

# **OFFICE OF SURFACE MINING**

**2006 Annual Evaluation Summary Report**

**for the**

**Regulatory and Abandoned Mine Lands**

**Program**

**Administered by the State of**

**IOWA**

**Prepared by:  
Alton Field Division  
Office of Surface Mining**

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*Cover page is American Mine # 5, a bond forfeiture reclamation project following spring 2006 planting*

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## **I. Executive Summary**

During the 2006 Evaluation Year (EY), the Office of Surface Mining (OSM) conducted oversight evaluations of the Iowa Department of Agriculture & Land Stewardship, Division of Soil Conservation (IDSC) Regulatory and Abandoned Mine Land (AML) Programs. The oversight studies focused on the success of the IDSC in meeting the Surface Mining Control and Reclamation Act of 1977 (SMCRA) goals for environmental protection and prompt, effective reclamation of land mined for coal.

The Title V program in Iowa has not permitted a new mine site since 1992 and mining ceased in 1994. Therefore, the focus of this report is the State's progress in completion of mine operator, surety and bond forfeiture reclamation rather than the normal permitting and inspection elements. At the close of this evaluation year, the active mine operator received a Phase III reclamation bond liability release on two mine sites. A surety company successfully reclaimed one mine site, met the IDSC legal requirements and received a Phase I & II reclamation bond liability release. At that time the Surety forfeited to the IDSC the last portion of the reclamation bond. The State completed the reclamation on the mine site and the site is now in a one year required maintenance period.

Studies in the areas of bond forfeiture reclamation projects and reclamation success by the mine operator were conducted by OSM in support of OSM's national initiatives.

The following oversight topic reviews were completed:

- **Off-Site Impacts – Active Sites and Bond Forfeiture Sites.**

At the beginning of EY 2006 there were 18 inspectable units (IU's) in Iowa. During this review period the two active mine sites, which were free from off-site impacts, received complete Phase III reclamation bond liability release. Both mines have been removed from the IU list.

Through bond forfeiture reclamation, two off-site impacts were eliminated. Of the sixteen bond forfeiture sites, nine of the mine sites are free from off-site-impacts. Fifty-six percent of the mine sites are free from off-site impacts.

- **Title V and Bond Forfeiture Mine Reclamation Success.**

The Jude Mine # 4 and Jude Mine # 5 received Phase III reclamation bond liability release on November 1, 2005. The Phase III reclamation bond liability release process completely followed the approved program requirements and was completed in an excellent manner. With this successful mine reclamation, the two inspectable units were removed from the inspectable unit list.

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Successful reclamation was also completed on four bond forfeiture mine sites. These sites include the American Coal Mine # 3, American Coal Mine # 5, Star Coal Company Mine # 6 and Star Coal Company Mine # 11. These four mine sites are in the required one year maintenance time process. Once this process is complete, these sites will also be removed from the inspectable unit list and there will remain 12 bond forfeiture mine sites to be reclaimed.

- Iowa Abandoned Mine Land Inventory System (AMLIS) Certification and Data Accuracy Evaluation Report.

The certification procedures identified in the OSM Director's letter of June 21, 2004, are still being utilized. The review concluded that the Iowa AML Program's process in ensuring data accuracy in the AMLIS data system is successful and accurate.

- Iowa AML National Environmental Policy Act (NEPA) Documentation Procedures and AML Post-Construction Projects.

A review was completed of reclamation projects that were completed within the last 5 to 6 years to determine if reclamation showed promise for long-term success and a net benefit to society. Review findings concerning NEPA procedures were: (1) that IDSC prepared environmental documents were adequate for proper NEPA compliance, and (2) the IDSC is implementing all commitments or stipulations contained in the project environmental documents. The final grading and successful vegetation on the various sites verified the reclamation success of the projects.

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## **II. Introduction**

The SMCRA created the OSM in the Department of the Interior. SMCRA provides authority to OSM to oversee the regulation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the IDSC and the effectiveness of the Iowa program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of July 1, 2005, to June 30, 2006.

The primary focus of the OSM oversight policy in Iowa for EY 2006 is an on-the-ground, results-oriented strategy that evaluates mine operator, surety and bond forfeiture reclamation. To further the idea that oversight is a continuous and ongoing process, this annual report is structured to report on the progress of OSM and Iowa in conducting evaluations and completing oversight activities. The report also documents their accomplishments at the end of the evaluation period. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM's Alton Field Division (AFD) of the Mid-Continent Region (MCR) at 501 Belle Street, Alton, Illinois, 62002.

The following list of acronyms is used in this report:

ACSI	Appalachian Clean Streams Initiative
AFD	Alton Field Division
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
EY	Evaluation Year
GIS	Geographic Information System
IDSC	Iowa Division of Soil Conservation
IU's	Inspectable Units
MCR	Mid-Continent Region
NEPA	National Environmental Policy Act
OSM	Office of Surface Mining
PAD	Problem Area Description
PSD	Program Support Division
RC&D	Resource Conservation and Development
RREEF	Red Rock Environmental Education Foundation
SMCRA	Surface Mining Control and Reclamation Act of 1977
TIPS	Technical Innovation and Professional Services

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### III. Overview of the Iowa Coal Mining Industry

Iowa's coal ranges from sub-bituminous to high-volatile C bituminous. The demonstrated coal reserve base in Iowa is estimated to be 2.2 billion tons, or less than one-half of one percent of the United States' coal reserves. Coal-bearing areas cover about 18,468 square miles, or 33 percent of the State. Most coal seams in Iowa are less than five feet thick and have relatively high sulfur content.

Coal mining activities first began in Iowa in the 1840's. Since then, more than 35 companies extracted coal in 17 counties. A partial list of the counties where historical production occurred includes Polk, Story, Wapello, Van Buren, Keokuk, Davis, and Appanoose counties. Mining under SMCRA was concentrated in the four counties of Lucas, Marion, Mahaska, and Monroe. Annual production varied throughout Iowa's mining history, peaking in 1981 at 708,602 tons. Production subsequently declined until it ceased in 1994 with 58,855 tons mined during that year. Most of this production came from surface mining operations. Fifty people were employed in the industry at that time. Thin coal seams and high sulphur content of the coal contributed to the demise of coal mining in the State.

