

**Module 22.10**  
**Adjacent Mine Working(s)**

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- 1. BMR Mapping

## **1.0 INTRODUCTION / BACKGROUND**

The following narrative is a detailed description of the research conducted by CME Engineering LP, 975 Georges Station Road, Suite 100, Greensburg, PA 15601 to identify the presence and subsequent location of underground and surface mines adjacent to the LCT Energy, LP, Rustic Ridge #1 Mine. This is underground mine operates in the Lower Kittanning coal seam located in Saltlick Township, Fayette County, and Donegal Township and Donegal Borough, Westmoreland County. This adjacent mine study will examine current and past mining activities within 1,000 feet of the permit area to determine their extents and any associated safety hazards. Additionally, based on the adjacent mine locations and possible safety hazards, hydraulic barriers or safety zones may be proposed.

### **Abandoned Mine Search**

All permits identified within the 1,000 foot buffer surrounding the permit line were investigated. The following sources were used to identify mines within the research area: WPA mapping, BMR mapping, DEP - Mine Safety database, DEP- Coal Center mapping, DEP - New Stanton surface mine files, DEP eFACTS web site, RAMLIS, PA IRIS, Bureau of Topographic and Geologic Survey, PHUMMIS, Berwind Natural Resources Corporation, and OSM Pittsburgh repository.

CME used the W.P.A. Project Map Nos. 4483 for the Donegal, Seven Springs, and Stahlstown 7 ½ - Minute quadrangles to identify the general location and nomenclature of any mines present within the area circa 1936.

The mine records supplied from DEP - Bureau of Mining and Reclamation, Division of Environmental Analysis and Support, Harrisburg, PA (BMR) were reviewed to identify all known permits within the research area. The records for the Donegal, Seven Springs, and Stahlstown Quadrangles were searched and a list of all permits within 1,000 feet of the permit was generated.

The DEP - Bureau of Mine Safety mine map repository database was queried to identify all mapping located in Paint and Shade Townships, Somerset County. Additionally, all incomplete database records were researched to determine any relevance to the research area. Mapping found at the Bureau of Mine Safety relevant to the study is identified in the narrative below. The Annual Reports on file at the Mine Safety Office and on-line were searched to determine the presence of mines identified in the study area. The reports were searched by District, operator, owner, and mine name to determine the mine's presence, and ultimately, its closing date which would be correlated to the most extensive mapping found for a particular mine in order to increase the credibility of the mapping chosen to depict the most up-to-date workings for the mines.

The DEP - Coal Center mapping files were reviewed and any mapping found is identified in the narrative below. These files were searched based on permittee, mine name, and county.

The DEP eFACTS web site was queried to identify active and inactive operations within the research area. The results are discussed in the appropriate narrative sections below.

The DEP - New Stanton Office surface mine files were reviewed based on the permit list generated from BMR to identify the presence of surface mines within the study area. CME submitted a request to review seven (7) mine files. From this request, all but 1 of the permits were located in DEP - New Stanton files.

The OSM database was queried to identify all mapping located in Somerset County on the Donegal, Seven Springs, and Stahlstown Quadrangles. Additionally, all incomplete database records were researched to determine any relevance to the research area. Mapping found in the OSM repository relevant to the study is identified in the narrative below.

The Reclaimed Abandoned Mine Land Inventory System (RAMLIS) was queried to locate any additional mine lands that were not located from the other sources and also to corroborate the found information.

Data available at the Bureau of Topographic and Geologic Survey was searched for any mapping applicable to the project area. If mapping was found it will be referenced in the appropriate mine narrative below.

### **Mining History**

The area in the vicinity of the Rustic Ridge #1 Mine has been mined in the Lower Kittanning coal seam to the south of the proposed permit boundary. This mining concluded in the 1950s.

### **Mine Pools**

Adjacent and overlying mine pools can pose a significant health and safety hazard to an active mine. Since the Rustic Ridge #1 Mine will operate in the Lower Kittanning Coal Seam, it is necessary to examine the overlying and adjacent mines for any significant mine pools that may require the establishment of a Safety Zone or a hydraulic barrier. For the purpose of this study, small, localized pools (low spots) were not determined. Rather, an examination of the mine workings and barriers between mines was researched to determine where mine pools could impact the Rustic Ridge #1 Mine. Any determined or suspected mine pools will be described within the narrative for each mine.

### **Gas Wells**

Active and abandoned gas wells can pose a hazard to mining operations if appropriate pillar permits are not obtained. Therefore it is imperative to identify any wells within the Rustic Ridge #1 Mine permit. At the time of this permit submittal, no known gas wells exist within the proposed permit boundary.

### **Mine Mapping**

The extent of mining, as depicted, was determined through the placement of individual mine maps utilizing common surface features found on the mine maps and aerial photography.

## 2.0 UPPER FREEPORT DEEP MINES

### 2.1 Country Bank Mine (KEY - NONE)

#### *Discovery*

This mine was not listed in the DEP-Bureau of Mining and Reclamation, Historical Bituminous Mining and Permit Data records found on the PASDA website. This mine was located during a search of Coal Resources of Westmoreland County, Pennsylvania. According to this publication, the mine opening was in the Mahoning Coal Seam.

#### *Mine Mapping*

A search for mapping of this mine began with review of mapping from the OSM-Pittsburgh repository. CME cross-referenced the OSM files for any mapping pertaining to mines on the Donegal Quadrangle. From this search no maps were located in the OSM repository that were relevant to this area.

A search of mapping at the DEP-Coal Center Office found no mapping relative to this mine.

In addition to the OSM-Pittsburgh repository mapping, CME also searched the DEP-Bureau of Mine Safety map repository in Uniontown, PA for mapping of this mine. A search of the repository produced no mapping of this mine.

A search of the Bureau of Topographic and Geologic Survey identified no mapping for this mine.

Further examination of the Coal Resources of Westmoreland County, Pennsylvania shows that this opening was located from a publication titled, *Geology and mineral resources of the Donegal Quadrangle, Pennsylvania*, Pennsylvania Geological Survey, 4<sup>th</sup> ser., Atlas 48. Review of this document identified a country bank mine opening in the Upper Freeport coal seam.

#### *Annual Report Research*

The Pennsylvania Annual Reports of Mining Activities records were searched for evidence of mining activity in this mine. Without a mine operator, mine name, or era mined, no information could be correlated to this operation. Additionally, if this mine was a small country bank operation, the production tonnage would most likely not have been reported in the Annual Reports.

#### *Map Placement*

Without the benefit of any mine mapping for this operation, the location of the opening was derived from the above referenced information.

