

CALENDAR YEAR 1997
SEVENTY-FIFTH ANNUAL REPORT
of the
MARYLAND BUREAU OF MINES



HON. PARRIS N. GLENDENING
Governor of Maryland

DEPARTMENT OF THE ENVIRONMENT
JANE T. NISHIDA, Secretary

WATER MANAGEMENT ADMINISTRATION
J. L. HEARN, Director

MINING PROGRAM
C. EDMON LARRIMORE, Director

BUREAU OF MINES
JOHN E. CAREY, Director



MARYLAND DEPARTMENT OF THE ENVIRONMENT

2500 Broening Highway • Baltimore Maryland 21224
(410) 631-3000 • 1-800-633-6101 • <http://www.mde.state.md.us>

Parris N. Glendening
Governor

Jane T. Nishida
Secretary

Water Management Administration
Bureau of Mines
160 South Water Street • Frostburg, Maryland 21532
Telephone: (301)636-6106

A MESSAGE FROM THE SECRETARY

Protecting and restoring Maryland's environment requires the participation and cooperation of all members of society, including businesses, citizens, and all levels of government. MDE's primary mission is to protect and restore the quality of Maryland's air, water and land resources for the benefit of the environment, public health and future generations, while also supporting and balancing economic development to ensure an excellent quality of life for all Marylanders. We believe that a strong economy and a clean environment, not only go hand-in-hand, but are mutually reinforcing. The information in this publication is designed to increase your understanding of our programs.

Jane T. Nishida

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	1
Mining Program Personnel.	2
Summary of Statistics - Coal Production	3
Summary of Statistics - Employees	3
Tonnage by Coal Seams, County and Basin	4
Historical Coal Production.	5
Production, Mining, and Reclamation Statistics by Permit.	6
Summary of Land Mined, Backfilled and Planted	10
Licenses, Permits, Forfeitures, and Completions	11
Land Reclamation Committee Membership	12
Land Reclamation Committee Functions and Duties	13
Revegetation of Surface Mined Land.	14
Abandoned Mine Land Reclamation	15
Mine Foreman and Fire Boss Examinations and Certifications.	16
Inspection and Enforcement Activities	16
Mining Permits Issued by Year and Permittee	19

EXECUTIVE SUMMARY

During Calendar Year 1997, Maryland operators produced 4,156,651 tons of coal. Surface coal mine production was 882,483 tons--614,589 in Allegany County and 267,894 in Garrett County. Deep coal mine production was 3,274,188, all in Garrett County.

During calendar year 1997, two new permits were issued and 6 permit amendments were issued. Two hundred seventy-nine acres were permitted.

One hundred thirty-two acres were affected, 228 acres backfilled, and 224 acres planted. Bond was released on 148.5 acres. Seven permits were completed, with bond being totally released. There were no permits forfeited.

Nine hundred ninety inspections were performed on coal mining operations. Eleven Notices of Violations were issued. Seven Citizen Complaints were received and investigated.

The Land Reclamation Committee met 6 times and approved 1 reclamation plan. The Committee also evaluated the revegetation on 278 acres eligible for Phase II bond release and approved 165 acres as meeting the standards for release.

During 1997, grants awarded to Maryland by the U.S. Department of Interior, Office of Surface Mining, provided \$2,584,375 for the reclamation of abandoned mine lands. Approximately 82 acres of abandoned mine lands were reclaimed.

FOR CALENDAR YEAR 1997

MINING PROGRAM

C. Edmon Larrimore. Director, Mining Program

Laboratory and Administrative Services

Ruth D. Booth. Administrator
 Robert Harris. Office Secretary II
 Sallie A. Shuman Administrative Specialist II
 Mary Lynn Pegg Laboratory Scientist V
 Julie O'Connor Chemist III

BUREAU OF MINES

John E. Carey. Director, Bureau of Mines

Coal Permitting Section

Stephen M. Layton. Section Chief
 Mark Carney. Water Resources Engineer III
 Alan V. Hooker Administrator II

Land Restoration Section

John C. Eilers Section Chief
 Michael P. Garner. Energy Resources Officer IV
 Tobias C. Joy. Energy Resources Officer I
 Bradley Nee. Water Resources Engineer III

Water Restoration Section

Constance A. Lyons Energy Resources Officer III
 Edward Lyons Conservation Associate
 Joseph E. Mills. Environmental Specialist IV

Revegetation Section

Fred L. Bagley Administrator II

Mining Inspection and Compliance

Raymond Karlstrand Field Supervisor
 Larry Johnson. Environmental Inspector II
 Thomas P. Murray Environmental Inspector II

FOR THE CALENDAR YEAR 1997

REPORT OF THE MARYLAND BUREAU OF MINES

Coal production in Maryland during 1997 totalled 4,156,651.37 tons. Production for 1997 represents an increase of 193,798.10 tons from the 1996 production of 3,962,853.27 tons.

SUMMARY OF 1997 STATISTICS¹

COAL PRODUCTION

Mining Method	Allegheny County	Garrett County	Total
Strip	614,588.94	267,894.42	882,483.36
Deep00	3,274,188.01	3,274,188.01
Auger00	.00	.00
TOTALS	614,588.94	3,542,082.43	4,156,671.37

EMPLOYEES²

Type of Mine	Allegheny County	Garrett County	Total
Deep	0	309	309
Strip	163	54	217
TOTALS	163	363	526

¹Reports submitted by Maryland mining operators.

²These figures do not include office, supervisory personnel or independent truck haulers.

FOR THE CALENDAR YEAR 1997
TONNAGE BY COAL SEAMS

Allegany County	
Waynesburg	4,467.28
Sewickley (Tyson)	21,197.50
Redstone	100,245.03
Pittsburgh	342,220.42
Morantown	43,342.71
L. Pittsburgh	20,276.82
Franklin	41,159.18
Harlem	0
Bakerstown	1,500.00
Freeport	0
Kittanning	0
Federal Hill	0
Barton	0
TOTAL	614,588.94

Garrett County	
Sewickley	187.38
Pittsburgh	9,273.45
Morantown	9,744.40
L. Pittsburgh	14,883.94
Franklin	41,792.62
Barton	912.05
Elk Lick	0
Harlem	0
Bakerstown	302,708.00
Brush Creek	0
Freeport	3,069,444.58
Kittanning	92,433.08
Redstone	682.93
TOTAL	3,542,062.43

TONNAGE BY BASIN	
Lower Youghiogheny	0
Upper Youghiogheny	0
Casselman	0
Casselman (Cherry Creek)	0
Potomac	3,494,971.78
George's Creek	661,679.59
TOTAL	4,156,651.37