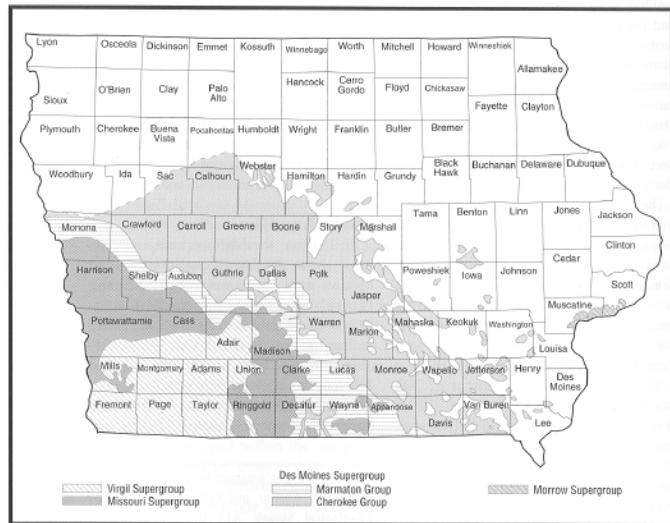


Fig. 1. General distribution of major Iowa coal deposits

#### Post SMCRA Mining Activity

At the beginning of EY 2006, Iowa had eighteen inspectable units. All but two inspectable units were abandoned and had their reclamation bond forfeited. The two active mines received 100% reclamation bond liability during the EY and were removed from the inspectable unit list. This is reflected in the adjacent Inspectable Units Table. A surety company completed reclamation on one mine site and received a Phase I & II reclamation bond liability release. Following approval of these releases, the remainder of the bond was forfeited. Reclamation was completed on four bond forfeiture mine sites. A one year maintenance period is required before these units can be removed from the inspectable unit list. The maintenance period for these mine sites will expire during EY 2007. As a result, there are 16 IU's at the end of EY 2006.

YEAR	IU'S	CHANGE
2006	16	-2
2005	18	-2
2004	20	-4
2003	24	0
2002	24	0
2001	24	0
2000	24	-4
1999	28	0
1998	28	0

Sixteen of these units were surface mines, including two wash plants and two were underground mines. The average number of acres per inspectable unit is 170.5. All of the permits in Iowa

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have expired and have not been renewed. Since 1998, the number of inspectable units has decreased from 28 to 16. The number of inspectable units will continue to decrease and be removed from the inspectable unit list, as the remaining bond forfeiture sites are reclaimed and their one year required maintenance period ends.

Pre-SMCRA Mining Activity

Before the enactment of SMCRA, approximately 13,764 acres were affected by coal mining in 17 Iowa counties. Within these counties the existing and present hazardous conditions are recorded in AMLIS. These conditions are noted in the following table.

<b>Problem Type</b>	<b>Total Units</b>	<b>Completed Units</b>
Miles of Clogged Streams	21.9	9.1
Acres of Clogged Stream Lands	2,137.4	691.0
Feet of Dangerous Highwalls	110,154.0	58,615.0
Acres of Dangerous Piles & Embankments	1,402.4	833.9
Hazardous water bodies	54.0	26.0
Vertical Opening	28.1	20.0

The cost to reclaim all of the hazardous conditions listed in AMLIS as of June 30, 2006, is approximately \$52,385,000.00. To date, \$25,101,158 has been spent on completing various reclamation projects and an additional \$925,987.00 has been funded to complete other projects.

**IV. Major Accomplishments/Issues/Innovations**

Active Mine Unit Reclamation

During this evaluation year the State completed the required vegetation analysis to verify that successful vegetation reclamation requirement had been met on the only two active mining units in the State. On November 1, 2005, the State granted the Phase III reclamation liability bond release for both the Jude Mine # 4 and Jude Mine # 5. Following this release, both of the inspectable units were removed from the inspectable unit list. With the final reclamation bond liability release of the two Jude mine sites, no other future bond liability release applications will be received by the State of Iowa unless a new coal mine operation is initiated. With the final reclamation bond liability release of these two sites, the results verified that the State program effectively ensures reclamation success is accomplished on mine disturbed lands.

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### Bond Forfeiture Reclamation

Historically, due to various reasons, the forfeiture and collection of bonds for eighteen mine sites languished. However, once the bonds were collected by the State, they developed a bond forfeiture reclamation schedule that was reviewed and approved by OSM. That schedule committed the State to having all the forfeited sites reclaimed within four years, with only the required one year maintenance period remaining for a few sites. For the EY 2006 period the State had committed to completing the reclamation on four bond forfeiture mine sites.

The State met this goal. These mine sites include the Star Mine # 11, American Coal Mine # 3, American Coal Mine # 5 and the Star Mine # 6. The reclamation success completed on these mine sites are discussed in greater detail in Section V. Success in Achieving the Purposes of SMCRA. With the reclamation of these sites, the State is adhering to the approved reclamation schedule. At the end of the EY, only 12 sites remain to be reclaimed.

### Adopted Program Amendments

During EY 2006, Iowa adopted one rule to its approved program. On September 24, 2005, IDSC submitted a program amendment to the regulatory program. This amendment proposed to amend its rules regarding its small operator assistance program to make its rules consistent with the corresponding Federal regulations and SMCRA. The final rules were approved on January 31, 2006.

At this time there are no outstanding Program Amendments.

### Emergency Program

Two emergency complaints were received and investigated by the IDSC during the 2006 Evaluation Year. Both were subsidence complaints and were investigated by drilling.

The first emergency complaint, called the Kurimski subsidence site, occurred in October of 2005. A large area of a soybean field subsided by two feet. The subsidence was located in a rural area and did not pose a direct threat to human safety. Also, the field is located on a sloping hill and positive drainage still exists. Therefore, the IDSC decided to take no action on this complaint.