#### *Mine Pool*

No mine pool evaluation was conducted for this country bank mine due to size and the fact that it is in the Upper Freeport coal seam, which is approximately 200 feet above the Rustic Ridge #1 Mine.

#### *Mine Barriers*

No mine barriers are proposed for this country bank mine.

### **3.0 LOWER KITTANNING DEEP MINES**

#### **3.1 Melcroft No. 3 Mine (KEY - NONE)**

##### *Discovery*

The Melcroft No. 3 Mine was not listed in the DEP-Bureau of Mining and Reclamation, Historical Bituminous Mining and Permit Data records found on the PASDA website. This mine was initially found on WPA mapping. This mine was previously miscorrelated as a Middle Kittanning coal seam mine. However, based on mapping found and also production information found, this mine operated in the Lower Kittanning coal seam.

##### *Mine Mapping*

A search for mapping of this mine began with review of mapping from the OSM-Pittsburgh repository. CME cross-referenced the OSM files for any mapping pertaining to the Melcroft Mine, the Lower Kittanning Seam and/or unknown seams. From this search a total of ten (10) maps for the Melcroft Mine were located. Many of these maps were of the Melcroft No. 1 Mine which is located several thousand feet south of the proposed Donegal Mine. However, for completeness of review, all maps found will be discussed.

Document 303484 is a 1"=400' scaled property map of the Melcroft Coal Company. No mine workings are shown on this map. There are no discernible dates on the map.

Documents 303812, 303813, and 303814 are 1"=100' scaled maps that, when assembled, show detailed workings in the Melcroft No. 1 Mine. This map is not dated or certified. This mine is located several thousand feet from the Rustic Ridge #1 Mine.

Document 304057 is a 1"=400' scaled map of the Eastern Gas & Fuel Associates, Melcroft Mine. This mapping shows single line extents for the mine and an early stage of development in the Melcroft No. 3 Mine. The map has a date of 9/14/1945, however, it is concluded that this map was later updated to show the Melcroft No. 3 Mine since that operation did not begin until 1958.

Document 304140 is a 1"=1000' scaled property map of the Melcroft Coal Company. No mine workings are shown on this map. There are no discernible dates on the map.

Document 304221 is a 1"=500' scaled map of, "The Koppers Coal Co., Melcroft No. 1 Mine". The detailed mine workings shown are not very legible. The Melcroft No. 3 Mine does not appear on this map. There are no discernible dates on the mapping.

Document 314616 is a 1"=100' scaled map dated 1932 showing detailed workings of the Melcroft No. 1 Mine. This mine is located several thousand feet from the Rustic Ridge #1 Mine.

Document 316177 is a 1"=500' scaled map titled, "Map of Drainage Tunnel & Flume". This map is dated May 12, 1927 and shows a drainage course that conveys mine water from the Melcroft No. 1 Mine and other adjacent mines to a discharge point below the water supply reservoir. This mine is located several thousand feet from the Rustic Ridge #1 Mine.

Document 358484 is a 1"=1000' scaled map titled, "Eastern Associated Coal Corp., Melcroft No. 1 Mine". This mapping shows single line extents of the Melcroft No. 1 Mine and other adjacent mines. The Melcroft No. 3 Mine does not appear on this mapping. The map has a posting date of August 19, 1957. This mine is located several thousand feet from the Rustic Ridge #1 Mine.

A search of mapping at the DEP-Coal Center Office located two (2) maps for this mine name.

File 80 is a 1"=500' scaled map titled, "Eastern Associated Coal Corp., Melcroft No. 1 Mine". The map has a posting date of January 1, 1960. The mapping shows detailed workings of the Melcroft No. 1 Mine. The Melcroft No. 3 Mine does not appear on this mapping.

File 2155 are a series of 1"=100' and 1"=500' scaled maps of the Eastern Associated Coal Corp., Melcroft No. 3 Mine. This map has a final posting date of December 24, 1966 and is identified as a



final map. The map shows very detailed workings of the Melcroft No. 3 Mine. Although identified as a final map, the map is not certified.

Additionally, CME searched the DEP-Bureau of Mine Safety map repository for mapping of the Melcroft Mine. A search of the repository produced five (5) maps of the Melcroft Mine. As stated above for mapping found at OSM, these maps found at the Bureau of Mine Safety were for the Melcroft No. 1 Mine, but are included for completeness of review.

Map ID 1792 is the source map for OSM document 314616.

Map ID 1793 is the source map for OSM document 304057.

Map ID 2716 is the source map for OSM document 304140.

Map ID 2717 is the source map for OSM documents 303812, 303813, and 303814.

Map ID 3381 is the source map for OSM document 316177.

A search of the Bureau of Topographic and Geologic Survey did not locate any mapping relative to this area.

#### *Annual Report Research*

The Pennsylvania Annual Reports of Mining Activities records were searched for production data in the Melcroft No. 3 Mine. Attachment C shows a summary of the data found for this operation. Comparing the production data with the mapping shows a direct correlation to final mining date. However, the 1958 and 1959 Annual Reports list the coal seam as the Upper Kittanning. Examination of File 2155, 100 foot scale mapping shows this mine opened in 1958. Further examination shows limited initial development in 1958 and 1959. The area mined does not correlate to the tonnages reported. It appears that the operator chose to report tonnages for the Melcroft Nos. 1 & 3 together during the years of 1958 and 1959.

#### *Map Placement*

File 2155 from the DEP - Coal Center Office was used to depict the furthest extent of mining in the Melcroft No. 3 Mine. Although this map was not certified, it was identified as a final map and the production data found for this operation correlates to the dates found on the mapping. The mine map was aligned to the base map utilizing surface features common to both maps for a best fit, since not coordinate system was present. A local grid was found on the maps, but could not be used to reference the mapping.

### *Mine Pool*

Since this mine is adjacent to the Rustic Ridge #1 Mine, a mine pool evaluation was conducted. Examination of the mine mapping shows that the mine portals were at an approximate elevation of 1442 msl and the lowest elevation found in the mine (adjacent to the Rustic Ridge #1 Mine) was approximately 1381 msl. Based on the presence of a passive treatment system located near the portal site, it is presumed that this mine is discharging at the portal site. This would create a mine pool head of approximately 61 feet between the Melcroft No. 3 Mine and the Rustic Ridge #1 Mine.

### *Mine Barriers*

Since this mine flooded and located in the Lower Kittanning coal seam, a minimum 500 foot barrier is proposed between the Melcroft No. 3 Mine and the Rustic Ridge #1 Mine.

