

MODULE 4

Module 4: Areas Where Mining is Prohibited or Limited

[§§77.126 & 77.504]

4.1 Are mining activities proposed within any of the following?

Yes No

- ☐ ☒ Within 100 feet of the outside line of right-of-way of a public highway. (If yes, complete Module 10.12)
- ☐ ☒ Within 300 feet of an occupied dwelling house or commercial or industrial building, unless released by the owner thereof. (Attach the notarized, written waiver by the current owner)
- ☐ ☒ Within 300 feet of a public building, school or community or institutional building.
- ☐ ☒ Within 300 feet of a public park.
- ☐ ☒ Within 100 feet of a cemetery.
- ☐ ☒ Within 100 feet of the bank of a perennial or intermittent stream.
- ☐ ☒ Within 125 feet of an oil or gas well.

Note: If the answer to any of the above is “yes”, the applicant must demonstrate compliance with 25 Pa Code Section 77.504 (b) (relating to exceptions to the distance limitations).

Expansion of Pits within Distance Limitation in §77.504(a):

Provide a demonstration that special circumstances warrant operations within the distance limitation, the environment and the interests of the public and landowners affected thereby will be adequately protected, and that there are no feasible or prudent alternatives to opening the pit within the distance limitation. The applicant must give a public notice of the application in two newspapers of general circulation in the area, once a week for 2 successive weeks, and give notice by mail to the municipality in which the operation is located. Note: publication in one paper for 4 weeks is acceptable if the notice is included with the notice required under 25 Pa. Code § 77.121(a).

Expansion of Pits within Distance Limitation in 77.504(a):

Provide a demonstration that special circumstances warrant activities within the distance limitation, that the environment and the interests of the public and landowners affected thereby will be adequately protected, and that there are no feasible or prudent alternatives to opening the pit within the distance limitation.

4.2 Is the proposed permit area within or adjacent to a stream or river designated as part of the Federal or State Wild and Scenic River System? ☐ Yes ☒ No [PA Scenic Rivers Act, § 132 P.S. 820.21-820.29]

4.3 Cultural or Historic Resources. Attach the completed Cultural Resource Notice Form (0120-PM-PY0003) for this proposed permit area along with the certified mail return receipt as proof of submission to PA Historical and Museum Commission (PHMC). [PA State History Code, 37 PA CSA Section 101-906]

See attached. A Project Review form was submitted and is attached for review.

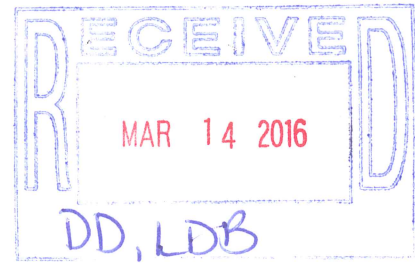
**PENNSYLVANIA STATE HISTORIC PRESERVATION OFFICE (PSHPO)
CORRESPONDENCE**



Pennsylvania State Historic Preservation Office

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

March 8, 2016



Douglas Dinsmore, Ph.D.
The Gateway Engineers, Inc.
449 Eisenhower Boulevard, Suite 300
Pittsburgh, PA 17111-2302

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: File No. ER 2016-0818-001-A
MINE: Specialty Granules LLC, Charmian Northern Tract Project Development
Hamiltonban Twp., Adams Co.

Dear Mr. Dinsmore:

Thank you for submitting information concerning the above referenced project. The PA State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Archaeology

Based on an evaluation by our staff, there is a high probability that significant archaeological sites are located in this project area. These resources could be adversely affected by project activities. Although there are no recorded archaeological sites within the project boundaries, the soil type, topographic setting, slope direction, and distance to water of the project area are similar to the settings of known archaeological sites in the vicinity. A Phase I archaeological survey of the project area to locate potentially significant archaeological resources is recommended but not required.

If this project will require any federal permits or will receive federal funding, the federal agency, under the National Historic Preservation Act of 1966, may require the appropriate surveys to be conducted. If the project will need an Army Corp of Engineers permit, this would be a **Category III** activity. We suggest that you consider conducting the survey early in the development or planning process to avoid delays in the future. Guidelines and instructions for conducting Phase I surveys are available on our website or from our office upon request.

The Pennsylvania State Historic Preservation Office (PA SHPO) will keep the Determination Notice and the materials you submitted in its files. Please attach this letter to your copy of the Notice and then submit the entire package of materials to DEP.

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March 8, 2016
ER No. 2016-0818-001-A

Historic Structures

In our opinion no historic buildings, structures, districts, and or objects will be affected by this project.

If you need further information in this matter please consult Doug McLearen at (717) 772-0925.

Sincerely,

A handwritten signature in dark ink, appearing to read 'D. McLearen', with a horizontal line extending to the right.

Douglas C. McLearen, Chief
Division of Archaeology &
Protection

DCM/tmw

449 Eisenhower Boulevard, Suite 300
Harrisburg, PA 17111-2302

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

February 19, 2016

Mr. Douglas C. McLearen
State Historic Preservation Office
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093

Re: Charmian Northern Tract Project
Development, Hamiltonban Town-
ship, Adams County, Pennsylvania

Dear Mr. McLearen:

On behalf of Specialty Granules LLC, Skelly and Loy, Inc. is pleased to provide one copy of the Project Review Form and its attachments for the referenced project. Please contact me at 610-823-4645 if you have any questions.

Sincerely yours,

SKELLY and LOY, Inc.

Douglas Dinsmore, Ph.D.
Cultural Resource Specialist

Enclosures

cc: Matthew S. McClure, Specialty Granules LLC
Michael D. Ward, D'Appolonia
Robert M. Shusko, D'Appolonia
Laura Berra, P.E.
R15-0340.000
File: MCLEAREN_DD.doc



PROJECT REVIEW FORM

Request to Initiate SHPO Consultation on State and Federal Undertakings

SHPO USE ONLY

DATE RECEIVED:

ER NUMBER:

REV: 10/2014

SECTION A: PROJECT NAME & LOCATION

Is this a new submittal? ☒ YES ☐ NO OR ☐ This is additional information for ER Number:

Project Name Charmian Northern Tract Mine Development County Adams Municipality Hamiltonban
Project Address 1455 Old Waynesboro Road, P.O. Box "O" City/State/ Zip Blue Ridge Summit PA 17214

SECTION B: CONTACT INFORMATION & MAILING ADDRESS

Name Douglas Dinsmore, Ph.D. Phone (717) 232-0593
Company Skelly and Loy, Inc. Fax (717) 232-1799
Street/PO Box 449 Eisenhower Boulevard, Suite 300 Email ddinsmore@skellyloy.com
City/State/Zip Harrisburg PA 17111

SECTION C: PROJECT DESCRIPTION

This project is located on: ☐ Federal property ☐ State property ☐ Municipal property ☒ Private property
(check all that apply)

List all federal and state agencies and programs providing funds, permits, licenses.	Agency Type	Agency/Program/Permit Name	Project/Permit/Tracking Number (if applicable)
	State & Federal	PADEP/NPDES/Charmian Northern Tract	

Proposed Work – Attach project description, scope of work, site plans, and/or drawings

Project includes (check all that apply): ☒ Construction ☒ Demolition ☐ Rehabilitation ☐ Disposition

Total acres of project area: 112.0 Total acres of earth disturbance: 85.0

Are there any buildings or structures within the project area? ☐ Yes ☒ No Approximate age of buildings:

Does this project involve properties listed in or eligible for the National Register of Historic Places, or designated as historic by a local government?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Unsure <input type="radio"/>	Name of historic property or historic districts
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Please print and mail completed form and all attachments to:

PHMC
State Historic Preservation Office
400 North St.
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120-0093

Attachments – Please include the following information with this form

- ☒ Map – 7.5' USGS quad showing project boundary and Area of Potential Effect
- ☒ Description/Scope – Describe the project, including any ground disturbance and previous land use
- ☒ Site Plans/Drawings – Indicate the location and age, if known, of all buildings in the project area
- ☒ Photographs – Attach prints or digital photographs showing the project site, including images of all buildings and structures keyed to a site plan

SHPO DETERMINATION (SHPO USE ONLY)

- ☐ There are **NO HISTORIC PROPERTIES** in the Area of Potential Effect ☐ The project will have **NO ADVERSE EFFECTS WITH CONDITIONS** (see attached)
- ☐ The project will have **NO EFFECT** on historic properties ☐ **SHPO REQUESTS ADDITIONAL INFORMATION** (see attached)
- ☐ The project will have **NO ADVERSE EFFECTS** on historic properties:

SHPO REVIEWER: _____ DATE: _____

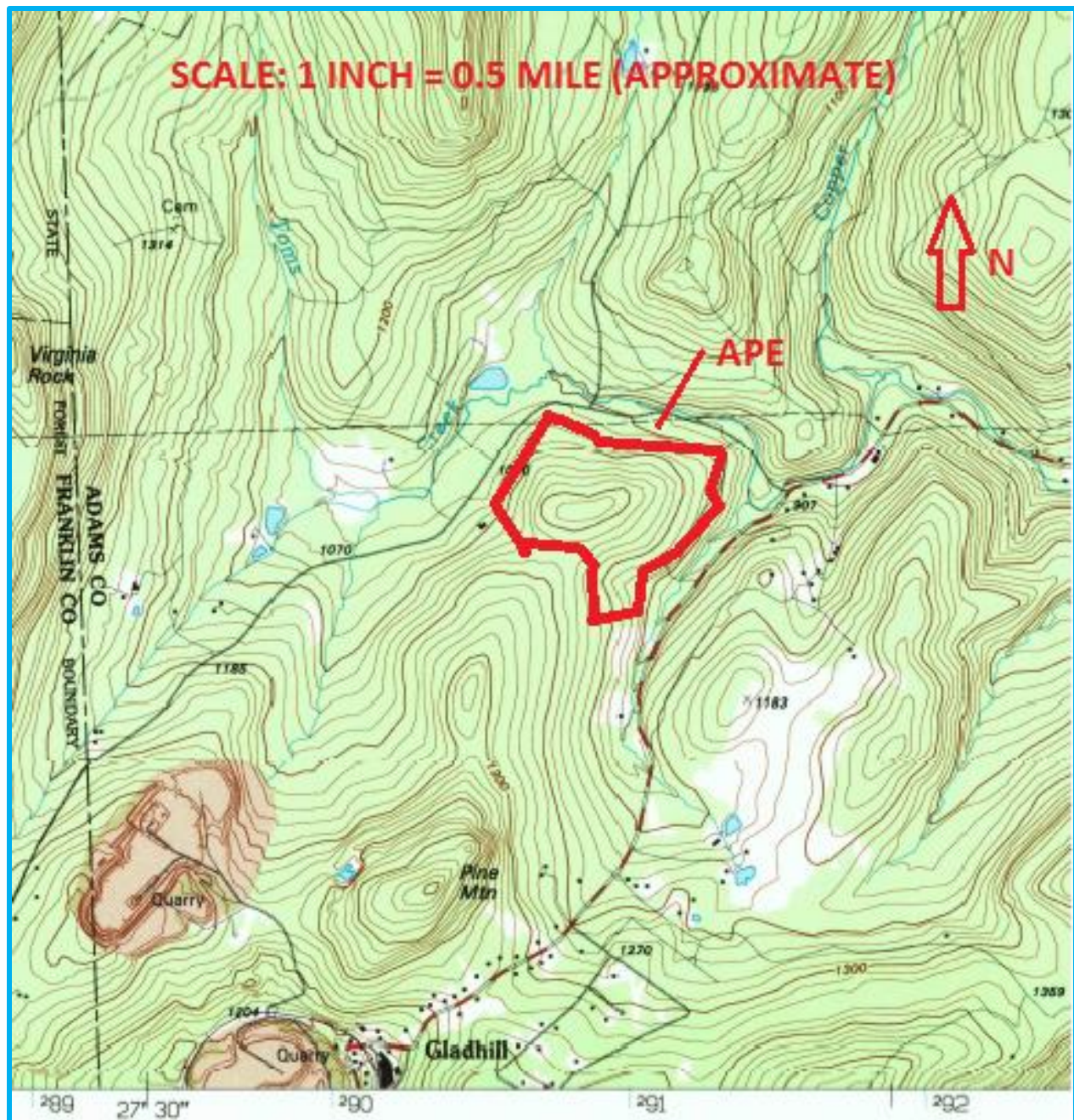


Figure 1: Annotated detail of 7.5-minute 1990 Iron Springs USGS quadrangle, showing the Area of Potential Effects (APE), which is the same as the limits of disturbance for the project. The coordinates at the top highest point of the APE are 39.766979, -77.440081.

Specialty Granules LLC (Specialty Granules) extracts non-coal materials through existing Pennsylvania Department of Environmental Protection (PADEP) Surface Mine Permits at the Charmian Site, located north of the town of Blue Ridge Summit, in Hamiltonban Township, Adams County. The Charmian Site consists of an active quarry (Pitts Quarry - PA DEP Permit No. 01930302), an inactive quarry (West Ridge Quarry, which is in the reclamation phase), stockpile storage areas, breaker plants, and a granule plant. Specialty Granules extracts metabasalt at the Charmian Site for the manufacture of asphalt roofing shingles. They are currently conducting environmental planning studies and engineering design evaluations to expand the existing, permitted metabasalt quarry operations at the Charmian site to the Northern Tract, an approximate 112-acre parcel contiguous to the Pitts Quarry.

The Northern Tract, centered at approximately 39.763323 North latitude and -77.441378 West longitude, is situated within a mountainous forested section of southwestern Adams County. The majority of the tract can be characterized as a moderate to steeply-sloped mountainous mature deciduous forest community. Exposed rocky outcropping is prevalent throughout sections of the tract. The northwestern portion of the tract is bisected by an existing natural gas right-of-way under the ownership of Columbia Gas Company. The subject tract is generally bound on the north by Gum Springs Road (Township Road – 300), and on the east by Iron Springs Road (State Route 3014).

The proposed Northern Tract Quarry includes an area of extraction, and an operational buffer. Although extraction will not occur within the buffer, it could potentially be used for stockpiles, haul roads, or other quarry functions. As a result, the operational buffer could experience earth-disturbing activities, and is included in the project limits of disturbance. The limits of disturbance are the project's Area of Potential Effects for archaeology, 85 acres (Figures 2 and 3).

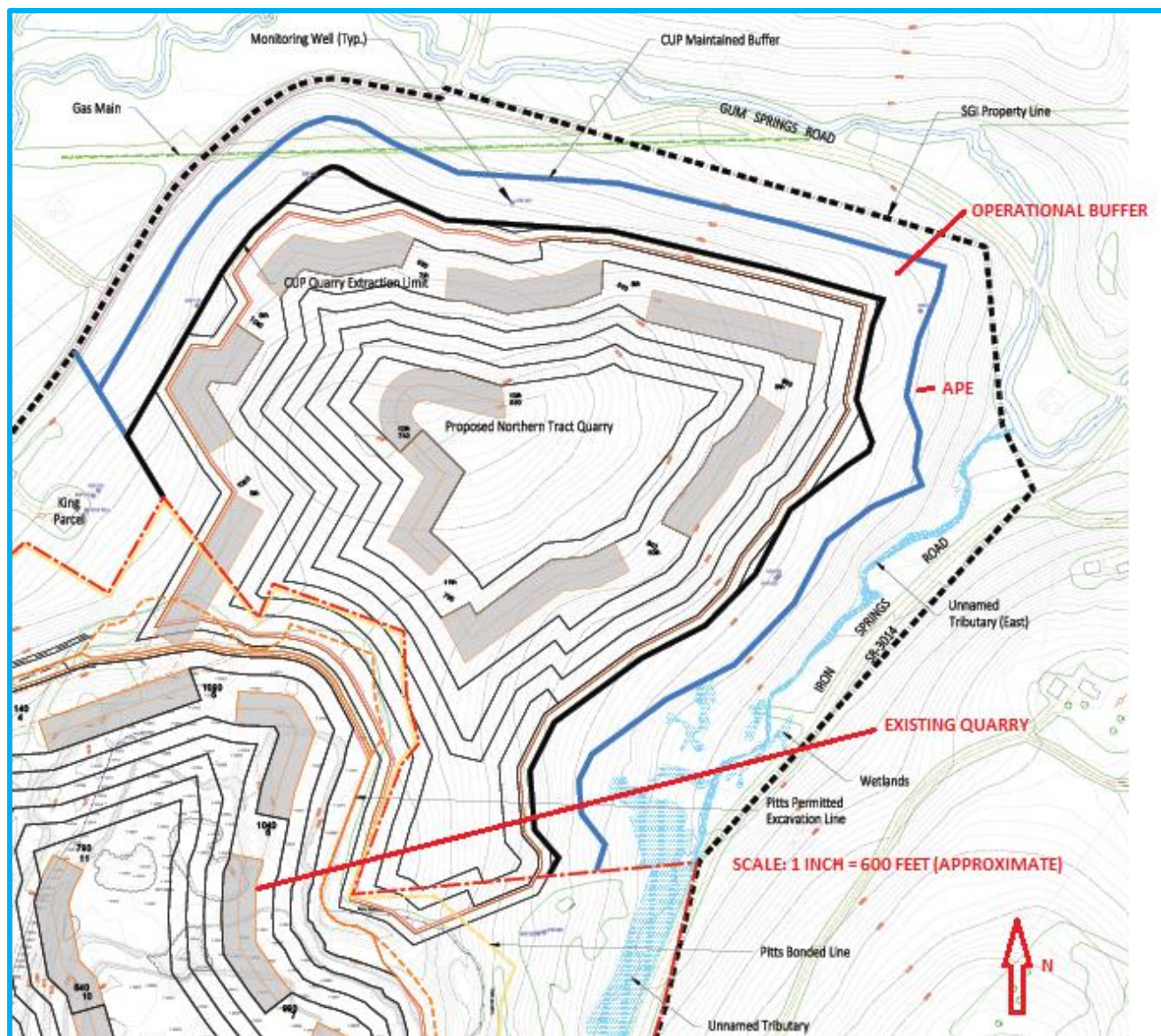


Figure 2: Drawing of the proposed Northern Tract Quarry, courtesy of D'Appolonia and Specialty Granules LLC.

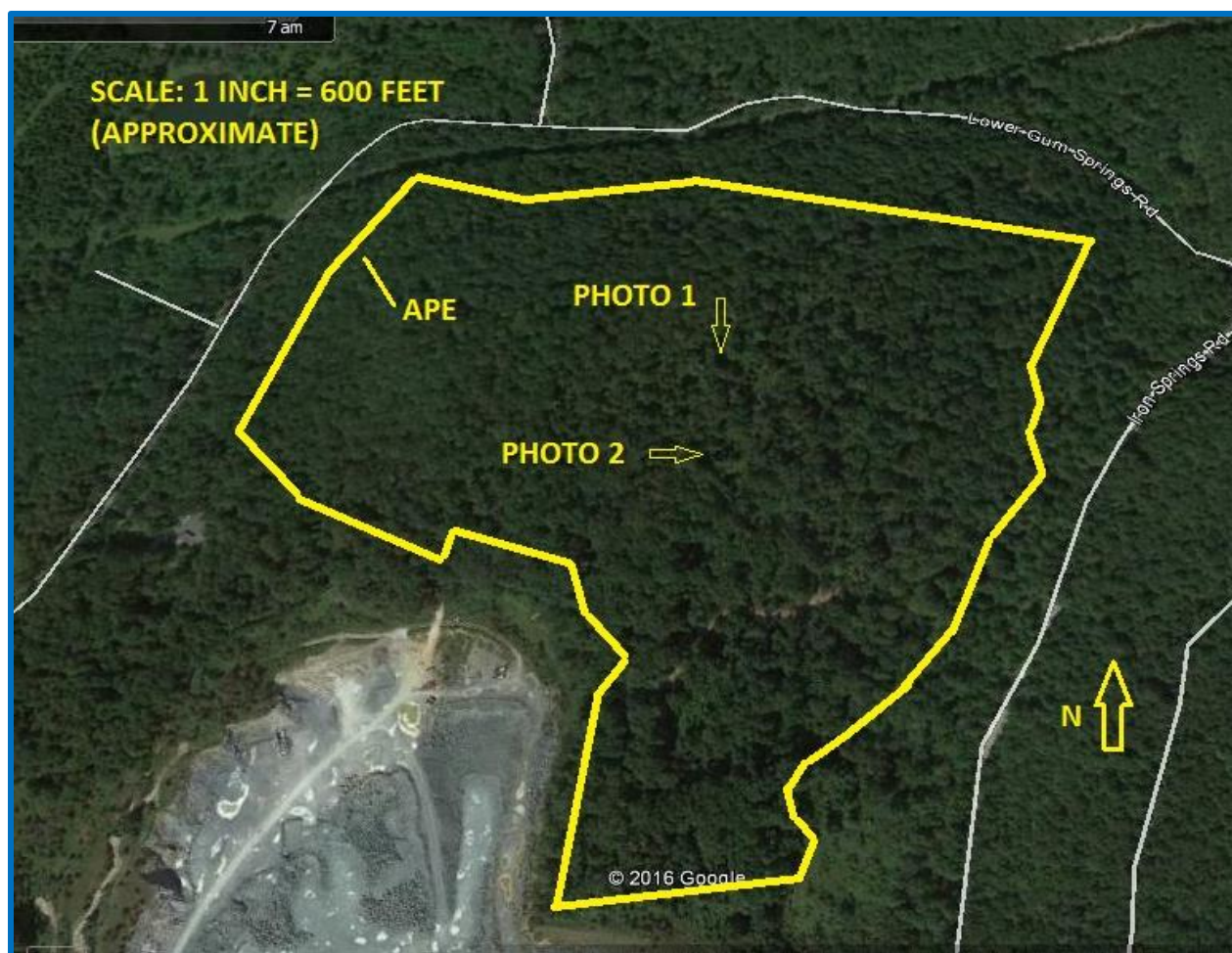


Figure 3: Photograph locations on a Google Earth aerial photograph, accessed 1-25-16.