HISTORICAL COAL PRODUCTION BY COUNTY AND TYPE OF MINING

YEAR	ALLEGANY CO.		GARRETT CO.		STATE TOTAL	
	STRIP*	DEEP	STRIP*	DEEP	TOTAL	TOTAL
1997	614,588.94	---	267,874.42	3,274,188.01	3,542,062.43	4,156,651.37
1996	599,799.11	---	176,706.53	3,186,347.63	3,363,054.16	3,962,853.27
1995	633,185.42	---	147,775.51	2,848,570.41	2,996,345.72	3,629,531.34
1994	631,249.25	---	165,890.01	2,803,048.97	2,968,938.98	3,600,188.23
1993	507,668.57	---	341,867.55	2,507,016.83	2,848,884.38	3,356,552.95
1992	698,015.37	---	357,935.69	2,383,314.12	2,741,249.81	3,439,265.18
1991	781,671.55	---	378,832.57	2,542,364.32	2,921,196.89	3,702,868.44
1990	1,056,810.54	---	457,300.32	1,999,527.34	2,456,827.66	3,513,638.20
1989	867,025.49	---	675,160.16	1,826,443.65	2,501,603.81	3,368,629.30
1988	562,139.94	---	642,948.91	2,014,828.42	2,657,777.33	3,219,917.27
1987	790,903.09	---	810,166.55	2,332,554.30	3,142,720.85	3,933,623.94
1986	696,377.39	---	786,429.97	2,572,505.11	3,358,935.08	4,055,312.47
1985	543,960.99	---	676,274.41	1,842,595.67	2,518,870.08	3,062,831.07
1984	730,135.35	---	1,145,507.03	2,117,657.44	3,263,164.47	3,993,399.82
1983	568,716.82	---	981,550.36	1,536,568.39	2,518,118.75	3,086,835.57
1982	814,102.63	---	1,058,360.96	1,587,428.07	2,645,789.03	3,459,891.66
1981	1,275,576.42	---	1,272,911.65	1,903,071.24	3,175,982.89	4,451,559.31
1980	1,122,817.48	---	1,143,643.80	1,493,630.97	2,637,274.77	3,760,092.25
1979	761,655.93	---	1,067,880.13	887,781.01	1,954,961.14	2,716,617.07
1978	1,082,370.39	---	1,389,878.69	379,872.61	1,768,951.50	2,851,321.89
1977	1,181,181.11	---	1,586,353.70	261,094.85	1,847,448.55	3,028,629.66

*Figure includes coal removed by the auger method.

CALENDAR YEAR 1997
COAL PRODUCTION, MINING AND RECLAMATION STATISTICS*

*This table includes all permits on which there was production, mining, backfilling or piling activity. This table does not include permits on which all bonds have been released or forfeited, or permits on which bonds are still held but no production or mining or reclamation activity occurred.

ALLEGANY COUNTY

Name of Operator	Permit Number	Coal Seam Worked	PRODUCTION (TONS)			Acres Backfilled	Acres Piled
			Deep	Strip	Auger		
Barton Mining Co., Inc.	338	Pittsburgh		53,351.00	1.0	7.0	10.0
		L.Pittsburgh		13,653.00	0.0	0.0	0.0
		Rockstone		6,729.00	0.0	0.0	0.0
		Moranstown		20,896.00	0.0	0.0	0.0
		Pittsburgh		3,239.00	0.0	0.0	0.0
	427	Moranstown		3,690.00	0.0	0.0	0.0
Brushner Coal Mines	264	Pittsburgh		12,800.00	3.0	3.0	3.0
		Franklin		40,481.44	0.0	0.0	0.0
		Balsamtown		1,500.00	1.9	0.0	0.0
Buffalo Coal Co., Inc.	328	Pittsburgh		0.00	0.0	2.0	2.0
		Pittsburgh		56,105.04	8.0	26.0	26.0
		Rockstone		10,005.54	0.0	0.0	0.0
		Moranstown		11,094.92	0.0	0.0	0.0
			422				
Cape Coal Co., Inc.	213	Weynesburg		17,250.24	3.0	6.0	6.0
	315	Swanickley		0.00	2.0	9.0	10.0
Coburn Mining, Inc.	184	Franklin		677.74	0.0	0.0	0.0
Fairview Coal Co.	360	Pittsburgh		3,090.25	0.0	0.0	0.0
		Moranstown		1,173.34	0.0	0.0	0.0
		Rockstone		3,699.38	0.0	0.0	0.0
Jenkins Development Co., Inc.	411	Weynesburg		27,397.04	3.0	3.0	3.0
		Swanickley		0.00	0.0	0.0	0.0

Name of Operator	Permit Number	Coal Seam Worked	PRODUCTION (TONS)			Acres Backfilled	Acres Piled
			Deep	Strip	Auger		
Pittston Mining Co., Inc.	353	Pittsburgh		0.00	1.0	8.0	8.0
Tri-River Mining, Inc.	419	Pittsburgh		30,443.93	0.0	0.0	0.0
		L.Pittsburgh		4,823.82	0.0	0.0	0.0
		Moranstown		5,488.82	0.0	0.0	0.0
		Rockstone		4,485.09	0.0	0.0	0.0
		Swanickley		12,294.51	0.0	0.0	0.0
Wills-More Mining & Const., Inc.	273	Pittsburgh		4,457.25	0.0	0.0	0.0
		Rockstone		3,918.43	0.0	0.0	0.0
		Swanickley		138.39	0.0	0.0	0.0
		Moranstown		635.11	0.0	0.0	0.0
		Pittsburgh		203.00	2.0	4.0	8.0
Wheeler Bros. Coal Co., Inc.	40	Moranstown		138.42	0.0	0.0	0.0
		Rockstone		1,122.46	0.0	0.0	0.0
		Pittsburgh		63,857.99	18.0	11.0	11.0
		Rockstone		4,876.25	0.0	0.0	0.0
		Swanickley		2,872.95	0.0	0.0	0.0
Wheeler Bros. Coal Co., Inc.	207	Pittsburgh		1,887.17	0.0	10.0	10.0
	247	Pittsburgh		80,918.48	11.0	10.0	10.0
Wheeler Bros. Coal Co., Inc.	318	Swanickley		5,893.05	0.0	0.0	0.0
		Rockstone		25,320.98	0.0	0.0	0.0
		Swanickley		0.00	0.0	8.0	0.0
		Pittsburgh		18,038.80	0.0	0.0	0.0
		Rockstone		4,888.99	0.0	0.0	0.0
Wheeler Bros. Coal Co., Inc.	389	Rockstone		3,340.45	0.0	0.0	0.0
	407	Pittsburgh		10,890.40	1.9	0.0	0.0
Wheeler Bros. Coal Co., Inc.	414	Swanickley		98.90	0.0	0.0	0.0
		Rockstone		18,941.44	0.0	0.0	0.0
		Pittsburgh		2,888.41	0.0	0.0	0.0
		Rockstone		14,877.90	0.0	0.0	0.0
TOTAL ALLEGANY COUNTY			0.00	614,588.94	61.0	104.0	101.5

CALENDAR YEAR 1987
COAL PRODUCTION, MINING AND RECLAMATION STATISTICS*

*This table includes all permits on which there was production, mining, backfilling or planning activity. This table does not include permits on which all bonds have been released or forfeited, or permits on which bonds are still held but no production or mining or reclamation activity occurred.