## **4.0 SOAP PROJECTS**

### **4.1 Mine #4 (KEY - NONE)**

#### *Discovery*

This SOAP Project was discovered on the DEP-Bureau of Mining and Reclamation, Historical Bituminous Mining and Permit Data records found on the PASDA website. This operation was assigned index number 843 for an underground mining operation in the Middle Kittanning coal seam. Information received from the DEP SOAP database indicates that permit was submitted by Rand AM Inc. and was accepted on August 24, 1993. This project was assigned permit number 26931301. This project was denied on June 30, 1995.

Review of this permit number in DEP's eFACTS website shows no listing of this permit number.

## 5.0 SURFACE DEEP MINES

### 5.1 Champion #1 (KEY - S1)

#### *Discovery*

This surface mine, with no augering listed on the BMR list, was permitted by Milrock Mining, Inc., issued on May 3, 1976 in the **Mahoning, Upper Freeport, and Upper Kittanning coal seams**. This permit area is shown on the BMR mylars as an index number of 9852, Permit No. 3376SM9.

#### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did have a file for this permit. CME reviewed the permit files for confirmation of mining activity. The DEP files also referenced this operation under SMP # 3375SM64.

The location of this mine was taken from mapping, historical aerial photography and recent aerial photography. Production information was not definitive to correlate to this mine.

### 5.2 Keller (KEY - S2)

#### *Discovery*

This surface mine, with augering listed on the BMR list, was permitted by Firestone Coal, Inc., issued on March 22, 1978 in the **Upper & Lower Freeport coal seams**. This permit area is shown on the BMR mylars as an index number of 18618, Permit No. 34A77SM14.

#### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did have a file for this permit. CME reviewed the permit files for determination of mining location. The files confirmed mining activity for this operation.

The location of this mine was taken from review of permit mapping, historical aerial photography and recent aerial photography. Production information was confirmed in the Annual Reports.

### 5.3 Hess (KEY - NONE)

#### *Discovery*

This surface mine, with no augering listed on the BMR list, was permitted by Milrock Mining, Inc., issued on May 17, 1978 in the **Upper & Lower Freeport coal seams**. This permit area is shown on the BMR mylars as an index number of 18864, Permit No. 3378SM5.

#### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did have a file for this permit. CME reviewed the permit files for determination of mining activity. The files reviewed indicate that this permit was never activated.

### 5.4 LaRosa (KEY - NONE)

#### *Discovery*

This surface mine, with augering listed on the BMR list, was permitted by Clarksburg Coal Co., Inc., issued on November 25, 1983 and subsequently transferred to Pine Flats Coal Co., Inc., issued January 28, 1986 in the **Lower Freeport, Upper & Lower Kittanning coal seams**. This operation was also permitted as a coal refuse disposal area. This permit area is shown on the BMR mylars as an index numbers 23067 and 24489, Permit No. 26823086.

#### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did have a file for this permit. CME reviewed the permit files for determination of mining location. The files confirmed mining activity for this operation.

The location of this mine was taken from review of permit mapping, historical aerial photography and recent aerial photography. Although the permit limits encroach to within 1,000 feet of the Rustic Ridge #1 Mine, the actual mining activities were over 1,000 feet away. Therefore this operation is not shown on the permit mapping for the Rustic Ridge #1 Mine.

### 5.5 Brown (KEY - S3)

#### *Discovery*

This operation, listed on the BMR list as index number 27027, was permitted by V&B Excavating on October 24, 1989 as a non-coal operation. This operation was assigned Permit No. 65892305.

#### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did have a file for this permit. CME reviewed the permit files for determination of mining location. The files confirmed mining activity for this operation. This site is still an active operation that mines topsoil, subsoil, and shale.

The location of this mine was taken from review of permit mapping, historical aerial photography and recent aerial photography. This active site is adjacent to the surface site for the Rustic Ridge #1 Mine; however, this operation is separated by Champion Creek.

### 5.6 Unknown Strip (KEY - S4)

#### *Discovery*

This surface mine, was not listed on the BMR list. The presence of this operation was shown on the Donegal and Seven Springs 7.5-Minute Quadrangles. This area was depicted as a surface mine operation. Currently a trailer park is situated on the site.

#### *Mine Mapping*

Without a permit number, operator, or mine name, no file review could be conducted at the DEP - New Stanton Office. Review of historical aerial photography various eras does not conclusively show coal mining activities in this location. Since this area is now a trailer park, it is believed that this operation was misrepresented on the U.S.G.S Quadrangles as a surface mine site. It is possible that incidental coal removal occurred during the development of this site. Without conclusive evidence to support or deny this operations existence, the mine is shown on the permit mapping for the Rustic Ridge #1 Mine.

## 5.6 Nedrow Strip (KEY - S5)

### *Discovery*

This surface mine, with augering listed on the BMR list, was permitted by The Rondell Co., issued on April 6 and September 28, 1976 in the **Upper Freeport coal seam**. This permit area is shown on the BMR mylars as an index number of 9857, Permit No. 3476SM2.

### *Mine Mapping*

CME contacted the DEP - New Stanton District Office to inquire of all surface mines listed in the BMR mapping. The New Stanton Office did not have a file for this permit. CME reviewed all publicly available mapping sources including historical aerial photography and Annual Reports on Mining to determine whether this mine was activated.

Although permitted, no information was found in the DEP files or a direct correlation in the Annual Reports to validate the presence of this mine. The only information available was references by local citizens that a small surface mine existed on the property.

The location of this mine as shown is derived from the USGS 7.5 Minute- Seven Springs Quadrangle and a circa 1977 aerial map.

## **Attachment A**

**LCT ENERGY, LP - Rustic Ridge #1 Mine  
BMR Historical Mining Data**

Index #	Company	Mine Name	Permit #	Date Issued	Coal Seam	Quad Name	Municipality	County	Permit Type
9852	Milrock Mining, Inc.	Champion #1	3376SM9	5/3/1976	Mahoning, Upper Freeport, Upper Kittanning	Donegal	Saltlick	Fayette	Surface
9857	The Rondell Co.	Nedrow	3476SM2	4/6/1976	Upper Freeport	Donegal	Donegal	Westmoreland	Surface / Auger
				9/28/1976		Seven Springs			
18618	Firestone Coal, Inc.	Keller	34A77SM14	3/22/1978	Upper Freeport and Lower Freeport	Donegal	Saltlick	Fayette	Surface / Auger
18864	Milrock Mining, Inc.	Hess	3378SM5	5/17/1978	Upper Freeport and Lower Freeport	Seven Springs	Saltlick	Fayette	Surface
23067	Clarksburg Coal Co., Inc.	LaRosa	26823086	11/25/1983	Lower Freeport, Upper Kittanning, and Non-Coal	Donegal	Saltlick	Fayette	Surface / Auger
24489	Pine Flats Coal Co., Inc.	LaRosa	26823086	1/28/1986	Lower Kittanning and Non-Coal	Donegal	Saltlick	Fayette	Surface / Auger
27027	V&B Excavating	Brown	65892305	10/24/1989	Non-Coal	Donegal	Donegal	Westmoreland	Pit