Photograph 1: Rock outcrops near the top of the mountain, looking south.



Photograph 2: Boulders on top of the mountain, looking east.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

R15-0340.000-DD
DOUGLAS C MCLEAREN
BUREAU FOR HISTORIC PRESERVATION
PHMC
400 NORTH ST
HARRISBURG, PA 17120



9590 9403 0261 5155 0453 53

2. Article Number

7015 0640 0005 8000 3197

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

[Handwritten Signature]

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

FEB 23 2016

D. Is delivery address different from item 1?

If YES, enter delivery address below: ☐ Yes ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Restricted Delivery

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Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

March 22, 2018

Mr. Douglas C. McLearen
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093


Re: ER No. 2016-0818-001
Northern Tract Quarry Expansion
Project
Hamiltonban Township, Adams
County, Pennsylvania

Dear Mr. McLearen:

Skelly and Loy, Inc. is pleased to provide the Phase I Archaeological Survey Report for the referenced project requested in your February 27, 2018, letter to Mr. Rock Martin of the Pennsylvania Department of Environmental Protection's Cambria District Mining Office. Please contact me at the above number if you have any questions.

Sincerely yours,

SKELLY and LOY, Inc.


Douglas Dinsmore, Ph.D.
Cultural Resource Specialist

Enclosure

cc: Robert M. Shusko, P.E., D'Appolonia
Kevin D. Moore, SGI
Laura Berra, P.E.
R15-0340.000 ✓

File: McLEAREN_DD.doc

**PHASE I ARCHAEOLOGICAL SURVEY REPORT
NORTHERN TRACT MINE EXPANSION PROJECT**

**HAMILTONBAN TOWNSHIP, ADAMS COUNTY,
PENNSYLVANIA**

ER. No. 2016-0818-001

PREPARED FOR



IN ASSOCIATION WITH

D'APPOLONIA

PREPARED BY



MARCH 2018

**PHASE I ARCHAEOLOGICAL SURVEY REPORT
NORTHERN TRACT MINE EXPANSION PROJECT**

**HAMILTONBAN TOWNSHIP, ADAMS COUNTY,
PENNSYLVANIA**

ER No. 2016-0818-001

PREPARED FOR

**SPECIALTY GRANULES, LLC
13424 PENNSYLVANIA AVENUE, SUITE 303
HAGERSTOWN, MARYLAND 21742**

IN ASSOCIATION WITH

**D'APPOLONIA 701 RODI ROAD
PITTSBURGH, PENNSYLVANIA 15235-4559**

PREPARED BY

**SKELLY AND LOY, INC.
449 EISENHOWER BOULEVARD, SUITE 300
HARRISBURG, PENNSYLVANIA 17111**

MARCH 22, 2018

ABSTRACT

Skelly and Loy, Inc. completed a Phase I archaeological survey to identify archaeological remains in the area of potential ground disturbance for the proposed Northern Tract Mine Expansion Project in Hamiltonban Township, Adams County, Pennsylvania. The project would add to the existing mine approximately 112 acres (45.3 hectares). The area of proposed mine extension became the archaeological Area of Potential Effects (APE).

Skelly and Loy conducted the field survey on December 16 and 23, 2015. The APE consists of rock, both outcrops and loose rock, with very little soil. The only soil occurred in a saddle between two higher areas, and four shovel test pits were excavated there. No artifacts were identified. The only observed cultural features were excavations from a nineteenth-century copper mine. The ruins of a smelter and a haul road, which connected the smelter to the excavations, were also identified. These features were determined to be a single archaeological site, 36AdXXXX.

Documentary and physical evidence suggested that the mining of Site 36AdXXXX was part of exploratory excavations that occurred from 1833 through 1836. These excavations ceased in 1836. The deposits in Hamiltonban Township were in small quantity and widely dispersed, and other ores in other states proved more profitable.

A previous archaeological survey, completed by URS Corporation, had focused on a domestic site, the William Smith House, labeled Site 36AdXXXX. In the report for this survey, URS recommended that the site should not be eligible for inclusion in the National Register of Historic Places. Skelly and Loy concurred with their recommendation.

Skelly and Loy recommends no additional archaeological investigations. No significant artifacts were identified. Only the excavations remain; they have little potential to provide additional information.

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A. INTRODUCTION

Skelly and Loy, Inc. completed a Phase I archaeological survey for the proposed Northern Tract Mine Expansion Project in Hamiltonban Township, Adams County, Pennsylvania (Figures 1 and 2).

This report was prepared for Specialty Granules, LLC, and D'Appolonia in accordance with federal and state laws which provide for the protection of significant cultural resources, including historical and archaeological sites. A report summary form is included as Appendix A.

The Phase I archaeological investigation consisted of a literature review, site file search, and field work. Compliance with state and federal legislation, including Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992; Advisory Council on Historic Preservation, Protection of Historic and Cultural Properties, revised 1999 (36 CFR 800); Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (Federal Register Vol. 48, No. 190); the Pennsylvania Historical and Museum Commission's (PHMC's), Guidelines for Archaeological Investigations (PHMC 2008); the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution; the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is assured.

No above-ground historic structures are associated with the project.

B. PROJECT DESCRIPTION

Specialty Granules, LLC, proposes to expand an existing mine into a 112-acre (45.3-hectare) area called the Northern Tract. Specialty Granules mines Pre-Cambrian Metabasalt; the basalt is processed into small granules for use in asphalt composition roofing. Specialty Granules uses an open quarry technique to mine the metabasalt. The Northern Tract will have a roughly 66-acre quarry or excavation area, with an approximately 19-acre operational buffer and a roughly 27-acre maintenance buffer comprising the 112-acre area. Earth disturbance will occur in the excavation area. The operation buffer will be used for roads and stockpiles, and erosion and sedimentation controls, and has been included as an area where earth disturbance could occur. The maintenance buffer will be used to maintain existing trees and vegetation. No earth disturbance is proposed for this area. The archaeological Area of Potential Effects (APE) includes both the area of the proposed mine and its operational buffer (Figures 1 and 2).

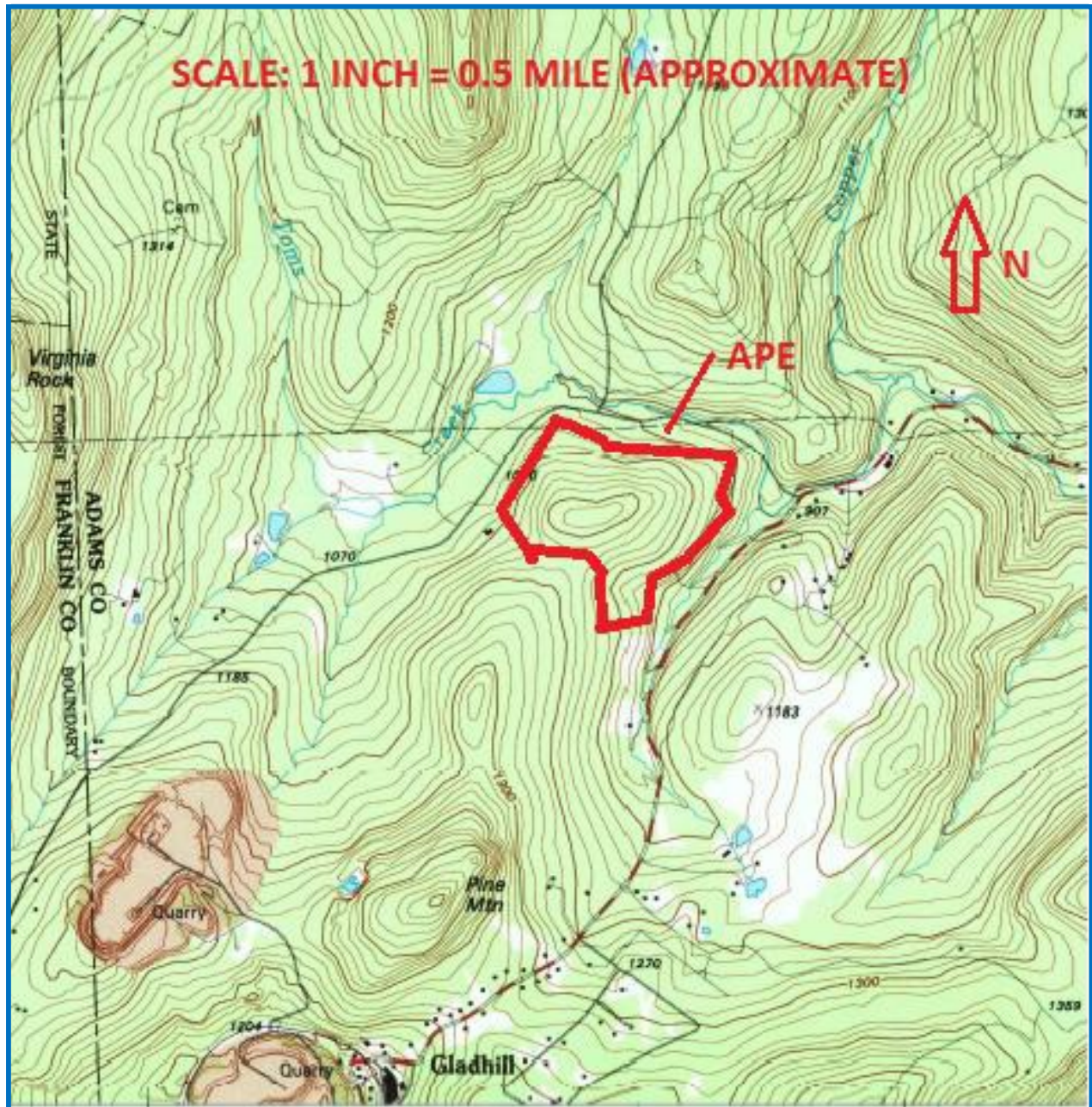


Figure 1: Annotated detail of the USGS 7.5 minute Iron Springs quadrangle, 1990, showing the APE.

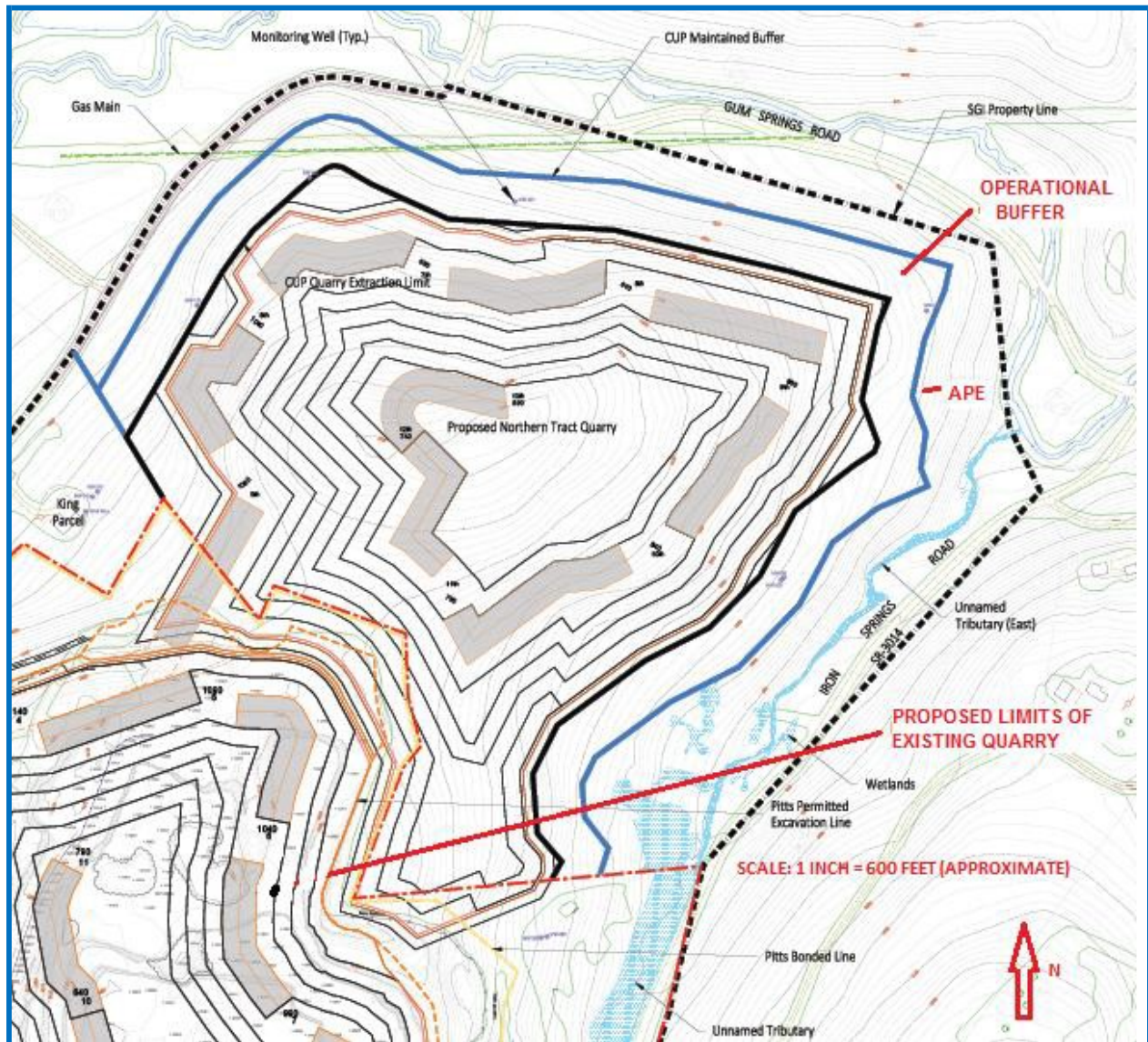


Figure 2: Plan of the Northern Tract Quarry, showing the proposed quarry and operational buffer, together which comprise the APE.

C. ARCHAEOLOGICAL SURVEY

1. ENVIRONMENTAL BACKGROUND

The proposed Northern Tract Mine Expansion Project lies in the South Mountain Section of the Ridge and Valley Province. The bedrock consists of the Catocin Formation of Metabasalt and

Metarhyolite flood basalts that were the result of the breakup of the Mesoproterozoic supercontinent of Rodinia, and the opening of the Neoproterozoic and Paleozoic-aged Iapetus Ocean, approximately 750 million years ago. The APE lies completely on the Metabasalt; the Metarhyolite lies to the east and northeast. The Native American rhyolite quarries (36Ad0046) also lie to the east, approximately 0.6 mile (one kilometer), on the Metarhyolite.

The area of the Northern Tract quarry expansion lies within the Toms Creek watershed. Toms Creek in turn drains into the Monocacy River, itself a tributary of the Potomac River.

The Ravenfield-Highfield-Rock outcrop covers approximately 45 percent of the APE. Although portions of the summit are relatively level, much of the APE consists of 15 to 25 percent slope, some over 75 percent. At the lower elevations, Highfield and Catocin channery silt loam, very stony, exist. The APE is extremely stony and well-drained.

Hamiltonban Township has a humid, continental climate with warm summers and cold winters. Most weather systems that affect the APE originate from the west in the Great Plains. Of the annual precipitation, which averages about 111 centimeters (43.6 inches) per year, 56% falls from April through September. The average daily temperature is -1° C (30° F) in January and 22° C (76° F) in July (city-data.com, 2/10/10).

Braun (1950) located the APE within the Oak-Chestnut forest region of the South Mountain section of the Ridge and Valley physiographic province. During the early part of the twentieth century, a fungal parasite decimated the American chestnut tree stands. Although American chestnut trees dominated much of the eastern United States prior to this blight, they are now absent. Kücher (1964) has more recently designated the area as Appalachian Oak Forest. This tall, broadleaf deciduous forest type provides cover for a majority of Pennsylvania and is dominated by white oak and northern red oak. The primary forest cover of Hamiltonban Township has been drastically altered by timbering and land clearance for agriculture, commercial and residential development, and mineral extraction. Current forests consist of second and third growth stands.

In pre-contact time, principal aquatic faunal resources included river and stream fish, sturgeon, perch, bass, catfish, as well as freshwater mussels. All of these species would have been available in the Monocacy River and within some in its tributaries, including Toms Creek. Avian fauna included migratory waterfowl such as Canada goose and several species of duck. Inland avian fauna included wild turkeys, ruffed grouse, and passenger pigeon. Mammals included white-tailed deer and raccoon, predators to the Late Woodland gardens. Other mammals included bison, black bear, porcupine, eastern cottontail, New England cottontail, snowshoe hare, gray and fox squirrels, red

and gray fox, and opossum. Beaver, river otters, and muskrat lived along the river and creeks (Barton, 1976).

2. CULTURAL BACKGROUND

Humans have lived along the tributaries of the Potomac River for over 14,000 years. Following is a brief summary of the commonly designated periods.

Paleoindian (Before 10,000 BP)

The first humans in North America, including what is now Pennsylvania, are designated Paleoindians. Radiocarbon dates from both eastern and western Pennsylvania demonstrate the existence of Paleoindian sites (Adovasio et al. 1990; McNett 1985). In the Paleoindian period, the climate was cooler and wetter, with an ice sheet covering much of North America. The upper end of the Paleoindian period (date of arrival) stands at approximately 19,000 BP.

Highly nomadic foragers, Paleoindians subsisted in small bands, utilizing a wide variety of plant and animal foods. Although past emphasis of Paleoindians was the hunting of Pleistocene megafauna, the evidence in Pennsylvania showed a wide range of seasonally based procurement activities (McNett 1985). Recent inspection of an event around 10,850 BP suggested that an abrupt change occurred, perhaps extra-terrestrial (comet, meteorite) in part (Haynes 2008). The megafauna disappeared, pushing the Paleoindians to a more diversified procurement strategy. Faunal, floral, and aquatic resources were procured from temporary camps. Most camps appeared to have been occupied for short periods (Custer 1994).

Early Archaic (10,000 – 8500 BP)

As the ice sheets retreated, the climate became warmer and drier, with flora and fauna becoming more diverse and more modern. The transition from Paleoindian to Early Archaic was one of degree rather than abrupt change, with sites becoming slightly larger and being occupied for a slightly longer time. The bands became larger, but remained highly mobile. The trend toward a more diversified procurement strategy continued (Custer 1994; Stewart 1980).

The site locations remained similar to the Paleoindian period. Quarry-related sites continued, and base camps began to emerge. Grinding and pitted stones showed the increasing reliance on floral resources. Chert remained the raw material for spear points, knives, and scrapers.

Middle Archaic (8500 – 5000 BP)

The Middle Archaic period remains an enigma in the Middle Atlantic region. Controversial dating and projectile point classification have led to some confusion about the period. Certainly the trends of the Early Archaic continue. Some evidence exists for the beginnings of a seasonal rotation among camps. The population appears to increase, and grinding and pitted stones become more common in the Middle Archaic period. The use of chert and quartz continue. A shift from quarry-related sites to procurement-related sites occurs, suggesting a more base-camp approach to foraging (Custer 1994).

Late Archaic (5000 – 3800 BP)

The Late Archaic period appeared to emerge seamlessly from the Middle Archaic period. However, as the Late Archaic progressed, sites began to appear in a much wider variety of settings than previously. The Late Archaic period was characterized by large base camps and a wide variety of temporary camps, ranging from hunting and fishing camps to quarrying and other tool procurement (reeds for mats and baskets) camps. Camps have been found in almost all settings, including the deep forest. Some researchers have suggested that the transition to the oak-chestnut forest was a result of deliberate Late Archaic people's actions (Delcourt et al. 1998).

Tool types and materials proliferate in the Late Archaic period. Projectile points, knives, and scrapers continue to be fabricated from chert and quartz; rhyolite from South Mountain now joins the lithic materials (Custer 1985). Steatite is made into bowls; grinding and pitted stones continue. Occasional beads and pendants are also found. In Ohio and Western Pennsylvania, burial mounds are found, although few are known along the tributaries of the Potomac River.

Transitional (3800 – 3200 BP)

In the Transitional period, the population clustered along floodplains of large waterways. The climate turned drier, perhaps reducing the amount of food available in the forests. In addition, the

increasing reliance on agriculture meant that less of the systematic foraging of the Late Archaic period was required. Steatite bowl and coarse pottery fragments indicate porridge cooking, a method of rendering grains more palatable. Rhyolite became the predominant lithic material. Extensive trade is apparent from the movement of rhyolite from its only known source in Pennsylvania on South Mountain, about 0.6 mile (one kilometer) east of the APE (Kent et al. 1971; PHMC CRGIS).

House structures, from evidence of post-molds, occurred in the Transitional period. Some areas feature clusters of apparently contemporaneous round houses, often with storage pits (Custer 1994; Custer does not recognize a Transitional period in his summary). Burial practices become more complex. Cultivation of Goosefoot (*Chenopodium berlandien*) and sunflowers (*Holiantus annuus*) likely occurred in the Transitional period along the tributaries of the Potomac River.

Early Woodland (3200 – 1800 BP)

The Early Woodland period continued the trends begun during the Transitional period. Although the Early Woodland period is poorly represented along the tributaries of the Potomac River, some trends have been observed. Clusters of houses grew larger and became hamlet-size. Thick-walled ceramics with coarse grit replaced steatite bowls for domestic use. Tobacco was grown, as evidenced by the appearance of pipes. Tools continue to be fabricated of chert, quartz, and rhyolite, with some argillite and jasper appearing.

In the Midwest extending into Western Pennsylvania, elaborate burial practices mark the Early Woodland period. Mounds with burial chambers within, often with two or more layers, occur. However, such mortuary structures are rare along the tributaries of the Potomac River. The paucity of Early Woodland sites in the basin may be the result of a lack of reliable diagnostic projectile points, as most are known from the Transitional or Middle Woodland (Custer 1994).