GARRETT COUNTY

Name of Operator	Permit Number	Coal Seam Worked	PRODUCTION (TONS)		Auger	Acres Affected	Acres Backfilled	Acres Planned
			Deep	Strip				
Buffalo Coal Co., Inc.	367	Kilnaring Freeport	5,133.46	103,415.96		5.0	0.0	0.0
G & S Coal Co., Inc.	325	Barton	0.00			0.0	25.0	25.0
	365	Freeport	16,295.06			3.0	27.0	27.0
	421	Kilnaring Franklin	24,733.43	23,544.19		0.0	0.0	0.0
Master Coal Co.	DM110	Kilnaring	62,596.19			0.0	0.0	0.0
	DM101	Freeport	2,602,883.82			0.0	8.0	8.0
Parkol Mining Co., Inc.	DM109	Bakertown	352,708.00			0.0	0.0	0.0
Pine Mt. Coal Co., Inc.	424	Pittsburgh Morristown Radstone	4,861.83	4,458.10		3.0	0.0	0.0
			107.95			0.0	0.0	0.0
Tri-Star Mining, Inc.	419	Pittsburgh	4,321.82			19.0	28.0	24.0
		L-Pittsburgh	10,885.17			0.0	0.0	0.0
		Morristown	5,295.30			0.0	0.0	0.0
		Steckley	187.38			0.0	0.0	0.0
		Radstone	574.98			0.0	0.0	0.0
425	U-Freeport	40,538.94			10.0	6.0	6.0	

Name of Operator	Permit Number	Coal Seam Worked	PRODUCTION (TONS)		Auger	Acres Affected	Acres Backfilled	Acres Planned
			Deep	Strip				
Tri-Star Mining, Inc.	426	L-Pittsburgh Barton Franklin	4,018.77	912.06		0.0	0.0	0.0
	429	Franklin	1,811.11	16,337.32		0.0	0.0	0.0
						19.0	4.0	4.0
J. Walker Wessel	410	Bakertown	0.00			3.0	15.0	15.0
TOTAL GARRETT COUNTY			3,274,188.01	287,894.42	0.00	71.00	124.00	122.00
TOTAL ALLEGANY COUNTY			0.00	814,065.94	0.00	81.0	104.0	101.5
TOTAL BOTH COUNTIES			3,274,188.01	862,463.36	0.00	152.00	228.0	223.5

**FOR CALENDAR YEAR 1997
SUMMARY OF LAND MINED, BACKFILLED, AND PLANTED IN 1997
(By Geological Basin)**

	ACRES THIS YEAR				Bond Released*
	Permitted	Affected	Backfilled	Planted	
Allegheny County:					
Georges Creek Basin	24.00	61.00	104.00	101.50	16.50
Garrett County:					
Georges Creek Basin	76.00	43.00	45.00	43.00	49.00
Potomac River Basin	179.00	28.00	79.00	79.00	83.00
Casselman River Basin**	0.00	0.00	0.00	0.00	0.00
Cherry Creek Basin	0.00	0.00	0.00	0.00	0.00
Upper Yough Basin	0.00	0.00	0.00	0.00	0.00
Lower Yough Basin	0.00	0.00	0.00	0.00	0.00
TOTAL GARRETT COUNTY	255.00	71.00	124.00	122.00	132.00
TOTAL BOTH COUNTIES	279.00	132.00	228.00	223.50	148.50

ACRES CUMULATIVE FROM JANUARY 1, 1975 - DECEMBER 31, 1997

Allegheny County:					
Georges Creek Basin	6,499.00	5,091.00	4,679.47	4,749.30	3,726.00
Garrett County:					
Georges Creek Basin	2,409.00	2,412.95	2,229.85	2,491.05	2,351.10
Potomac River Basin	4,266.00	3,260.70	3,433.80	3,557.70	3,624.10
Casselman River Basin**	1,416.60	1,135.00	1,260.50	1,142.20	1,230.80
Cherry Creek Basin**	667.00	671.50	578.90	545.80	659.95
Upper Yough Basin	216.00	157.35	215.35	189.3	261.5
Lower Yough Basin	1,335.00	914.00	1,135.06	1,078.16	855.40
TOTAL GARRETT COUNTY	10,309.60	8,551.50	8,853.46	9,004.21	8,982.85
TOTAL ALLEGANY COUNTY	16,808.60	13,642.50	13,532.93	13,753.51	12,708.85

*Total Bond Release by the Bureau.

**Total Casselman Geological Basin.

FOR CALENDAR YEAR 1997

SUMMARY OF LICENSES, PERMITS, FORFEITURES, AND COMPLETIONS

YEAR	NEW OPERATORS' LICENSES ISSUED	NEW SURFACE MINE PERMITS PROCESSED		NEW DEEP MINE PERMITS PROCESSED		AMENDED PERMITS PROCESSED		FORFEITURES	PERMITS TOTALLY RELEASED
		NEW SURFACE MINE PERMITS PROCESSED	NEW SURFACE MINE PERMITS PROCESSED	NEW DEEP MINE PERMITS PROCESSED	NEW DEEP MINE PERMITS PROCESSED	AMENDED PERMITS PROCESSED	AMENDED PERMITS PROCESSED		
1997	0	4	0	0	0	9	0	0	7
1996	0	7	0	0	0	12	1	1	3
1995	0	7	0	0	0	16	0	0	4
1994	0	10	0	0	0	13	2	2	6
1993	5	6	0	0	0	18	2	2	2
1992	3	3	1	1	16	2	2	3	3
1991	2	10	1	1	16	0	0	7	7
1990	2	3	1	1	3	1	1	3	3
1989	4	5	0	0	7	2	2	5	5
1988	2	1	0	0	1	2	2	6	6
1987	1	7	0	0	3	0	0	7	7
1986	4	6	0	0	1	1	1	11	11
1985	8	6	0	0	7	1	1	5	5
1984	5	7	0	0	4	3	3	9	9
1983	13	12	0	0	11	0	0	11	11
1982	8	11	1	1	15	0	0	16	16
1981	10	0	0	0	11	1	1	16	16
1980	6	19	0	0	19	5	5	15	15
1979	8	7	0	0	8	4	4	19	19

