopewell Furnaces, all located in Berks County, and Hampton Furnace, just across the Lehigh County line. The forge produced both bloom and bar iron. In addition, it produced finished products including chisels, hinges, sledges, hammers, axles, railroad car axle trees, plows, etc. Based on the account books, business at the forge appears to have slackened after 1853. When Hampton Furnace, the last of their suppliers went out of blast in 1868, Dale Forge closed as well. The completion of the Colebrookdale spur of the Reading Railroad in 1869 to nearby Barto came too late to revive the forge.

David Schall died at Dale Farm on January 26, 1877 at the age of seventy six. The Dale Furnace mansion has remained in the Schall family until the present day.

9. Major Bibliographical References See continuation sheetPrevious 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 # _____Primary location of additional data: State Historic Preservation Office Other state agency Federal agency Local government University Other - Specify Repository: _____**10. Geographical Data**Acreage of property: 19 acres

UTM References: E. Greenville

	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>		<u>Zone</u>	<u>Easting</u>	<u>Northing</u>
A	18	447640	4474690	C	18	447780	4474790
B	18	447780	4474730	D	18	447530	4474370

 see continuation sheetVerbal Boundary Description see continuation sheetBoundary Justification see continuation sheet**11. Form Prepared By**name/title Diane B. Reed, Historic Preservation Specialistorganization PHMC/BHP date March 14, 1991street & number P.O. Box 1026 telephone (717)787-8045city or town Harrisburg state PA zip 17108

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Continuation Sheet**

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Dale Furnace & Forge HD

Bining, Arthur. Pennsylvania Iron Manufacture in the Eighteenth Century. Harrisburg: Pennsylvania Historical and Museum Commission, 1938.

Dale Furnace Account Books, 1799-1801. ms. Historical Society of Pennsylvania, Philadelphia.

Gemmell, Alfred. "Dale Iron Works - Dale Furnace, 1791-1822: Dale Forge, 1804-1868." Historical Review of Bucks County. XIV (1949).

Montgomery, Morton. History of Berks County in Pennsylvania. 1886 Philadelphia: Everts, Peck and Richards, 1975.

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Continuation Sheet**

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Dale Furnace & Forge HD

Verbal boundary description: The property begins on the east side of Forgedale Rd. 50' north of the mule barn, thence east 300' to a point, thence southwest 600' paralleling Forgedale Rd., thence following the contour of the hill southwest approximately 800' to a point approximately 100' south of a stone worker's house, thence northwest 900' to a point, thence northeast 1000' to a point, thence east 300' to the point of beginning.

Boundary justification: The nominated property includes all of the structures and archeological remains of the Dale Furnace and Forge complex. A quarry, located immediately outside the boundary is not included in the district because its relationship with the plantation is unknown. In addition, the "footprint" of the pond is not included. There are no other contributing resources located outside the boundary.