Middle Woodland (1800 – 1200 BP)

The Middle Woodland period continued the trends of the Early Woodland period. More cultigens are found, and villages grow larger. Semi-sedentary villages clustered on the floodplains of the Potomac River and its major tributaries. Ceramics became more refined with incised decoration. As in the Early Woodland period, burials became more elaborate. In the Midwest and Western Pennsylvania, burials reached the high elaboration of the Hopewell culture (Custer 1994).

This elaboration can be seen occasionally in apparent trade goods in sites along the Potomac River and its tributaries.

Late Woodland (1200 – 400 BP)

The previous four periods followed one another with expansion of existing trends. The Late Woodland period represents several changes. The agricultural complex became far more sustaining, with the maize, beans, and squash complex arriving. People began to live in larger villages. The bow and arrow came into use, as did fortified villages. Villages became more or less permanent, with stockades surrounding them. By the time of contact, 400 BP, villages often contained populations of 500 to 2,000 people sustained by several square kilometers of gardens in the vicinity.

The nuts and bolts of archaeology, lithics and ceramics, followed the changes in warfare and subsistence. Projectile points became smaller to fit on arrows, rather than spears. The common triangular points were made from chert, quartz, or jasper. Ceramics proliferated with many varieties, ranging from large storage jars to nearly flat griddles. Although a paucity of ceramics have been found in southern Adams County, the few known ceramics display features of a transitional area, with features of the Algonquian-speaking Tidewater groups to the south, and the Iroquoian-speaking groups to the north during the Late Woodland period (Stephenson and Ferguson 1963).

Contact (After 400 BP to Present)

Europeans rapidly displaced the Native Americans after the Contact period. European diseases wiped out large numbers of Native Americans, many before they even met a European, as the diseases spread rapidly through the populations. European technology and organization served to defeat the remaining Native Americans. By 1750, most Native Americans had abandoned their villages and camps along the Potomac River and its tributaries. At Contact, the Susquehannocks controlled the lower Potomac River and its tributaries.

In 1655, Swedish settlers established a trading post at present-day Elkton, Maryland. In 1693, John Hanson Steelman (1655-1749), born at present-day Gray's Ferry in Philadelphia of Swedish parents, built or occupied a trading post at the Elkton location. Steelman served as the interpreter for treaties between the Susquehannocks and Maryland in 1698 and 1700. However, as the Susquehannocks withdrew to the west, Steelman and his family followed, eventually settling in the area that would become Liberty Township, to the south of Hamiltonban Township, about 1720,

becoming the first European settlers in the area (Hulan and Craig 1984). When Steelman and his family arrived about 1720, the area that would become Hamiltonban Township was nominally part of Chester County. In 1729, the area became part of Lancaster County, and in 1749, part of York County. By the time of the establishment of York County, Charles Carroll had procured a tract under title with Lord Baltimore in 1741 (the border between Pennsylvania and Maryland was disputed until the Mason-Dixon Survey of 1763- 1767). Shortly after his 1741 title, a nearby tract was established under the name of Hamilton- Ban. Named after a fortified house in County Armagh in Ireland, a relative (also named Hamilton) settled near present-day Fairfield. (Ban was the word used for a defensive wall or earthwork around a fortified residence.) Hamiltonban Township was established with York County in 1749 (Rupp 1846:541-547).

In 1755, the Township's primary town, Fairfield, was subdivided. It was incorporated in 1801, the year after the Pennsylvania Legislature formed Adams County.

The minerals of Hamiltonban Township had been noticed by early explorers, reputed to be Jesuit missionaries sent by Lord Baltimore (Shoemaker 1941). The first recorded copper mine began in 1795. By the 1830s, more extensive mineral extraction began, with iron mining and the construction of Maria Furnace. Copper mining began about 1833 in the APE; a smelter was constructed nearby. Both efforts ceased in 1836, as neither were profitable (Gettysburg Compiler 1846 and 1868). Some copper mining occurred sporadically to the north and east of the APE, in 1846, in the 1870s and 1880s, and in the early twentieth century. However, the mines were not profitable enough to continue (Bloom 1992:250).

The modern form of mineral extraction began in 1914 near the present Charmian quarry. That year, a grit mill ground "greenstone" and produced granules for roof and siding shingles, and as tennis court surfaces (Bloom 1992:246). A slope (drift) mine was the source of the raw material, and the Funkhouser Company purchased the mine in 1925 (Pennsylvania Geological Survey 1968:8-9). Raymond Joseph Funkhouser (1888-1968), the owner and president of Funkhouser Company, sold the mine to the Rubberoid Company of Washington, Maryland, in 1958. Rubberoid opened the beginnings of the present quarry operations in 1964. Rubberoid merged with the General Aniline and Film Company (GAF) in 1967, and adopted the GAF name. The quarry expanded again in 1981 (Gettysburg Times 1981). In 1991, the mining assets of GAF, including the Charmian plant, became part of ISP Minerals, Inc. In 2011, ISP Minerals Inc. changed its name to Specialty Granules, Inc. (Specialty Granules website). In 2016, Specialty Granules became part of Standard Industries, Inc. (Standard Industries website), which also owns GAF Minerals LLC.

Due to the long occupation of the area that became Hamiltonban Township, artifacts could be expected from throughout the last fourteen or fifteen millennia.

3. METHODOLOGY

Phase I archaeological survey field procedures consisted of visual inspection, surface (pedestrian) survey, and subsurface excavation of shovel test pits (STPs). The APE consists almost entirely of rock outcrops. In a saddle where soil had accumulated, four STPs were excavated. A previous survey, completed by URS Corporation, found a minor domestic site, the William Smith House; their report, which had not been submitted to PHMC, is attached as Appendix B. Skelly and Loy's team recorded the survey with digital photographs.

The project team consisted of Douglas Dinsmore, Ph.D., who served as project manager, field director, laboratory directory, and report author, and Nate Beck and Seth Hoover as field technicians. All archaeological studies undertaken followed Skelly and Loy's internal quality assurance/quality control procedures including peer review and technical editing and meet or exceed industry standards and those of PHMC's *Guidelines for Archeological Investigations* (2008).

D. RESULTS

1. BACKGROUND RESEARCH

The APE lies entirely within Hamiltonban Township. According to the Cultural Resources Geographic Information System (CRGIS), one recorded archaeological site lies approximately 0.6 mile (one kilometer) to the east of the APE. This site, 36Ad0046, is the Carbaugh Run Rhyolite Quarries, which is the source of much if not all of the pre-Contact rhyolite material found throughout Central and South-central Pennsylvania. However, the APE consists of a form of metabasalt, and was rarely used for pre-Contact tools. In other areas, open habitation and lithic reduction sites lie along Toms Creek, the latter of which circumscribes the APE to the northwest, north, and northeast. The APE does not include Toms Creek, its tributaries, floodplains, or terraces. No above-ground structures stand within the APE.

2. ARCHAEOLOGICAL INVESTIGATIONS

The Skelly and Loy team conducted the archaeological investigations on December 16 and 23, 2015. The team first investigated the copper mine tunnel, which was shown on the 1858 Hopkins *Map* (Figure 3; the mine was not shown on the 1872 Lake *Atlas*). Local informants also mentioned the tunnel. The tunnel consisted of a horizontal shaft, five feet (1.5 meters) high and five feet wide. A member of Skelly and Loy's team entered the tunnel, and carrying the end of a measuring tape, was able to proceed for about 100 feet (30.5 meters). A large tailings pile lay outside the tunnel; the size of the tailings pile, approximately 50 feet long (15.2 meters), 20 feet wide (6.1 meters), and 20 feet high at the downhill end, suggested a tunnel longer than 100 feet (Photographs 1 and 2 and indicated as P1 and P2 on Figure 4). No other features, such as walls or foundations, could be identified around the tunnel and tailings pile.

The team found additional excavations associated with copper mining exploration. One excavation was a vertical shaft (Vertical Shaft 1), which had been excavated on the south side of the summit, in line with the tunnel (Photograph 3 and indicated as P3 on Figure 4). Judging from the size of the tailings pile, the vertical shaft originally extended about 25 feet (7.6 meters). Likely, the vertical shaft had been excavated to attempt to intersect with the tunnel. The vertical shaft is filled with rubble eroded from the sides, and with trash. Other excavations, including another vertical shaft and smaller drifts (Expl Holes 1 through 4), were also identified (Figure 4).

The team also found a haul road and the ruins of a smelter. The smelter was also located on the Hopkins *Map*. However the smelter ruins lie outside of the APE, as does a portion of the haul road (Figure 4).

The tunnel and its tailings pile are very likely the result of the mining activities that occurred in the period 1833-1836, and noted in the Gettysburg Compiler (1868). The vertical shaft (Vertical Shaft 1 on Figure 4) found on the other side of the summit, at the location where the tunnel would be, is also very likely part of the 1833-1836 activities. Whether the other excavations (Vertical Shaft 2 and the four Exploratory Holes on Figure 4) were part of the early copper mine is not known. The copper mining activities shifted to the northeast after the 1833- 1836 activities, out of the APE. Copper mining continued to the northeast and east until 1904 (Figure 5; Gettysburg Compiler 1846; Kadel 1935:14). Some of the later mines to the northeast and east are shown on Figure 5 (Oles 1967).

The team excavated four STPs (STP1 through STP4 on Figure 4) in a saddle where soil had accumulated. No artifacts were identified in the STPs. All four STPs exhibited the same profile: 10-12 centimeters of dark brown 10YR3/3, then 5-6 centimeters of yellow-brown 10YR5/6, then bedrock.

The team also inspected the William Smith House, which had been investigated in the earlier URS Corporation survey. The report from this earlier survey is included as Appendix B. Previously, local informants had identified the William Smith House as a former schoolhouse. The URS survey found only domestic artifacts, and none that would be associated with a schoolhouse. Skelly and Loy's team concurred with the earlier URS survey, that the William Smith House site was not eligible for inclusion in the National Register of Historic Places.

Pennsylvania Archaeological Site Survey forms were completed for the Copper Mine and the William Smith House, and are included as Appendix C.

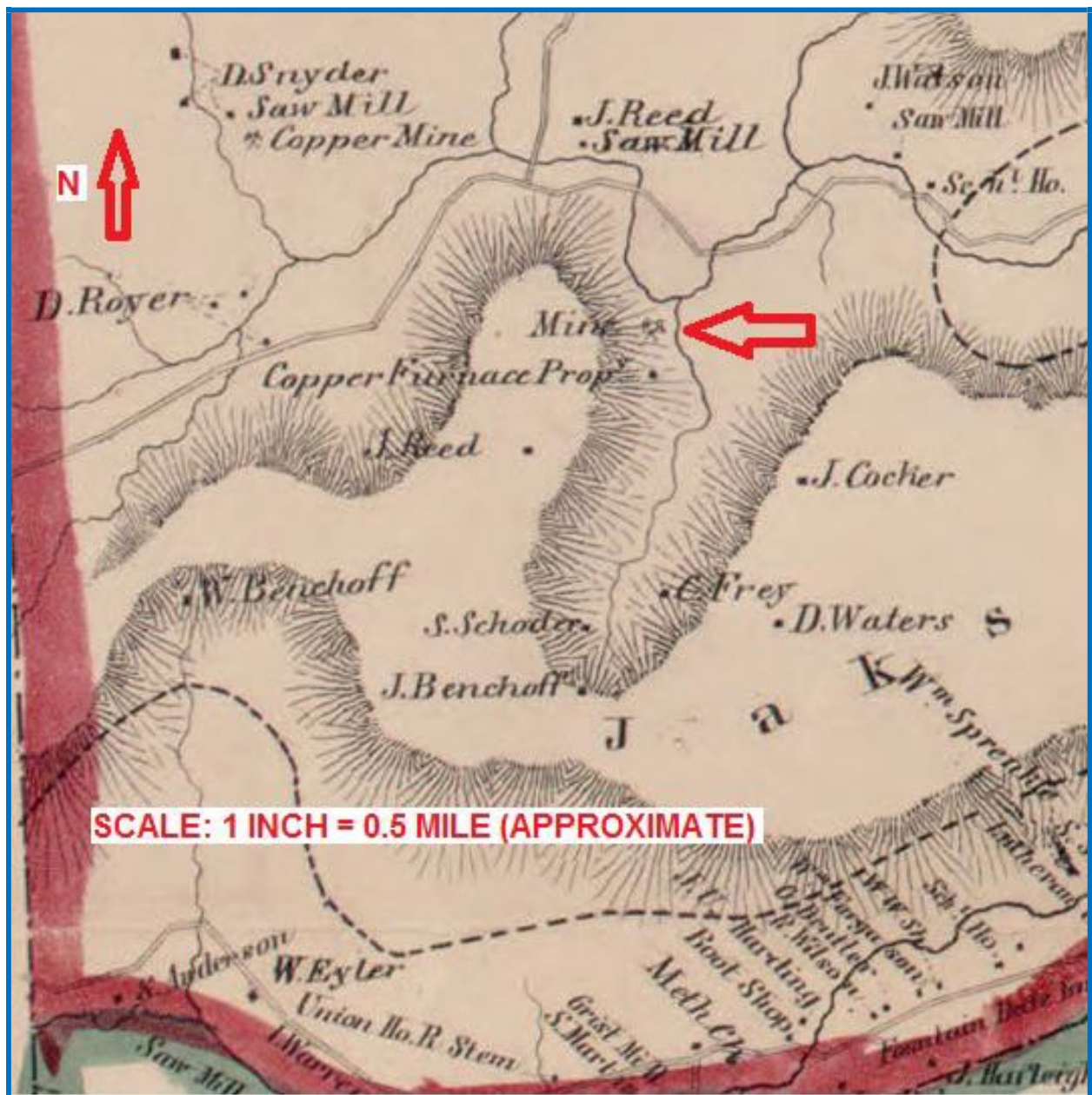


Figure 3: Detail of the 1858 Hopkins Map, showing the mine location (horizontal red arrow).



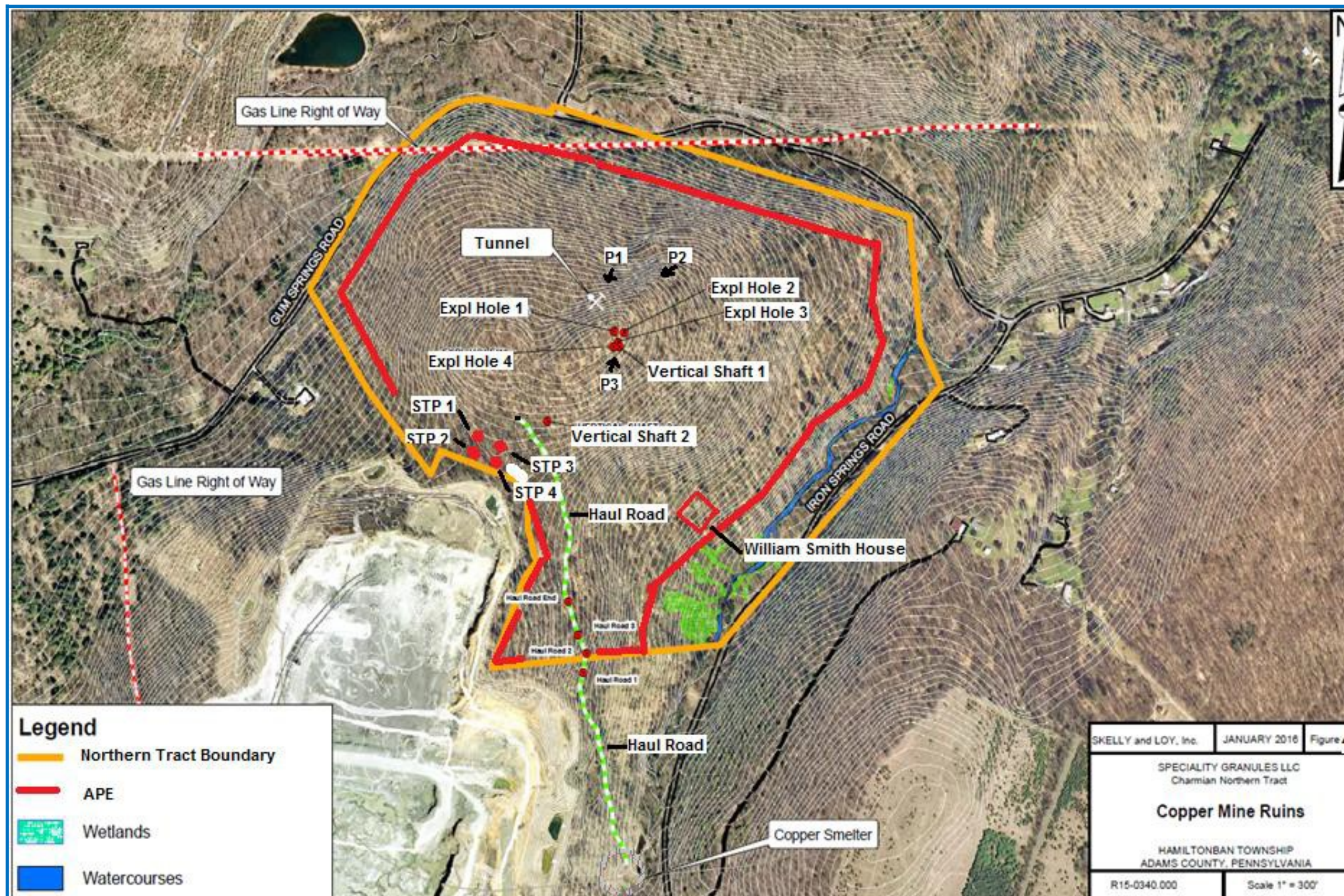
Photograph 1: The tunnel entrance, looking south.



Photograph 2: The tailings pile, looking southwest. Nate Beck provides scale.



Photograph 3: Vertical Shaft 1, looking north. The shaft appeared to be about 25 feet deep, about where it would intersect with the tunnel.



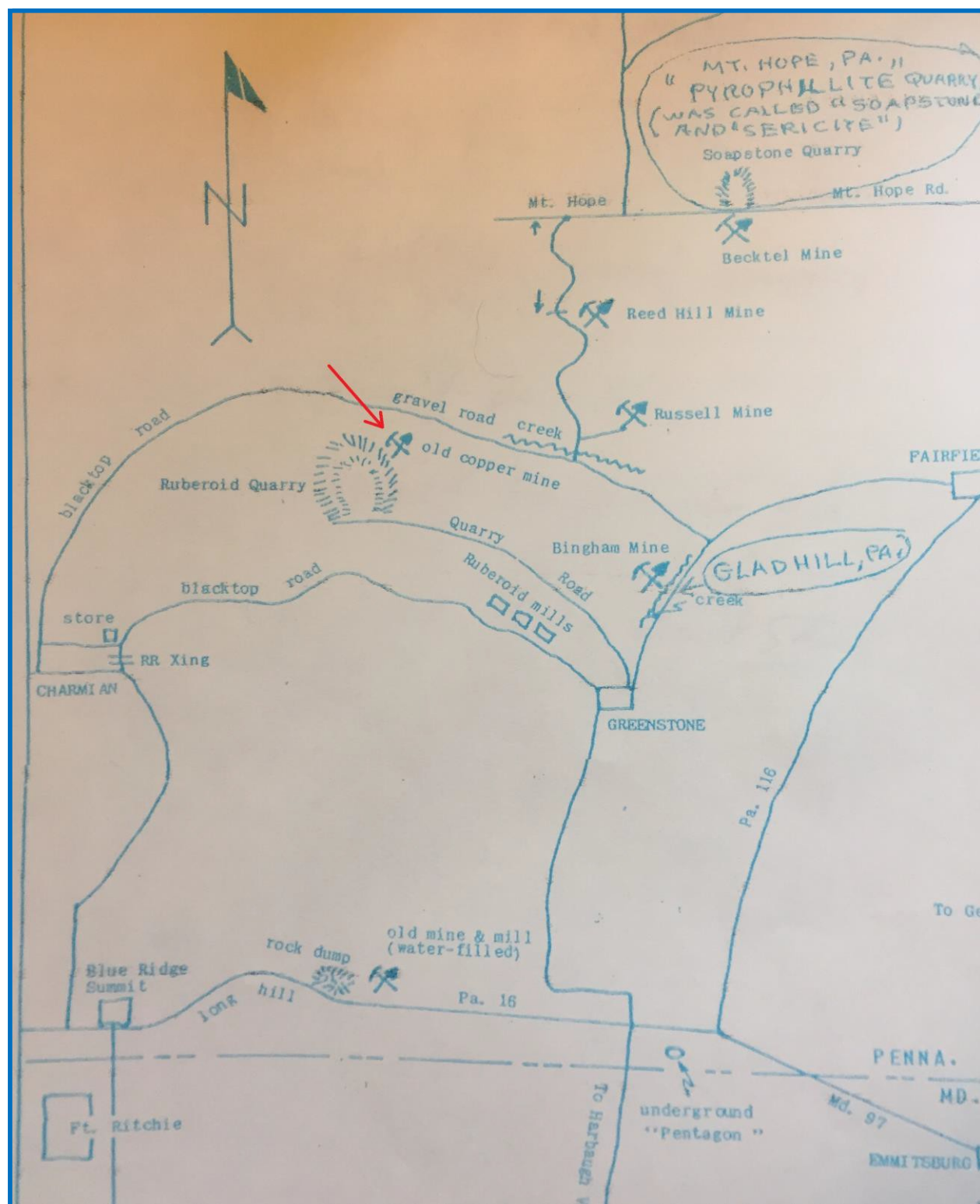


Figure 5: Map drawn by Floyd Oles in 1967, showing the location of copper mining activities, including the "old copper mine" (red arrow).

F. CONCLUSIONS

No previously recorded archaeological sites were located within the APE. As a result of the Phase I archaeological survey, the project team identified two archaeological sites, the Copper Mine (36AdXXXX) and the previously-identified William Smith House (36AdXXXX). The Copper Mine consisted of a tunnel and tailings pile, a vertical shaft, and a haul road and smelter. The smelter and a portion of the haul road lay outside of the APE. The team found no other features associated with the tunnel, tailings pile, and vertical shaft. The documentary evidence indicated that the copper mine excavations had occurred for a short time, 1833-1836, and were then abandoned. Copper mining activity continued throughout the rest of the nineteenth century in Adams County, but at off-site locations to the northeast and east, and no further mining activity appears to have occurred in the APE after the 1833-1836 excavations.