FOR THE CALENDAR YEAR 1997
LAND RECLAMATION COMMITTEE

Members:

The following members served on the Land Reclamation Committee during 1997:

DEPARTMENT OF THE ENVIRONMENT REPRESENTATIVES:

David Fluke (Chairman), Hazardous and Solid Waste Management Administration

Stephen M. Layton, Bureau of Mines

DEPARTMENT OF NATURAL RESOURCES REPRESENTATIVES:

Ed Golden, Wildlife Division

Robert Webster, Forestry Division

Robert Davis, Freshwater Fisheries (1/1/97 - 7/1/97)

Alan Klotz, Freshwater Fisheries (7/1/97 - present)

CITIZEN REPRESENTATIVES:

June Neder, Allegany County (1/1/97 - 4/30/97)

Edgar Harman, Garrett County (7/1/97 - present)

Robert Davis, Allegany County (7/1/97 - present)

COUNTY REPRESENTATIVES:

Margaret Jamison, Garrett County

Tim Carney, Allegany County

SOIL CONSERVATION DISTRICT REPRESENTATIVES:

Craig Hartssock, Allegany Soil Conservation District

Shaun Sanders, Garrett Soil Conservation District

COAL INDUSTRY REPRESENTATIVES:

Jerry Duckett

Tim Schwinabart

FOR THE CALENDAR YEAR 1997

Functions and Duties of the Committee:

The Land Reclamation Committee is responsible for the approval of all reclamation plans submitted, as part of an application for a permit, to the Bureau of Mines and for the oversight of land reclamation activities on surface coal mining operations in Maryland.

The Land Reclamation Committee visits proposed and active mining sites to:

- (1) determine the suitability of proposed reclamation plans;
- (2) review mining and reclamation progress; and
- (3) evaluate the success of revegetation practices.

During 1997, the Land Reclamation Committee conducted site visits on 6 days. These visits included field reviews of 2 proposed mining sites, 29 revegetation planting reports, 1 abandoned mine land (AML) field review, and 1 special field visit.

The Land Reclamation Committee conducts meetings to:

1. Review and approve reclamation plans;
2. Review reclamation progress on active mining permits;
3. Evaluate the revegetation on areas eligible for Phase II bond release;
4. Review the surface coal mining laws, regulations and policies and recommend changes to improve effectiveness of the Maryland Regulatory program; and
5. Recommend research and cost-sharing projects to promote optimum revegetation of surface coal mined lands.

During 1997, the Land Reclamation Committee met 6 times. During these meetings, the Land Reclamation Committee approved 1 reclamation plan, evaluated 278 acres of revegetation eligible for Phase II bond release, approved 165 acres as meeting the standards for release, and approved three land-use changes.

FOR THE CALENDAR YEAR 1997

REVEGETATION OF SURFACE MINED LANDS

A permittee must submit a backfilling and planting report to the Bureau of Mines after planting is completed. When this report is approved by the Bureau, a minimum bond liability period of five years begins. All reclaimed permit areas may have bonds reduced (Phase II) after two years, and totally released (Phase III) after five years from the approved planting date. The Phase II bond may be released when:

1. The revegetated area is not contributing suspended solids to stream flow or runoff outside of the permit area in excess of the requirements of the regulatory program;
2. All temporary drainage control structures are removed and the affected area is regraded, seeded and mulched; or all permanent structures are inspected and any deficiencies are repaired;
3. With respect to prime farmlands, soil productivity has been returned to the level of yield required;
4. Revegetation has been established in accordance with the approved reclamation plan and the standards for success of revegetation have been met; and

When all of the above requirements have been achieved, a longer evaluation time may still be required if the health conditions of the revegetation are questionable. The Phase III bond on an area may be released when the permittee has successfully completed reclamation operations in accordance with the approved reclamation plan, achieved compliance with the requirements of the regulatory program, and the applicable liability period has expired.

Bonds cannot be released until the required work is completed, the appropriate evaluation time has elapsed, and the permittee submits a complete application for bond release to the Bureau. During 1997, the Bureau released Phase II bond on 198 acres, Phase III bond on 148.5 acres, and totally released bond on seven permits.

In January of each year, a listing of acres eligible for Phase II and Phase III bond releases during the calendar year is compiled and available from the Bureau of Mines.

FOR CALENDAR YEAR 1997
ABANDONED MINE LAND RECLAMATION

The Maryland Bureau of Mines administers two programs to reclaim and/or restore land and water resources adversely affected by past coal mining practices. These two programs are: (1) Maryland-Federal Abandoned Mine Reclamation Program, implemented utilizing Federal funds available under the Federal Surface Mining Control and Reclamation Act of 1977 (U.S. Public Law 95-87) under the authority of Environment Article, Title 15, Subtitle 9 of the Annotated Code of Maryland, and (2) Maryland Mine Reclamation Program implemented utilizing funds from the Bituminous Coal Open-Pit Mining Reclamation Fund (BCOMRF) under the authority of Environment Article, Title 15, Subtitle 5; the Deep Mining Fund under the authority of Environment Article, Title 15, Subtitle 6; and the Mine Reclamation and Water Quality Restoration Loan under the authority of Environment Article, Title 15, Subtitle 7.

Maryland - Federal Abandoned Mine Reclamation Program

The Maryland Abandoned Mine Land Reclamation Plan received Federal approval on July 16, 1982, thus enabling Maryland to receive Federal funds for the reclamation of abandoned mine lands. During 1997, grants awarded to Maryland by the U.S. Department of Interior, Office of Surface Mining, provided \$2,584,375 for the reclamation of abandoned mine lands. Approximately 82 acres of abandoned mine lands located in Allegany and Garrett Counties, Maryland were reclaimed during the 1997 calendar year.