The second emergency complaint, called the '1904 E. Capitol' subsidence site in Des Moines, was reported in March of 2006. Drilling activities did not encounter a void. Therefore grouting was impossible. No further action was taken by the IDSC.

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## Appalachian Clean Streams Initiative (ACSI)/AML Sites

### Mitchell #2 Site

A clean stream project that has been ongoing for some time is the Mitchell ACSI Reclamation Project. This project is a large excavation project, which has been divided into phased construction projects to accommodate the limited availability of funding and the complexity of the site's design. Phase I of the construction project addressed 4,200 linear feet of dangerous highwalls, 0.2 mile of clogged streams, 29 acres of clogged stream lands, a hazardous water body, one vertical opening and 5.5 acres of industrial/residential waste. This project was completed in August of 2004. Design for Phase II was finalized immediately thereafter. Phase II of the project was let for bid in early June of 2005.

Phase II is now in construction and includes grading steep acidic spoil piles and highwalls. Also included is a dangerous water impoundment. The water quality is adequate but the impoundment structure is not. An adequate dam is constructed to retain water in the pond which helps control and filter surface run-off into Robert's Creek. Storm water run-off on the site also moves down-slope to an Army Corp of Engineers regulated wetland. In this area a system of filters protects the wetland. Construction work is expected to be completed during 2006 FY.



The final and third phase of the Mitchell Reclamation Project will address the northern portion of the site and will begin in the 2007 evaluation year.

### Watershed Cooperative Agreement Program Sites

Two Watershed Cooperative Agreement Program Grants were issued during the evaluation year. These include the following:

#### Red Rock Environmental Education Foundation (RREEF)

RREEF Resource Conservation & Development, Inc (RC&D) received a grant in the amount of \$75,000.00 to complete a \$108,350.00 project. This site included approximately eight acres of highly eroded soils. The acid spoil piles were contributing to the degradation of the immediate area by killing vegetation, creating massive



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erosion gullies and damaging downstream habitat by transporting acid forming materials into Lake Red Rock. This lake is a large recreation area operated by the US Army Corps of Engineers near the town of Pella. The site is in the process of being reclaimed and will be completed during EY 2007.

Pathfinders Resource Conservation & Development, Inc.

A grant was issued to the Pathfinders RC&D in the amount of \$100,000.00 for the Roozeboom project, which is estimated to cost approximately \$686,500.00. The Pathfinders RC&D is working in conjunction with the Mahaska Soil and Water Conservation District which contributed \$167,000.00 to the project.



The Roozeboom Site, Contract #1, pictured to the left, is located near the town of Oskaloosa in Mahaska County. The site lies adjacent to the Little Muchakinock Creek which empties directly into the Muchakinock Creek. The site is approximately 20 acres in size. It is located mostly on a gently sloping hillside and consists primarily of clogged steam lands and a small section of clogged streams. The site has numerous large gullies that contain acid toxic materials that prevent vegetation from becoming established.

Acid toxic sediment that has been transported from the site by erosion has degraded the nearby water flow channel. Vegetation does not exist in the water flow channel because of the toxic materials. The reclamation on the site is underway and is anticipated to be completed during EY 2007.

The IDSC is continuing its work with various State, local, and Federal partnerships to expand its partnership activity. It is anticipated that at least two additional Watershed Cooperative Agreement project applications will be submitted in FY 2007. This activity should continue in subsequent evaluation years.

#### Status of Current AML Program

Enhancement and Performance reviews conducted in previous years as well as this year's review have found that Iowa's AML Program is run in a cost efficient manner. The projects are completed with minimal disturbance to the environment and they include any necessary mitigation measures for the protection or enhancement of wetlands. Construction monitoring, post-construction monitoring, and maintenance processes ensure projects meet contract specifications, project objectives, and program goals. A bar chart entitled Iowa Anticipated AML Project Completion Schedule is located in Appendix B. This chart illustrates the AML reclamation work planned and accomplished. Iowa's AML projects result in elimination of

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hazards to the public and restoration of beneficial land uses. Iowa continues to operate its AML Program in an effective and cost efficient manner.

## V. Success in Achieving the Purposes of SMCRA

Individual topic reports that provide details on how the following evaluations and measurements were conducted are available at Alton Field Division, MCR office, 501 Belle Street, Alton, Illinois 62002.

### A. Off-site Impacts

No new off-site impacts occurred in Iowa during the EY 2006. During the evaluation year there were 18 inspectable units. Sixteen inspectable units are bond forfeiture mine sites and two mine sites are considered active in that reclamation activity was completed by the permittee. The two active mine sites, Jude Mine # 4 and Jude Mine # 5 are 100% free from offsite impacts.

Of the sixteen bond forfeiture mine sites, nine are free from off-site impacts. This equates to 56% of the bond forfeiture mine sites. There are nine off-site impacts on seven bond forfeiture sites. All of these off-site impacts are related to hydrology and have affected land and water resources. Five of the impacts have had a moderate impact on the resources. The remaining four impacts were minor in nature.

All existing off-site impacts were identified prior to EY 2002. During this review period, reclamation activities eliminated two offsite impacts. As the bond forfeiture mine sites are reclaimed per the State's reclamation schedule, the number of offsite impacts will diminish.

### B. Reclamation Success

Directive REG-8, revised July 28, 1999, noted for Reclamation Success," that Success will be determined based on the number of acres that meet the bond release standards and have been released by the State." Successful reclamation includes achievement of approximate original contour, re-establishment of land capability, restoring hydrologic balance, and contemporaneous reclamation.

#### Active Mine Site Reclamation

Two mine sites, Jude Mine # 4 and Jude Mine # 5 were reclaimed by the mine operator. During the EY 2006 the IDSC evaluated the vegetation on the two Jude mine sites. Their regulations required that the time period for evaluating the vegetation is after May 15 of the year of the evaluation. Once the IDSC



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completed the vegetation evaluation, they initiated the final reclamation bond release procedures. The complete reclamation bond liability release, on 84.5 acres and 30.0 acres respectively, was approved on November 1, 2005. At that time the two active mine sites were removed from the inspectable unit list. A review of the reclamation liability bond release procedures found that the State had followed their approved regulatory program rules and regulations in a very competent manner.