The archaeological investigations of the URS Corporation team at the William Smith House found few artifacts. The team found only domestic artifacts, and none that might be associated with a schoolhouse. They concluded that the William Smith House had been occupied for only a short time. Skelly and Loy's team concurs with the URS team, that the site was a domestic one, not a schoolhouse, and that lacks significant artifacts.

Neither the Copper Mine site nor the William Smith House site should be considered to be eligible for inclusion in the National Register of Historic Places. Both were occupied for a short time. Both sites did not contain significant artifacts, and are unlikely to provide important additional information. Skelly and Loy recommends no additional archaeological survey.

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APPENDICES

**APPENDIX A -
ARCHAEOLOGICAL REPORT SUMMARY FORM**



Archaeological Report Summary Form

ER# 2016-0818-001

DATE 3-19-2018

PROJECT CHECKLIST: Please fill out a copy of this checklist and include it with your initial report submission, (including with management summaries or draft reports). This form may be downloaded and expanded as needed, but please do not eliminate any fields.

1. **Report Title** Phase I Archaeological Survey, Northern Tract Mine Expansion Project

2. **PI** Douglas Dinsmore (☐ MA, ☒ PhD) / **Firm** or Institution Skelly and Loy, Inc.

3. **Report Date** (Month/Day/Year) March 19, 2018

4. **Number of Pages** 20

5. **Agency Name** PA DEP Federal ☐ State ☒

6. **Project Area County/Municipality** (list all)

County	Municipality
Adams	Hamiltonban Township

7. **Project Area Drainage(s)**, (list all)

Sub-basin	Watershed
Lower Potomac River	D

8. **Project Area Physiographic Zone(s)** (list All) (Use DCNR Map 13 compiled by W.D. Sevon, Fourth Edition, 2000.)

Physiographic Zone
Ridge and Valley – South Mountain

9. **Report Type** (some reports are combinations, check as many as apply to this report)

- | | |
|---|---|
| <input type="checkbox"/> Phase IA/Sensitivity Study | <input type="checkbox"/> Historic Structures |
| <input checked="" type="checkbox"/> Phase I | <input type="checkbox"/> Geomorphology |
| <input type="checkbox"/> Phase II | <input type="checkbox"/> Determination of Effects |
| <input type="checkbox"/> Phase III | <input type="checkbox"/> Other _____ |

10. **Total Project Area** 48.2 hectares

11. **Low Probability/Disturbed Areas** 48 hectares = 99 % of project area

12. **Phase I Methods used for total project** (check as many as apply)

- ☒ shovel tests, ☐ controlled test units/deep tests,

☒ surface survey, ☒ informant interview, ☐ other: _____

13. Total Number of Sites Encountered/Phase I 2

Total Sites Tested/Phase II _____

Total Sites Excavated/Phase III _____

14. Updated PASS Information: Please complete an updated PASS form **for each site** reported by this report. Updated forms need only include the new information and the site number and name. **In Appendix B, following.**

15. PASS Site Specific Information: In addition, the following pages must also be completed **for each site**. Complete only the portions that pertain to the current report. If the report is a stand-alone Phase II, you do not need to fill in the Phase I methods, since they should have been included in the summary form for the previous report.

Please complete the following **for each site** reported by this report.

PASS NUMBER 36AdXXXX

A. Phase I Methods (how the site was located - check as many as apply)

☐ shovel tests, ☐ controlled test units/deep tests,
☒ surface survey, ☒ informant interview, ☐ other: _____

PASS NUMBER 36AdXXXX

A. Phase I Methods (how the site was located - check as many as apply)

☒ shovel tests, ☐ controlled test units/deep tests,
☒ surface survey, ☐ informant interview, ☐ other: _____

B. Phase II Methods

☐ controlled surface collection
☐ controlled excavation w. screening of plowzone, > 5 units
☐ mechanical stripping of plowzone (_____%)
☐ deep excavation units
☐ remote sensing
☐ other _____

square meters of site tested: _____ sq. m

% of site area tested: _____ %

C. Phase III Methods

- ☐ controlled surface collection
- ☐ controlled excavation w. screening of plowzone, > 5 units
- ☐ mechanical stripping of plowzone _____%
- ☐ deep excavation
- ☐ block excavations
- ☐ remote sensing
- ☐ environmental reconstruction (soils, floral, pollen)
- ☐ dietary reconstruction (floral, faunal)
- ☐ intensive lithic analysis (functional)
- ☐ intensive lithic analysis (technological)
- ☐ raw material sourcing
- ☐ ceramic analysis (seriation)
- ☐ ceramic analysis (functional)
- ☐ blood residue
- ☐ other _____

square meters of site tested: _____ sq. m

% of site area tested: _____ %

Recommendations (normally completed only after Phase II):

-- NR Eligibility recommendation

☐ eligible, ☐ ineligible, ☐ undetermined

-- reasons for determination (check as many as apply; expand as needed)

- ☐ eligible: Criterion A. Explain _____
- ☐ eligible: Criterion B. Explain _____
- ☐ eligible: Criterion C. Explain _____
- ☐ eligible: Criterion D:
 - ☐ settlement patterning (intersite patterning)
 - ☐ intrasite artifact patterning
 - ☐ features
 - ☐ radiocarbon dating
 - ☐ organic preservation
 - ☐ evidence of culture change through time
 - ☐ stratified ☐ temporally discrete clusters
 - ☐ burials/human remains
 - ☐ technological
 - ☐ economics
 - ☐ ethnicity

- ☐ dietary
☐ other(specify): _____

- ☐ ineligible
☐ disturbed
☐ ephemeral occupation
☐ redundant information
☐ undatable
☐ other (specify): _____

E. Artifacts/Collections

- ☐ will be donated to the State Museum of Pennsylvania
☐ gift agreement from private owner enclosed

- or -

- ☐ transfer of responsibility from State Agency enclosed
☐ election of repository from Federal Agency enclosed
☐ artifacts washed/marked/cataloged following State
Museum guidelines

-- collection will be submitted by _____(date)

- ☐ will be donated to other approved repository (**this option must
be negotiated with the BHP and State Museum or stated as
stipulation in MOA**)

- ☐ curation agreement enclosed
☐ artifacts washed/marked/cataloged following host
guidelines

-- collection will be submitted by _____(date)

- ☐ will be retained by land owner (☐ whole or ☐ partial collection)

- ☐ expanded documentation enclosed for items retained
☐ proof enclosed that owner was notified of the option to

donate the collection to the State Museum and chose to retain the collection:

- ☐ letter from owner indicating desire to retain collection

- or -

- ☐ agency or representative discussed donation option with
owner on _____(date)

- and -

- ☐ copy of letter and certified letter receipt indicating that
the owner was offered this option in writing.

No artifacts.

**APPENDIX B -
PHASE I SUMMARY: PINE HILL**

Summary Report

Archaeological Investigations, 112.22-Acre Glatfelter Property

Adams County, Pennsylvania

Prepared for

Specialty Granules Inc.

Prepared by

Patricia Miller, Ph.D., RPA

Andrew Wyatt, M.A.

URS Corporation

437 High Street

Burlington, New Jersey 08016

January 2014

Abstract

URS conducted an archaeological investigation to identify whether the potential remains of the former Pine Hill School were located on Specialty Granules Incorporated's (SGI's) 112.12-acre Glatfelter property in Hamiltonban Township, Adams County, Pennsylvania. The work included background research for the property, along with pedestrian survey and subsurface testing in two study areas that were considered to have a high probability for archaeological resources possibly related to the former Pine Hill School. The fieldwork was limited to these two study areas. Subsurface testing was conducted in and around a stone foundation identified in one of the study areas.

A review of the PHMC's Cultural Resources Geographic Information System (CRGIS) database revealed no recorded archaeological sites or aboveground historic resources on the 112.22-acre Glatfelter property. The 1858 historic map of the area indicated that a mine and a structure of unknown function were present on the 112.22-acre Glatfelter property. The 1872 historic map depicted a building labelled "William Smith" at the approximate location of the stone foundation identified on the 112.22-acre Glatfelter property. Background research indicated that the Pine Hill School operated between 1910 and 1922, and was likely near the J. Bigham property shown on the 1872 map as located outside and to the south of the project area.

Pedestrian survey at the reported potential location of the Pine Hill School did not identify historic foundations or other above-ground evidence of a historic building. Subsurface testing around a stone foundation near the reported potential location of the Pine Hill School produced one prehistoric and 11 historic artifacts. Testing confirmed that the prehistoric artifact was an isolated find. The historic artifacts were found in low density and consisted primarily of architectural items. The foundation is at the approximate location of the structure labelled "William Smith" on the 1872 map and could be a residence of some type. However, the near-absence of domestic items suggests that if the building was a residence, it was only briefly occupied. No depressions suggesting a privy were found. None of the artifacts recovered support the hypothesis that the stone foundation represents a former school.

Based on the low density and diversity of artifacts recovered around this foundation, together with the absence of intact deposits, it is our opinion that this archaeological site is not eligible for listing on the National Register of Historic Places. It is our recommendation that no further investigation of this archaeological site or the two study areas is warranted.

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1

Introduction

URS conducted an archaeological investigation to identify whether the potential remains of the former Pine Hill School were located on Specialty Granules Incorporated's (SGI's) 112.12-acre Glatfelter property in Hamiltonban Township, Adams County, Pennsylvania (Figure 1). The investigation included background research for the property, along with pedestrian survey and subsurface testing in areas considered to have a high probability for archaeological resources possibly related to the reported Pine Hill School. Archaeological testing was limited to two study areas (Figure 2). The Pedestrian Survey Study Area was identified by a local resident as the location of the former Pine Hill School, a one-room school that operated between 1910 and 1922. A pedestrian survey was conducted in this study area. The Stone Foundation Study Area was centered on a stone foundation identified near the Pedestrian Survey Study Area. Subsurface testing was conducted in this study area.

The 112.22-acre Glatfelter property is situated in the South Mountain Section of the Ridge and Valley Province in south-central Pennsylvania. The area surrounding the project is steep, mountainous terrain dissected by small streams that flow through steep-sided ravines. The study area is situated on a steep, southwest-facing slope that is forested. An unnamed first-order stream flows northward along the base of the slope and into Toms Creek. Toms Creek flows northeast before turning south to join the Monocacy River in Maryland. The Monocacy River is part of the Potomac River basin.

Soils in this area are classified as Ravenrock-Highfield-Rock outcrop (15–25 percent slope) and Highfield and Catoctin channery silt loams, very stony (25–70 percent) (Web Soil Survey 2012). All of these soils are extremely stony and well-drained, forming on mountainsides.

Patricia Miller served as Principal Investigator for the archaeological survey and is responsible for the content of this report. Andrew Wyatt revised the report to incorporate revisions requested by SGI. James Burton directed the field crew. Paul Elwork edited the text for style and consistency. Nina Shinn prepared the report graphics.

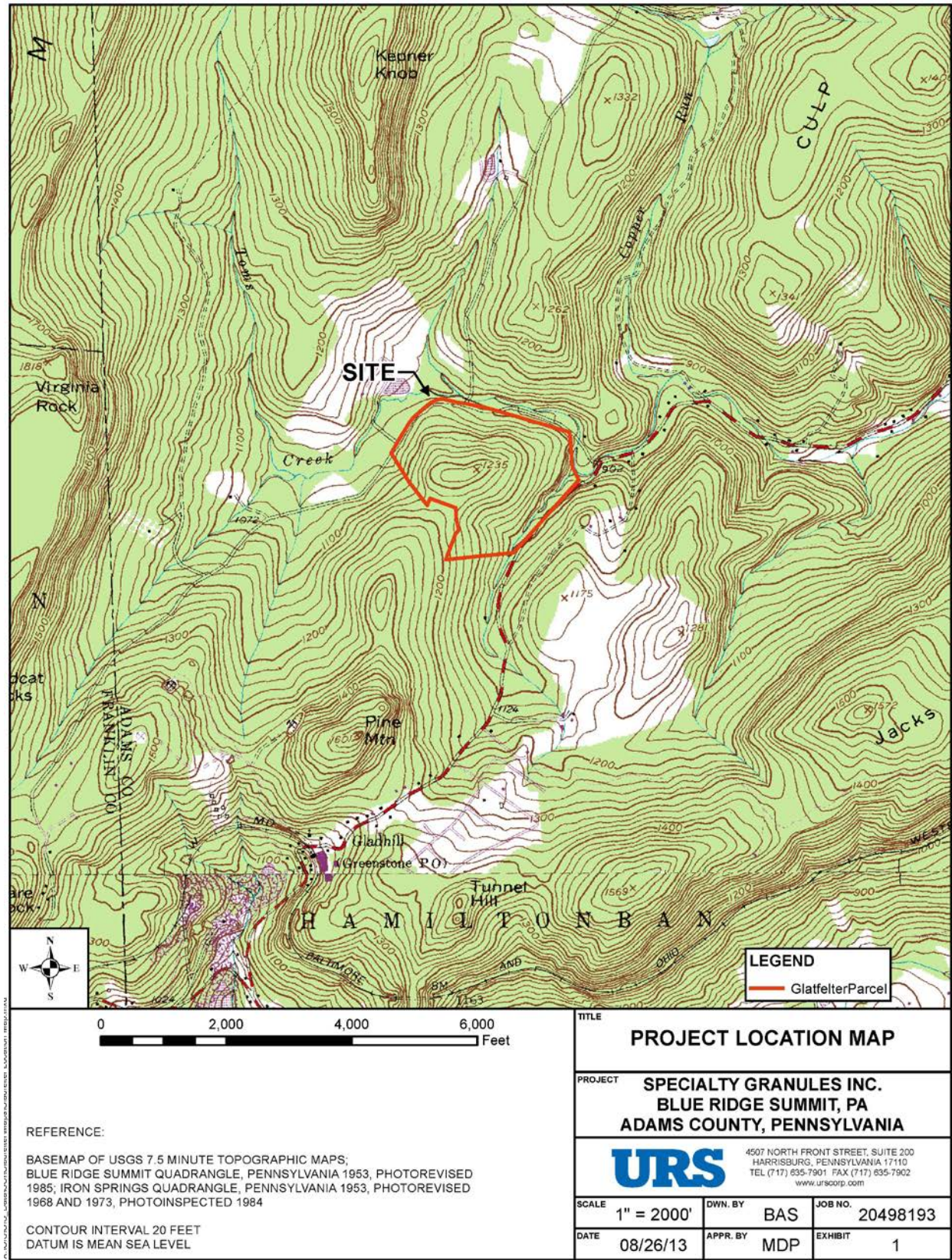


Figure 1: Project location map

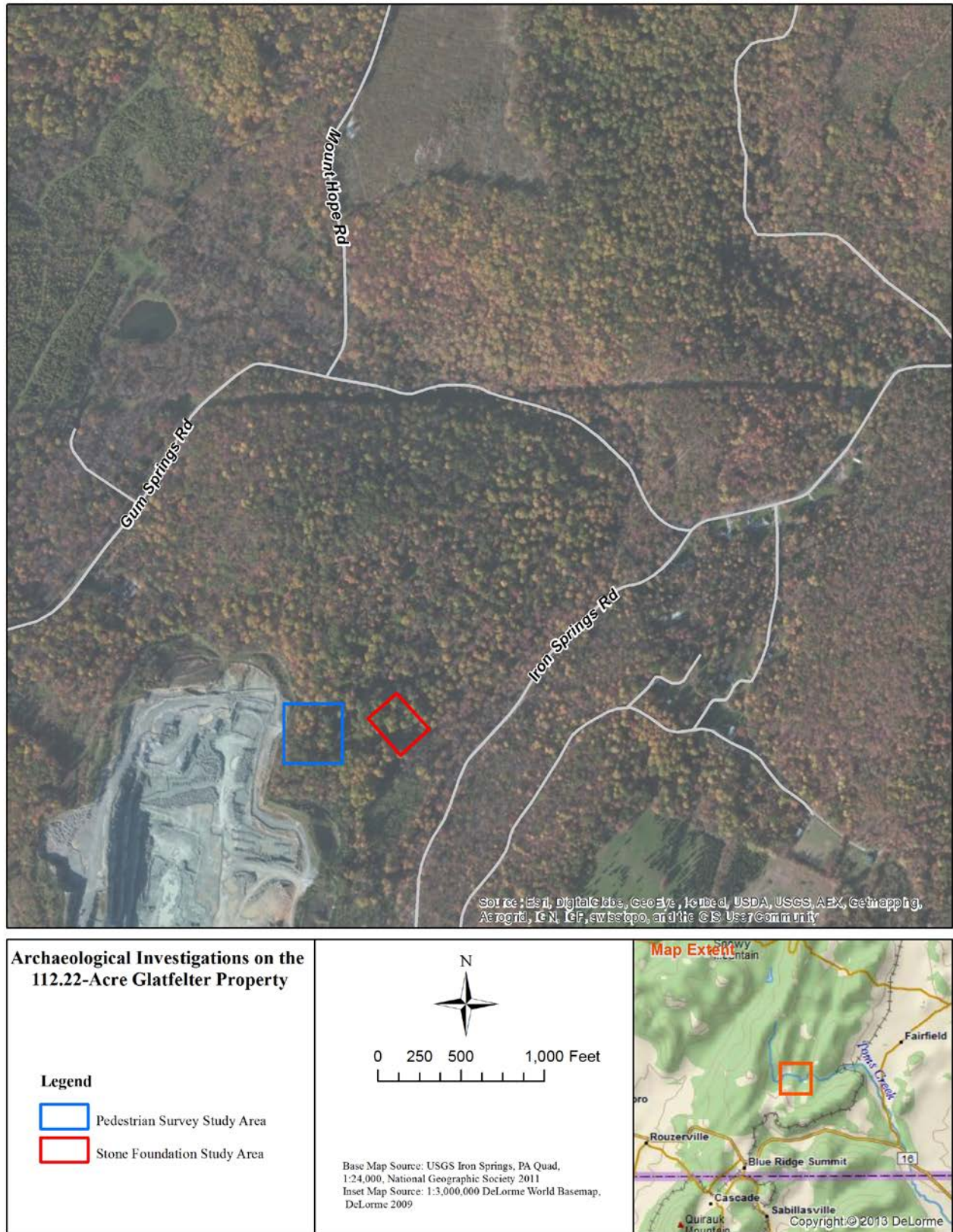


Figure 2: General vicinity of the 112.22-acre Glatfelter property showing study areas.

2 Methods

BACKGROUND RESEARCH METHODS

A background and property history of the project area was assembled from maps, deeds, genealogical data, and local histories. Deeds were searched at the Adams County Recorder of Deeds office in Gettysburg. Maps and local histories came from the Adams County Historical Society in Gettysburg and the Gettysburg branch of the Adams County Library System. In addition, online sources provided additional cartography, early issues of the *Gettysburg Times* newspaper, and family history information.

FIELD AND LABORATORY ANALYSIS METHODS

Because soils within the study area formed in the residuum of bedrock, field techniques involved the excavation of shovel test pits (STPs). The STPs measured 50 x 50 centimeters (20 x 20 inches) and were excavated by natural strata. STPs were excavated at least 10 centimeters (4 inches) into B-horizon subsoil or to impassable rock. STPs were excavated at 7.5- and 15-meter (25- and 49-foot) intervals on level terrain surrounding the stone foundation. Soil from each STP was screened through 1/4-inch hardware mesh and the residue examined for the presence of artifacts.

Soil profiles were recorded using the Munsell color system and standard texture classifications. Following completion of each STP, the pit was completely backfilled and compacted.

Prehistoric artifacts were cataloged in terms of material type, form, function, and, if possible, cultural affiliation. No prehistoric ceramics were identified. One piece of debitage was found. The artifact was classified using morphological traits, such as the presence of a platform and bulb of percussion, the type of platform, dorsal flake scars, and presence of cortex. Evidence of thermal alteration on debitage was tabulated.

Historic artifacts include ceramics, glass, metal, and miscellaneous other artifacts. Historic artifacts were analyzed in terms of type of material, form, function, and temporal attributes. Historic ceramics were characterized by paste, glaze, and decoration. Major categories include pearlware, whiteware, white granite, stoneware, porcelain, and red-bodied earthenware. Vessel function was inferred whenever possible, based on vessel shape and size. Maker's marks were recorded and identified, when present. If the quality of the evidence permitted, the date and place of manufacture were specified for each vessel in the assemblage.

Glass containers were characterized by type, color, and element (body, rim, base). Whenever the quality and completeness of the vessel were sufficient, the date of manufacture and the function of the bottle were specified. Window glass was characterized by color. Nails were classified by manufacturing process (wrought, die-cut, wire) and the function (common nail, roofing nail, brad, etc.) specified for all complete pieces. Bricks were classified by manufacturing process, if possible.

Artifacts were prepared for curation according to the current State Museum of Pennsylvania guidelines. All artifacts from this investigation will be returned to SGI at their request.

Background Research Results

PREVIOUSLY RECORDED RESOURCES

Review of the PHMC's Cultural Resources Geographic Information System (CRGIS) revealed that there are no listed archaeological sites or aboveground historic resources within the 112.22-acre Glatfelter property boundary.

HISTORICAL BACKGROUND

The territory of Adams County was part of the land Charles II of England granted to William Penn and his heirs as a proprietary in 1681. Penn's prosperity depended on his finding European settlers to populate his province. Germans began arriving in Pennsylvania in 1683. Most became farmers and took up the land north and west of Philadelphia. The Scotch-Irish, descendants of Protestant dissenters from Northern Ireland, immigrated to Pennsylvania in large numbers beginning in 1710. They occupied the lands farther west in the Piedmont regions of the Susquehanna Valley and the mountains which rimmed it to the north and west (Bloom 1992:6).