AML Projects Under Construction During 1997

1. **Vindex Refuse Abandoned Mine Reclamation Project**
Location: Approximately 1.9 miles north of Kitzmiller, Garrett County, on the east side of MD State Rt. 38, between the towns of East and West Vindex.
Size: 74 Acres
Nature: Reclamation of 74 acres of abandoned surface mine to eliminate dangers associated with several hazardous water bodies, dangerous highwalls, unstable spoil, and hazardous garbage, equipment and structures.
Cost: \$3,174,440.00
Fund Source: Maryland- Federal AML Fund

2. **Waverly Street Landslide Stabilization Project**
 Location: Approximately .5 miles north of Westernport, Allegany County, on the west side of Md State Rt. 36, just north of Waverly Street.
 Size: 6 Acres
 Nature: Stabilization of a landslide located within the right-of-way of MD State Rt. 36, to eliminate health and safety hazards to vehicular traffic and adjacent residences. The landslide was caused by drainage from an abandoned coal deep mine. Construction was coordinated for the Bureau of Mines by the MD State Highway Administration under a cooperative agreement.
 Cost: \$1,830,000.00
 (MDE-WMA-Bureau of Mines Fund - \$365,000)
 Fund Source: Maryland-Federal AML Fund

3. **Metz Water Supply Replacement Project**
 Location: Approximately .5 miles east of Barton, Allegany County, at Dogwood Flats.
 Nature: Replacement of a potable source of drinking water to two residences whose wells were contaminated by drainage from an abandoned coal deep mine. Construction was completed for the Bureau of Mines by the Town of Lonaconing under a cooperative agreement.
 Cost: \$31,725.00
 Fund Source: Maryland-Federal AML Fund

5. **MD State Rt. 135 Landslide Stabilization Project**
 Location: .5 miles west of Bloomington, Garrett County, on the east side of MD State Rt. 135.
 Size: 1 Acre
 Nature: Stabilization of a landslide located adjacent to and beneath the east bound lane of MD State Rt. 135, to eliminate health and safety hazards to vehicular traffic and adjacent residences. The landslide was caused by drainage from an abandoned coal deep mine. Construction was coordinated for the Bureau of Mines by the MD State Highway Administration under a cooperative agreement.
 Cost: \$875,120.00
 (MDE-WMA-Bureau of Mines Funding - \$425,000)
 Fund Source: Maryland-Federal AML Fund

5. **Ross/Davis Water Supply Replacement Project**
 Location: 1.5 miles northwest of Midland, Allegany County on the west side of MD State Rt. 36.
 Nature: Provide a potable source of drinking water to two residences whose wells had been contaminated by Acid Mine Drainage from an abandoned surface mine. Construction was coordinated for the Bureau of Mines by the Allegany County Department of Public Works under cooperative agreement.
 Cost: \$129,113.00
 (MDE-WMA-Bureau of Mines Funding \$115,500.00)
 Fund Source: Maryland-Federal AML Fund

Forfeiture Reclamation

The Maryland Bureau of Mines administers the reclamation of lands affected by operations on which the permit has been revoked and the bond forfeited. The funds received from the forfeiture of bonds and the bond supplement reserve, when the bond is not sufficient, are used to reclaim the lands affected by operations on which the liability was charged on the bonds.

Forfeiture Projects Under Construction During 1997

None.

FOR CALENDAR YEAR 1997

MINE FOREMAN AND FIRE BOSS
EXAMINATIONS AND CERTIFICATIONS

The number of Mine Foremen and Fire Boss applicants examined and certified from 1983 through 1997 are identified below.

YEAR	APPLICANTS EXAMINED		APPLICANTS CERTIFIED	
	Mine Foreman	Fire Boss	Mine Foreman	Fire Boss
1997	18	5	18	5
1996	0	0	4	0
1995	0	0	14*	0
1994	24	4	24	4
1993	25	8	25	8
1992	0	0	5*	0
1991	6	0	6	0
1990	19	4	18	4
1989	0	0	25*	0
1988	15	0	11	0
1987	0	0	10*	0
1986	0	0	25*	0
1985	0	0	11*	0
1984	0	0	0	0
1983	1	26	1	21

*These applicants were upgraded from Fire Boss to Foreman, based on years of experience, without taking an examination.

INSPECTION AND ENFORCEMENT ACTIVITIES
1993-1997

TYPE OF ACTION	1993	1994	1995	1996	1997
Inspections	1320	1216	1073	991	990
Notices of Violations	63	31	8	5	11
Cessation Orders	27	11	15	0	1
Citizen Complaints	38	36	44	33	7
Bond Forfeitures	2	2	0	1	0

MINING PERMITS ISSUED BY YEAR AND PERMITTEE

Permit No.	Year Issued	Permittee
1	1955	The George's Creek Lumber Company*
2	1955	Allegany Engineering Company*
3	1955	B.M.W. Coal Company*
4	1955	Old Hampshire Coal Company, Inc.*
5	1955	Car and Gotfelty Construction Co.*
6	1955	M.H. Bigan Coal Company*
7	1955	Moran Coal Company*
8	1955	Allegany Engineering Company*
9	1955	Schell Mining Company, Inc.*
10	1955	B & U Coal Company*
11	1955	Morgan Contracting Company**
12	1955	Romadale Coal Corporation*
13	1955	Cross Fuel Company*
14	1955	Highland Construction Company*
15	1955	Phoenix Big Vein Coal Company (Repermitted 338)*
16	1955	Moran Coal Company*
17	1955	T.J. Cramblett**
18	1955	Moscow-Georges Creek Coal Company*
19	1955	J.R. Thrasher Contracting & Stripping Co.*
20	1956	Moran Coal Company (Repermitted 333)*
21	1956	Schell Mining Company, Inc.**
22	1956	Savage Coal Company*
23	1956	Moran Coal Company*
24	1956	The Georges Creek Coal & Land Co.*
25	1957	Charles T. Clise*
26	1957	Allegany Engineering Company*
27	1957	Goodwill Fuel Company*
28	1957	D.B.&B. Coal Company*
29	1957	Queen George's Creek Coal Company**
30	1957	Mack Coal Company**
31	1957	White Crest Coal Company, Inc.**
32	1957	D.B.&B. Coal Company*
33	1957	Moran Coal Company*
34	1957	Chelsie A. Liller*
35	1957	J.E. George Trucking Company**
36	1957	D.B.&B. Coal Company*
37	1957	J.&M. Coal Company**
38	1957	Casey Construction Company**
39	1958	Moran Coal Company*
40	1958	Winner Bros. Coal Company, Inc.
41	1958	Buffalo Coal Company, Inc.*
42	1958	Casey Construction Company**
43	1958	Sara-Ki Coal Company, Inc.*
44	1958	Yantus & Zubek Coal Company*
45	1958	Moran Coal Company*
46	1958	Casey Construction Company**
47	1958	Moran Coal Company*
48	1958	Moran Coal Company*
49	1958	Sara-Ki Coal Company, Inc.*
50	1958	Laurel Creek Company, Inc.**