### Bond Forfeiture Reclamation

The State has developed a plan for the timely elimination of bond forfeiture sites. Adherence to this plan is considered the major component of the State's program. A revised bar chart entitled Iowa Bond Forfeiture Reclamation Schedule, dated July 2006, is located in Appendix A. This chart delineates the work accomplished and illustrates the schedule for the work to be done on the remaining forfeiture sites.

In EY 2006, the Reclamation Schedule for Bond Forfeiture mine sites identified four mine sites to have the reclamation work complete. These sites include the following: American Coal Mine # 3, American Coal Mine # 5, Star Mine # 11 and Star Mine # 6.

#### American Coal Mine # 3

On October 31, 2005, the IDSC approved a final payment of \$44,164.25 for the reclamation construction contract of the American Coal Mine # 3. On November 29, 2005, the IDSC approved liability release for 262 acres at the American Coal Mine # 3. With the complete liability release of the site, it will be removed from their inspectable unit list once the one year maintenance period expires. This will occur on October 31, 2006.

#### American Coal Mine # 5

On March 24, 2006, the IDSC also approved a liability release for 124 acres at the American Coal Mine #5. The reclamation cost was \$227,312.48. Complete liability release will not occur until January 30, 2007, when the one year required maintenance period ends. At that time the site will be removed from their inspectable unit list.

#### Star Mine # 11

The Star Coal Company, Star 11 mine site was reclaimed by the Surety Company. This included completing minor maintenance items, and terrace drain repairs. A bond release application for 200 acres was submitted for Phase I & II and was granted on August 11, 2004. The reclamation bond liability released was \$74,077.25. The remainder of the reclamation bond in the amount of \$13,072.50 was forfeited on November 4, 2004, and the mine site became a bond forfeiture site.

The IDSC is monitoring the site to determine if any maintenance items need to be

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completed during the one year maintenance period, which will end on November 11, 2006. If maintenance is not needed, at that time the inspectable unit will be removed from the inspectable units list.

**Star Mine # 6**

The Star Mine # 6 was reclaimed at a cost of \$47,182.87 on 110 acres. The one year maintenance period will end on June 30, 2007. At that time the inspectable unit will be removed from the inspectable units list.



**VI. OSM Assistance**

The primary mode of OSM assistance to IDSC is through grant funding. For the operation of the IDSC Regulatory Program, a grant was awarded in the amount of \$128,736.00. This grant covered the period of July 1, 2005, through June 30, 2006. OSM provided approximately 50% of the total funding necessary for Regulatory Program operation.

OSM provides 100% funding for the Abandoned Mine Land Program in Iowa. For the period of July 1, 2005, through June 30, 2008, a grant was awarded to IDSC in the amount of \$1,687,982.00. The following is a breakdown of the IDSC AML grant funds.

Administrative	\$ 215,283.39
Project	\$ 1,290,767.61
Emergency Administration	\$ 10,000.00
Emergency Projects	\$ 50,000.00
ACSI	<u>\$ 118,931.00</u>
Total	\$ 1,687,982.00

OSM also provides direct technical assistance to Iowa in all aspects of the Technical Innovation and Professional Services (TIPS), including installations, upgrades, updates, and patches of computer software programs, electronic permitting initiatives, Geographic Information System (GIS), Global Positioning System, and other spatial data technologies. OSM is also available to provide support for State symposia/conferences, topical seminars, workshops, interactive forums, specialized onsite training, and technology outreach programs.

During EY 2006, the following technical assistance was provided by OSM MCR to Iowa:

Title V Assistance

▪ Iowa American Coal Company Wash Plant:

Program Support Division (PSD) provided assistance on the bond forfeiture reclamation design. A preliminary project proposal and cost estimate were delivered to the State in October 2005. This site is substantially under-bonded for full reclamation and the State is investigating other sources of funds. During this reporting period, Iowa staff advised PSD that they expect to have funds this year to reclaim this site and would like to have the final designs from PSD after July 2006. The State contacted PSD at the end of May to discuss a final design.

▪ Iowa Star No. 10 Bond Forfeiture Design:

PSD provided assistance on the bond forfeiture reclamation design. A site visit during April 2005 determined that work required is generally maintenance work with gully repairs, acid forming material remediation, and overseeding. A design proposal was transmitted to Iowa in November 2005.

▪ Iowa American Superior #1 Bond Forfeiture Design:

PSD provided assistance on the bond forfeiture reclamation design. The designs were sent to Iowa on February 2, 2006. This design package included design drawings, SedCAD files, and AutoCAD Drawings. The State provided PSD with some additional design change comments at the end of May 2006.

▪ Iowa American Coal Company No. 1A Bond Forfeiture Design:

PSD continues to assist Iowa on this bond forfeiture reclamation design. Final designs were sent to Iowa on February 2, 2006. The State provided additional comments on the designs to PSD at the end of May 2006.

▪ Iowa On-Site ArcPAD Course

PSD staff provided the TIPS course ArcPAD 6: Mobile GIS for Reclamation Mapping and Analysis to the Iowa Regulatory and AML Program staff in Des Moines, Iowa, September 27 and 28, 2005.

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## Title IV Assistance

- Iowa-AML: Herbert Passive Treatment System:

PSD provided technical assistance to the Iowa AML program on passive treatment technology. PSD staff met with Iowa AML staff on May 16, 2006, at the Herbert AML site near Beacon, Iowa. Water samples and flow measurements were taken during this site visit. PSD staff will be working with Iowa to determine the source of an acid discharge and to design an appropriate remediation system.

## **VII. General Oversight Topic Reviews**

The following oversight topics were reviewed during EY 2006. The detailed finding reports are available for review at the Alton Field Division of the Mid Continent Region Office in Alton, Illinois, at 501 Belle Street, Alton, IL 62002.