As settlement moved westward, more of Pennsylvania's counties were formed. In 1749, part of Lancaster County lying west of the Susquehanna River was formed into York County. In 1800, portions of York's westernmost townships were formed into Adams County. A European had entered Adams County as early as 1718 to set up a trading post near what is now Zora in Liberty Township. The Penn family acquired the title to the Adams County area in 1736, clearing the way for the tide of settlement. German families had begun arriving into southeastern Adams County a few years before the Indian purchase—the first permanent settlers. By 1736, Scotch-Irish settlers were making their way into the Marsh Creek area in the central part of Adams County by way of Maryland (Bloom 1992:8–10).

The location of the boundary line between Pennsylvania and Maryland was not resolved until the Mason-Dixon Line was established in 1767. Up until that time, Maryland issued land grants in the disputed territory—encouraging settlement to strengthen its claims. Pennsylvania eventually recognized the property rights of these Maryland claimants. In the 1730s, Maryland issued two land grants containing 7,857 acres to members of the Carroll family. These tracts, known as “Carroll's Tract” and “Carrollsborg,” were located in today's Liberty, Hamiltonban and Franklin Townships. These tracts were predominantly settled by Scotch-Irish families (Bloom 1992:9-10).

Frontier-like conditions persisted in Adams County until the end of the eighteenth century. Farmers practiced subsistence agriculture. The improvement of roads in the years after the American Revolution provided better access to mills and markets. Farmers sold their meats, hides, flour, whiskey, and other products in Baltimore—fifty miles away and half the distance of a journey to Philadelphia. Hamiltonban Township was one of 11 townships created in Lancaster and then York County between 1745 and 1750. It included the territory of Liberty Township (1801), Freedom Township (1838), and Highland Township (1863) (Hively 2009:23).

Beginning in the 1740s, Adams County became a part of the colonial wagon road network that connected the Eastern Seaboard to the hinterland. The Monacacy Road ran from the Susquehanna River to the Potomac River passing through the southeastern corner of the future Adams County. In 1747, the Black's Gap Road ran through Adams County following the current alignments of U.S. Route 30 and State Route 394. It then crossed South Mountain, the northern extension of the Blue Ridge Mountain range, through Cashtown Gap into the Cumberland Valley, a route later used by travelers between Philadelphia and Pittsburgh. The third important road to pass through the county was located near the project area. It was called Nicholson's (or Nichol's) Gap Road. At New Oxford the road branched off the Black's Gap Road to the southwest, passing through the present sites of Gettysburg, Fairfield, and Fountaindale, before passing through Nicholson's Gap in South Mountain. It followed the alignments of present-day State 116, Jack's Mountain Road, and the Old Waynesboro Road in Hamiltonban Township (Bloom 1992:30–32).

In 1755, Irish immigrant John Miller purchased 247 acres in Hamiltonban Township from Charles Carroll. His plans for the founding of a town were put on hold until 1784, when he laid out the town lots of Fairfield. By 1796, 10 lots had been sold. It was a convenient stopping off place on the Nicholson's Gap Road, and an inn and other service businesses helped it develop into the principal town of southwestern Adams County. Its growth was slow when compared to towns in the eastern part of the county. Adams County was created in 1800 with the county seat at Gettysburg, which helped it develop into the county's principal place of business, as well as a transportation hub. In 1846, Fairfield was described as a busy place with 50 dwellings, several stores and taverns, two churches, a schoolhouse, and a number of mechanics' shops (Bloom 1992:48–49; 70; Fairfield Area Bicentennial Committee 1976:11).

Fountaindale, on the other side of Pine Mountain from the project area, was a village that developed around a tavern established in 1803 near Nicholson's Gap. By 1858, the spread out village along the Old Waynesboro Road included the inn, a hotel, two churches, a cemetery, a gristmill and two sawmills, a tannery, a schoolhouse, a wheelwright shop and boot shop, and at least 15 dwellings (Bloom 1992:78; Hopkins 1858).

Iron ore had been discovered in the mountainous western section of Adams County in colonial times. It was refined and used for munitions during the American Revolutionary War. In 1792, a land grant of 41.5 acres on Jack's Mountain was given to Dr. James Crawford, who presumably used it for the extraction of ores or minerals. After 1800, iron ore was neither mined in any great quantity nor had the quality to develop into a major industry, as it did in other parts of Pennsylvania. The greatest effort at developing an iron works in Adams County occurred near the project area. In 1822, Thaddeus Stevens, James D. Paxton, John B. McPherson, and General Thomas Craig Miller organized a company to mine the local iron ore, smelt it, and manufacture iron products. The Maria Furnace, named for Paxton's wife, was constructed southwest of Fairfield on Iron Springs Road. The company manufactured iron stoves, but the iron ore was not of a high enough quality and the stove plates were too brittle. In 1824, McPherson and Miller sold out their share in the enterprise. Stevens and Paxton persisted until 1836, when the site was abandoned (Bloom 1992:104; Fairfield Area Bicentennial Committee 1976:13).

In 1836, survey work began on the Wrightsville, York & Gettysburg Railroad, a state-funded rail line projected to extend from Wrightsville on the Susquehanna through York and Gettysburg to

connect via Nicholson's Gap with the Baltimore & Ohio Railroad in the Potomac Valley. It would be the first rail line built in the county and would be a means to siphon trade off to Philadelphia. Opponents of the railroad dubbed it "the tapeworm railroad" because of the circuitous route it took west of Gettysburg running through Maria Furnace before it doubled back on itself and wound around the foot of Jack's Mountain. The railroad chose this route because Thaddeus Stevens, the owner of Maria Furnace, represented Adams County in the state assembly and held a great deal of political clout in the state. As construction got underway, the railroad became a major issue in the state's political battlefield. Stevens' party lost the next gubernatorial election and construction of the railroad was halted. The railroad Thaddeus Stevens envisioned, though with a less steep grade, was built west of Gettysburg beginning in 1885. The railroad entered Hamiltonban Township near Orrtanna. It took four years to complete the line over the hills and build a tunnel through Jack's Mountain. The Western Maryland Railway Company operated it until the 1970s; CSX Transportation currently owns it (Bloom 1992:125–126).

Because of the growing demand for iron, copper, and other minerals, mines continued to be opened and operated in Adams County from the 1840s through the 1910s. The results of iron, copper, gold, and petroleum extraction in Adams County were disappointing. The amount was never sufficient to make the mining effort profitable. Stone quarrying and the development of clay deposits did become important extractive industries in Adams County (Bloom 1992:104, 250–252).

Property Ownership of Tract 33A

The 112.22-acre Glatfelter property was part of a large land acquisition in Adams County made by the Conservation Fund, a non-profit organization that partners with community, government, and corporate organizations to promote land conservation with a balance of environmental and economic goals. A survey made for the Conservation Fund divided the property into 43 tracts of land. The historic foundation investigated during the field investigation is located on "Tract 33A," a 58.5-acre parcel of land (Figure 3). This parcel has been traced back to the original land warrant issued in 1793 (Table 1).

In 1793, the Commonwealth of Pennsylvania issued a warrant for 100 acres to David Wilson, in trust for the heirs of James Wilson, deceased. The survey was made on October 20, 1795. The metes and bounds of the tract held in trust for James Wilson's heirs encompassed an area of 130 acres. A patent, whereby the commonwealth granted full and clear title to the tract, was given to James Wilson on June 25, 1836 (Hively 2009:214).

David Wilson was the son of James Wilson, a Scotch-Irish immigrant who settled in the Marsh Creek area of Adams County about 1736. David Wilson was born in 1752 and served as a captain in the York County militia during the Revolutionary War. He took out the warrant for the children of his deceased brother James, who died in 1779 from a disease contracted in the war (Egle 1895:171). David, James, and their brother Hugh had inherited farms in Hamiltonban Township from their father James when he died in 1776. Their inheritance had also included a plantation on South Mountain (Will of James Wilson 1775).

James Wilson, who lived in Fairfield, sold the entire 130-acre tract on Pine Hill to Judah Dobson. The tract's location was described as "being near the mill race of Joseph Reid" (Adams

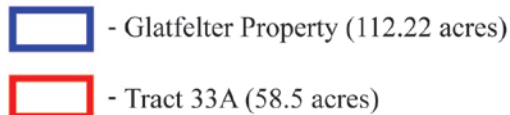


Table 1: Property Transfers

Seller	Buyer	Date	Price	Description	Reference
Commonwealth of PA, Dept. of Conservation & Natural Resources	ISP Minerals Inc.	August 5, 2011	Exchange of 115.92 acres	All of Tract Nos. 33A, 33C, 35, 36, 41, and part of Tract No. 27, 112.22 acres in Hamiltonban Twp. Study areas is located on Tract 33A containing 58.5 acres.	Deed Book 5621:290
The Conservation Fund, a non-profit corporation	Commonwealth of PA, Dept. of Conservation & Natural Resources	May 20, 2010	\$11.2 million	Premises of the Glatfelter Pulp Wood Company in 43 tracts of land, including Tract 33A.	Deed Book 5483:193
Glatfelter Pulp Wood Co.	The Conservation Fund	March 24, 2008		Premises of the Glatfelter Pulp Wood Company in 43 tracts of land, including Tract 33A.	Deed Book 5153:258
Thomas L. & Charlotte Bower, Jr., of Jamaica, NY	The Glatfelter Pulp Wood Company	December 16, 1975	\$34,500	3 parcels: 1) 58.5 acres 2)7 acres & 48 perches 3)3 acres & 44 square perches	Deed Book 322:113
Anna Kleinschmidt, of Baltimore, et al.	Thomas L. Bower Jr., of Ozone Park, NY and Evelyn Jane Bower Meredith, of Los Angeles, CA	March 11, 1971	\$3,500	Quitclaim to 3 parcels: 1) 58.5 acres 2)7 acres & 48 perches 3)3 acres & 44 square perches	Deed Book 293:409
William D. & Hannah B. Elger	J. Scott Bower & wife, L. Blanche Bower	October 18, 1907		2 parcels:1) 58.5 acres 2)7 acres & 48 perches Part of 130-acre tract	Deed Book 83:475
J. Scott Bower & L. Blanche Bower	William D. Elger	July 13, 1901		2 parcels:1) 58.5 acres 2)7 acres & 48 perches Part of 130-acre tract	Cited in Deed Book 83:475
William Smith	J. Scott Bower	June 28, 1901		2 parcels:1) 58.5 acres 2)7 acres & 48 perches Part of 130-acre tract	Cited in Deed Book 83:475
Phebe P. Thompson, of Phila. (niece & heir of George Thompson)	William Smith, of Fairfield	April 24, 1891	\$500	130 acres allowing 6% for roads	Deed Book 56:27
Thomas Dunlap, Esq., of Phila., assignee of Judah Dobson, of Phila.	George Thompson, of Phila.	November 4, 1846	\$50	130 acres allowing 6% for roads	Deed Book Q:358
James & Mary Wilson, of Fairfield	Judah Dobson	August 17, 1836	\$1,000	130 acres allowing 6% for roads	Deed Book N:334
Commonwealth of Pennsylvania	James Wilson	June 25, 1836			Patent Book H36:279

County Deed Book N:324). Dobson suffered financial problems that forced him to sell off his property. The Pine Hill tract was sold to George Thompson, a fellow Philadelphian, in 1846. Thompson reportedly mined low-grade copper ore on Pine Hill (described as the southwest portion of Jack's Mountain), which was not commercially profitable (Fairfield Area Bicentennial Committee 1976:14).

George Thompson was still the owner of the 130-acre tract when he died in 1876. He willed the property to his two nieces, Phebe P. Thompson and Mary Thompson. After Mary Thompson's death in 1884, the property came under the sole ownership of her sister Phebe. Phebe P. Thompson sold the entire property to William Smith of Fairfield in 1891 for \$500 (Adams County Deed Book 56:27).

The 130-acre tract was subdivided for the first time in the early 1900s. William Elger and his wife Hannah sold the 58.5-acre tract containing the study areas to J. Scott Bower and his wife, L. Blanche Bower, in 1907. J. Scott Bower died on November 7, 1929. By the right of survivorship, the 58 acres became the sole property of Blanche, who was known as Blanche LaMar Bower. In 1946, Blanche and her son, Thomas L. Bower Sr., who were residents of Baltimore, mortgaged the property described as "several tracts of unimproved land in Adams County" to Otto A. Kleinschmidt of Baltimore for a loan of \$900. Blanche died intestate in Baltimore on June 30, 1955, leaving her two grandchildren, Thomas LaMar Bower Jr. and Evelyn Jane Bower Meredith, as her sole heirs. When his sister, Evelyn Meredith, died on June 3, 1974, Thomas L. Bower Jr. became the sole owner of the 58.5-acre tract. Thomas L. Bowers Jr. and his wife Charlotte—who lived in Jamaica, Queens, New York—sold the 58.5-acre tract to the Glatfelter Pulp Wood Company in 1975 for \$34,500 (Adams County Deed Book 293409; 322:113).

The Glatfelter Pulp Wood Company sold 43 tracts of land in Hamiltonban Township, including Tract 33A, to the Conservation Fund in 2008, which in turn transferred the property to the Pennsylvania Department of Conservation and Natural Resources for \$11.2 million. In 2011, the Commonwealth of Pennsylvania granted ISP Minerals (now SGI) Tract 33A as part of a land exchange (Adams County Deed Book 5153:258; 5621:290; 5438:193; 5621:290).

Pine Hill School

None of the deeds collected during the research of the 58.5-acre tract mentioned a schoolhouse on this property or on a neighboring property. Historical maps depicting the Pine Hill area were studied for information regarding any structures within the bounds of the 112-acre tract. These maps included the 1858 Hopkins map of Adams County; the Lake 1872 atlas of Adams County; topographical surveys made by the U.S. Geological Survey between 1885 and 1946; and the 1916, 1941, 1953, and 1966 highway maps of Adams County.

The 1858 map of Hamiltonban Township (Hopkins 1858) depicts a mine within the boundary of Tract 33A (Figure 4) which was presumably the copper mine operated by George Thompson sometime between 1846 and 1876. The label "Copper Furnace Prop^y" appears to be associated with a structure to the east of the label. It appears to lie at the boundary of Tract 33A, but the inexact nature of map representations during this period of the nineteenth century must be taken into account. The remains of this structure might well be located in Tract 33A. Another map of the area was published in 1872 (Figure 5). It depicted no mines or furnaces in the area, except for

the ruins of Maria Furnace. A house William Smith owned was depicted in the 58.5-acre tract (Lake 1872). Land records indicate that the Thompsons were absentee landlords during the period from 1846 to 1891. The appearance of William Smith on the property might be explained by a long-term leasing arrangement. William Smith became the legal owner of the property in 1891.

There are no structures depicted in the 112.22-acre Glatfelter property on the maps produced from topographic surveys made by the United States Geological Survey in 1885 and 1908 (USGS 1909). Sometime between 1872 and the topographical survey, the William Smith house was destroyed or removed. (Lake 1872; USGS 1909).

The 1916 map of public roads in Adams County depicted the locations of schools, churches, mills, and railroad stations. According to this map, there was no school located in the 112.22-acre Glatfelter property (Pennsylvania State Highway Department 1916). In 1941, the Pennsylvania Highway Department made detailed county maps depicting buildings and infrastructure (Figure 6). No buildings were depicted in the 112.22-acre Glatfelter property, although there was a farmhouse south of the 112.22-acre Glatfelter property located between Iron Springs Road and Tom's Creek. Quarries were opened up in another part of Pine Hill. By 1953, a double dwelling had been built on the east side of Tom's Creek, near the intersection of Iron Springs Road and Lower Gum Springs Road. A quarry occupied the site of the house to the south of the 112.22-acre Glatfelter property (Figure 7).

Although there is a substantial amount of historical mapping available for the area, the presence of the Pine Hill School was not evident. A *Gettysburg Times* newspaper article indicated that the Pine Hill School operated from about 1910 to 1922 and was located near the house that had once belonged to John Bigham. The April 4, 1910 edition of the *Gettysburg Times* noted that "John Baker moved into the house formerly owned by John Bigham near Pine Hill school house..." Bigham's house is depicted on the 1872 map of the area south of the 112.22-acre Glatfelter property. The Bigham house is shown on current topographic maps, but has been demolished. The Pine Hill School was a one-room schoolhouse with 26 students in 1912. In 1922, the Hamiltonban Township school board announced that it would build a new schoolhouse at Gladhill (also known as Greenstone), a growing town south of the 112.22-acre Glatfelter property on Iron Springs Road and a stop on the Western Maryland Railroad. After the new schoolhouse was completed, Pine Hill would be closed. Plans were to sell Pine Hill School and advertise it as suitable for conversion into a bungalow for hunters or fishermen. Before anything could be done with the school, it burned down in August 1922 (*Gettysburg Times*, April 4, 1910:1; December 6, 1912:8; July 22, 1922:5; August 17, 1922:1; August 29, 1922:2; September 7, 1955:4).





Figure 6: 112.22-acre Glatfelter property at Pennsylvania Highway Department 1941).

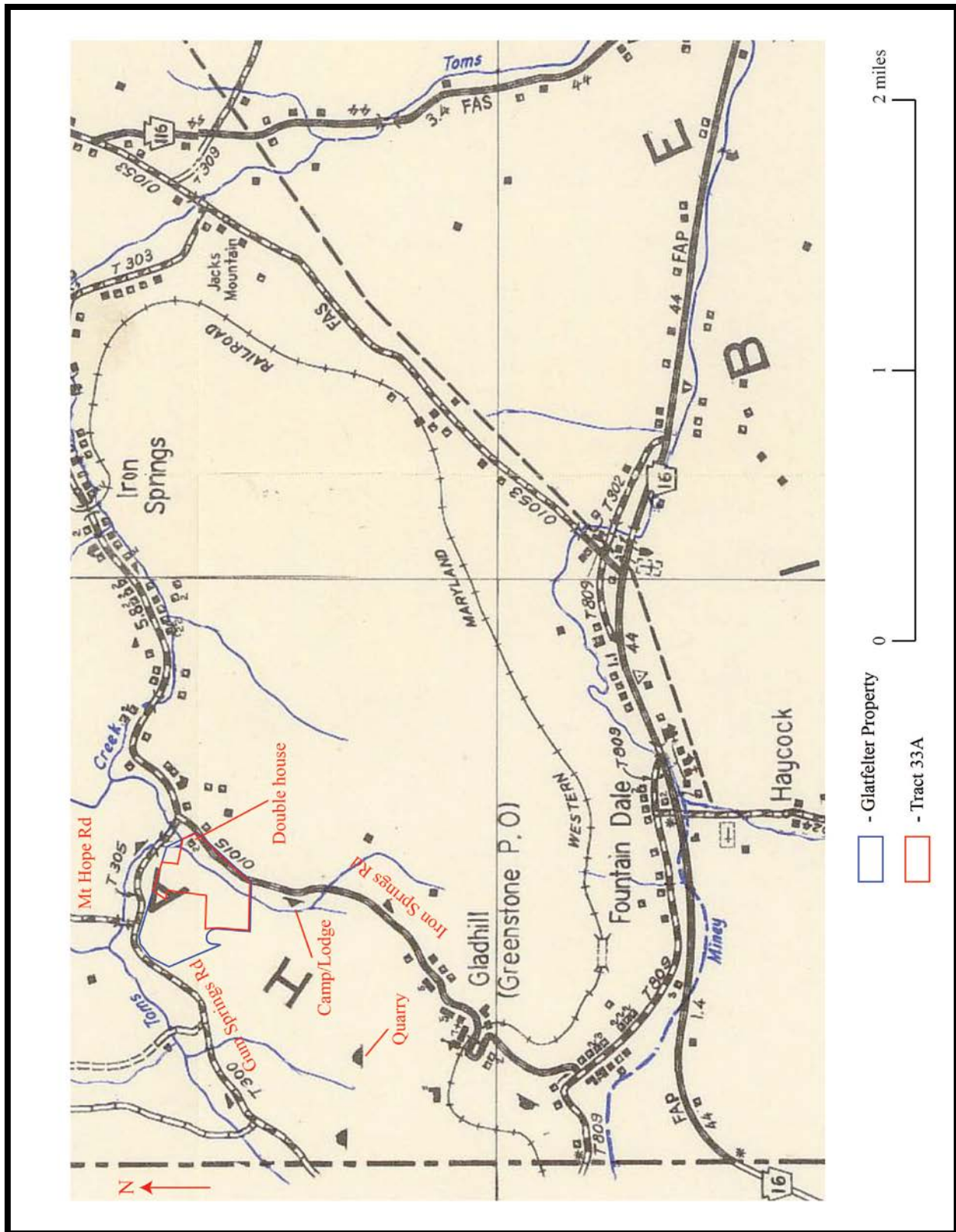


Figure 7 : 112.22-acre Glatfelter property and Tract 33A in 1953 (Source: Pennsylvania Highway Department 1953).

Field Survey Results

Archaeological field survey was conducted in two locations on the 112.22-acre Glatfelter property on May 30 and 31, 2012.

URS archaeologists conducted a pedestrian survey of the reported location of the Pine Hill School as identified by a local resident in the Pedestrian Survey Study Area (Figure 2). The area was located at the top of the ridge near the existing mine. No evidence of a historic foundation or building was found.

Subsurface testing was conducted around a small stone foundation identified on the slope below the Pedestrian Survey Study Area (see Figure 2; Figures 8 and 9). The foundation is composed of four dry-laid stone walls measuring approximately 7.6 x 7.6 meters. No cellar was evident in the interior of the foundation. No depressions indicative of a well or privy were identified near the foundation. In all, 38 STPs were excavated (Figure 10). The STPs were placed at 15-meter intervals on the level terrain surrounding the foundation and at 7.5-meter intervals in the immediate vicinity of the foundation. Terrain to the east and west of the tested area was steeply sloping; the area was examined for aboveground features, but none were identified. The wooden posts of an entrance gate were identified to the west of the foundation.

