# OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

**Annual Evaluation Summary Report** 

for the

**Regulatory Program** 

**Administered by the State** 

of

Colorado

for

**Evaluation Year 2003** 

(October 1, 2002, through June 30, 2003)

November 2003

### TABLE OF CONTENTS

I.	Introd	oduction				
II.	Over	Overview of the Colorado coal mining industry				
III.	Overview of the public participation opportunities in the evaluation process and Colorado program					
	A.	Evalu	luation process			
	B.	Color	Colorado program			
		1.	Mined Land Reclamation Board meeting			
		2.	Education and community outreach			
		3.	Rulemaking			
		4.	Information and technology exchanges			
IV.	Acco	Accomplishments, issues, and innovations				
	A.	Accomplishments				
		1.	Final bond releases			
		2.	DMG and Colorado Mining Association reclamation awards			
		3.	Electronic scanning of mine files			
		4.	Native shrub establishment on reclaimed lands			
		5.	Training			
	B.	Issues				
		1.	Bankruptcy of Horizon Natural Resources			
		2.	Reclamation of bond forfeiture sites			
		3.	Conditions of permit approval			

C.

Innovations

		1.	Permitted sites	
		2.	Revoked permit sites	
	B.	Reclamation success		
		1.	Permitted sites	
		2.	Revoked permit sites	
	C.	Custom	omer service	
VI.	OSM assistance			
VII.	Evaluation topics		ics	
	A.	Coal mi	ine waste piles	
	B.	Coal ex	ploration	
	C.	Citizen	complaints	
Appendix.		Tabular	summary of core data characterizing the Colorado program	
Table 1.		Coal production		
Table 2.		Inspectable units		
Table 3.		State permitting activity		
Table 4.		Offsite impacts		
Table 5.		Annual State mining and reclamation results		
Table 6.		Reclamation status of all areas disturbed under the Colorado permanent regulatory program		

Success in achieving the purposes of SMCRA as determined by measuring and reporting

V.

end results

Offsite impacts

A.

- Table 7. State bond forfeiture activity
- Table 8. Colorado staffing
- Table 9. Funds granted to Colorado by OSM

#### I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the administration of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards of SMCRA. This report contains summary information regarding the Colorado Division of Minerals and Geology (DMG) implementation of the approved Colorado program and the effectiveness of Colorado DMG in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the 9-month period from October 1, 2002, through June 30, 2003. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Denver Field Division office.

#### II. Overview of the Colorado Coal Mining Industry

Coal underlies 30,000 square miles or 28 percent of the State. Colorado is eighth in the United States in the demonstrated reserve base of coal (16.96 billion tons). The coal reserves are three-quarters bituminous and nearly one-quarter subbituminous. There are also small amounts of lignite and anthracite.

Since the commencement of mining in 1861, mines in Colorado have produced over 1 billion tons of coal. Currently, Colorado ranks eighth among the coal-producing States and annually produces about 3 percent of the United States total. Coal production in Colorado has risen dramatically in the last two decades. Mines are currently producing more coal than at any time in the State's history. Production in 2002 was 34.9 million tons (table 1).

Electric power plants burn most of the coal produced in Colorado. The mined coal is low in sulfur, ash, and trace elements. Colorado coal mining companies ship most of this "clean air compliance coal" by railroad to power plants in the Midwest and South, where it is blended and burned with lower quality coal.

As of June 30, 2003, there were 51 inspectable units (table 2). For these operations, permitted acreage totaled 162,800 (table 2) and disturbed acreage totaled 19,765. Of the 12 operations that were actively mining coal as of June 30, 2003, 7 were underground mines, and 5 were surface mines. Five of the seven underground mines used the longwall mining method and two used the room-and-pillar mining method.

The Federal government owns approximately 8.8 million acres of coal rights in the State. Slightly more than half of the inspectable units have Federal lands within their permit areas (table 2). During 2002, mines produced 25 million tons of coal from Federal coal leases, which is 72 percent of the total coal production for the State.