### On-the-ground AML Reclamation Success

During the review period IDSC worked on several AML reclamation sites. These sites include the following:

#### Mitchell # 2 Site

This site is a combination site of AML and ACSI. This project utilized ACSI funding. The overall project consisted of 4,200 linear feet of dangerous highwalls, one dangerous impoundment, 0.2 mile of clogged streams, 29 acres of clogged stream lands, a hazardous water body, one vertical opening and 5.5 acres of industrial/residential waste. More details on this project were previously discussed under the ACSI portion of this report on page 4.

#### Pearl AML Site

Reclamation construction began on the Pearl AML site in October 2005. The site was seeded in the spring of 2006. The Pearl site is approximately eight acres and includes acidic spoil piles which contribute to 0.1 mile of clogged stream. A single construction contract called for 63,100 cubic yards of excavation, neutralization of acidic spoils, drainage ditch stabilization, 1500 linear feet of terrace construction, and seeding.

#### Jones AML Site

Project reclamation construction began in 2004 to drain and fill three polluted pit ponds, grade and backfill associated dangerous highwalls, and grade a steep acidic spoil embankment. Reclamation work created one pond with an upper wetland area to control erosion and run-off and another wetland area to help filter run-off from the site into the adjacent Soap Creek. The project area was approximately 40 acres in size and cleaned

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about 0.3 mile of clogged stream. Construction work is expected to be completed in 2006 FY.

#### McVay # 2 and # 3 AML Site

The site was divided into three contracts with #2 completed in 2004 and #3 was completed in 2005. These projects reclaimed several dangerous highwalls, industrial and residential waste, four polluted and hazardous water bodies, and dangerous piles of acidic spoil. The drainage stream was relocated within the project site, the four polluted ponds were filled, and three new ponds were constructed to control runoff. The site was seeded with a mixture of cool and warm season grasses and legumes. Wetland areas were created and seeded around the constructed ponds.



#### Fowler AML Site

The Fowler AML site consisted of approximately 16 acres of barren to poorly vegetated acidic spoil, a 300 foot long dangerous highwall, 0.1 of a mile of clogged stream, and a one acre dangerous impoundment located at the intersection of two county roads. An unnamed tributary to Shoal Creek runs adjacent to the site on the south side and has been affected by sedimentation from the site. Reclamation work drained and filled the dangerous impoundment, backfilled and graded the highwall, and graded acidic spoil piles. Work will continue at this site in EY 2007. After the final grading and before the spoil could be neutralized and seeded, heavy rains uncovered a large amount of rock scattered all over the site. These are now being removed and the site will be neutralized and seeded during evaluation year 2007.

#### Swanson AML Site

The original reclamation construction work was completed in 2001 and consisted of 1750 feet of dangerous highwalls, 27 acres of acidic spoil which contributed to 0.1 mile of clogged stream, 0.5 acre of industrial/residential waste, 1 dangerous impoundment, and 2 acres additional acres of acidic spoil piles. Repairs and permanent seeding were completed in 2005. Repairs included filling gullies, cleaning terrace flow lines, placement of riprap and erosion control mat in damaged drainage way, lime acidic seeps and reseed, place select cover material over exposed sand area, fill a well, and permanently seed the project area.

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### Bluff Creek AML Site

The site is approximately 40 acres which was mined in 1954. The project eliminated 35 acres of eroding acidic spoil which contributed to the 0.3 mile of sediment clogged stream, 1 acre of industrial and residential waste, 2100 feet of highwalls, two polluted pit ponds, and one hazardous water body. The reclamation construction was completed in 2003. Repairs, seeding, and mulching were completed in 2005 which included additional riprap and soil packing against the upstream sides of the spillway on both sides, installation of filter fabric and erosion control stone in two erosion gullies along the north side of the pond, liming, reseeding, installation of an erosion control mat in an acidic area NE of the pond, and installation of erosion control stone on north side of pond on the north east terrace.



### Kurimski AML Site

Reclamation construction on the Kurimski AML site was completed in 2003 on this site which included 400 feet of highwall, 5.1 acres of acidic spoil piles which contributed acidic sediment to clog 0.6 mile of stream running through the project area, and one acre of hazardous equipment and facilities. The site is approximately 40 acres. Repairs on the site were completed during 2005 and included filling erosion gullies, constructing about 1000 linear feet of new terraces, three concrete creek crossings and stabilization of the creek banks, reseeding about seven acres, and inter-seeding about 39 acres.



### East Marysville AML Site

This site contained five acres of dangerous piles and steep embankments. The project was completed in June 2004. The sediment pond constructed on the site is currently not holding water and will be addressed during EY 2007. Trees were planted over all the site in the spring of 2006.

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**Above photo is an overview of the East Marysville AML Reclamation Site**

### Abandoned Mine Land Inventory System Certification Data Accuracy Evaluation

An evaluation was conducted in May 2006 at the IDSC to determine the accuracy of data into AMLIS. A final oversight report was completed in June 2006. The report noted that in a letter dated June 21, 2004, the Iowa AML Program Director certified that appropriate procedures were in place to ensure the accuracy of AMLIS data. This process was verified as still being enacted

The process of ensuring data accuracy in the AMLIS was determined by the AFD (1) “walking through” the certified procedures with the Iowa AML staff, and (2) selecting all Problem Area Description’s (PAD’s) in AMLIS since the 2005 AMLIS review, and comparing the State’s hard/paper copy of the PAD with the printed PAD’s from AMLIS. The results showed that the Iowa AML Program’s process in ensuring data accuracy is successful.

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## **Appendix A: Title V Iowa Bond Forfeiture Reclamation**

### **Schedule**

On the table on the following page:

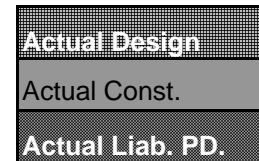
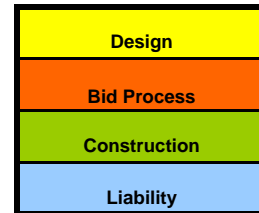
The Jude Mine # 4 and Jude Mine # 5 received Phase III reclamation bond liability release and were removed from the inspectable unit list.