## **Attachment B**

Annual Report Summary for  
Abandoned Mines Within 1,000 feet of the Rustic Ridge #1 Mine

<i>Section 3.1</i>						
<b>Melcroft No. 3 Mine</b>						
<b>MINE KEY</b>			<b>D1</b>			
Source	ID	Scale	Title	Map Date	Certified	Comments
<b>OSM</b>	303484	1"=500'	Melcroft Coal Co.	N/A	No	Property Map
	303812	1"=100'	Melcroft Coal Co.	N/A	No	Detailed workings
	303813	1"=100'	Melcroft Coal Co.	N/A	No	Detailed workings
	303814	1"=100'	Melcroft Coal Co.	N/A	No	Detailed workings
	304057	1"=400'	Eastern Gas & Fuel Associates	9/14/1945	No	Single line workings
	304140	1"=1000'	Melcroft Coal Co.	N/A	No	Property Map
	304221	1"=500'	The Koppers Coal Co., Melcroft No. 1 Mine	N/A	No	Shows Melcroft No. 2 Mine
	314616	1"=100'	Melcroft Coal Co.	1932	No	Detailed workings
	316177	1"=500'	Map of Drainage Tunnel & Flume	5/12/1927	No	Shows Melcroft Nos. 1 & 2 Mines
	358484	1"=1000'	Eastern Gas & Fuel Associates, Melcroft Mine	8/19/1957	No	Single line workings
<b>DEP</b>	80	1"=500'	Eastern Associated Coal Corp., Melcroft No. 1 Mine	1/1/1960	No	Detailed workings
	2155	Various	Eastern Associated Coal Corp., Melcroft No. 3 Mine	12/24/1966	No	Final Map
<b>BMS</b>	1792					Source map for OSM 314616
	1793					Source map for OSM 304057
	2716					Source map for OSM 304140
	2717					Source map for OSM 303812, 303813, 303814
	3381					Source map for OSM 316177
<b>TOPO-GEO</b>						No maps listed

## **Attachment C**

Annual Report Summary for  
Abandoned Mines Within 1,000 feet of the Rustic Ridge #1 Mine

<i>Section 3.1</i>								
<b>Melcroft No. 3 Mine</b>								
<b>MINE KEY                      D1</b>								
<b>District</b>	<b>Year</b>	<b>Mine Name</b>	<b>Operator Name</b>	<b>Coal Seam(s)</b>	<b>Production</b>	<b>Employees</b>	<b>Days Worked</b>	<b>Footnotes or Comments</b>
	1968							Not listed
	1967							Not listed
13	1966	Melcroft	Eastern Associated Coal Corp.	B	276,336	95	241	(a) Mine closed on December 23, 1966
13	1965	Melcroft	Eastern Associated Coal Corp.	B	417,322	106	264	
23	1964	Melcroft	Eastern Gas & Fuel Associates	B	271,020	68	216	
23	1963	Melcroft	Eastern Gas & Fuel Associates	B	116,686	41	117	
23	1962	Melcroft	Eastern Gas & Fuel Associates	B	199,041	37	214	
23	1961	Melcroft	Eastern Gas & Fuel Associates	B	118,269	31	162	
23	1960	Melcroft	Eastern Gas & Fuel Associates	B	114,913	26	183	
23	1959	Melcroft	Eastern Gas & Fuel Associates	C'	161,294	69	173	
23	1958	Melcroft	Eastern Gas & Fuel Associates	C'	171,563	71	177	
23	1957	Melcroft	Eastern Gas & Fuel Associates	C'	235,626	138	207	

## **Attachment D**

**Table 7.7 - Surface Mines**

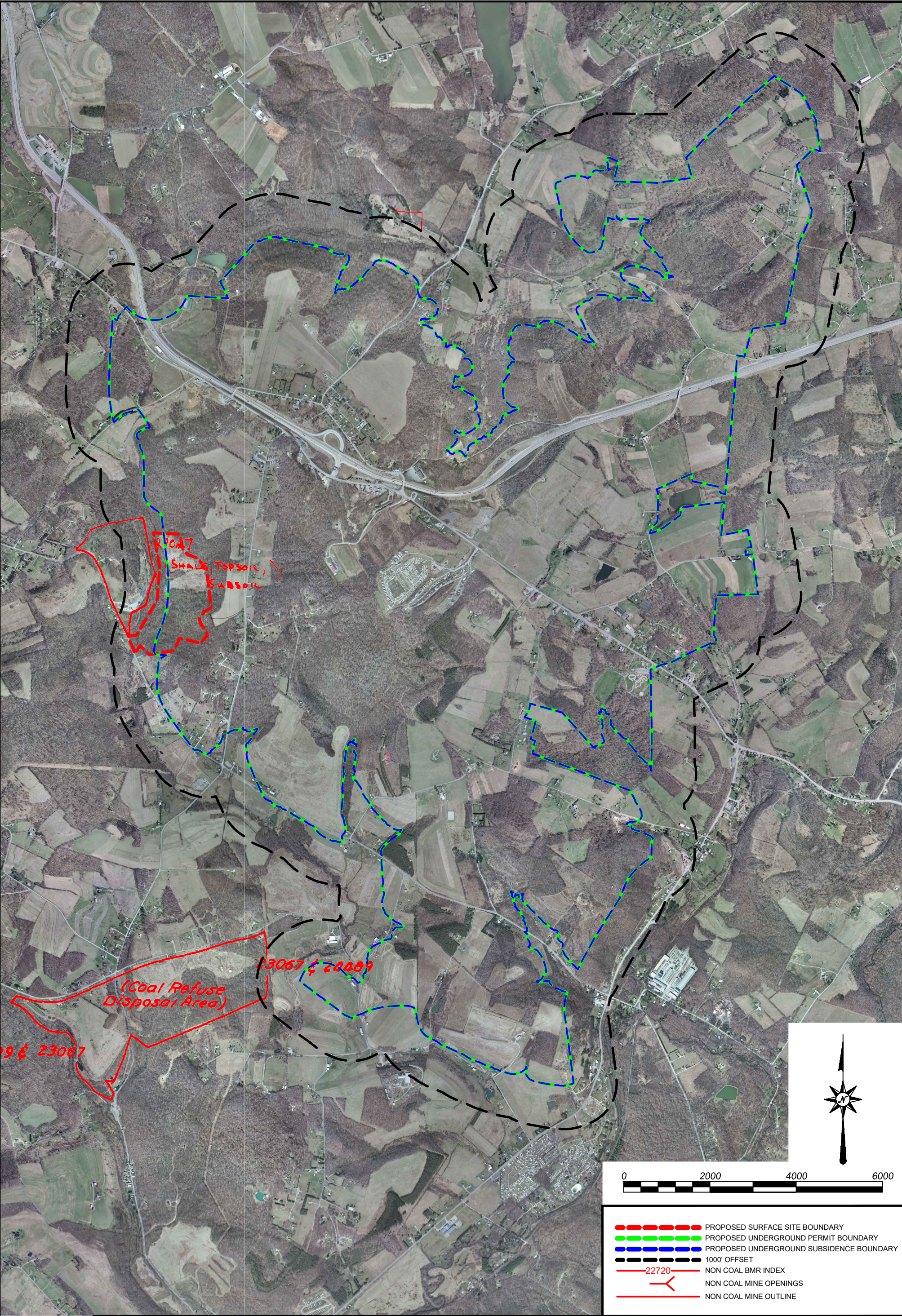
<b>Operator</b>	Milrock Mining, Inc.	Firestone Coal, Inc.	V&B Excavating	Unknown	The Rondell Co.
<b>Site name</b>	Champion #1	Keller	Brown	Unknown	Nedrow Strip
<b>Permit #</b>	3376SM9	34A77SM14	65892305	Unknown	3476SM2
<b>map key</b>	S1	S2	S3	S4	S5
<b>status</b>	Reclaimed	Reclaimed	Active	Reclaimed	Reclaimed
<b>coal seams</b>	E, D, C'	E, D	Shale Pit	Assumed E	Upper Freeport
<b>augering (yes/no)</b>	No	Yes	No	Unknown	Unknown
<b>discharge (yes/no)</b>	No	No	No	No	No