Colorado's coal mining industry has a significant impact on the local and State economies. The mines employ about 2,000 persons. In 2002, they paid \$8 million in severance taxes, which was used to support local and State governments and projects. Also in 2002, \$17.6 million of

Colorado's share of Federal coal royalties was paid to the State school fund and local school districts.

Differences in elevation create many climatic zones in Colorado coal country. Local annual precipitation averages less than 8 inches in some areas in extreme western Colorado to 30 inches in certain mountainous areas. The growing season can be up to 169 days in length at some sites, but is usually much less, especially in the mountainous regions.

## III. Overview of the Public Participation Opportunities in the Evaluation Process and Colorado Program

#### A. Evaluation Process

Each year OSM and DMG jointly evaluate DMG's program for regulating coal mining. They determine how effective DMG is in ensuring that reclamation on the mines is successful, in preventing offsite impacts, and in providing service to its customers. During the year, OSM solicits input from potentially interested parties on the topics that OSM and DMG should evaluate.

On September 24, 2002, OSM and DMG conducted a public meeting in Trinidad, Colorado. Prior to the meeting OSM published a notice of the meeting in the local newspaper and sent copies of the notice to Colorado coal mining companies, consultants, and environmental groups. The purpose of the meeting was to solicit input in the oversight of the Colorado program, identify issues that coalfield citizens are most interested in, and to address any specific concerns voiced during the meeting. One landowner attended the meeting and asked specific questions about the mining and reclamation of his property. Following the meeting, a DMG inspector followed up on the landowner's concerns.

On October 7, 2002, OSM sent a letter to 34 mining companies, 11 State agencies, 22 Federal agency offices, and 26 environmental organizations. In the letter, OSM requested suggestions for topics concerning reclamation success, offsite impacts, and customer service that OSM and DMG should evaluate. OSM did not receive any suggestions in response to its letter.

#### B. Colorado Program

#### 1. <u>Mined Land Reclamation Board Meeting</u>

The Mined Land Reclamation Board held one of its monthly meetings in Pueblo, away from its regular Denver meeting site. Holding meetings in the vicinity of the mining operations encourages public participation by making DMG and the Board more available to the public, and it helps DMG and the Board to establish a presence outside of Denver. Mine tours representing various types of mines and technologies help the Board better understand reclamation issues.

#### 2. Education and Community Outreach

DMG participated and made a presentation at the Associated Governments of North Colorado's

2003 Coal Conference, which was held in Craig in May 2003. DMG updated the attendees (coal mining companies, interested citizens, local governments, and State and Federal agencies) on various aspects of its program.

DMG made presentations to local university and school classes, professional organizations, Scout troops, and adult education classes. Presentations focused on the regulatory program and associated reclamation issues.

#### 3. Rulemaking

Under the Federal regulations at 30 CFR Part 732, OSM notifies DMG of changes that it must make in its program when the Federal Surface Mining Control and Reclamation Act and implementing regulations are revised. OSM sent notifications to DMG in 1986, 1987, and 1990.

In response to these notifications, DMG initiated its State rulemaking process to amend rules concerning revegetation, hydrology, enforcement, topsoil, historic properties, bond release, and prime farmland. DMG worked closely with local and State government agencies, university researchers, and industry representatives and consultants to finalize the revised rules before it submitted them to OSM as a proposed State program amendment.

#### 4. <u>Information and Technology Exchanges</u>

The Hopi Tribe, which has an inspection program for coal mines on its reservation in Arizona, met with DMG to get a better understanding how the Colorado Coal Program is organized and implemented. DMG arranged for and accompanied the Tribe and OSM on a tour of several Colorado mines.

DMG continued to participate in OSM's partnership with the Indonesian Ministry of Energy and Mineral Resources. OSM has provided technical assistance and personnel exchanges that support the Ministry's objective of improving its regulation of mining operations, upgrading its technical training capacity, and improving its capacity to decentralize its operations to local and provincial levels of government in Indonesia. During 2003, a group of Indonesians visited DMG's offices and toured mines to become acquainted with DMG's permit review and inspection processes.