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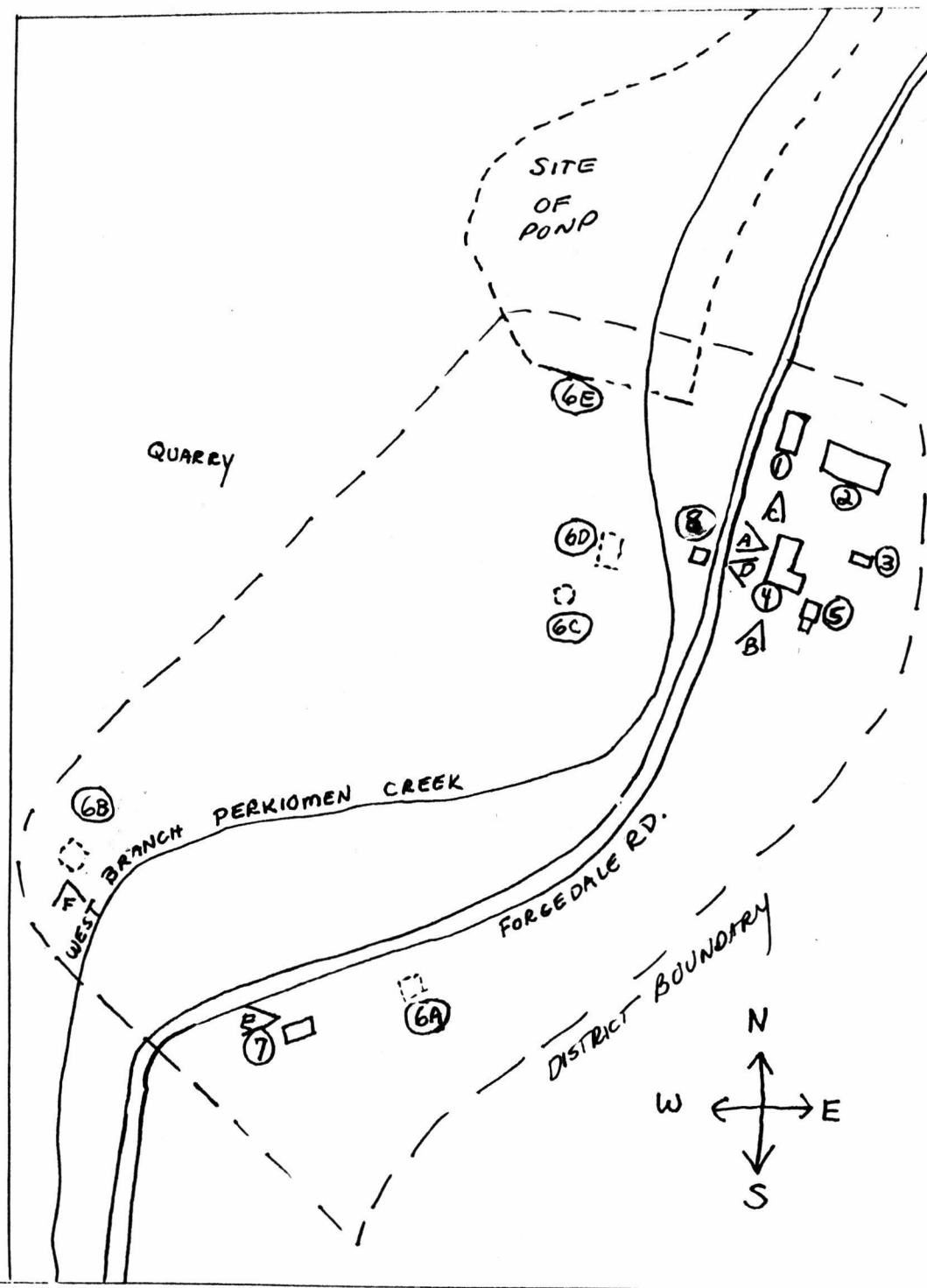
**National Register of Historic Places
Continuation Sheet**

Section number _____ Page _____ Photographs Dale Furnace & Forge HD

All photos: Dale Furnace and Forge Historic District
Forgedale Rd., Washington Township
Berks County, PA
date of photographs: 3/8/90
photographer: Diane B. Reed, PHMC/BHP
negatives: PHMC/BHP