**Table 7.8 - Underground Mines**

<b>Operator</b>	Eastern Associated Coal Corp.	Unknown			
<b>Site name</b>	Melcroft No. 3	Country Bank			
<b>permit #</b>	Unknown	Unknown			
<b>map key</b>	D1	D2			
<b>status</b>	Sealed	Abandoned			
<b>coal seams</b>	Lower Kittanning	Upper Freeport			
<b>opening elevs</b>	1443.9	~1600			
<b>discharge elevs</b>	1441.93	None			
<b>mine pool elevs</b>	1445	None			

## **Exhibit 1**





Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

CME

ENGINEERING

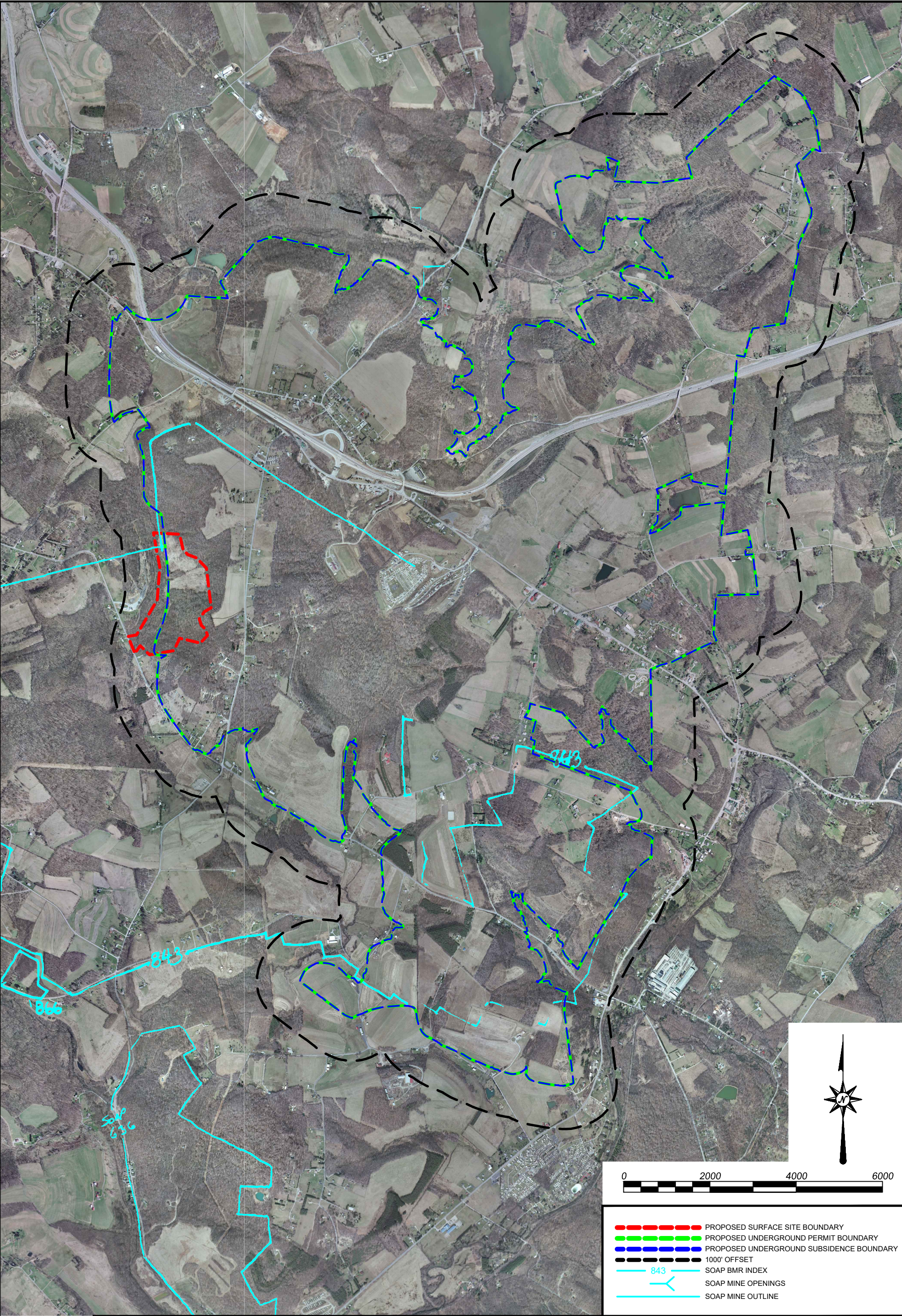
CME ENGINEERING LP

975 Georges Station Rd, Ste 100, Greensburg, PA 15601  
724-672-4800      FAX: 724-672-4801

NON COAL PERMIT OUTLINES

RUSTIC RIDGE #1 MINE  
LOWER KITTANNING COAL SEAM  
CMAA # 65131301      MSHA ID # PENDING  
DONEGAL & SALTICK TOWNSHIPS  
WESTMORELAND & FAYETTE COUNTIES