DMG participates in the OSM steering committees for the National Technical Training Program, the Technical Innovation and Professional Services training program, Western Regional Technology Transfer Team, and the National Technology Transfer Team.

#### IV. Accomplishments, Issues, and Innovations

#### A. Accomplishments

#### 1. Final Bond Releases

DMG fully releases a reclamation performance bond (phase III bond releases) when a permittee

meets or exceeds all DMG program requirements on the land that it disturbed.

During evaluation year 2003, DMG granted a final bond release for all land disturbed by one underground mine and for the majority of the land disturbed by another underground mine. This brings to 13 the total number of permitted sites for which Colorado has approved full and final bond release under its permanent regulatory program.

For further discussion of successful reclamation on permitted mines, see following section V.B.1.

#### 2. <u>DMG and Colorado Mining Association Reclamation Awards</u>

To encourage innovative reclamation techniques and to recognize those companies that have exceeded the regulatory requirements for environmental protection, DMG participated in the award process for DMG's and Colorado Mining Association's Annual Reclamation Awards.

In nominating awards for five mines, DMG cited exemplary reclamation techniques, compliance history, and methods for ensuring public safety. The companies recognized at an awards luncheon during the Colorado Mining Association's annual conference were Snowcap Coal Company (Subsidiary of American Electric Power); Trapper Mining, Inc.; Colorado Yampa Coal Company; Colowyo Coal Company, LP; Blue Mountain Energy, Inc.; and Mountain Coal Company, L.L.C..

#### 3. <u>Electronic Scanning of Mine Files</u>

DMG completed a major file conversion project. DMG electronically scanned all paper permits, administrative records for the permits, and enforcement files. DMG staff and public access of these documents is through personal computers in the DMG office.

#### 4. Native Shrub Establishment on Reclaimed Lands

To address the challenge of establishing native shrubs on reclaimed lands, DMG received funding from the Colorado Severance Tax to research this topic. Initially, researchers from Colorado State University (CSU) conducted a comprehensive literature review to determine past research. Working with DMG, the Colorado Division of Wildlife, and several mining companies, CSU designed a field study to evaluate several shrub establishment techniques. The operators of three coal mines installed the test plots during the summer of 2000. CSU monitored the plots in 2001, 2002, and 2003.

#### 5. Training

DMG continued to ensure that its staff is technically competent. As discussed in following section VI, staff members attended and assisted in the teaching of various OSM classes.

#### B. <u>Issues</u>

#### 1. <u>Bankruptcy of Horizon Natural Resources</u>

On November 13, 2002, Horizon Natural Resources filed for Chapter 11 bankruptcy protection. Horizon Natural Resources is the parent company for Bowie Resources Limited, which is the permittee for the Bowie Nos. 1 and 2 Mines.

DMG is monitoring the bankruptcy proceedings with assistance from The Attorney General's Office.

#### 2. Reclamation of Bond Forfeiture Sites

Colorado has several sites where it has forfeited reclamation performance bonds for failure of the operator to conduct reclamation of an unabated violation or to meet the terms of the permit. As of June 30, 2003, 13 of the 51 inspectable units (1 of every 4 inspectable units) were bond forfeiture sites (tables 2, 6, and 7). On an additional site, DMG revoked the permit but did not forfeit the bond because the bank chose to conduct reclamation in lieu of forfeiting the bond.

DMG has used all of the available bond forfeiture money to fully reclaim the 270 disturbed acres at seven of the sites. It has used most of the bond forfeiture money to fully reclaim the 611 disturbed acres at five other sites but retains some money at each site (\$1100 to \$23,000) for maintenance work that may be needed in the future.