photo key

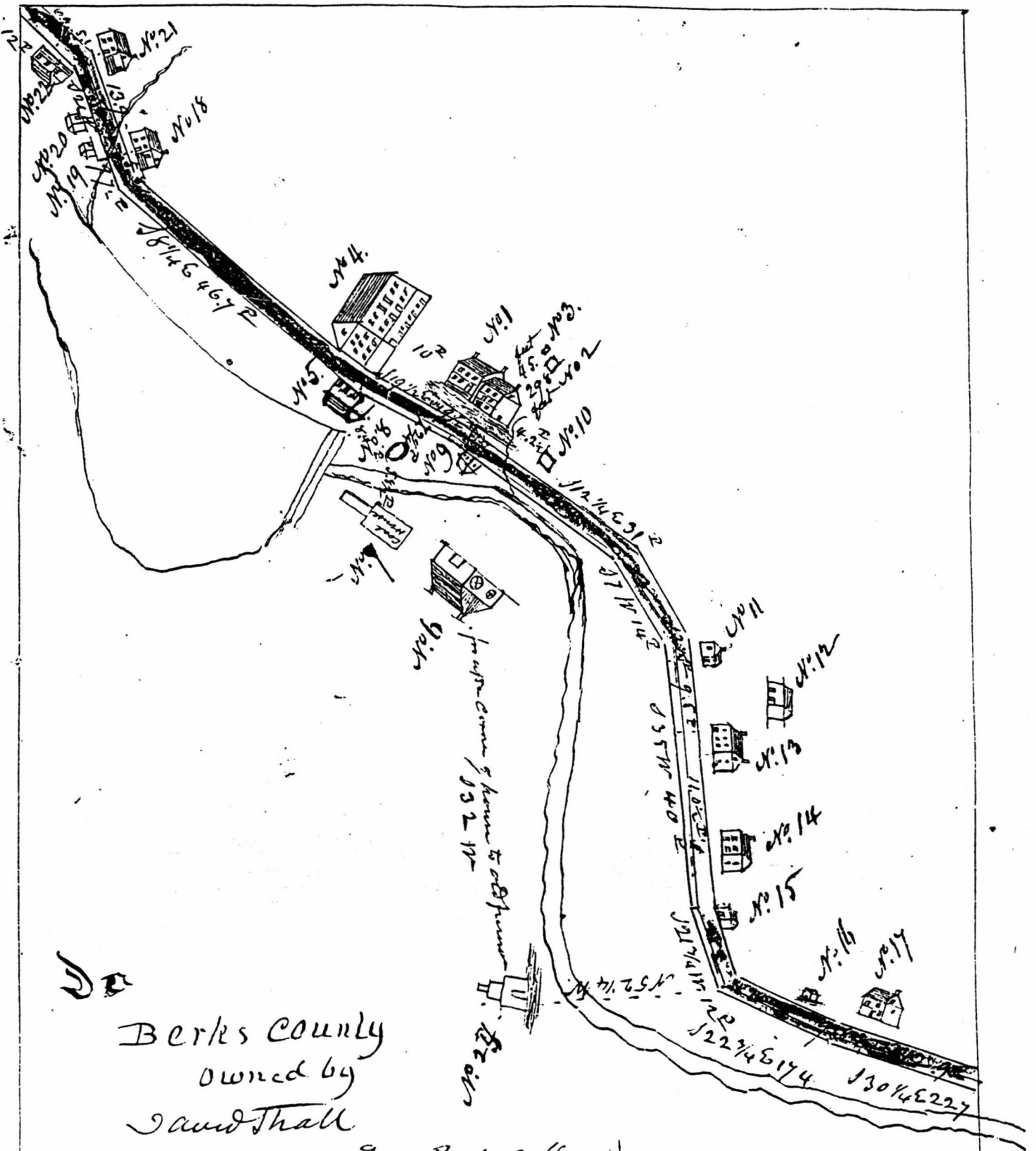
- A. ironmaster's mansion
camera points east
- B. ironmaster's mansion
camera points northeast
- C. barn and horse barn
camera points north
- D. office/post office (counting house)
camera points northwest
- E. worker's house and ruin of worker's house
camera points east
- F. iron furnace stack ruin
camera points west



DALE FURNACE AND FORGE HISTORIC DISTRICT

1. horse barn
2. bank barn
3. shed - non contributing
4. ironmaster's mansion
5. smoke house and wash house
- 6A. worker's house (ruin)
- 6B. stone furnace stack ruin
- 6C. bank iron furnace
- 6D. forge foundations and race
- 6E. remnants of dam breast
7. worker's house
8. counting house (furnace office and post office)

← A PHOTO VIEW



JD

Berks County
 owned by
 David Thall

Cal. 2. 150^a 75 R at a flow

Survey? December 16. 1835.