Successful reclamation was also completed on four bond forfeiture mine sites. These sites include the American Coal Mine # 3, American Coal Mine # 5, Star Coal Company Mine # 6 and Star Coal Company Mine # 11. These four mine sites are in various time frames of the required one year maintenance process. As these time frames are completed, these sites will also be removed from the inspectable unit list.

# IOWA BOND FORFEITURE RECLAMATION SCHEDULE

		2005			2006			2007			2008			2009		
<b>American WP #1</b> OSM Design	PLANNED				Design	Design	Design	Bid Process	Construction	Construction	Liability	Liability	Liability			
	ACTUAL															
<b>Star 12</b> DSC Design	PLANNED				Design	Bid Process	Construction	Construction	Liability	Liability						
	ACTUAL				Actual Design	Actual Design	Actual Design									
<b>Superior 2A</b> DSC Design	PLANNED	Design	Bid Process	Construction	Construction	Liability	Liability	Liability								
	ACTUAL				Actual Design	Actual Design	Actual Design									
<b>ICMC WP #1</b> Design by Service Contract	PLANNED				Design	Design	Design	Bid Process	Construction	Construction	Liability	Liability				
	ACTUAL															
<b>Star 10</b> OSM Design	PLANNED	Design	Bid Process	Construction	Construction	Liability	Liability	Liability								
	ACTUAL				Actual Design	Actual Design	Actual Design									
<b>American 6</b> DSC Design	PLANNED				Design	Bid Process	Construction	Construction	Liability	Liability						
	ACTUAL				Actual Design	Actual Design	Actual Design	Actual Design	Actual Design	Actual Design						
<b>Superior 1</b> OSM Design	PLANNED				Design	Bid Process	Construction	Construction	Liability	Liability						
	ACTUAL				Actual Design	Actual Design	Actual Design									
<b>Star 7</b> DSC Design	PLANNED				Design	Bid Process	Construction	Construction	Liability	Liability						
	ACTUAL				Actual Design	Actual Design	Actual Design									
<b>American 1A</b> OSM Design	PLANNED				Design	Bid Process	Construction	Construction	Liability	Liability						
	ACTUAL															
<b>ICMC 8</b> DSC Design	PLANNED							Design	Bid Process	Construction	Construction	Liability	Liability			
	ACTUAL															
<b>Star 14</b> DSC Design	PLANNED							Design	Bid Process	Construction	Construction	Liability	Liability			
	ACTUAL															
<b>Jude 3</b>	PLANNED							Design	Bid Process	Construction	Construction	Liability	Liability			
	ACTUAL															

Attachment 2





## **Appendix B: Anticipated Title IV AML Project**

### **Completion Schedule**

The table on the following page represents the actual and anticipated schedule of AML projects through 2007.

## Anticipated AML Project Completion Schedule

May 19, 2006

	Problem Area	Number	Priority		2005				2006				2007				2008			
					1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
407190	Fowler	IA-181	1	Preparation Design Construction																
	Jones	IA-103	1	Preparation Design Construction																
	Pearl	IA-144	2	Preparation Design Construction																
	Mitchell #2 (ACSI)	IA-114	1	Preparation Design Construction																
507190	Roozeboom #1	IA-040	1	Preparation Design Construction																
	King	IA-046	2	Preparation Design Construction																
	Mitchell #2 (ACSI)	IA-114	1	Preparation Design Construction																
607190	Roozeboom #2	IA-040	1	Preparation Design Construction																
	Blom	IA-067	2	Preparation Design Construction																
	Bert	IA-098	2	Preparation Design Construction																
	Mitchell #3 (ACSI)	IA-114	1	Preparation Design Construction																
707190 (anticipated)	Larson	IA-186	2	Preparation Design Construction																
	Long	IA-151	1	Preparation Design Construction																
	Westercamp (ACSI)	IA-070	2	Preparation Design Construction																
	Boender	IA-056	1	Preparation Design Construction																

## Appendix C:

These tables present data pertinent to mining operations and State and Federal regulatory activities within Iowa. They also summarize funding provided by OSM and Iowa staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation year. Additional data used by OSM in its evaluation of Iowa's performance is available for review in the evaluation files maintained by the Alton Field Division Office.

TABLE 1 – COAL PRODUCTION.....	T-1
TABLE 2 – INSPECTABLE UNITS.....	T-2
TABLE 3 – STATE PERMITTING ACTIVITY.....	T-3
TABLE 4 – OFF-SITE IMPACTS .....	T-4
TABLE 5 – ANNUAL STATE MINING AND RECLAMATION RESULTS .....	T-5
TABLE 6 – OPTIONAL (NOT USED)	
TABLE 7 – STATE BOND FORFEITURE ACTIVITY.....	T-7
TABLE 8 – IOWA STAFFING.....	T-8
TABLE 9 – FUNDS GRANTED TO IOWA BY OSM .....	T-9
TABLE 10 – INSPECTION ACTIVITY.....	T-10
TABLE 11 – ENFORCEMENT ACTIVITY.....	T-11
TABLE 12 – LANDS UNSUITABLE ACTIVITY.....	T-12



**TABLE 1**

<b>COAL PRODUCTION</b> (Millions of short tons)			
<b>Period</b>	<b>Surface mines</b>	<b>Underground mines</b>	<b>Total</b>
Coal production <sup>A</sup> for entire State:			
Annual Period			
<b>2003</b>	0.000	0.000	<b>0.000</b>
<b>2004</b>	0.000	0.000	<b>0.000</b>
<b>2005</b>	0.000	0.000	<b>0.000</b>
<b>Total</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

A Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production. **Provide production information for the latest three full calendar years to include the last full calendar year for which data is available.**