DMG retains more money (\$295,000) at another 333-disturbed acre site that has been backfilled, graded, topsoiled, and seeded. Reclamation at this site, which had underground mine portals at 10,000 feet of elevation, is difficult owing to the short growing season, toxic Manchos shale layers, avalanche chutes that intersect the disturbed areas, and watersheds that carry large debris flows during high-intensity thunder storms. DMG obtained additional grants to help reclaim this minesite. To date, approximately \$200,000 has been funded through the nonpoint source program administered by the Colorado Department of Health and the Environment. The funds have been used to reduce sedimentation by revegetating the mine bench outslopes. OSM funded the reconstruction of a stream channel through a \$115,000 grant that came from civil penalty money that it had collected. The Colorado Department of Agriculture provided a \$7,000 grant for weed control at the minesite.

Vegetation has been established at three of the sites for at least 10 years. For the second consecutive year, DMG sampled the vegetation on the sites to determine whether revegetation is successful. DMG has not yet analyzed this data.

It will be several years before DMG determines whether or not the completed reclamation is successful at all of the bond forfeiture sites.

As discussed in following section V.A.2., minor offsite impacts continue to occur at three of the reclaimed bond forfeiture sites.

#### 3. Conditions of Permit Approval

After a joint OSM and DMG complete inspection of an operation, OSM found that the permittee had not submitted a geotechnical report for an offsite dam by the due date that DMG had stipulated as a condition for approving the permit.

By memorandum, the DMG Coal Program Supervisor reminded DMG staff of the importance of tracking all permit stipulations to ensure that the permittees meet submission deadlines and that the permittees' responses to the stipulations are substantively adequate.

#### C. Innovations

For the eighth consecutive year, persons from OSM and DMG continued to work as a team to evaluate and assist DMG in the administration, implementation, and maintenance of the approved Colorado regulatory program.

## V. Success in Achieving the Purposes of SMCRA As Determined By Measuring and Reporting End Results

To further the concept of reporting end results and measuring Colorado's success in achieving the purposes of SMCRA, OSM and DMG conducted evaluations and inspections whose purpose was to measure the number and extent of offsite impacts, the percentage of inspectable units free of offsite impacts, the number of acres that have been mined and reclaimed and meet the bond release requirements for the various phases of reclamation, and DMG's effectiveness in providing customer service. Reports, which provide additional details on how OSM and DMG conducted the evaluations and inspections and took the measurements, are available in the OSM Denver Field Division office.

#### A. Offsite Impacts

An "offsite impact" is anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources (people, land, water, structures) outside the area authorized by the permit for conducting mining and reclamation activities.

Table 4 shows the number and type of offsite impacts that OSM and DMG documented as having occurred during the evaluation year.

#### 1. Permitted Sites

OSM and DMG assessed whether offsite impacts had occurred on each of the 38 permitted operations that existed at some time during the evaluation period and for which DMG had not forfeited reclamation performance bonds. OSM and DMG did so through the following 334 onthe-ground observations: 3 OSM and DMG joint, complete inspections; 111 DMG complete inspections; 218 DMG partial inspections; and OSM and DMG evaluations of coal mine waste piles at 2 mines.

OSM and DMG found no incidents where mines caused offsite impacts (table 4, top half). Therefore, 100 percent of the permitted sites (38 of 38) were free of offsite impacts during the <u>9</u>-

month evaluation period from October 1, 2002, through June 30, 2003 (evaluation year 2003). OSM and DMG found 94, 98, 98, 94, 93, and 90 percent of the mines free of offsite impacts in the 12-month evaluation periods in evaluation years 2002, 2001, 2000, 1999, 1998, and 1997.

The 100 percent measurement in evaluation year 2003 cannot be directly compared to earlier years because of differences in the lengths of the measurement periods (9 months versus 12 months). Nevertheless one can generally conclude that the high percentage for 2003 is a continuation of a pattern of DMG successfully preventing offsite impacts at permitted minesites.

As a part of the analysis of offsite impacts, OSM and DMG conducted field evaluations of coal refuse piles. For a discussion of these evaluations, see following section VII.A.

#### 2. Revoked Permit Sites

Since 1980 when OSM approved the Colorado permanent regulatory program, DMG has revoked the permits and forfeited reclamation performance bonds for 13 mines. In lieu of forfeiting a bond on another mine, it revoked the permit and allowed the bank to reclaim the site. In previous evaluation years, DMG and the bank respectively conducted reclamation on the 13 bond forfeiture sites and 1 permit revocation site (table 7).