The general soil profile consisted of a brown (10YR 4/3) or dark brown (10YR 3/3) silt loam A horizon overlying a dark yellowish brown (10YR 4/4) or yellowish brown (10YR 5/6) clay loam B horizon. Rocks were found throughout most of the STPs and several reached bedrock. STP 1 was excavated within the stone foundation to determine whether a cellar was present. The STP encountered an undisturbed B horizon at a depth of 25 centimeters below the surface, indicating that a cellar was not present.

Eight brick fragments were found in STP 6. A piece of green container glass was found in STP 9 and a piece of window glass was found in STP 13. Four radial tests were excavated at 5-meter intervals around STP 13. Because of the presence of rock piles, only two radials could be excavated around STP 9. No additional artifacts were identified in radials excavated around the two finds. A sherd of whiteware ceramic was found in STP 16. Radial STPs produced no additional historic artifacts, but one biface-thinning flake of gray chert was identified. Additional radial testing produced no more prehistoric artifacts.

In all, one prehistoric and 11 historic artifacts were found in scattered locations across the tested area. The prehistoric artifact was confirmed as an isolated find. The historic assemblage consisted primarily of architectural items, including eight pieces of brick and a piece of window glass. Only two household artifacts were found, a piece of container glass and a whiteware sherd.

This stone foundation correlates with the structure labelled “William Smith” on the 1872 map of Hamiltonban Township (Figure 5). No artifacts that can be conclusively associated with a school (i.e. inkwell fragments, slate pencils, drawing slates) were recovered.



Figure 8: Southeast corner of stone foundation, facing north.



Figure 9: South wall of stone foundation, facing east.

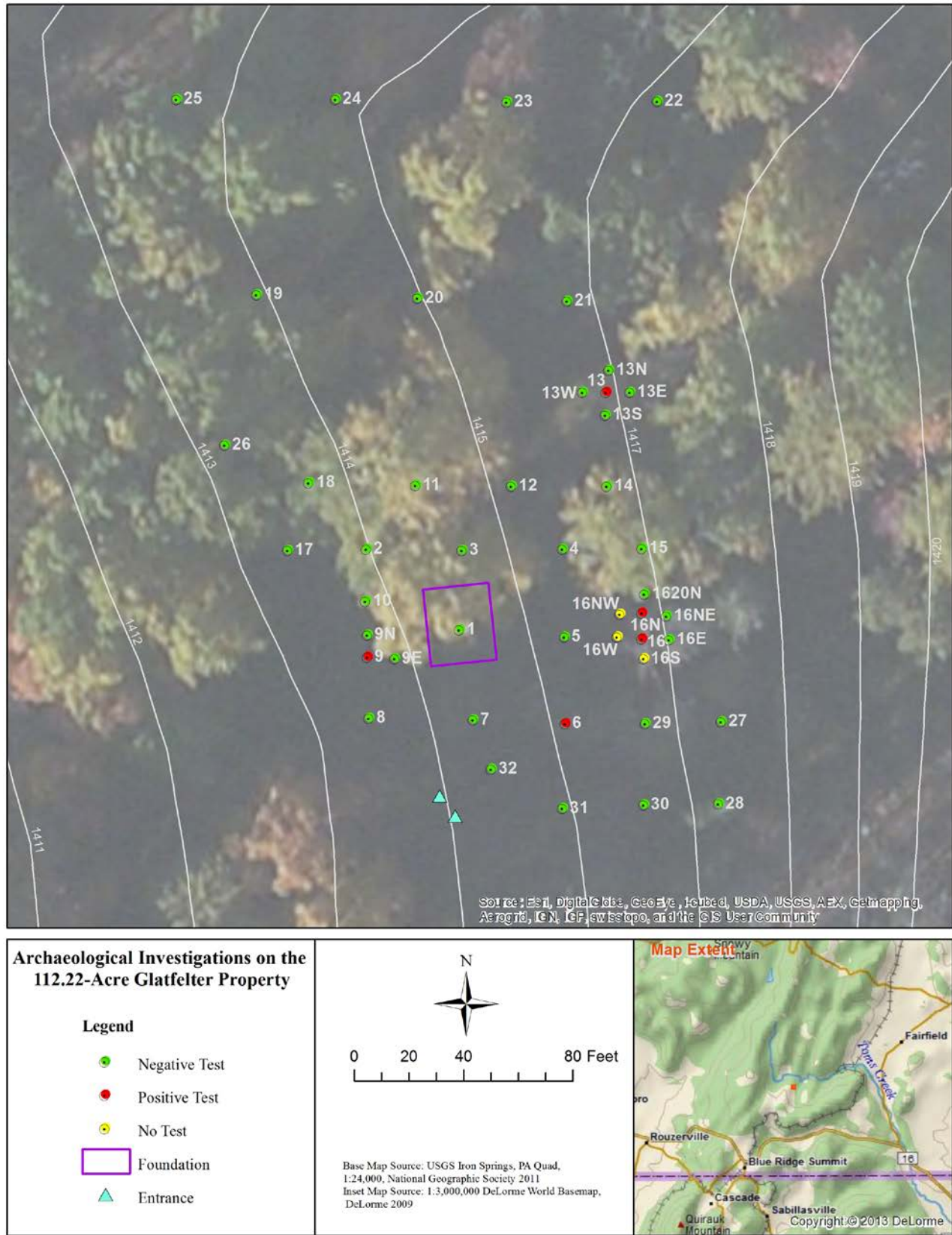


Figure 10: Stone foundation test locations.

Summary and Conclusions

URS conducted an archaeological investigation to identify whether the potential remains of the former Pine Hill School were located on Specialty Granules Incorporated's (SGI's) 112.12-acre Glatfelter property in Hamiltonban Township, Adams County, Pennsylvania. The work included background research for the property, along with pedestrian survey and subsurface testing in two study areas that were considered to have a high probability for archaeological resources possibly related to the former Pine Hill School. The fieldwork was limited to these two study areas. Subsurface testing was conducted in and around a stone foundation identified in one of the study areas.

A review of the PHMC's Cultural Resources Geographic Information System (CRGIS) database revealed no recorded archaeological sites or aboveground historic resources on the 112.22-acre Glatfelter property. The 1858 historic map of the area indicated that a mine and a structure of unknown function were present on the 112.22-acre Glatfelter property. The 1872 historic map depicted a building labelled "William Smith" at the approximate location of the stone foundation identified on the 112.22-acre Glatfelter property. Background research indicated that the Pine Hill School operated between 1910 and 1922, and was likely near the J. Bigham property shown on the 1872 map as located outside and to the south of the project area.

Pedestrian survey at the reported potential location of the Pine Hill School did not identify historic foundations or other above-ground evidence of a historic building. Subsurface testing around a stone foundation near the reported potential location of the Pine Hill School produced one prehistoric and 11 historic artifacts. Testing confirmed that the prehistoric artifact was an isolated find. The historic artifacts were found in low density and consisted primarily of architectural items. The foundation is at the approximate location of the structure labelled "William Smith" on the 1872 map and could be a residence of some type. However, the near-absence of domestic items suggests that if the building was a residence, it was only briefly occupied. No depressions suggesting a privy were found. None of the artifacts recovered support the hypothesis that the stone foundation represents a former school.

Based on the low density and diversity of artifacts recovered around this foundation, together with the absence of intact deposits, it is our opinion that this archaeological site is not eligible for listing on the National Register of Historic Places. It is our recommendation that no further investigation of this archaeological site or the two study areas is warranted.

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1951 *Fairfield, Pennsylvania Quadrangle*. 15 Minute Series. Surveyed 1943, 1946. Roads revised 1951.

Will of James Wilson, of Hamiltonban Township, York County

1775 Written: December 10, 1775; Probated: May 1, 1776

Transcribed by Cal_Palmore. Ancestry.com family tree of James Wilson. Accessed on July 27, 2012.

Appendix A
Artifact Inventory

**APPENDIX C -
PENNSYLVANIA ARCHAEOLOGICAL
SITE SURVEY FORMS**

PENNSYLVANIA ARCHAEOLOGICAL SITE SURVEY
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

Identification and Location

SITE NAME Copper Mine SITE NUMBER _____ UPDATE? Y☐ / N☒

PUBLISHED REFERENCES (Including compliance reports.) Phase I Archaeological Survey, Charmian Northern Tract

ER# _____

• COUNTY Adams TWP. Hamiltonban NEAREST TOWN Blue Ridge Summit

Site Characteristics

SITE AREA 3507 SQUARE METERS BASIS: ☐ COMPUTED ON THE GROUND OR ☒ COMPUTED ON MAP

Basis for site boundary definition: Surface survey

STRATIFIED? ☒ UNKNOWN ☐ NO
☐ YES : ☐ TOP STRATUM VISIBLE OR ☐ BURIED UNDER STERILE

SITE DISCOVERY METHOD: (check primary one only) ☐ Previously Recorded (update)

<input type="checkbox"/> Unknown	<input type="checkbox"/> Auger probing
<input type="checkbox"/> Collector interview	<input type="checkbox"/> Shovel testing
<input type="checkbox"/> Collector interview with field check	<input type="checkbox"/> Systematic test units
<input type="checkbox"/> Non-systematic surface survey	<input type="checkbox"/> Extensive excavation
<input checked="" type="checkbox"/> Systematic surface survey	
<input type="checkbox"/> Systematic shovel testing	
<input type="checkbox"/> Remote sensing	

POTENTIAL FOR ORGANIC PRESERVATION: (check one)

☐ Unknown
☐ None
☒ Low potential for organic preservation
☐ Conditions favorable for organic preservation, none documented
☐ Organic material recovered, unknown quality of preservation
☐ Organic material recovered, poor quality of preservation
☐ Organic material recovered, good quality of preservation

SITE TYPE:

Prehistoric

- ☐ Unknown function surface scatter less than 20m radius
- ☐ Open habitation, prehistoric
- ☐ Rockshelter/Cave
- ☐ Quarry
- ☐ Lithic Reduction
- ☐ Village (including historic Indian)
- ☐ Shell Midden
- ☐ Earthwork
- ☐ Petroglyph/Pictograph
- ☐ Burial Mound
- ☐ Cemetery
- ☐ Other specialized aboriginal site
- ☐ Isolated fluted point locus

- ☐ Isolated find (diagnostic artifact)
- ☐ Paleontological site
- ☐ Path

Historic

- ☐ Historic and Prehistoric
- ☐ Domestic Site
- ☐ Military Site
- ☒ Industrial Site
- ☐ Shipwreck Site
- ☐ Commercial Site
- ☐ Religious Site
- ☐ Unknown/other/multiple types
- ☐ Farmstead

SITE NUMBER OR KEY NUMBER OF ANY ASSOCIATED RESOURCES: _____

CHRONOLOGY (check all that apply)

Prehistoric

- ☐ Unknown Prehistoric
☐ Paleoindian
 ☐ Early ☐ Middle ☐ Late
☐ Archaic
 ☐ Early ☐ Middle ☐ Late

- ☐ Transitional Tradition
☐ Woodland
 ☐ Early ☐ Middle ☐ Late
☐ Proto Historic

Historic

- ☐ Unknown Historic
☐ Contact-Historic
☐ 1550-1600
☐ 1600-1650
☐ 1650-1700
☐ 1700-1800
 ☐ 1700-1725 ☐ 1725-1750
 ☐ 1750-1775 ☐ 1775-1800

- ☒ 1800-1900
 ☐ 1800-1825 ☒ 1825-1850
 ☒ 1850-1875 ☒ 1875-1900
☐ 1900-
 ☐ 1900-1925 ☐ 1925-1950
 ☐ 1950-1975 ☐ 1975+

BASIS FOR CHRONOLOGICAL INTERPRETATION (check all that apply):

- ☐ Diagnostic lithic artifacts
☐ Ceramic types
☒ Historical Documentation (attach bibliography)
☐ Radiocarbon Dates (list below)

RADIOCARBON DATES _____ ± _____
 _____ ± _____

FEATURES? ☐ NONE FOUND ☒ YES (identify below) If count is not known, use a "P" for present.

Prehistoric

Quantity	Prehistoric Features
	Present, Prehistoric
	Bundle Burials
	Burial Mound
	Burials
	Burned Areas
	Cache Pits
	Circular Houses
	Cremation Burials
	Earthworks

Quantity	Prehistoric Features
	Extended Burials
	Fish Weir
	Flexed Burials
	Hearth/Thermal Feature
	House Pattern
	Longhouses
	Midden Areas
	Ossuary
	Other, Prehistoric _____

Quantity	Prehistoric Features
	Path
	Petroglyph/Pictograph
	Postmolds
	Quarry Pit
	Semi-Subterranean Structures (e.g. Keyhole Structures)
	Shell Heap
	Stockade
	Storage Pits/Trash Pits

Historic (Please include any **associated** features or buildings visible outside of the site areas)

Quantity	Historic Features
	Present, Historic
	Burial
	Canal Bed
	Canal Lock
	Canal Tunnel
	Cellar

Quantity	Historic Features
	Cemetery
	Cistern
	Dam
	Ditch
	Fenceline
	Flower Garden/Bed

Quantity	Historic Features
	Fortification
	Foundation
	Ice House
	Iron Furnace
	Kiln
	Midden

Quantity	Historic Features
	Millrace
	Monument/Boundary Marker
	Oil Well
2	Other, Historic <u>Vertical shaft</u>
	Oven
	Pipeline
4	Pit
	Posthole/Postmold

Quantity	Historic Features
	Privy
1	Quarry/Mine
	Railroad
1	Road
	Root Cellar
	Shipwreck
	Springhouse/Springbox
	Standing Building or Structure

Quantity	Historic Features
	Still
	Vat
	Walk/Path
	Wall
	Water Well
	Wharf

Artifacts (Complete inventories may be attached, but please complete the summaries below)

ARTIFACT DATA RECOVERY METHOD:

- | | |
|---|---|
| <input type="checkbox"/> Non-provenienced | <input type="checkbox"/> Controlled excavation |
| <input type="checkbox"/> Surface collection not representative of all artifacts | <input type="checkbox"/> Representative sample of all artifacts (tools and/or debitage, etc.) |
| <input type="checkbox"/> Non-controlled excavation (i.e. artifact location not mapped and/or not all artifacts collected) | <input type="checkbox"/> Representative sample of tools only |
| <input checked="" type="checkbox"/> Controlled surface collection | <input type="checkbox"/> Estimate based on surface collections and/or excavation |
| | <input type="checkbox"/> Estimate based on informant interview |

LITHIC MATERIALS FOUND ON SITE:

Quantity	Material
	Argillite
	Chalcedony
	Chert/Flint
	Crystal Quartz
	Diabase
	Diorite
	English Flint
	French Flint
	Granite

Quantity	Material
	Hematite
	Hornfels
	Ironstone
	Jasper
	Limestone/Dolomite
	Metabasalt/Greenstone
	Metasandstone
	Onondaga Chert
	Quartz

Quantity	Material
	Quartzite
	Rhyolite (Metarhyolite)
	Sandstone
	Shale
	Siltstone
	Slate
	Steatite
	Vanport Chert (Flint Ridge)
	Unidentified

ARTIFACT CATEGORIES (Use the comments section to list any artifacts not categorized in these tables. Include either exact quantities or relative as follows:

B	Less than 25
C	25 - 50
D	51 - 100

E	101 - 200
F	201 - 400
G	401 - 800

H	801 or More
I	Present, Quantity Unknown

J	Present, Common
---	-----------------

Prehistoric (Include quantity by material type if appropriate, using the LITHIC list above.

Examples:

D	Stone Debitage	52 rhyolite / 26 chert
2	Grooved Axes	sandstone

Quantity	Prehistoric Artifact Types	Material Type
	Adzes	
	Antler & Bone Artifacts	
	Bannerstones	
	Celts	
	Ceramics (Prehistoric)	
	Chipped Stone Tools	
	Clay Pipes (Prehistoric)	
	Cordage	
	Core	
	Fire Cracked Rock	
	Gorgets/Pendants/Non-Utilitarian Lithics	
	Grooved Axes	
	Ground & Polished Stone Tools	
	Hammerstones	

Quantity	Prehistoric Artifact Types	Material Type
	Hoes	
	Human Bone	
	Netsinkers	
	Non-Artifactual Bone or Antler	
	Non-Artifactual Floral Remains	
	Non-Artifactual Shell	
	Pestles/Grinding/Pitted Stones	
	Shell Artifacts	
	Steatite Bowls/Fragments	
	Stone Debitage	
	Stone Pipes	
	Wooden Artifacts	

Historic (Include Quantities by Group as appropriate from table below):

		Material Class						
		Ceramic	Glass	Metal	Geological	Plastic	Biological	Composite
Functional Class	Architectural							
	Personal							
	Kitchen							
	Arms/Weapons							
	Activities							
	Industrial (Tools)							
	Electrical							
	Furniture							
	Unidentified							

DIAGNOSTIC ARTIFACTS

Prehistoric Projectile Points (Include counts by material types, using the LITHIC list above.)

Examples:

7	Broadspears	5 rhyolite / 2 argillite
2	Lehigh/Snook Kill	chert

Quantity	Prehistoric Point Types	Material
-----	Paleoindian Points	-----
	Pre-Clovis	
	Clovis	
	Mid-Paleo (Folsom)	
	Late Paleo (Plano)	
	Hardaway-Dalton	
	Fluted Point	
-----	Early Archaic Points	-----
	Palmer	
	Kirk Corner-notched	
	St. Charles	
	Thebes	
	Charleston	
-----	Middle Archaic Points	-----
	Bifurcate Points	
	Middle Archaic Notched/Stemmed Points	
	MacCorkle	
	Saint Albans	
	LeCroy	
	Otter Creek	
	Kanawha	
	Kirk Stemmed	
-----	Late Archaic Points	-----
	Piedmont Tradition	

Quantity	Prehistoric Point Types	Material
	Laurentian Tradition	
	Steubenville	
-----	Transitional Tradition	-----
	Koens Crispin/Savannah River	
	Broadspears	
	Lehigh/Snook Kill	
	Perkiomen	
	Susquehanna	
-----	Early Woodland Points	-----
	Adena (Stemmed)	
	Meadowood	
	Helgramite	
	Orient	
-----	Middle Woodland Points	-----
	Raccoon Notched	
	Snyders	
	Basal Notched	
	Jacks Reef	
	Fox Creek	
-----	Late Woodland Points	-----
	Triangles (Late Woodland)	
-----	Proto Historic Points	-----
	Triangles (Proto Historic)	

Prehistoric Ceramic Types (Include counts by temper types - if not implied in name - using the LITHIC list above. Additional options include "grit", "grog" or "shell".)

Quantity	Prehistoric Ceramics	Temper
-----	Early Woodland Ceramics	-----
	Accokeek Ware	
	Adena Plain	
	Grit Tempered Flat Bottom	
	Half-Moon Cordmarked	
	Interior-Exterior Cordmarked Small Temper-Conical/Globular	
	Marcy Creek	
	Steatite Tempered	

Quantity	Prehistoric Ceramics	Temper
	Vinette I (Interior-Exterior Cordmarked Large Temper-Conical/Globular)	
-----	Middle Woodland/Middle to Late Woodland Ohio Valley Ceramics	-----
	Abbott Zoned	
	Grit Tempered Exterior Cordmarked-Conical/Globular	
	Grit Tempered Net Impressed-Conical/Globular	

Quantity	Prehistoric Ceramics	Temper
	Point Peninsula Series	
	Shell Tempered Net Impressed-Conical/Globular	
	Watson Cord Marked	
-----	Late Woodland Ceramics	-----
	Blue Rock Valanced	
	Chance Series	
	Chautauqua Cordmarked	
	Clemson Island/Princess Point Series	
	Early Ontario Iroquois	
	Erie Series	
	Funk Incised	
	Keyser Cordmarked	
	Lancaster Incised	
	Mahoning Cord Marked	
	McFate Incised	
	McFate/Quiggle Undifferentiated	
	Meade Island Series	
	Minguannan Series	
	Monongahela (Undifferentiated)	
	Monongahela Cordmarked-Late Woodland	
	Monongahela Incised	
	Monongahela Plain	
	Monongahela Somerset	

Quantity	Prehistoric Ceramics	Temper
	Phase	
	Oak Hill Series	
	Overpeck	
	Owasco Series	
	Page Cordmarked	
	Potomac Creek Cord Impressed	
	Proto-Susquehannock	
	Quiggle Incised	
	Richmond Incised	
	Schultz Incised	
	Shenks Ferry (Undifferentiated)	
	Shenks Ferry Cordmarked	
	Shenks Ferry Incised (Blue Rock Phase)	
	Shenks Ferry Incised (Stewart Phase)	
	Shepard Cordmarked	
	Strickler Cordmarked	
	Susquehannock (Undifferentiated)	
	Townsend	
	Tribal Series	
	Washington Boro Incised	
	Whittlesey	
	Wyoming Valley Series	

Historic Diagnostics (For comparable site data, using general diagnostic categories. **More specific identification related to decoration, form, or markings should be included in the comments or site inventory**).

Quantity	Historic Artifact
	<i>Ceramics</i>
	Whieldon
	Creamware
	Pearlware (All Decoration Types)
	Transitional Whiteware
	Ironstone
	Chinese Porcelain
	English Porcelain
	American Stoneware (Blue and Gray)
	European Stoneware (white salt-glazed, English Brown, Rhenish, Fulham, Nottingham)
	Redware (All types)

Quantity	Historic Artifact
	Basalt
	European Redware (Jackfield, dry-bodied)
	Tin-Glazed Earthenware
	Yellowware (Rockingham)
	Clay pipes
	<i>Glass</i>
	Blown Bottle Base
	Machine-Made Bottle Base (Owen's Scar)
	Snapcase Bottle
	Pressed Glass
	<i>Metal</i>
	Wrought Nails

Quantity	Historic Artifact
	Cut Nails
	Wire Nails
	<i>Arms & Weapons</i>
	French Gunflint
	English Gunflint
	Gun parts
	Ammunition
	<i>Miscellaneous</i>
	Coin
	Button
	Bead
	Toy

Physical Data and Site Condition

Instructions available. Please fill out as much as is known, especially those items that are measured or observed on site.