**TABLE 2**

<b>INSPECTABLE UNITS</b>													
<b>As of June 30, 2006</b>													
<b>Coal mines and related facilities</b>	<b>Number and status of permits</b>								<b>Insp. Units<sup>D</sup></b>	<b>Permitted acreage<sup>A</sup> (hundreds of acres)</b>			
	<b>Active or temporarily inactive</b>		<b>Inactive Phase II bond release</b>		<b>Abandoned</b>		<b>Totals</b>						
	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>		<b>IP</b>	<b>PP</b>	<b>Total</b>	
	<b>STATE AND PRIVATE LANDS REGULATORY AUTHORITY: STATE</b>												
Surface mines	0				12		0 12			22.9		22.9	
Underground mines					2		0 2			5.4		5.4	
Other facilities					2		0 2			1.3		1.3	
Subtotals	0	0	0	0	0	16	0	16	0	0	29.6	29.6	
<b>FEDERAL LANDS REGULATORY AUTHORITY: STATE</b>													
Surface mines							0 0					0	
Underground mines							0 0					0	
Other facilities							0 0					0	
Subtotals	0	0	0	0	0	0	0	0	0	0	0	0	
<b>ALL LANDS<sup>B</sup></b>													
Surface mines	0				12		0 12			22.9		22.9	
Underground mines							0 0			5.4		5.4	
Other facilities							0 0			1.3		1.3	
Totals	0	0	0	0	0	12	0	12	0	0	29.6	29.6	
Average number of permits per inspectable unit (excluding exploration sites)									<u>1</u>				
Average number of acres per inspectable unit (excluding exploration sites)									<u>192</u>				
Number of exploration permits on State and private lands:									<u>0</u>		On Federal lands <sup>C</sup> :		<u>0</u>
Number of exploration notices on State and private lands:									<u>0</u>		On Federal lands <sup>C</sup> :		<u>0</u>
<b>IP:</b> Initial regulatory program sites <b>PP:</b> Permanent regulatory program sites													
<sup>A</sup> When a unit is located on more than one type of land, include only the acreage located on the indicated type of land. <sup>B</sup> Numbers of units may not equal the sum of the three preceding categories because a single inspectable unit may include lands in more than one of the preceding categories. <sup>C</sup> Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management. <sup>D</sup> Inspectable Units includes multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.													

**TABLE 3**

<b>STATE PERMITTING ACTIVITY</b>												
<b>As of June 30, 2006</b>												
<b>Type of Application</b>	<b>Surface mines</b>			<b>Underground mines</b>			<b>Other facilities</b>			<b>Totals</b>		
	<b>App. Rec.</b>	<b>Issued</b>	<b>Acres</b>	<b>App. Rec.</b>	<b>Issued</b>	<b>Acres<sup>A</sup></b>	<b>App. Rec.</b>	<b>Issued</b>	<b>Acres</b>	<b>App. Rec.</b>	<b>Issued</b>	<b>Acres</b>
New Permits										0	0	0
Renewals										0	0	0
Transfers, sales and assignments of permit rights										0	0	0
Small operator assistance										0	0	0
Exploration permits										0	0	0
Exploration notices <sup>B</sup>											0	0
Revisions (exclusive of incidental boundary revisions)											0	0
Incidental boundary revisions											0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions.										<u>0</u>		
<sup>A</sup> Includes only the number of acres of proposed surface disturbance.												
<sup>B</sup> State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.												

**TABLE 4**

<b>OFF-SITE IMPACTS</b>													
<b>RESOURCES AFFECTED</b>		<b>People</b>			<b>Land</b>			<b>Water</b>			<b>Structures</b>		
<b>DEGREE OF IMPACT</b>		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
<b>TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE</b>	Blasting												
	Land Stability												
	Hydrology												
	Encroachment												
	Other												
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total number of inspectable units:					<u>0</u>								
Inspectable units free of off-site impacts:					<u>0</u>								
<b>OFF-SITE IMPACTS ON BOND FORFEITURE SITES</b>													
<b>RESOURCES AFFECTED</b>		<b>People</b>			<b>Land</b>			<b>Water</b>			<b>Structures</b>		
<b>DEGREE OF IMPACT</b>		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
<b>TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE</b>	Blasting												
	Land Stability												
	Hydrology	9			4	5		4	5				
	Encroachment												
	Other												
	<b>Total</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total number of inspectable units:					<u>16</u>								
Inspectable units free of off-site impacts:					<u>9</u>								

Refer to the report narrative for complete explanation and evaluation of the information provided by this table.

**TABLE 5**

<b>ANNUAL STATE MINING AND RECLAMATION RESULTS</b>		
<b>Bond release phase</b>	<b>Applicable performance standard</b>	<b>Acreage released during this evaluation period</b>
Phase I	- Approximate original contour restored - Topsoil or approved alternative replaced	0.00
Phase II	- Surface stability - Establishment of vegetation	0.00
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	114.50
	<b>Bonded Acreage Status<sup>A</sup></b>	<b>Acres</b>
Total number of acres bonded at end of last review period (June 30, 2005) <sup>B</sup>		314.50
Total number of acres bonded during this evaluation year		0.00
Number of acres bonded during this evaluation year that are considered remining, if available		0.00
Number of acres where bond was forfeited during this evaluation year (also report this acreage on Table 7)		200.00

<sup>A</sup> Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.

<sup>B</sup> Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).