Dating back to evaluation year 2000, there are three continuing minor offsite impacts to land resources due to sedimentation and erosion (table 4, bottom half). During evaluation year 2003, DMG conducted 31 complete and 48 partial inspections on the 14 mines. It did not observe any additional offsite impacts. Therefore, 78 percent of the forfeiture and permit revocation sites (11 of 14) were free of offsite impacts during the 9-month evaluation period from October 1, 2002, through June 30, 2003 (evaluation year 2003).

OSM and DMG found 78, 78, 78, and 78 percent of bond forfeiture and permit revocation sites free of offsite impacts in the <u>12-month evaluation periods</u> in evaluation years 2002, 2001, 2000, and 1999.

#### B. Reclamation Success

#### 1. Permitted Sites

For the permitted operations where reclamation performance bonds have not been forfeited, OSM nationally uses as a measure of reclamation success the bonded, disturbed acreage that has received bond release.

Table 5 shows the acreage on active, temporarily inactive, or inactive permits where DMG partially released (phases I and II) or totally released (phase III) bonds during the evaluation year. For the 20,248 bonded acres that had not yet received phase III bond release at the beginning of the evaluation year, DMG granted phase I bond releases on 154.64 acres, phase II bond releases on 4.54 acres, and phase III bond releases on 80.9 acres.

Since 1980 when OSM approved the Colorado permanent regulatory program, DMG has granted

phase III bond releases on 4,737 acres (table 6), which is one-fifth of all acreage disturbed under the Colorado permanent program (4,737 of 23,714 acres). This fraction is higher than all other comparable western States that have minimum revegetation liability periods of 10 years.

For a number of reasons, permittees often have not submitted bond release applications even though lands they have reclaimed are successfully reclaimed and eligible for release. Therefore, to get a better understanding of how much acreage is reclaimed and <u>may</u> be eligible for phase I, II, and III bond release, OSM and DMG compiled mine reclamation status information for all operations that DMG has permitted under the Colorado permanent regulatory program in the 23 years since OSM approved the program. Table 6 shows the detailed reclamation status of the active, temporarily inactive, and inactive operations; the operations for which DMG released all phase III bonds; and the operations for which DMG forfeited the reclamation performance bonds or revoked the permits.

Review of data in the table indicates that over half of all disturbed land on active, temporarily inactive, and inactive operations has been backfilled, graded, topsoiled, and planted with vegetation (10,852 of 18,545). From OSM's and DMG's inspection of these operations, OSM and DMG believe that a large proportion of this reclaimed land meet the requirements for phase I and II bond release and that a smaller proportion meet the requirements for phase III bond release.

On the basis of the above analyses of phase III bond release and reclamation status data, OSM concludes that reclamation of mined land has been successful under the Colorado program.

OSM and DMG also assessed reclamation success in evaluations of coal mine waste piles and coal exploration sites. For a discussion of these evaluations, see following sections VII.A. and B.

#### 2. <u>Revoked Permit Sites</u>

DMG and a bank have respectively conducted reclamation on the 13 bond forfeiture sites and the 1 permit revocation site where DMG did not forfeit the bond (tables 6 and 7).

Vegetation has been established at three of the sites for at least 10 years, and DMG sampled it for the second consecutive year to determine whether the vegetation is adequate. After analyzing the data, DMG will make a decision as to whether reclamation is successful and whether it will terminate its jurisdiction on the sites.

It will be several years before DMG determines whether or not the completed reclamation is successful at all of the bond forfeiture sites.

#### C. Customer Service

OSM and DMG conducted an evaluation of DMG's handling of citizen complaints. For a discussion of this evaluation, see following section VII.

#### VI. OSM Assistance

For the 1-year grant period starting January 1, 2003, OSM funded the Colorado program in the amount of \$1.93 million (table 9). Through a Federal lands cooperative agreement, OSM reimburses DMG for permitting, inspection, and other activities that it performs for mines on Federal lands (table 8). Because most of the mines in Colorado occur on Federal lands, the percentage of total program costs for which OSM provided funding was high (79 percent, table 9).