On site SOIL ASSOCIATION Highfield, Catoctin, Myersville SOIL MAPPING UNIT Highfield-Catoctin channery silt loam
 Most common other mapped SOIL UNIT(S) within 500 meters Ravenrock-Highfield-Rock outcrop (may list two)
 MAP ELEVATION 374.9 m (1230 feet) SLOPE PERCENTAGE 15-25 SLOPE DIRECTION Variable
 SLOPE BASIS ☒ MEASURED ON SITE ☐ ESTIMATED FROM SOIL SURVEY OR MAP
 BEDROCK Catoctin Formation, Metabasalt Most predominant other BEDROCK(S) within 5 km Metarhyolite (may list two)
 PHYSIOGRAPHIC PROVINCE South Mountain Section of Ridge and Valley (If within 10 km of a Physiographic Province boundary, name the neighboring PHYSIOGRAPHIC PROVINCE Piedmont Gettysburg-Newark)
 TOPOGRAPHIC SETTING (check the one that best describes the setting):

<input type="checkbox"/> Island	<input type="checkbox"/> Lower Hillslope	<input type="checkbox"/> Hill/Ridge Toe
<input type="checkbox"/> Beach	<input type="checkbox"/> Middle Hillslope	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Floodplain	<input checked="" type="checkbox"/> Upper Hillslope	<input type="checkbox"/> Hilltop
<input type="checkbox"/> Rise in Floodplain	<input type="checkbox"/> Stream Bench (along low order stream)	<input type="checkbox"/> Ridge Top
<input type="checkbox"/> Terrace (Pleistocene along river)		<input type="checkbox"/> Saddle

 IMMEDIATE VEGETATION Forest PERCENTAGE OF SITE STILL INTACT unknown
 PRIMARY DISTURBANCE Logging POSSIBILITY OF DESTRUCTION Yes

Water Drainage Area Information

Instructions available. Please fill out as much as is known, especially those items that are measured or observed on site. Distance to water is particularly critical.

SUBBASIN Potomac WATERSHED D MAJOR STREAM Monocacy River MINOR STREAM Toms Creek
 NEAREST WATER: Distance 282 M Elevation 990 ft Direction North Order 3th Type Perennial
 2ND NEAREST WATER: Distance 353 M Elevation 1022 ft Direction East Order 4th Type Perennial
 NEAREST PERENNIAL STREAM CONFLUENCE:
 Distance 513 M Elevation 932 ft Direction Northeast Order below confluence 3th
 RELATIONSHIP OF FIRST AND SECOND WATER (check one)
☐ Do not represent a stream confluence.
☐ Site is located upstream from the confluence and between the 2 water sources.
☐ Site is located upstream from the confluence, but not between the 2 water sources.
☐ Site is located downstream from the confluence.
☒ None of the above apply.

COMMENTS The copper mine tunnel was noted on the 1858 G. M. Hopkins Map of Adams County, Pennsylvania. Additional survey identified the remains of the smelter, also noted on the 1858 Map. The survey also identified four exploratory excavations and a vertical shaft, all in the same area, and a second vertical shaft on the same compass direction as the tunnel, as well as a haul road connecting the area of the tunnel to the smelter.

ATTACHMENTS:

- ☒ 7.5 MIN USGS map with **site boundaries** indicated and quad name identified
- ☐ Photographs or drawings of diagnostic artifacts with scale. Identify lithic material per artifact using description or key.
- ☒ Site plans.
- ☒ General site photographs or excavation photographs or drawings may also be included.

We encourage the inclusion of as many illustrations as possible.

ADMINISTRATIVE INFORMATION (CONFIDENTIAL ITEMS HIGHLIGHTED)7.5 QUAD NAME Iron Spring EDITION 1990 UP ACROSS

(Measure in centimeters from the bottom printed edge upward, and the right printed edge across)

-OR-U.T.M. COORDINATES: ZONE 18 NORTHING 4404847.88 EASTING 291032.32OWNER Specialty Granules, LLC ADDRESS 13424 PENNSYLVANIA AVENUE, SUITE 303, HAGERSTOWN, MARYLAND 21742TAX PARCEL ID 18A16-0032-000 TAX MAP DATE Accessed 1-25-2016☒ PRIVATE LANDOWNER ☐ PUBLIC LANDOWNER - ☐ FEDERAL ☐ STATE ☐ LOCALCOLLECTION LOCATIONS Skelly and Loy, Inc., 449 Eisenhower Boulevard, Harrisburg, PA 17111INFORMANTS

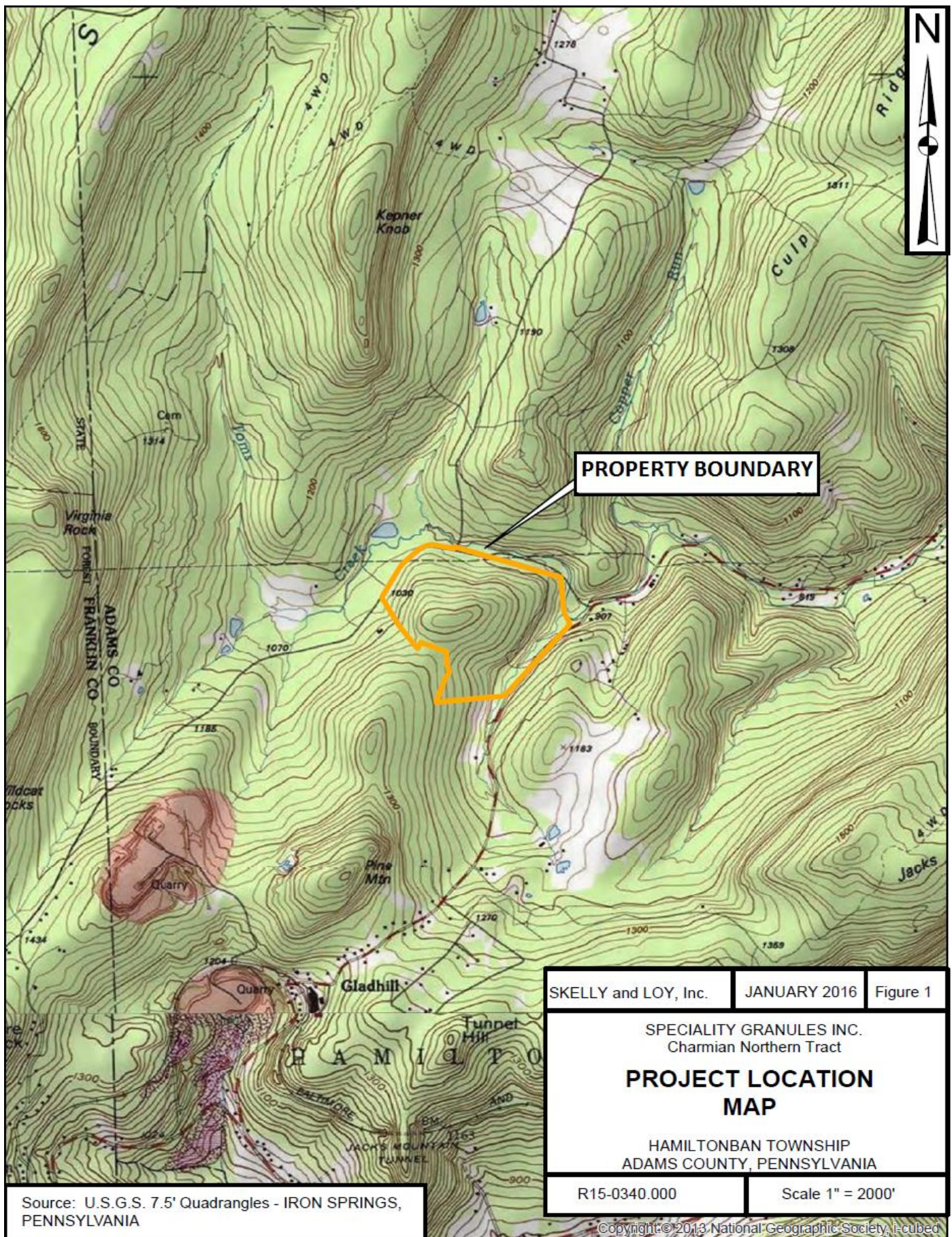
RECORDING REASON

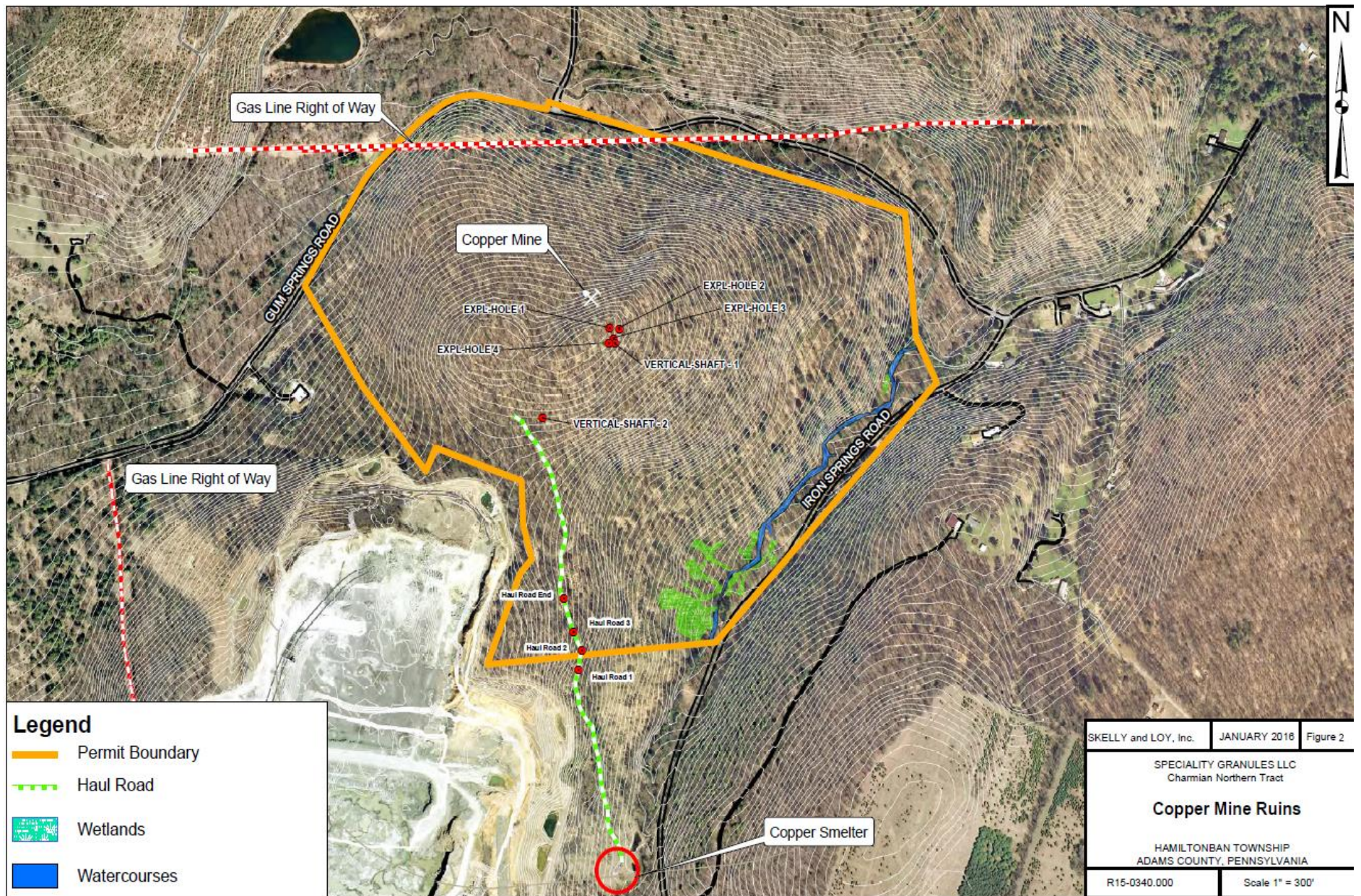
- | | |
|--|---|
| <input type="checkbox"/> Informant Interview/Amateur Survey | <input type="checkbox"/> Non-PHMC institution affiliated research |
| <input checked="" type="checkbox"/> State or Federal Compliance Survey | <input type="checkbox"/> PHMC Research |
| <input type="checkbox"/> PHMC Grant | <input type="checkbox"/> Other (Explain in 'Comments' section at end of form) |

CRITERIA FOR NATIONAL REGISTER INCLUSION UnknownSUBMITTED BY Douglas Dinsmore, Ph.D. ADDRESS 449 Eisenhower Boulevard, Suite 300CITY Harrisburg STATE PA DATE 12-2-2016PHONE NUMBER 610-823-4645 EMAIL ADDRESS ddinsmore1951@gmail.comS.P.A. CHAPTER AFFILIATION INSTITUTIONAL AFFILIATION Skelly and Loy, Inc.ADMINISTRATIVE COMMENTS **Remember!** Ask the landowner's permission before you collect artifacts on private property. It is a violation of state law to collect artifacts on state lands and a violation of federal law to collect artifacts on federal lands.

Completed forms should be sent to:

Bureau for Historic Preservation
Commonwealth Keystone Bldg, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093







Photograph 1: Copper Mine tunnel, looking south. The tunnel is five feet wide and five feet high (1.5 meters by 1.5 meters – the tunnel was likely excavated using English measure).



Photograph 2: The Copper Mine tunnel inside, looking south. The tunnel extends for at least 100 feet (33 meters) at about 150 degrees. Judging from the size of the tailings pile, the tunnel may extend for over 200 feet.



Photograph 3: The Copper Mine tunnel entrance, showing the V-shaped excavation leading to it, and the area where the overburden was stripped away.



Photograph 4: The tailings pile, looking south. It was a wedge-shaped pile, approximately 150 feet (45.7 meters) long, 50 feet (15.2 meters) wide, and 20 feet (6.1 meters) high at the thickest end. Nate Beck provided scale.



Photograph 5: Vertical Shaft 2, looking northeast. This shaft lies 250 feet (76.2 meters) south of the tunnel entrance, at the same compass direction (150 degrees) as the tunnel's direction. This shaft was likely excavated to connect with the tunnel. Judging from the tailings pile, it went no deeper than 25 feet (7.6 meters).



Photograph 6: The Haul Road, looking north, near the third point. The Haul Road connected the Copper Mine tunnel area to the smelter.



Photograph 7: The smelter walls, looking northwest. The smelter had been repurposed for another, unknown, use, as twentieth-century debris occurred around and in the ruins.



Photograph 8: In an area within about 100 feet (33 meters) to the southeast of the tunnel, four exploratory excavations and one vertical shaft were located. Exploratory 1 was small, less than two feet (0.6 meters) deep and three feet (0.9 meters) in diameter.



Photograph 9: Exploratory 2, looking north. This one was about six feet (1.8 meters) long and two feet (0.6 meters) wide.



Photograph 10: Exploratory 3, looking west. This one was about five feet (1.5 meters) long and two feet (0.6 meters) wide.



Photograph 11: Exploratory 4, looking east. This one was about ten feet (3.0 meters) long and two feet (0.6 meters) wide. Seth Hoover was taking a GPS reading.



Photograph 12: Vertical Shaft 1, looking south. It appears to have been excavated to about ten feet (3.0 meters) deep, judging from the tailings. The date of the exploratory excavations and the first vertical shaft is not known.

PENNSYLVANIA ARCHAEOLOGICAL SITE SURVEY

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

Identification and Location

SITE NAME William Smith House SITE NUMBER _____ UPDATE? Y☐ / N☒

PUBLISHED REFERENCES (Including compliance reports.) Phase I Archaeological Survey, Charmian Northern Tract

ER# _____

• COUNTY Adams TWP. Hamiltonban NEAREST TOWN Blue Ridge Summit

Site Characteristics

SITE AREA 58 SQUARE METERS BASIS: ☒ COMPUTED ON THE GROUND OR ☐ COMPUTED ON MAP

Basis for site boundary definition: Phase I survey

STRATIFIED? ☒ UNKNOWN ☐ NO

☐ YES : ☐ TOP STRATUM VISIBLE OR ☐ BURIED UNDER STERILE

SITE DISCOVERY METHOD: (check primary one only) ☐ Previously Recorded (update)

- | | |
|---|--|
| <input type="checkbox"/> Unknown | <input type="checkbox"/> Auger probing |
| <input type="checkbox"/> Collector interview | <input type="checkbox"/> Shovel testing |
| <input type="checkbox"/> Collector interview with field check | <input type="checkbox"/> Systematic test units |
| <input type="checkbox"/> Non-systematic surface survey | <input type="checkbox"/> Extensive excavation |
| <input checked="" type="checkbox"/> Systematic surface survey | |
| <input checked="" type="checkbox"/> Systematic shovel testing | |
| <input type="checkbox"/> Remote sensing | |

POTENTIAL FOR ORGANIC PRESERVATION: (check one)

- ☐ Unknown
☐ None
☒ Low potential for organic preservation
☐ Conditions favorable for organic preservation, none documented
☐ Organic material recovered, unknown quality of preservation
☐ Organic material recovered, poor quality of preservation
☐ Organic material recovered, good quality of preservation

SITE TYPE:

Prehistoric

- ☐ Unknown function surface scatter less than 20m radius
☐ Open habitation, prehistoric
☐ Rockshelter/Cave
☐ Quarry
☐ Lithic Reduction
☐ Village (including historic Indian)
☐ Shell Midden
☐ Earthwork
☐ Petroglyph/Pictograph
☐ Burial Mound
☐ Cemetery
☐ Other specialized aboriginal site
☐ Isolated fluted point locus

- ☐ Isolated find (diagnostic artifact)
☐ Paleontological site
☐ Path

Historic

- ☐ Historic and Prehistoric
☒ Domestic Site
☐ Military Site
☐ Industrial Site
☐ Shipwreck Site
☐ Commercial Site
☐ Religious Site
☐ Unknown/other/multiple types
☐ Farmstead

SITE NUMBER OR KEY NUMBER OF ANY ASSOCIATED RESOURCES: _____

CHRONOLOGY (check all that apply)

Prehistoric

- ☐ Unknown Prehistoric
☐ Paleoindian
 ☐ Early ☐ Middle ☐ Late
☐ Archaic
 ☐ Early ☐ Middle ☐ Late

- ☐ Transitional Tradition
☐ Woodland
 ☐ Early ☐ Middle ☐ Late
☐ Proto Historic

Historic

- ☐ Unknown Historic
☐ Contact-Historic
☐ 1550-1600
☐ 1600-1650
☐ 1650-1700
☐ 1700-1800
 ☐ 1700-1725 ☐ 1725-1750
 ☐ 1750-1775 ☐ 1775-1800

- ☒ 1800-1900
 ☐ 1800-1825 ☐ 1825-1850
 ☒ 1850-1875 ☒ 1875-1900
☐ 1900-
 ☐ 1900-1925 ☐ 1925-1950
 ☐ 1950-1975 ☐ 1975+

BASIS FOR CHRONOLOGICAL INTERPRETATION (check all that apply):

- ☐ Diagnostic lithic artifacts
☐ Ceramic types
☒ Historical Documentation (attach bibliography)
☐ Radiocarbon Dates (list below)

RADIOCARBON DATES _____ ± _____
 _____ ± _____

FEATURES? ☐ NONE FOUND ☒ YES (identify below) If count is not known, use a "P" for present.

Prehistoric

Quantity	Prehistoric Features
	Present, Prehistoric
	Bundle Burials
	Burial Mound
	Burials
	Burned Areas
	Cache Pits
	Circular Houses
	Cremation Burials
	Earthworks

Quantity	Prehistoric Features
	Extended Burials
	Fish Weir
	Flexed Burials
	Hearth/Thermal Feature
	House Pattern
	Longhouses
	Midden Areas
	Ossuary
	Other, Prehistoric _____

Quantity	Prehistoric Features
	Path
	Petroglyph/Pictograph
	Postmolds
	Quarry Pit
	Semi-Subterranean Structures (e.g. Keyhole Structures)
	Shell Heap
	Stockade
	Storage Pits/Trash Pits

Historic (Please include any **associated** features or buildings visible outside of the site areas)

Quantity	Historic Features
	Present, Historic
	Burial
	Canal Bed
	Canal Lock
	Canal Tunnel
	Cellar

Quantity	Historic Features
	Cemetery
	Cistern
	Dam
	Ditch
	Fenceline
	Flower Garden/Bed

Quantity	Historic Features
	Fortification
1	Foundation
	Ice House
	Iron Furnace
	Kiln
	Midden

Quantity	Historic Features
	Millrace
	Monument/Boundary Marker
	Oil Well
	Other, Historic
	Oven
	Pipeline
	Pit

Quantity	Historic Features
	Posthole/Postmold
	Privy
	Quarry/Mine
	Railroad
	Road
	Root Cellar
	Shipwreck
	Springhouse/Springbox

Quantity	Historic Features
	Standing Building or Structure
	Still
	Vat
	Walk/Path
	Wall
	Water Well
	Wharf

Artifacts (Complete inventories may be attached, but please complete the summaries below)

ARTIFACT DATA RECOVERY METHOD:

- | | |
|---|---|
| <input type="checkbox"/> Non-provenienced | <input checked="" type="checkbox"/> Controlled excavation |
| <input type="checkbox"/> Surface collection not representative of all artifacts | <input type="checkbox"/> Representative sample of all artifacts (tools and/or debitage, etc.) |
| <input type="checkbox"/> Non-controlled excavation (i.e. artifact location not mapped and/or not all artifacts collected) | <input type="checkbox"/> Representative sample of tools only |
| <input checked="" type="checkbox"/> Controlled surface collection | <input type="checkbox"/> Estimate based on surface collections and/or excavation |
| | <input type="checkbox"/> Estimate based on informant interview |

LITHIC MATERIALS FOUND ON SITE:

Quantity	Material
	Argillite
	Chalcedony
	Chert/Flint
	Crystal Quartz
	Diabase
	Diorite
	English Flint
	French Flint
	Granite

Quantity	Material
	Hematite
	Hornfels
	Ironstone
	Jasper
	Limestone/Dolomite
	Metabasalt/Greenstone
	Metasandstone
	Onondaga Chert
	Quartz

Quantity	Material
	Quartzite
	Rhyolite (Metarhyolite)
	Sandstone
	Shale
	Siltstone
	Slate
	Steatite
	Vanport Chert (Flint Ridge)
	Unidentified

ARTIFACT CATEGORIES (Use the comments section to list any artifacts not categorized in these tables. Include either exact quantities or relative as follows:

B	Less than 25
C	25 - 50
D	51 - 100

E	101 - 200
F	201 - 400
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H	801 or More
I	Present, Quantity Unknown

J	Present, Common
---	-----------------

Prehistoric (Include quantity by material type if appropriate, using the LITHIC list above.