- PROPOSED SURFACE SITE BOUNDARY
- PROPOSED UNDERGROUND PERMIT BOUNDARY
- PROPOSED UNDERGROUND SUBSIDENCE BOUNDARY
- 1000' OFFSET
- 843 SOAP BMR INDEX
- SOAP MINE OPENINGS
- SOAP MINE OUTLINE



Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

**CME**  
ENGINEERING  
CME ENGINEERING LP

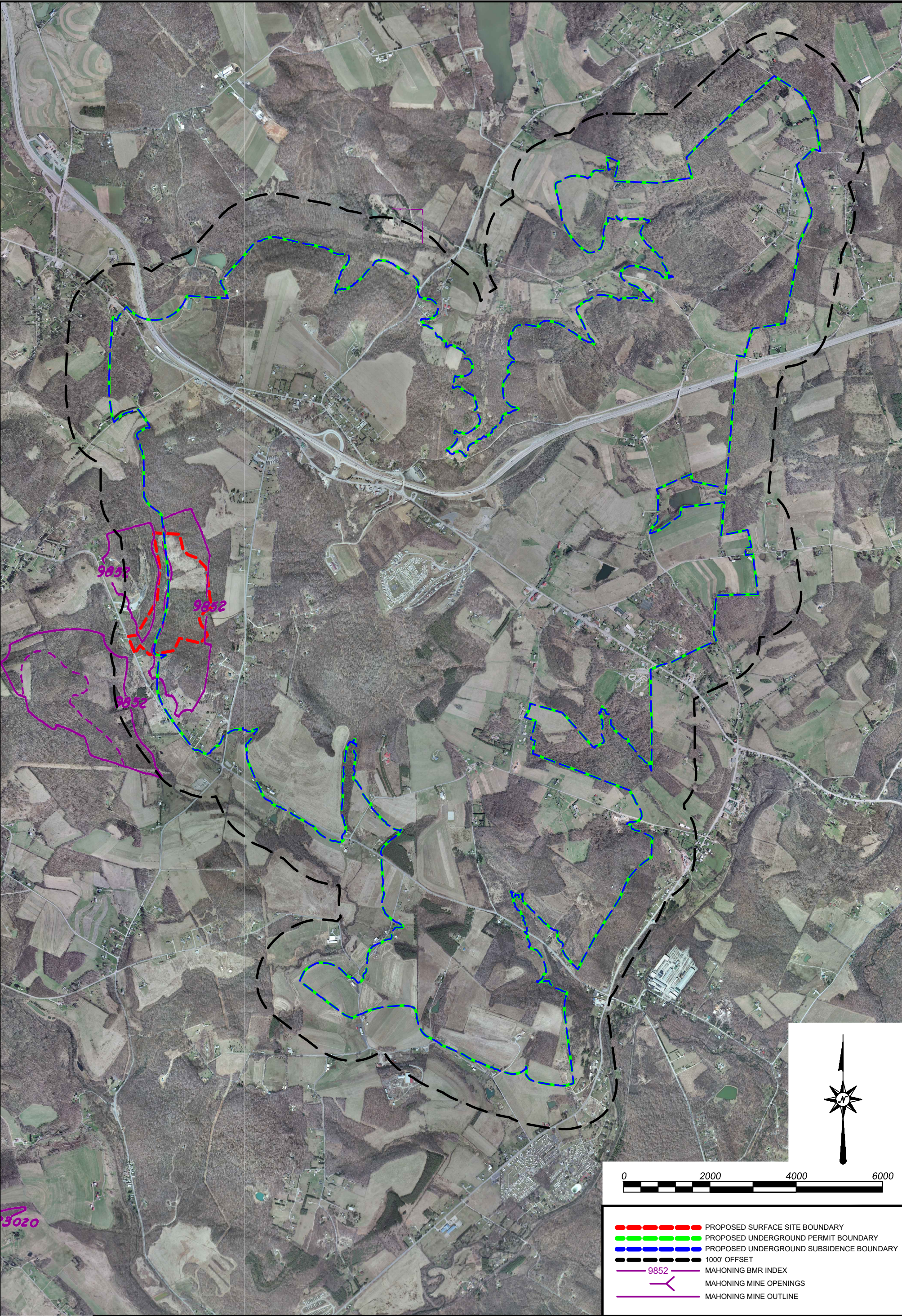
975 Georges Station Rd, Ste 100, Greensburg, PA 15601  
724-672-4800 FAX: 724-672-4801

SOAP PERMIT OUTLINES



RUSTIC RIDGE #1 MINE  
LOWER KITTANNING COAL SEAM  
CMA # 65131301 MSHA ID # PENDING  
DONEGAL & SALTICK TOWNSHIPS  
WESTMORELAND & FAYETTE COUNTIES





Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

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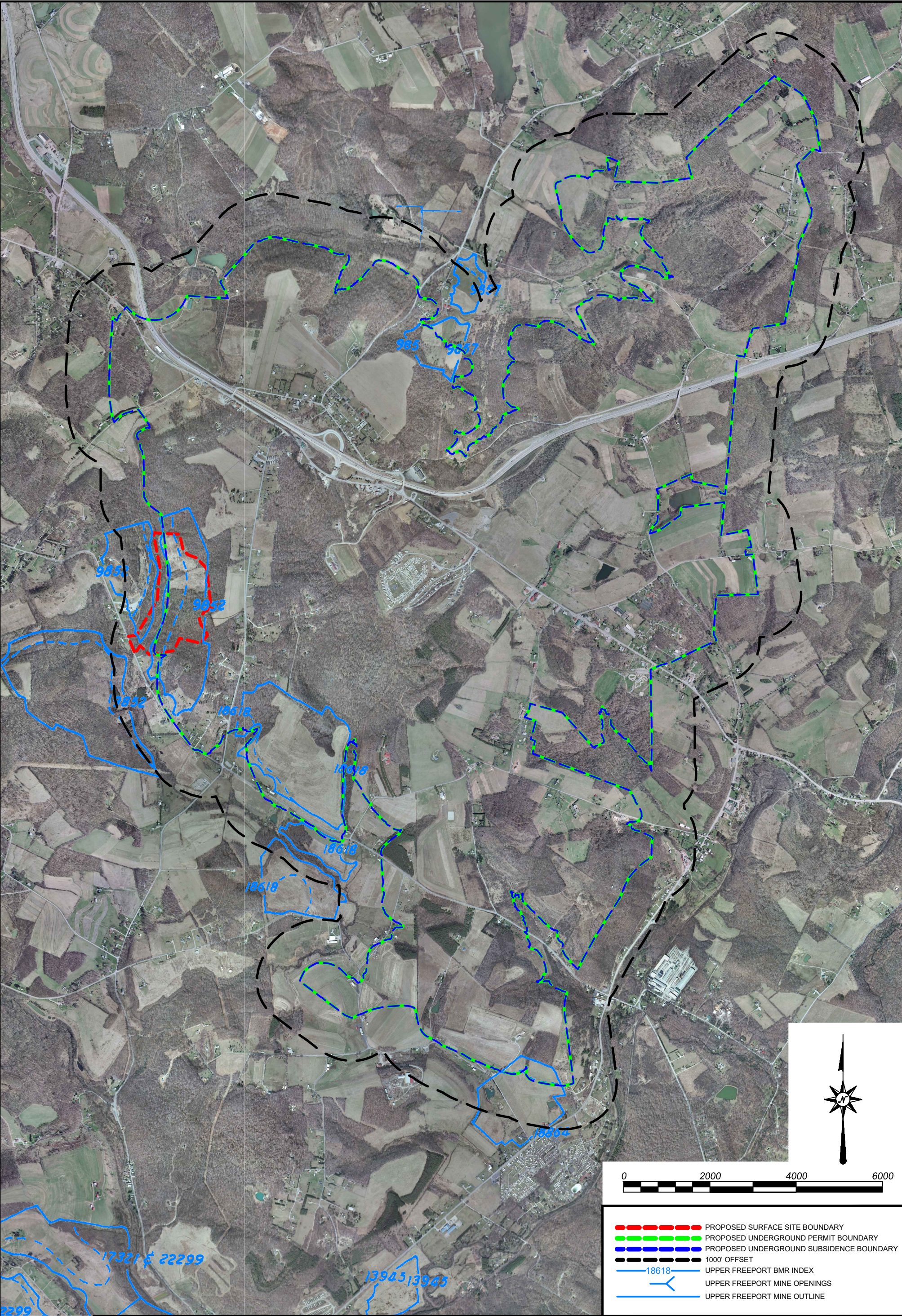
CME ENGINEERING LP

975 Georges Station Rd, Ste 100, Greensburg, PA 15601  
724-672-4800      FAX: 724-672-4801

MAHONING PERMIT OUTLINES

RUSTIC RIDGE #1 MINE  
LOWER KITTANNING COAL SEAM  
CMAP # 65131301      MSHA ID # PENDING  
DONEGAL & SALTICK TOWNSHIPS  
WESTMORELAND & FAYETTE COUNTIES





- PROPOSED SURFACE SITE BOUNDARY
- PROPOSED UNDERGROUND PERMIT BOUNDARY
- PROPOSED UNDERGROUND SUBSIDENCE BOUNDARY
- 1000' OFFSET
- 18618 UPPER FREEPORT BMR INDEX
- UPPER FREEPORT MINE OPENINGS
- UPPER FREEPORT MINE OUTLINE



Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

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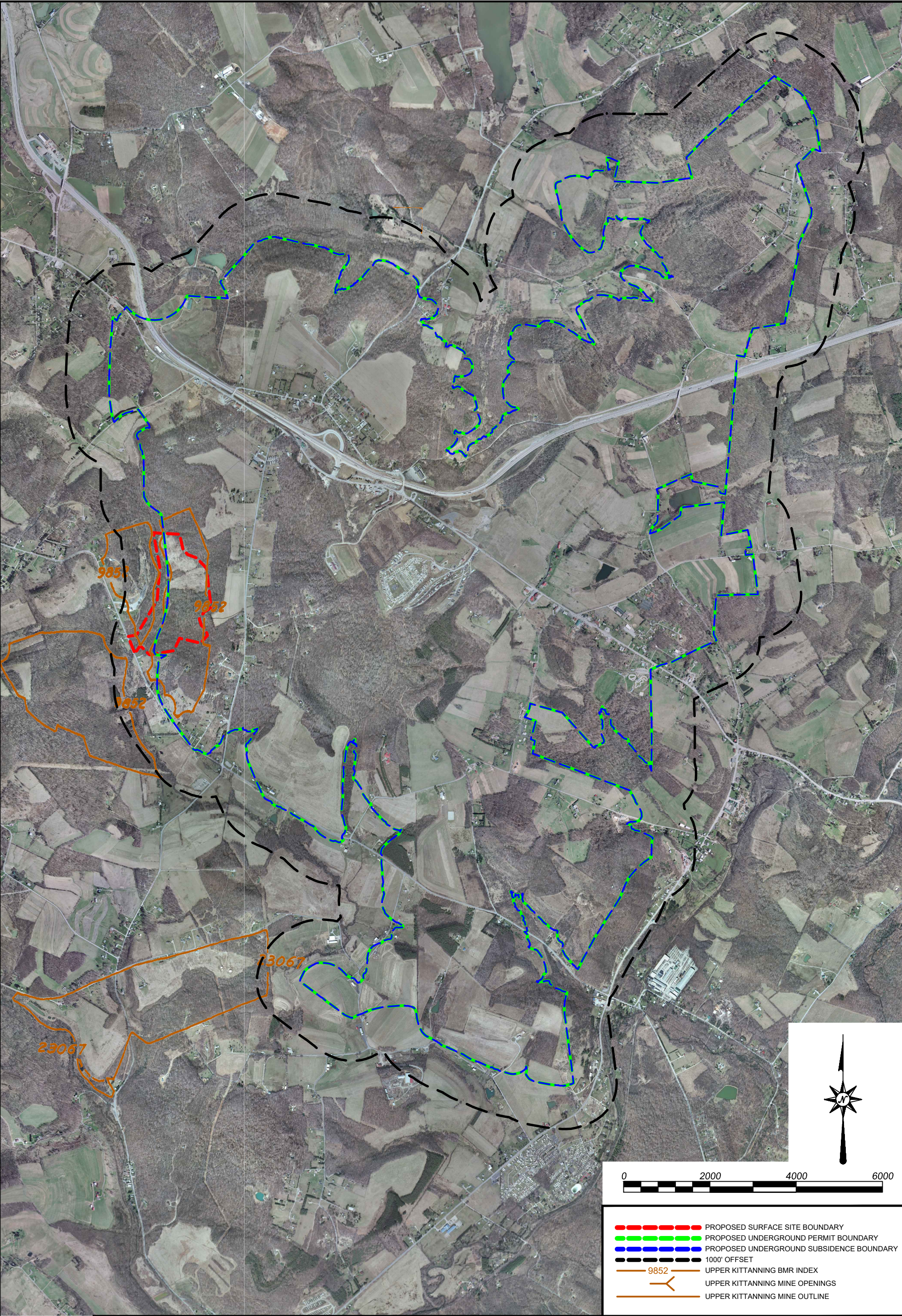
UPPER FREEPORT PERMIT OUTLINES