Under its National Technical Training and Technical Innovation and Professional Services programs, OSM offers free of charge a variety of courses to State and Tribal employees. As described below, six DMG employees participated in these activities during the evaluation year.

Two DMG employees attended the following Technical Training Program courses: Historical and Archeological Resources (one), and Soils and Revegetation (one). (The numbers in parentheses are the number of employees that attended each course.)

Five DMG employees attended or assisted in the teaching of the following Technical Innovation and Professional Services courses: ArcView 3.2 for Mining and Reclamation (one), CAD Applications for Mining and Reclamation (four), and Galena slope stability analysis (one). One of the DMG employees assisted in the teaching of the latter two courses.

OSM provided \$1800 to DMG so that one of its employees could attend the Applied Fluvial Geomorphology course taught by Wildland Hydrology, Inc..

OSM provided airfare for two DMG employees to attend and participate in the Joint Conference of the 9<sup>th</sup> Billings Land Reclamation Symposium and 20<sup>th</sup> Annual Meeting of American Society of Mining and Reclamation. They participated on the coal reclamation field tour and in two workshops, Invasive Species Management on Reclaimed Lands and Stream Channel Design Reclamation.

OSM provided \$5156 for a DMG staff person to update the Colorado Integrated Reclamation Cost Estimating System. DMG uses the system to set bond amounts for the coal mines that it permits.

An OSM contractor with expertise in bonding provided DMG with assistance on requirements for foreign companies wanting to apply as guarantors for self-bonds; surety company execution requirements for "consent of lien-holder" provisions on the coal surety bond form; and legal requirements for self-bonding indemnity agreements, affidavits, and corporate resolutions. The contractor also provided DMG with updates to Circular 570 and made DMG bonding staff aware of a notice on the Circular 570 website concerning fraudulent bonds being issued by an illegal Florida agent.

In response to requests by DMG staff and DMG's technical library, OSM's technical library provided DMG with copies of 40 journal articles, 17 publications, and 3 compact discs.

#### VII. <u>Evaluation Topics</u>

Each year OSM and DMG evaluate topics to determine whether DMG is effective in preventing offsite impacts, is ensuring reclamation success, and is serving its customers. Following are discussions of the evaluations that they conducted in the time period from October 1, 2002, through June 30, 2003. Written reports for these topics are available for review in the OSM Denver Field Division office.

#### A. Coal Mine Waste Piles

OSM and DMG began an evaluation of coal mine waste piles to determine whether DMG is preventing offsite impacts from them and whether DMG is ensuring that reclamation on them is successful.

Examples of offsite impacts that could occur include erosion, sedimentation, water pollution, and airborne dust. Examples of unsuccessful reclamation that could occur include failure of revegetation and landslides.

During evaluation year 2003, OSM and DMG visited five piles on two mines. During evaluation year 2004, they will visit an additional two piles on two other mines.

During evaluation year 2003, OSM and DMG did not observe any instances of offsite impacts that were caused by coal mine waste piles. With respect to reclamation success, soil had been placed to the required depths over the graded coal mine waste, the resoiled areas had been seeded and mulched, and vegetation was growing. OSM and DMG did not raise any concerns about reclamation success on the piles.

#### B. Coal Exploration

Colorado's Rule 2.02 requires any person who intends to conduct coal exploration during which 250 tons or less of coal will be removed outside an approved permit area to file a notice of intent to explore with DMG. The rules further require DMG to determine after the filing whether the proposed coal exploration activities will substantially disturb the natural land surface. Under these rules, if DMG determines that this will occur, the person who intends to conduct coal exploration must comply with the performance standards and design requirements at Rule 4.21 and obtain a coal exploration permit.