OPTIONAL TABLE(S) 6

(See Instructions)

**TABLE 7**

<b>STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)</b>		
<b>Bond Forfeiture Reclamation Activity by SRA</b>	<b>Number of Sites</b>	<b>Acres</b>
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2005 (end of previous evaluation year) <sup>A</sup>	16	2,955.00
Sites with bonds forfeited and collected during Evaluation Year 2006 (current year)	0	0.00
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2006 (current year)	0	0.00
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2006 (current year)	4	696.00
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2006 (end of current year) <sup>A</sup>	12	2,259.00
Sites with bonds forfeited but uncollected as of June 30, 2006 (end of current year)	0	0.00
<b>Surety/Other Reclamation (In Lieu of Forfeiture)</b>		
Sites being reclaimed by surety/other party as of June 30, 2005 (end of previous evaluation year) <sup>B</sup>	2	114.00
Sites where surety/other party agreed to do reclamation during Evaluation Year 2006 (current year)	0	0.00
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2006 (current year)	0	0.00
Sites with reclamation completed by surety/other party during Evaluation Year 2006 (current year) <sup>C</sup>	2	114.00
Sites being reclaimed by surety/other party as of June 30, 2006 (current evaluation year) <sup>B</sup>	0	0.00
<sup>A</sup> Includes data only for those forfeiture sites not fully reclaimed as of this date <sup>B</sup> Includes all sites where surety or other party has agreed to complete reclamation and site is not fully reclaimed as of this date <sup>C</sup> This number also is reported in Table 5 as Phase III bond release has been granted on these sites		

**TABLE 8**

<b>STATE STAFFING</b> <b>(Full-time equivalents at the end of evaluation year)</b>	
<b>Function</b>	<b>EY 2006</b>
<b>Regulatory Program</b>	
Permit review	1.25
Inspection	0.75
Other (administrative, fiscal, personnel, etc.)	1.00
<b>Regulatory Program Total</b>	<b>3.00</b>
<b>AML Program Total</b>	<b>4.10</b>
<b>TOTAL</b>	<b>7.10</b>



**TABLE 9**

<p align="center"><b>FUNDS GRANTED TO [STATE]</b>  <b>BY OSM</b>            (Millions of dollars)  <b>EY 2006</b></p>		
Type of Grant	Federal Funds Awarded	Federal Funding as a Percentage of Total Program Costs
Administration and Enforcement	\$0.13	50
Small Operator Assistance		
<b>Totals</b>	<b>\$0.13</b>	

**TABLE 10**

<b>STATE INSPECTION ACTIVITY</b>		
<b>PERIOD: JULY 1, 2005 - JUNE 30, 2006</b>		
<b>Inspectable Unit Status</b>	<b>Number of Inspections Conducted</b>	
	<b>Complete</b>	<b>Partial</b>
Active*	4	8
Inactive*	0	0
Abandoned*	16	0
<b>Total</b>	<b>20</b>	<b>8</b>
<b>Exploration</b>		

\* Use terms as defined by the approved State program.

State should provide inspection data to OSM annually, at a minimum, and maintain inspection data on a continual basis. OSM offices responsible for Federal and Indian Programs need not complete this table since data will be queried from the I & E Tracking System.

**TABLE 11**

<b>STATE ENFORCEMENT ACTIVITY</b>		
<b>PERIOD: JULY 1, 2005 - JUNE 30, 2006</b>		
<b>Type of Enforcement Action</b>	<b>Number of Actions*</b>	<b>Number of Violations*</b>
<b>Notice of Violation</b>	0	0
<b>Failure-to-Abate Cessation Order</b>	0	0
<b>Imminent Harm Cessation Order</b>	0	0

\* Do not include those violations that were vacated.

State should provide enforcement data to OSM annually, at a minimum, and maintain data on a continuous basis. OSM offices responsible for Federal and Indian Programs need not complete this table since data will be queried from the I & E Tracking System.

**TABLE 12**

<b>LANDS UNSUITABLE ACTIVITY</b>  <b>PERIOD: JULY 1, 2005 - JUNE 30, 2006</b>			
Number of Petitions Received	0		
Number of Petitions Accepted	0		
Number of Petitions Rejected	0		
Number of Decisions Declaring Lands Unsuitable	0	Acreage Declared as Being Unsuitable	0
Number of Decisions Denying Lands Unsuitable	0	Acreage Denied as Being Unsuitable	0

State should provide lands unsuitable data to OSM annually if there is any activity in this program area  
 OSM OFFICES RESPONSIBLE FOR FEDERAL AND INDIAN PROGRAM STATES MUST  
 ALSO COMPLETE THIS TABLE.

## Appendix D: State Comments on Report

This Appendix contains the Iowa Department of Agriculture & Land Stewardship, Division of Soil Conservation, Regulatory and Abandoned Mine Land Programs comments on the draft Evaluation Report, which the IAO received on August 18, 2006.

The Alton Field Division Chief's disposition of the State's comments is presented below in bold italic print.

### **Disposition of Comments:**

1. Page i:  
Delete the last sentence of the second paragraph.

*No change necessary*

2. Page ii:  
Star 11 achieved Phase II release. One of our comments is whether or not it requires a longer liability period. (Five (5) years) This may or may not require changes, subject to brief conversation with OSM.

*No change necessary*

3. Page 5  
The third paragraph (one sentence) should clarify the year "2007" as the "2007 evaluation year."

*Added "evaluation year" after 2007*

4. Page 6  
The second paragraph, after "Pathfinders Resource Conservation & Development, Inc.) needs to be clarified concerning the total partnership dollars. The total partnership dollars for the Roozeboom Reclamation Project are \$267,000.00. \$100,000 from Pathfinders RC&D and \$167,000 from the Mahaska SWCD.

*OSM does not consider cooperative watershed agreement grant funds as partnership dollars. Therefore the figure of \$167,000 is the only partnership dollars currently attributed to this project. For clarification purposes, the last sentence in the paragraph was also removed.*

5. Also, this contract is the first of two contracts. References should refer to "Roozeboom Contract #1".

*Added "Contract #1" to sentence.*

August 22, 2006

6. Jones AML Site: Construction on this site actually began in 2004.

***Changed 2005 to 2004.***

7. Iowa Bond Forfeiture Reclamation Schedule:  
The liability period for Star 11 may have to be changed to accommodate the previous comment.

***No change necessary***

8. Anticipated AML Project Comparison Schedule  
The chart is missing some information in the shaded area. Iowa will provide electronically.

***All information was in draft report. No change necessary***

9. Table 2  
This table needs to be corrected with the attached table.

***No change necessary. Table 2 information is correct as written.***

10. Table 7  
Star 11 was forfeited November 9, 2004. This will change the numbers in Table 7.

***Information in table 7 is adjusted to reflect this change.***