Permit No.	Year Issued	Permittee
51	1958	D.B.&B. Coal Company**
52	1958	Moon and Sons*
53	1959	George L. Smith Contracting Company*
54	1959	The Georges Creek Lumber Company*
55	1959	Moran Coal Company*
56	1959	North Branch Coal Corporation*
57	1959	George Coal Company**
58	1959	Samuel Compton & Company**
59	1959	Hoover & White*
60	1959	Laurel Creek Company, Inc.**
61	1959	The Eddy Fuel Company**
62	1959	J.R. Thrasher Contracting & Stripping Co.*
63	1959	Pittsburgh Coal Company*
64	1959	Mineral Coal Company, Inc., of West Virginia*
65	1959	Laurel Creek Company, Inc.*
66	1959	The Georges Creek Lumber Company*
67	1959	Chelsie A. Liller*
68	1959	Casey Contracting Company**
69	1959	Pine Mountain Coal Company*
70	1959	Opel and Brenneman*
71	1959	The Georges Creek Lumber Company*
72	1959	P.&J. Coal Company*
73	1959	Casey Contracting Company**
74	1959	Goodwill Fuel Company*
75	1959	D.B.&B. Coal Company*
76	1960	Baughman Contracting Company, Inc.*
77	1960	P&K Coal Company*
78	1960	Morgan Contracting Company*
79	1960	Buffalo Coal Company, Inc.*
80	1960	Buffalo Coal Company, Inc.*
81	1960	Randall Robertson*
82	1960	Hoover & White**
83	1960	James E. George*
84	1960	B.M.W. Coal Company, Inc.*
85	1960	Casey Contracting Company**
86	1960	Beener Coal Company*
87	1960	Moran Coal Company, Inc.*
88	1960	D&K Coal Company*
89	1960	Brenneman Brothers*
90	1960	Mack Coal Company*
91	1960	Clarence Rodamer*
92	1960	James E. George*
93	1961	Casey Contracting Company**
94	1961	Winner Brothers*
95	1961	Moran Coal Company, Inc.*
96	1961	Big Vein Coal Company*
97	1961	Maryland Fuel Company, Inc.*
98	1961	Yantus-Zubek Coal Company*
99	1961	J.R. Thrasher Contracting & Stripping Co.*
100	1961	Trefall Bros., Inc.*
101	1961	Mack Coal Company*
102	1961	C.A. Liller Company*
103	1961	Cross & Brumage Coal Company*

Permit No.	Year Issued	Permittee
104	1961	Beener Coal Company*
105	1961	D&K Coal Company*
106	1961	Mack Coal Company*
107	1961	Yantus and Zubek*
108	1961	Potomac Mining Company*
109	1962	Casey Contracting Company*
110	1962	Wilhelm Coal Company*
111	1962	The Georges Creek Lumber Company*
112	1962	Clark Coal Company*
113	1962	Casey Contracting Company*
114	1962	Casey Contracting Company*
115	1962	Douglas Coal Company*
116	1962	Red Lion Mining Corporation**
117	1962	Ebensburg Coal and Clay Company*
118	1963	James E. George*
119	1963	Ebensburg Coal and Clay Company*
120	1963	J.R. Thrasher Contracting & Stripping Co.*
121	1963	Moran Coal Company, Inc.*
122	1963	Buffalo Coal Company, Inc.*
123	1963	J.R. Thrasher Contracting & Stripping Co.*
124	1963	Win-More Mining & Construction Co., Inc.*
125	1963	Beener Coal Company*
126	1964	W.R. Nethken and Company, Inc.*
127	1964	Mack Coal Company*
128	1964	J.R. Thrasher Contracting & Stripping Co.*
129	1964	J. Russell Cravener*
130	1964	Chelsie A. Liller*
131	1964	The Georges Creek Lumber Company*
132	1964	Brenneman Brothers*
133	1965	W.R. Nethken and Company, Inc.*
134	1965	Richards and Parnell Coal Company*
135	1965	William Brashear*
136	1965	W.R. Nethken and Company, Inc.*
137	1965	G&S Coal Company, Inc.*
138	1966	J.R. Thrasher Contracting & Stripping Co.*
139	1966	J.R. Thrasher Contracting & Stripping Co.*
140	1966	Shallmar Coal Company, Inc.*
141	1966	Randall Robertson**
142	1966	Ace Drilling Coal Company, Inc.*
143	1966	Beener Coal Company*
144	1966	Clarence Rodamer*
145	1967	Ginniman Coal Company*
146	1967	Raymond A. Wolf Mining Company*
147	1967	Menallen Coke Company*
148	1967	Russel Shafer*
149	1967	Homage Coal Co. (Emmett Dupstadt)*
150	1967	Twin States Coal Company**
151	1967	M.F. Fetterolf Coal Company, Inc.*
152	1967	Ebensburg Coal and Clay Company*
153	1968	Raymond A. Wolf Mining Co. (UPRC)*
154	1968	Michael Rostosky*
155	1968	Ginniman & Ware Coal Company*

Permit No.	Year Issued	Permittee
156	1968	Harold H. Upole Coal Company*
157	1968	T.G.&C. Coal Company, Inc.*
158	1969	Clarence Rodamer Coal Company*
159	1969	Michael Rostosky Coal Company*
160	1969	Russel Shafer Coal Company*
161	1969	Buffalo Coal Company, Inc.*
162	1969	J.R. Thrasher Contracting & Stripping Co.***
163	1969	Buffalo Coal Company, Inc.*
164	1969	Union Coal Company*
165	1970	Win-More Mining & Construction Co., Inc.*
166	1970	Ginniman Coal Company*
167	1970	Upperman Coal Company*
168	1970	Frank Pulford**
169	1970	Winner Bros. Coal Company, Inc.*
170	1970	Russel Shafer*
171	1970	The Chief Coal Company*
172	1970	Mary Ruth Corporation*
173	1970	Oakland Coal Company*
174	1971	Bernard C. Drees*
175	1971	Delta Mining, Inc.*
176	1971	D&K Coal Company, Inc.*
177	1971	T.G.&C. Coal Company, Inc.*
178	1971	Emmett Dupstadt*
179	1971	Somerset Excavating, Inc.*
180	1971	Ayers Coal Company*
181	1971	Delta Mining, Inc.*
182	1971	Patriot Mining Company, Inc.*
183	1971	Chief Coal Company*
184	1971	Cobra Mining
185	1971	Bessemer Iron & Coal Company*
186	1971	Coal Lick Coal Company*
187	1971	Phillips Big Vein Coal Company*
188	1971	Ace Drilling Coal Company, Inc.*
189	1971	Buffalo Coal Company, Inc.*
190	1971	Buffalo Coal Company, Inc.*
191	1971	Keystone Coal and Development Company (Liability Assumed by Garrett County Roads Department)
192	1971	Ace Drilling Company, Inc.*
193	1972	Wilhelm Coal, Inc.*
194	1972	M.F. Fetterolf Coal Company, Inc.***
195	1972	Buffalo Coal Company, Inc.*
196	1972	Bessemer Iron & Coal Company*
197	1972	Grafton Coal Company*
198	1972	Jet Fuel Coal Company*
199	1972	Bessemer Iron & Coal Company*
200	1972	Chief Coal Company*
201	1972	Brashear Coal Company*
202	1972	Winner Bros. Coal Company, Inc.*
203	1972	Mary Ruth Corporation*
204	1972	Grafton Coal Company*
205	1972	Chief Coal Company*
206	1972	Upperman Coal Company*