Examples:

D	Stone Debitage	52 rhyolite / 26 chert
2	Grooved Axes	sandstone

Quantity	Prehistoric Artifact Types	Material Type
----------	----------------------------	---------------

Quantity	Prehistoric Artifact Types	Material Type
	Adzes	
	Antler & Bone Artifacts	
	Bannerstones	
	Celts	
	Ceramics (Prehistoric)	
	Chipped Stone Tools	
	Clay Pipes (Prehistoric)	
	Cordage	
	Core	
	Fire Cracked Rock	
	Gorgets/Pendants/Non-Utilitarian Lithics	
	Grooved Axes	
	Ground & Polished Stone Tools	
	Hammerstones	

Quantity	Prehistoric Artifact Types	Material Type
	Hoes	
	Human Bone	
	Netsinkers	
	Non-Artifactual Bone or Antler	
	Non-Artifactual Floral Remains	
	Non-Artifactual Shell	
	Pestles/Grinding/Pitted Stones	
	Shell Artifacts	
	Steatite Bowls/Fragments	
	Stone Debitage	
	Stone Pipes	
	Wooden Artifacts	

Historic (Include Quantities by Group as appropriate from table below):

		Material Class						
		Ceramic	Glass	Metal	Geological	Plastic	Biological	Composite
Functional Class	Architectural	B	B					
	Personal							
	Kitchen	B	B					
	Arms/Weapons							
	Activities							
	Industrial (Tools)							
	Electrical							
	Furniture							
	Unidentified							

DIAGNOSTIC ARTIFACTS

Prehistoric Projectile Points (Include counts by material types, using the LITHIC list above.)

Examples:

7	Broadspears	5 rhyolite / 2 argillite
2	Lehigh/Snook Kill	chert

Quantity	Prehistoric Point Types	Material
-----	Paleoindian Points	-----
	Pre-Clovis	
	Clovis	
	Mid-Paleo (Folsom)	
	Late Paleo (Plano)	
	Hardaway-Dalton	
	Fluted Point	
-----	Early Archaic Points	-----
	Palmer	
	Kirk Corner-notched	
	St. Charles	
	Thebes	
	Charleston	
-----	Middle Archaic Points	-----
	Bifurcate Points	
	Middle Archaic Notched/Stemmed Points	
	MacCorkle	
	Saint Albans	
	LeCroy	
	Otter Creek	
	Kanawha	
	Kirk Stemmed	
-----	Late Archaic Points	-----
	Piedmont Tradition	

Quantity	Prehistoric Point Types	Material
	Laurentian Tradition	
	Steubenville	
-----	Transitional Tradition	-----
	Koens Crispin/Savannah River	
	Broadspears	
	Lehigh/Snook Kill	
	Perkiomen	
	Susquehanna	
-----	Early Woodland Points	-----
	Adena (Stemmed)	
	Meadowood	
	Helgramite	
	Orient	
-----	Middle Woodland Points	-----
	Raccoon Notched	
	Snyders	
	Basal Notched	
	Jacks Reef	
	Fox Creek	
-----	Late Woodland Points	-----
	Triangles (Late Woodland)	
-----	Proto Historic Points	-----
	Triangles (Proto Historic)	

Prehistoric Ceramic Types (Include counts by temper types - if not implied in name - using the LITHIC list above. Additional options include "grit", "grog" or "shell".)

Quantity	Prehistoric Ceramics	Temper
-----	Early Woodland Ceramics	-----
	Accokeek Ware	
	Adena Plain	
	Grit Tempered Flat Bottom	
	Half-Moon Cordmarked	
	Interior-Exterior Cordmarked Small Temper-Conical/Globular	
	Marcy Creek	
	Steatite Tempered	
	Vinette I (Interior-Exterior Cordmarked Large Temper-	

Quantity	Prehistoric Ceramics	Temper
	Conical/Globular)	
-----	Middle Woodland/Middle to Late Woodland Ohio Valley Ceramics	-----
	Abbott Zoned	
	Grit Tempered Exterior Cordmarked-Conical/Globular	
	Grit Tempered Net Impressed-Conical/Globular	
	Point Peninsula Series	
	Shell Tempered Net Impressed-Conical/Globular	

Quantity	Prehistoric Ceramics	Temper
	Watson Cord Marked	
-----	Late Woodland Ceramics	-----
	Blue Rock Valanced	
	Chance Series	
	Chautauqua Cordmarked	
	Clemson Island/Princess Point Series	
	Early Ontario Iroquois	
	Erie Series	
	Funk Incised	
	Keyser Cordmarked	
	Lancaster Incised	
	Mahoning Cord Marked	
	McFate Incised	
	McFate/Quiggle Undifferentiated	
	Meade Island Series	
	Minguannan Series	
	Monongahela (Undifferentiated)	
	Monongahela Cordmarked-Late Woodland	
	Monongahela Incised	
	Monongahela Plain	
	Monongahela Somerset Phase	
	Oak Hill Series	

Quantity	Prehistoric Ceramics	Temper
	Overpeck	
	Owasco Series	
	Page Cordmarked	
	Potomac Creek Cord Impressed	
	Proto-Susquehannock	
	Quiggle Incised	
	Richmond Incised	
	Schultz Incised	
	Shenks Ferry (Undifferentiated)	
	Shenks Ferry Cordmarked	
	Shenks Ferry Incised (Blue Rock Phase)	
	Shenks Ferry Incised (Stewart Phase)	
	Shepard Cordmarked	
	Strickler Cordmarked	
	Susquehannock (Undifferentiated)	
	Townsend	
	Tribal Series	
	Washington Boro Incised	
	Whittlesey	
	Wyoming Valley Series	

Historic Diagnostics (For comparable site data, using general diagnostic categories. **More specific identification related to decoration, form, or markings should be included in the comments or site inventory**).

Quantity	Historic Artifact
	<i>Ceramics</i>
	Whieldon
	Creamware
	Pearlware (All Decoration Types)
1	Transitional Whiteware
	Ironstone
	Chinese Porcelain
	English Porcelain
	American Stoneware (Blue and Gray)
	European Stoneware (white salt-glazed, English Brown, Rhenish, Fulham, Nottingham)
	Redware (All types)

Quantity	Historic Artifact
	Basalt
	European Redware (Jackfield, dry-bodied)
	Tin-Glazed Earthenware
	Yellowware (Rockingham)
	Clay pipes
	<i>Glass</i>
	Blown Bottle Base
	Machine-Made Bottle Base (Owen's Scar)
	Snapcase Bottle
1	Pressed Glass
	<i>Metal</i>
	Wrought Nails

Quantity	Historic Artifact
	Cut Nails
	Wire Nails
	<i>Arms & Weapons</i>
	French Gunflint
	English Gunflint
	Gun parts
	Ammunition
	<i>Miscellaneous</i>
	Coin
	Button
	Bead
	Toy

Physical Data and Site Condition Instructions available. Please fill out as much as is known, especially those items that are measured or observed on site.

On site SOIL ASSOCIATION Highfield, Catocin, Myersville SOIL MAPPING UNIT Highfield-Catocin channery silt loam
 Most common other mapped SOIL UNIT(S) within 500 meters Ravenrock-Highfield-Rock outcrop (may list two)
 MAP ELEVATION 327.7 m (1075 feet) SLOPE PERCENTAGE 8-15 SLOPE DIRECTION SE
 SLOPE BASIS ☒ MEASURED ON SITE ☐ ESTIMATED FROM SOIL SURVEY OR MAP
 BEDROCK Catocin Formation, Metabasalt Most predominant other BEDROCK(S) within 5 km Metarhyolite (may list two)
 PHYSIOGRAPHIC PROVINCE South Mountain Section of Ridge and Valley (If within 10 km of a Physiographic Province boundary, name the neighboring PHYSIOGRAPHIC PROVINCE Piedmont Gettysburg-Newark)
 TOPOGRAPHIC SETTING (check the one that best describes the setting):

<input type="checkbox"/> Island	<input type="checkbox"/> Lower Hillslope	<input type="checkbox"/> Hill/Ridge Toe
<input type="checkbox"/> Beach	<input type="checkbox"/> Middle Hillslope	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Floodplain	<input checked="" type="checkbox"/> Upper Hillslope	<input type="checkbox"/> Hilltop
<input type="checkbox"/> Rise in Floodplain	<input type="checkbox"/> Stream Bench (along low order stream)	<input type="checkbox"/> Ridge Top
<input type="checkbox"/> Terrace (Pleistocene along river)		<input type="checkbox"/> Saddle

 IMMEDIATE VEGETATION Forest PERCENTAGE OF SITE STILL INTACT unknown
 PRIMARY DISTURBANCE Logging POSSIBILITY OF DESTRUCTION No

Water Drainage Area Information Instructions available. Please fill out as much as is known, especially those items that are measured or observed on site. Distance to water is particularly critical.

SUBBASIN Potomac WATERSHED D MAJOR STREAM Monocacy River MINOR STREAM Toms Creek
 NEAREST WATER: Distance 108 M Elevation 1022 ft Direction East Order 4th Type Perennial
 2ND NEAREST WATER: Distance 353 M Elevation 990 ft Direction North Order 3th Type Perennial
 NEAREST PERENNIAL STREAM CONFLUENCE:
 Distance 739 M Elevation 932 ft Direction Northeast Order below confluence 3th
 RELATIONSHIP OF FIRST AND SECOND WATER (check one)
☐ Do not represent a stream confluence.
☐ Site is located upstream from the confluence and between the 2 water sources.
☐ Site is located upstream from the confluence, but not between the 2 water sources.
☐ Site is located downstream from the confluence.
☒ None of the above apply.

COMMENTS The William Smith house was noted on the 1872 Atlas of Adams County, Pennsylvania, surveyed by D.J. Lake. Deed research by Patricia E. Miller, Ph.D., and Andrew Wyatt, for an earlier Phase I archaeological report noted that Smith owned the property at one time. The low density of artifacts indicated that the house had been occupied only briefly.

ATTACHMENTS:

- ☒ 7.5 MIN USGS map with **site boundaries** indicated and quad name identified
- ☐ Photographs or drawings of diagnostic artifacts with scale. Identify lithic material per artifact using description or key.
- ☒ Site plans.
- ☒ General site photographs or excavation photographs or drawings may also be included.

We encourage the inclusion of as many illustrations as possible.

ADMINISTRATIVE INFORMATION (CONFIDENTIAL ITEMS HIGHLIGHTED)

7.5 QUAD NAME Iron Spring EDITION 1990 UP ACROSS

(Measure in centimeters from the bottom printed edge upward, and the right printed edge across)

-OR-

U.T.M. COORDINATES: ZONE 18 NORTHING 4404323.99 EASTING 290076.37

OWNER Specialty Granules, LLC ADDRESS 13424 PENNSYLVANIA AVENUE, SUITE 303, HAGERSTOWN, MARYLAND 21742

TAX PARCEL ID 18A16-0032-000 TAX MAP DATE Accessed 1-25-2016

☒ PRIVATE LANDOWNER ☐ PUBLIC LANDOWNER - ☐ FEDERAL ☐ STATE ☐ LOCAL

COLLECTION LOCATIONS URS, 437 High Street, Burlington, NJ 08016

INFORMANTS

RECORDING REASON

- | | |
|--|---|
| <input type="checkbox"/> Informant Interview/Amateur Survey | <input type="checkbox"/> Non-PHMC institution affiliated research |
| <input checked="" type="checkbox"/> State or Federal Compliance Survey | <input type="checkbox"/> PHMC Research |
| <input type="checkbox"/> PHMC Grant | <input type="checkbox"/> Other (Explain in 'Comments' section at end of form) |

CRITERIA FOR NATIONAL REGISTER INCLUSION Unknown

SUBMITTED BY Douglas Dinsmore, Ph.D. ADDRESS 449 Eisenhower Boulevard, Suite 300

CITY Harrisburg STATE PA DATE 12-12-2016

PHONE NUMBER 610-823-4645 EMAIL ADDRESS ddinsmore1951@gmail.com

S.P.A. CHAPTER AFFILIATION

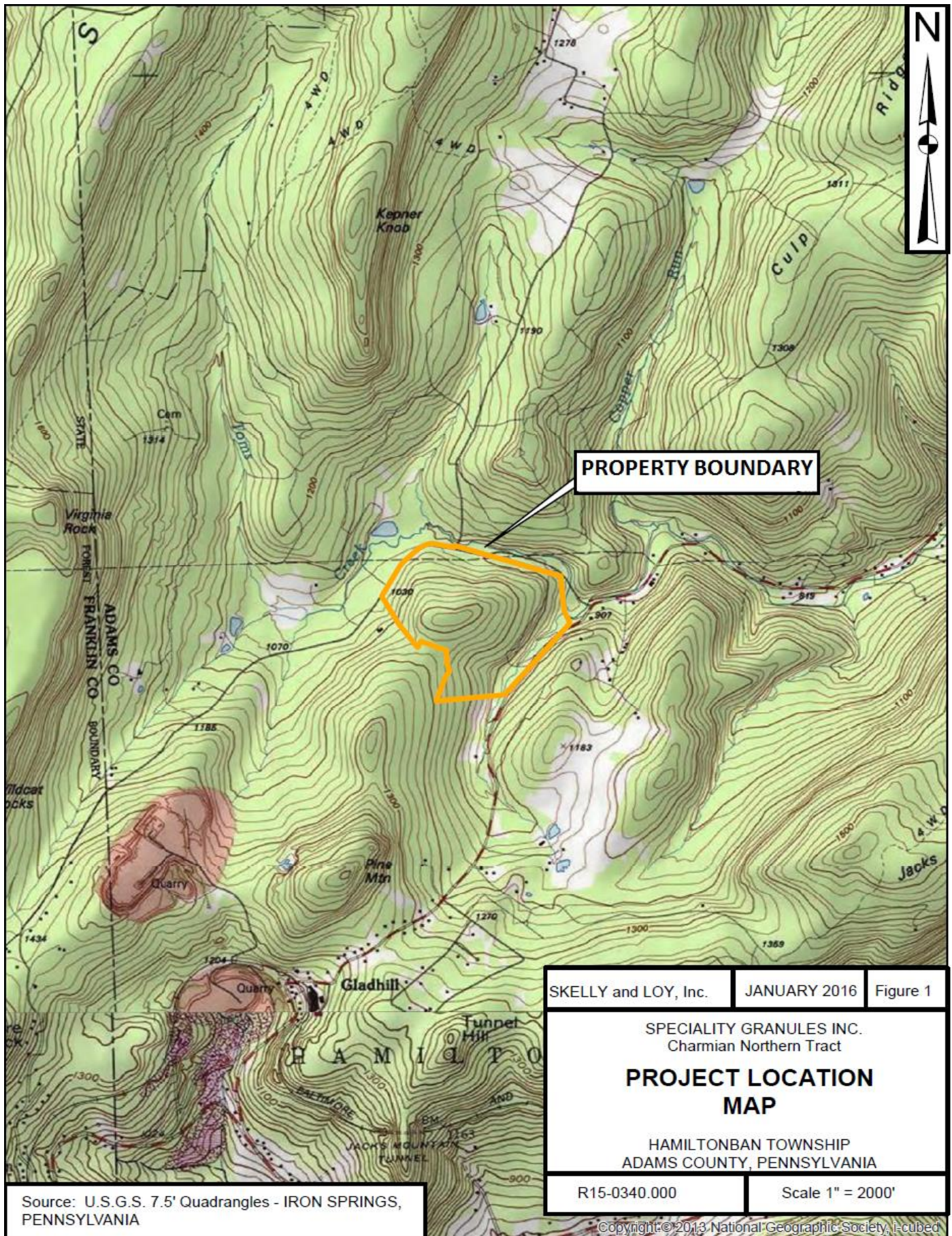
INSTITUTIONAL AFFILIATION Skelly and Loy, Inc.

ADMINISTRATIVE COMMENTS

Remember! Ask the landowner's permission before you collect artifacts on private property. It is a violation of state law to collect artifacts on state lands and a violation of federal law to collect artifacts on federal lands.

Completed forms should be sent to:

Bureau for Historic Preservation
Commonwealth Keystone Bldg, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093



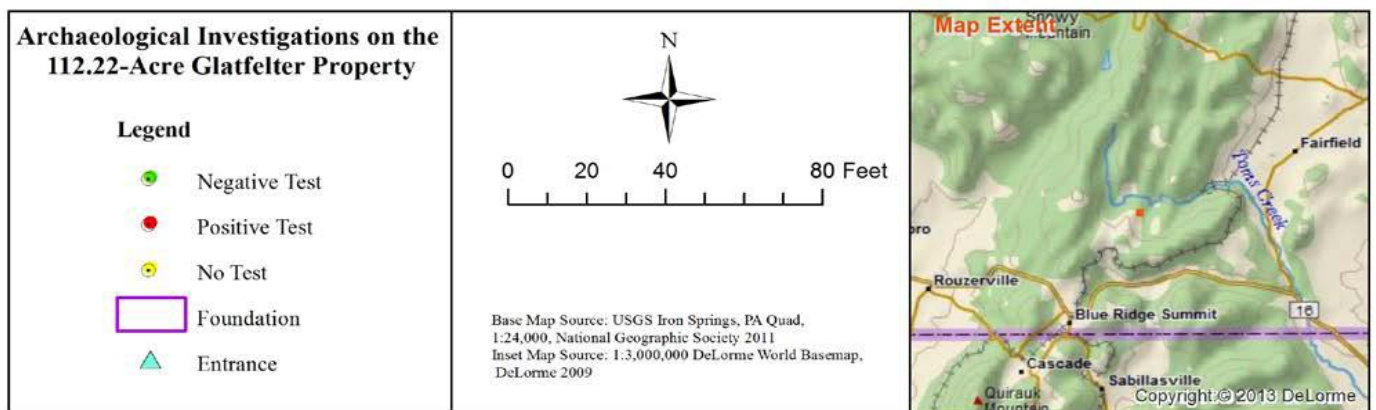


Figure 2: Map from URS's report, showing their testing strategy and the foundation location.



Photograph 1: The corner of the foundation, likely the base for the chimney, looking south.

APPENDIX D - AUTHOR'S QUALIFICATIONS

DOUGLAS DINSMORE, PH.D., Cultural Resource Specialist



EDUCATION:

Ph.D., Anthropology, 1984,
Pennsylvania State
University

M.A., History, 1997, The
Pennsylvania State
University

M.A., Anthropology, 1975,
Pennsylvania State
University

B.A., Anthropology, 1973,
University of Pennsylvania

YEARS OF EXPERIENCE:
30 Years

Dr. Dinsmore's experience includes the completion of Section 106 identification, evaluation, and mitigation for over 300 projects, ranging from large and small transportation projects to development projects and extractive operations. He has managed and/or contributed to projects that have included extensive cultural resources, unique agricultural properties, and both urban and rural historic districts. He exceeds the Secretary of the Interior's Professional Qualifications for both architectural history and pre-contact and historic archaeology.

Professional Experience

Dr. Dinsmore has extensive experience with deed, tax and historic background research. He has completed historic resource survey and evaluations of above ground structures and historic districts for numerous projects including highway improvement and bridge replacement projects throughout Pennsylvania, New York, New Jersey, Maryland, West Virginia, Ohio, Indiana, and Illinois. He has prepared historic contexts and historic resource survey forms for individual properties and historic districts.

Dr. Dinsmore has performed archaeological and historic resources investigations on CEE, EA and EIS level projects. He served as Principal Investigator for the Phase I Archaeological Survey of Sleepy Creek Development in Ridge, West Virginia. He also served as the Principal Investigator of the Phase II Archaeological Survey for the Orbisonia-Rockhill Joint Municipal Authority's expansion of their wastewater facility in Huntingdon County, Pennsylvania. He functioned as Principal Investigator for the Phase II Archaeological Survey for the York Haven Bypass for PPL, an electric company, in York County, Pennsylvania. He also served as Principal Investigator for supplemental Phase I Archaeological Survey of the Inter-County Connector in Montgomery and Prince George's Counties, Maryland. Dr. Dinsmore served as lead author on a three-volume study the Sugartown Data Recovery for Pennsylvania's I-99 (then State Route 220) of pre-contact remains and historic remains of an iron furnace company town, where over 50,000 artifacts were identified.

Dr. Dinsmore has served as Principal Investigator on projects that have developed unconventional mitigation. He designed a middle-school lesson plan emphasizing pre-contact archaeology as mitigation for archaeological survey in an area where the archaeological remains had been previously documented. He wrote a middle school lesson plan for mitigation for a late-eighteenth-century farmhouse that taught the progression of agricultural technology. He collected oral histories of a farming community, of a refractory brick company town, and of an anthracite coal mining town.

Familiar with the National Register of Historic Places, Dr. Dinsmore has successfully nominated several properties for listing, including the Allegheny River Locks and Dams, Allegheny and Armstrong Counties, Pennsylvania and the Borough of Newport, Pennsylvania.

Skelly and Loy, Inc.
Harrisburg, PA