7/25/91

United States Department of the Interior
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National Register of Historic Places
Continuation Sheet

Section number _____ Page _____

Iron and Steel Resources in Pennsylvania MPS
PENNSYLVANIA

Date Listed

COVER

		Entered in the	Substantive Review 9/6/91
		National Register	
91001131	Allegheny Furnace	Entered in the	9/6/91
91001130	Alliance Furnace	National Register	9/6/91
91001129	Buchanan Furnace	Entered in the	9/6/91
91001133	Carrick Furnace	National Register	9/6/91
91001132	Codorus Forge and Furnace Historic District	Entered in the	9/6/91
91001134	Dale Furnace and Forge Historic District	National Register	9/6/91
91001138	Eliza Furnace	Entered in the	9/6/91
73001593	Etna Furnace - ADDITIONAL DOCUMENTATION	National Register	9/6/91
91001369	Etna Furnace (Boundary Decrease)	Substantive Review	9/6/91
91001145	Etna Furnace (Boundary Increase)	Substantive Review	9/6/91
91001137	Farrandville Iron Furnace	Entered in the	9/6/91
91001136	Franklin Furnace Historic District	National Register	9/6/91
91001135	Isabella Furnace	Entered in the	9/6/91
91001126	Lackawanna Iron and Coal Company Furnace	National Register	9/6/91
91001141	Mary Ann Furnace Historic District	Entered in the	9/6/91
80003530	Mount Hope Estate	National Register	9/6/91
91001146	Mount Hope Estate (Boundary Increase)	Substantive Review	9/6/91
91001127	Mount Vernon Furnace	Substantive Review	9/6/91
91001128	Robesonia Furnace Historic District	Entered in the	9/6/91
91001139	Rockland Furnace	National Register	9/6/91
91001142	Ross Furnace	Entered in the	9/6/91
91001140	Swatara Furnace	Substantive Review	9/6/91
91001143	Wharton Furnace	Entered in the	9/6/91
91001144	Wilroy Furnace	National Register	9/6/91
93000351	Poole Forge	Entered in the	Substantive Review 9/6/91
		National Register	

OWNER OBJECTION

4/29/93

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Dale Furnace and Forge Historic District
NAME:

MULTIPLE Iron and Steel Resources in Pennsylvania MPS
NAME:

STATE & COUNTY: PENNSYLVANIA, Berks

DATE RECEIVED: 7/25/91 DATE OF PENDING LIST: 8/09/91
DATE OF 16TH DAY: 8/25/91 DATE OF 45TH DAY: 9/08/91
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 91001134

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

ACCEPT RETURN REJECT 9/6/91 **Entered in the**
DATE **National Register**

ABSTRACT/SUMMARY COMMENTS:

RECOM./CRITERIA _____
REVIEWER _____
DISCIPLINE _____
DATE _____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

count resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

historic current

DESCRIPTION

architectural classification
 materials
 descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

summary paragraph
 completeness
 clarity
 applicable criteria
 justification of areas checked
 relating significance to the resource
 context
 relationship of integrity to significance
 justification of exception
 other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

acreage verbal boundary description
 UTM's boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

sketch maps USGS maps photographs presentation

OTHER COMMENTS

Questions concerning this nomination may be directed to

_____ Phone _____

Signed _____

Date _____



DALE FURNACE AND FORGE HISTORIC DISTRICT, PA
PHOTO # A IRONMASTER'S MANSION
R41-5 PHOTOGRAPHER: DUANE B. REED - PHMC/BHP 3/8/90