Permit No.	Year Issued	Permittee
207	1972	Winner Bros. Coal Company, Inc.
208	1973	Sanner Bros. Coal Company*
209	1973	Delta Mining, Inc.*
210	1973	Markat, Inc.*
211	1973	Oakland Coal Company*
212	1973	Bessemer Iron & Coal Company*
213	1973	Clise Coal Company
214	1973	Inter-State Lumber Company*
215	1973	Buffalo Coal Company, Inc.*
216	1973	Brashear Coal Company***
217	1973	Bernard Drees Coal Company*
218	1973	Buffalo Coal Company, Inc.*
219	1973	G&S Coal Company, Inc.*
220	1974	Evans Coal Company*
221	1974	Brideview Coal Company*
222	1974	John Duckworth Coal Company*
223	1974	Edward Mikel*
224	1974	Delta Mining, Inc.*
225	1974	Northwest Coal Company, Inc.*
226	1974	Thrasher Coal Company**
227	1974	Winner Bros. Coal Company, Inc.*
228	1974	Bittinger Coal Company*
229	1974	Charles M. Filsinger*
230	1974	G&H Coal Company, Inc.*
231	1974	Hi-Note, Inc.*
232	1974	Buffalo Coal Company, Inc.*
233	1974	Oliver Mining Company**
234	1974	Clise Coal Company*
235	1974	Markat, Inc.*
236	1974	Delta Mining, Inc.*
237	1974	Bridgeview Coal Company*
238	1974	Burnham Coal Company, Inc.*
239	1974	Highland Mining*
240	1974	Buffalo Coal Company, Inc.*
241	1975	Buffalo Coal Company, Inc.*
242	1975	Hopwood Strip Mine, Inc.**
243	1975	Ponderosa Coal Company, Inc.*
244	1975	Markat, Inc.*
245	1975	Phillips Coal, Inc.*
246	1975	Lambert Coal Company*
247	1975	Winner Bros. Coal Company, Inc.
248	1975	Buffalo Coal Company, Inc.*
249	1975	Cobra Fuels*
250	1975	Laoc Coal Company*
251	1975	Tower Resources, Inc.*
252	1975	Phillips Coal, Inc.*
253	1975	Pine Mt. Coal Company*
254	1975	T.G.&C. Coal Company*
255	1975	Allegheny Mining Company*
256	1975	Bridgeview Coal Company*
257	1975	A&R Coal Company*
258	1975	Clinton Coal Company**

Permit No.	Year Issued	Permittee
259	1975	Tower Resources, Inc.*
260	1975	Yough Tree Farm*
261	1975	Russel Shafer***
262	1975	Northwest Coal Company**
263	1975	Allegheny Mining Corporation*
264	1975	Brashear Coal Company
265	1975	Bittinger Coal Company*
266	1975	Delta Mining, Inc.*
267	1975	Bittinger Coal Company*
268	1975	Clyde Marsh Coal Company*
269	1975	Hungry Hollow Coal Company*
270	1975	Clise Coal Company*
271	1975	A&R Coal Company*
272	1975	Action Mining, Inc.*
273	1975	Win-More Mining & Construction
274	1975	Evans Coal Company*
275	1975	Buffalo Coal Company, Inc.*
276	1975	Buffalo Coal Company, Inc.*
277	1975	Allegheny Mining Corporation
278	1976	Inter-State Lumber Company*
279	1976	Buffalo Coal Company, Inc.*
280	1976	Delta Mining, Inc.*
281	1976	Rondell Company*
282	1976	Phillips Coal, Inc.*
283	1976	G&H Coal Company, Inc.*
284	1976	Tower Resources, Inc.*
285	1976	Clinton Coal Company**
286	1976	Winner Bros. Coal Company, Inc.
287	1976	T.L. Moran, Inc.*
288	1976	Delta Mining, Inc.*
289	1976	Pine Mt. Coal Company*
290	1976	Delta Mining, Inc.*
291	1976	George Nolan**
292	1976	Alexander Coal Co.*
293	1976	Pine Mt. Coal Company*
294	1976	Arlen Miller***
295	1976	Action Mining, Inc.*
296	1976	Bessemer Iron & Coal Company**
297	1977	Oakland Coal Company
298	1977	Bittinger Coal Company*
299	1977	Inter-State Lumber, Inc.*
300	1977	Garbart Coal Company*
301	1977	Pine Mt. Coal Company*
302	1977	L.C. Coal Company, Inc.*
303	1977	Ginniman Brothers Coal Company**
304	1977	Buffalo Coal Company, Inc.*
305	1977	Wood Products, Inc.*
306	1977	Bridgeview Coal Company*
307	1977	T.L. Moran, Inc.*
308	1977	Best Coal Stripping, Inc.**
309	1977	Delta Mining, Inc.*