RUSTIC RIDGE #1 MINE  
LOWER KITTANNING COAL SEAM  
CMAA # 65131301 MSHA ID # PENDING  
DONEGAL & SALTICK TOWNSHIPS  
WESTMORELAND & FAYETTE COUNTIES









- PROPOSED SURFACE SITE BOUNDARY
- PROPOSED UNDERGROUND PERMIT BOUNDARY
- PROPOSED UNDERGROUND SUBSIDENCE BOUNDARY
- 1000' OFFSET
- 9852 UPPER KITTANNING BMR INDEX
- UPPER KITTANNING MINE OPENINGS
- UPPER KITTANNING MINE OUTLINE



Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

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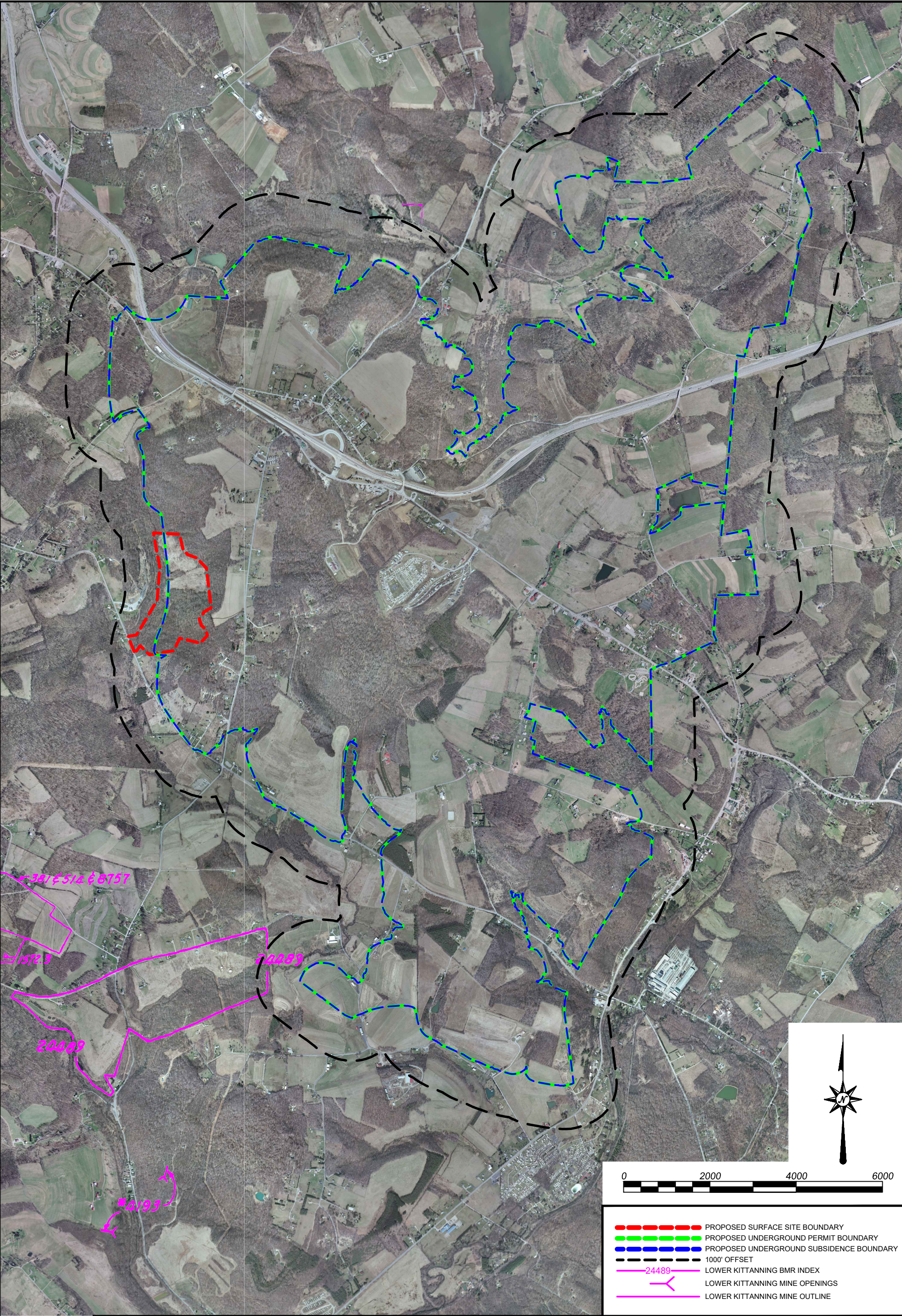
975 Georges Station Rd, Ste 100, Greensburg, PA 15601

724-672-4800      FAX: 724-672-4801

UPPER KITTANNING PERMIT OUTLINES

RUSTIC RIDGE #1 MINE  
LOWER KITTANNING COAL SEAM  
CMAA # 65131301      MSHA ID # PENDING  
DONEGAL & SALTICK TOWNSHIPS  
WESTMORELAND & FAYETTE COUNTIES





20489

20489

20489

20489

0 2000 4000 6000

- PROPOSED SURFACE SITE BOUNDARY
- PROPOSED UNDERGROUND PERMIT BOUNDARY
- PROPOSED UNDERGROUND SUBSIDENCE BOUNDARY
- 1000' OFFSET
- 24489 LOWER KITTANNING BMR INDEX
- LOWER KITTANNING MINE OPENINGS
- LOWER KITTANNING MINE OUTLINE



Drawn By:	JWB
Checked By:	BRC
Date:	3-21-2013
Scale:	1" = 2000'
Project No.:	0721-S160
File Name:	Donegal Mine Study.dwg
Drawing:	1 of 1

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LOWER KITTANNING PERMIT OUTLINES

  
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