DALE FURNACE & FORGE HISTORIC DISTRICT, PA.
PHOTO #8 IRONMASTER'S MANSION

R 41-8 PHOTOGRAPHER: DIANE B. REED - PITMC/BHP 3/8/90



BALE FURNACE AND FORGE HISTORIC DISTRICT, PA
PHOTO #C BARN AND MULE BARN
R41-4 PHOTOGRAPHER: DIANE B. REED - PHMC/BHP 3/8/90



DALE FURNACE AND FORGE HISTORIC DISTRICT, PA
PHOTO # D OFFICE / POST OFFICE
R 41-0 PHOTOGRAPHER: DIANE B. REED - PITMC/BHA 3/8/90



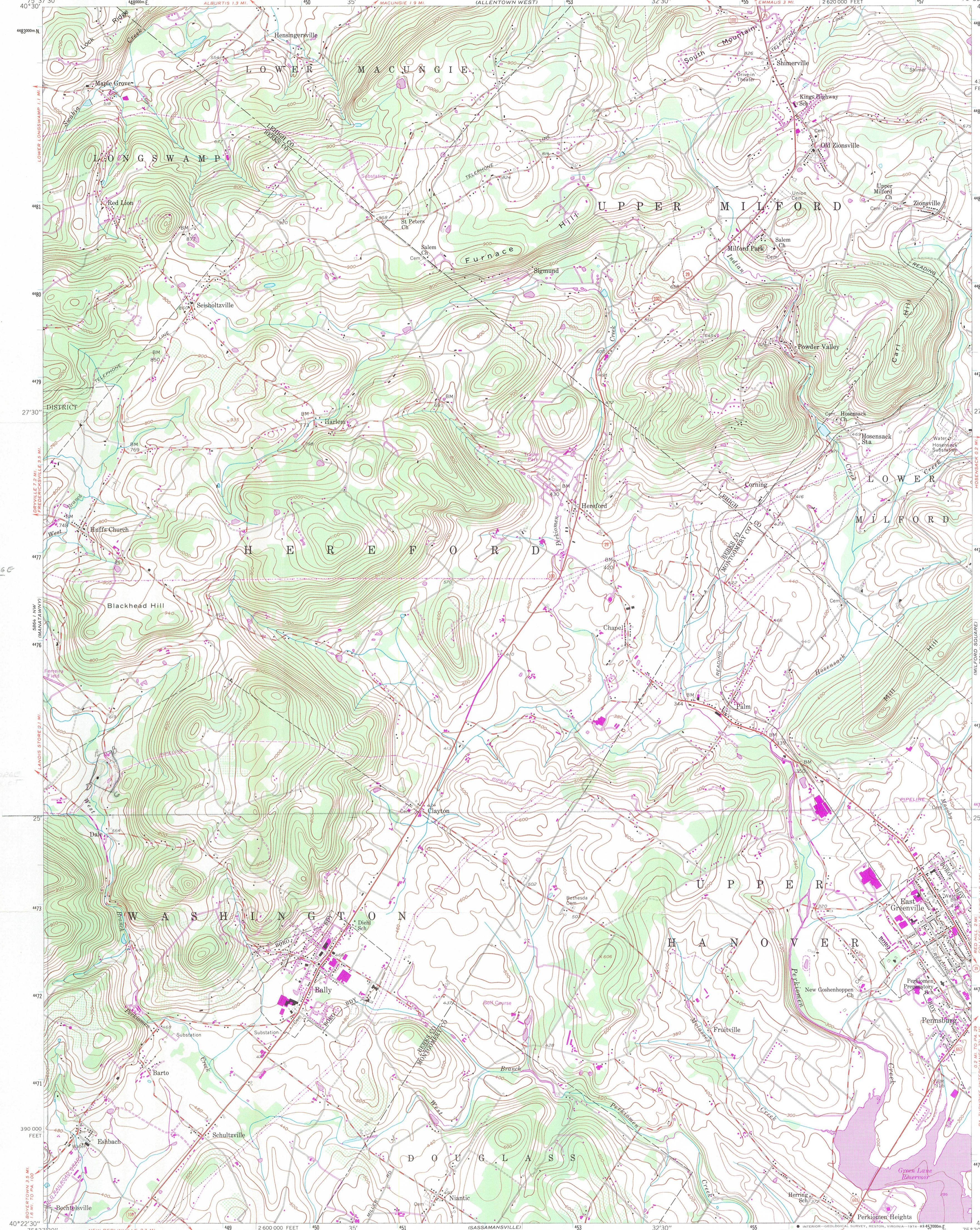
DALEFURNACE AND FORGE HISTORIC DISTRICT, PA
PHOTO # E WORKER'S HOUSE AND RUIN OF WORKER'S HOUSE
R 41-22 PHOTOGRAPHER: DIANE B. REED - PITMC/BHA 3/8/90