Permit No.	Year Issued	Permittee
310	1977	Oakland Coal Company*
311	1977	Primrose Coal Company*
312	1977	R.A.K. Coal Company, Inc.**
313	1977	G&S Coal Company*
314	1977	Wilhelm Coal, Inc.**
315	1977	Clise Coal Company
316	1977	Brawal Mining, Inc.*
317	1977	John R. Livingston**
318	1977	Winner Bros. Coal Company, Inc.
319	1977	John Duckworth Coal Company*
320	1977	Kelley Enterprises*
321	1978	Delta Mining, Inc.*
322	1978	Bridgeview Coal Company*
323	1978	Ayers Coal Company*
324	1978	John Duckworth Coal Company*
325	1978	G&S Coal Company, Inc.
326	1978	Buffalo Coal Company, Inc.
327	1978	Buffalo Coal Company, Inc.*
328	1978	Buffalo Coal Company, Inc.
329	1978	Winner Bros. Coal Company, Inc.
330	1978	Inter-State Lumber Company*
331	1978	R.A.K. Coal Company***
332	1978	Seneca Mining Company*
333	1978	Westvaco Corporation
334	1978	Buffalo Coal Company, Inc.*
335	1978	Inter-State Lumber Company**
336	1978	Inter-State Lumber Company*
337	1978	Kirby Energy, Inc.*
338	1978	Barton Mining Company, Inc.
339	1978	Wilhelm Coal, Inc.*
340	1978	Fetterolf Mining, Inc.*
341	1979	Eastern Mining Systems, Inc.**
342	1979	Primrose Coal Company*
343	1979	L.C. Coal Company*
344	1979	Bridgeview Coal Company*
345	1979	Delta Mining, Inc.**
346	1979	Inter-State Lumber Company*
347	1979	Kelley Enterprises*
348	1979	Schwinabart & Green, Joint Venture*
349	1979	Wilhelm Coal, Inc.**
350	1980	Bridgeview Coal Company*
351	1980	Winner Bros. Coal Company, Inc.*
352	1980	John Duckworth Coal Company*
353	1980	Winner Bros. Coal Company, Inc.
354	1980	Brawal Mining, Inc.*
355	1980	Hi-Note, Inc.*
356	1980	G&S Coal Company, Inc.***
357	1980	Richard Duckworth Coal Company*
358	1980	Bridgeview Coal Company*
359	1980	Buffalo Coal Company, Inc.
360	1980	Buffalo Coal Company, Inc.*
361	1980	Pamela Mines, Inc.**

Permit No.	Year Issued	Permittee
362	1980	Alpha Mining, Inc.*
363	1980	Pamela Mines, Inc.**
364	1980	John Duckworth Coal Company*
365	1980	G&S Coal Company, Inc.
366	1980	Buffalo Coal Company, Inc.*
367	1980	Buffalo Coal Company, Inc.
368	1980	Winner Bros. Coal Company, Inc.
369	1980	Bittinger Coal Company*
370	1982	Keystone Mt. Development Company*
371	1982	Eagle Mining, Inc.*
372	1982	John Duckworth Coal Company
373	1982	Kirby Energy, Inc.
374	1982	Winner Bros. Coal Company, Inc.
375	1982	Win-More Mining & Construction Company
376	1982	Jones Coal, Inc.**
377	1982	Allegheny Mining Corporation*
378	1982	Delta Mining, Inc.**
379	1982	Masteller Coal Company*
380	1982	Fairview Coal Company (Repermitted 399)*
381	1982	Richard Duckworth Coal Company*
382	1983	Pine Mt. Coal Company
383	1983	Allegheny Mining Corporation*
384	1983	Evans Coal Company*
385	1983	Winner Bros. Coal Company, Inc.
386	1983	Jones Mining, Inc.**
387	1983	Hilltop Construction Company**
388	1983	Fetterolf Mining, Inc.*
389	1983	Winner Bros. Coal Company, Inc.
390	1983	C.J. Merlo, Inc.*
391	1983	Oak Springs Coal Company*
392	1984	Westvaco Resources, Inc.*
393	1984	Patriot Mining Company, Inc.
394	1984	Action Mining, Inc.*
395	1984	Stan-Jan Excavating, Inc.*
396	1984	Allegheny Mining Corporation*
397	1985	Michael R. McGowan*
398	1985	Brashear Coal Company
399	1985	Fairview Coal Company
400	1985	Delta Mining, Inc.*
401	1985	Buffalo Coal Company, Inc.***
402	1985	Pine Mt. Coal Company*
403	1985	T.D. Mining Company
404	1986	Clise Coal Company
405	1986	Jones Coal, Inc.**
406	1986	Patriot Mining Company, Inc.*
407	1986	Winner Bros. Coal Company, Inc.
408	1986	Tri Star Mining, Inc.*
409	1986	Buffalo Coal Company, Inc.
410	1987	J. Walter Wassell
411	1987	Jenkins Development Company
412	1987	John Duckworth Coal Company***

Permit No.	Year Issued	Permittee
413	1988	Buffalo Coal Company, Inc.
414	1989	Winner Bros. Coal Company, Inc.
415	1989	Pine Mt. Coal Company*
416	1989	Action Mining, Inc.
417	1989	Tri Star Mining, Inc.*
418	1991	Tri Star Mining, Inc.
419	1991	Tri Star Mining, Inc.
420	1991	Pine Mt. Coal Company
421	1992	G&S Coal Company, Inc.
422	1992	Buffalo Coal Company, Inc.
423	1992	Patriot Mining Company, Inc.
424	1995	Pine Mt. Coal Company
425	1995	Tri Star Mining, Inc.
426	1996	Tri Star Mining, Inc.
427	1996	Barton Mining Company, Inc.
428	1997	Patriot Mining Company Inc.
429	1997	Tri Star Mining, Inc.

DEEP MINES

DM 101	1977	Mettiki Coal Corporation
DM 102	1977	Masteller Coal Company*
DM 103	1977	Mt. Top Coal Company
DM 104	1977	Mettiki Coal Corporation
DM 105	1977	Mettiki Coal Corporation
DM 106	1978	A&J Coal Corporation**
DM 107	1982	Masteller Coal Company*
DM 108	1989	Preston Energy, Inc.
DM 109	1991	Patriot Mining Company, Inc.
DM 110	1992	Masteller Coal Company

TIPPLES AND GOB PILES

SC-83-101	1983	Buffalo Coal Company
SC-83-102	1983	Buffalo Coal Company*
SC-83-103	1983	Buffalo Coal Company
SC-83-104	1983	Buffalo Coal Company
SC-83-105	1983	Buffalo Coal Company***
SC-83-106		Permit Not Issued
SC-83-107	1983	Delta Coal Sales, Inc.**
SC-83-108	1984	Delta Coal Sales, Inc.*
SC-83-109		Permit Not Issued
SC-83-110	1983	Winner Bros. Coal Company, Inc.
SC-83-111	1983	Westvaco Corporation*
SC-83-112	1983	Winner Bros. Coal Company
SC-83-113		Permit Not Issued
SC-83-114	1984	Ever, Inc.*
SC-83-115		Permit Not Issued
SC-87-116	1987	John Duckworth Coal Company
SC-87-117	1987	Tri Star Mining, Inc.
SC-87-118	1987	Patriot Mining Company, Inc.

* Operation Completed and Bond Released
 ** Forfeiture of Bond
 *** Not Activated