The Colorado regulatory program requires exploration operations that will remove less than 250 tons of coal to file with DMG a notice of intention (NOI) to explore. For those operations that will substantially disturb the land surface, the operators also have to comply with various performance standards concerning grading, roads, topsoil, revegetation, erosion control, removal of facilities and equipment, permanent sealing of drill holes, and acid- and toxic-forming materials.

For the purpose of determining whether reclamation was successful at coal exploration sites where less than 250 tons of coal had been removed and the land surface had been substantially

disturbed, OSM and DMG during evaluation year 2003 visited land disturbed under six coal NOI's and reclaimed within the last 8 years. The NOI areas were adjacent to or within the NOI areas for four active mining permits. In almost all instances, the coal exploration activities were those associated with core drilling to assess the quantity and quality of coal, but in one instance an operator dug two trenches to extract some coal in addition to drilling elsewhere. Each coal exploration area encompassed multiple drill hole pads, or drill hole pads and trenches, and the access roads connecting them.

OSM and DMG assessed on-the-ground reclamation to determine whether, as required by Rule 4.21, (1) excavations, artificial flat areas, or embankments created during exploration had been regraded to approximate the original contour, (2) newly created roads or significantly altered existing roads had been reclaimed, (3) topsoil, which was salvaged prior to coal exploration activities, had been replaced on the regraded land surface, (4) a vegetative cover of the same seasonal variety native to the disturbed area had been established in accordance with the plan approved by DMG, (5) erosion had been controlled, (6) all facilities and equipment had been removed, (7) all drill holes had been permanently sealed and marked, and (7) toxic- or acid-forming materials had been treated or disposed of.

After touring the six coal exploration areas, OSM and DMG concluded that generally reclamation of the coal exploration sites was successful. However, they did identify some improvements that could be made.

OSM and DMG observed inadequate grading where a small catchment basin, which had been filled in, subsided because of insufficient compaction and created a small, but deep, hole that could be dangerous to livestock or wildlife. They noted that operators sometimes did not plant resoiled areas immediately or use mulch on the planted areas to prevent erosion and retain moisture, used seed on hand rather than using the seed mix approved by DMG in the permit, and did not proactively control weeds. Lastly, OSM and DMG found that operators did not usually mark sealed drill holes as required.

In response to these concerns, OSM recommends that DMG conduct inspections shortly after regrading to ensure that (1) disturbed areas are adequately graded and quickly planted with the seed mix approved in the permit and (2) sealed holes are marked.

#### C. <u>Citizen Complaints</u>

OSM and DMG reviewed DMG's handling of the three citizen complaints received October 1, 2001, through April 30, 2003 (i.e., those received in evaluation year 2002 and most of evaluation year 2003). They analyzed DMG's adherence to the procedural requirements of its program to determine whether DMG was serving its customers, the landowners, and other affected parties that filed written complaints with DMG.

Colorado's program requires DMG to conduct an inspection within 10 days of complaint receipt and to respond in writing to the complainant within 10 days of the inspection. For all three complaints, DMG conducted an inspection within 10 days of complaint receipt. DMG responded in writing to two of the complaints within 10 days and to the other complaint in 24

days. In the latter case, DMG took longer than 10 days in order to technically analyze records for blasts that were at issue.

The Colorado program requires DMG to include in the written response (1) a description of the enforcement that it took or an explanation as to why it took no action and (2) an explanation of the citizen's right to informally appeal DMG's decision on the complaint. DMG issued one notice of violation in direct response to one of the complaints. For the three complaints, DMG included in the written responses an explanation of the enforcement action or of its decision not to take an enforcement action. For all three, DMG included a statement concerning the right to informally appeal DMG's decision, but in one case DMG did not accurately state that appeal right.

OSM and DMG concluded that DMG had served citizen complainants by adhering to the procedures of its program but that it could improve its future service by developing a standardized appeals right statement that would be inserted in all letters to complainants.

#### Appendix. Tabular Summary of Core Data Characterizing the Colorado Program

The following tables present data pertinent to mining operations and State and Federal regulatory activities within Colorado. They also summarize Colorado staffing and OSM funding. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 2002, through June 30, 2003.