DAVE FURNACE & FORGE HISTORIC DISTRICT, PA

PHOTO #F RUIN OF FURNACE STACK

R 41-12 PHOTOGRAPHER: DIANE B. REED - PHMC / BHP 3/8/90



DALE FURNACE & FORGE
HISTORIC DISTRICT
BERKS COUNTY
EAST GREENVILLE
ZONE 18
A E 447 640
N 4474 690
B E 447 780
N 4474 730
C E 447 780
N 4474 790
D E 447 530
N 4474 370

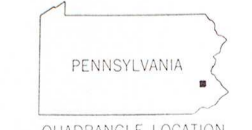
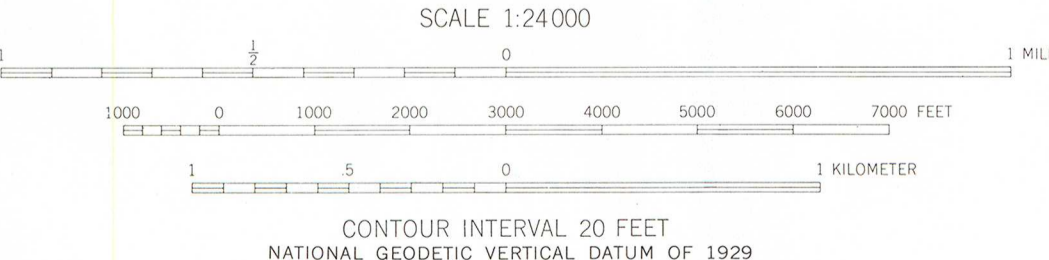
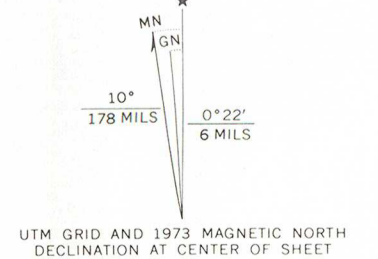
DALE FURNACE & FORGE
HISTORIC DISTRICT
BERKS COUNTY
EAST GREENVILLE
ZONE 18

Mapped by the Army Map Service
Edited and published by the Geological Survey
Control by USGS and USC&GS

Topography from aerial photographs by photogrammetric methods
Aerial photographs taken 1942. Field check 1943
Culture revised by the Geological Survey 1956

Polyconic projection. 1927 North American datum
10,000-foot grid based on Pennsylvania coordinate system,
south zone
1000-meter Universal Transverse Mercator grid ticks,
zone 18, shown in blue

Unchecked elevations are shown in brown
Revisions shown in purple compiled by the Geological Survey in
cooperation with State of Pennsylvania agencies from aerial
photographs taken 1969 and 1973. This information not field checked



ROAD CLASSIFICATION

Heavy-duty	Light-duty
Medium-duty	Unimproved dirt
	State Route

EAST GREENVILLE, PA.

N4022 S - W7530 / 7.5
PHOTOINSPECTED 1980
1956
PHOTOREVISED 1969 AND 1973
AMS 5864 1 NE - SERIES V831

FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Map photoinspected 1980
No major culture or drainage changes observed