

TABLE OF CONTENTS

Executive Summary.....	i
I. Introduction.....	1
II. Overview of the Iowa Coal Mining Industry.....	1
III. Major Accomplishments/Issues/Innovations.....	2
IV. Success in Achieving the Purposes of SMCRA.....	4
A. Off-site Impacts.....	4
B. Reclamation Success.....	5
V. OSM Assistance.....	6
VI. General Oversight Topic Reviews.....	7
Appendix A: Iowa Bond Forfeiture Reclamation Schedule.....	10
Appendix B: Anticipated AML Project Completion Schedule.....	11
Appendix C: REG-8 Tables 1 – 12.....	12
Appendix D: State Comments on Report.....	13

Cover page is American Coal Company Mine #8, a bond forfeiture reclamation project

August 15, 2005

EXECUTIVE SUMMARY

During the 2005 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. Studies in the areas of bond forfeiture reclamation projects and reclamation success by the mine operator and the surety company 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**
All active mine sites are free from off-site impacts. Seven of the sixteen bond forfeiture mine sites are free from off-site-impacts. Through bond forfeiture reclamation, one offsite impact was eliminated.
- **BOND FORFEITURE AND SURETY RECLAMATION** – A reclamation schedule was developed to measure reclamation success. During the evaluation period, four bond forfeiture sites were identified for reclamation work. Reclamation was completed on two of the sites with the majority of the reclamation completed on the other two sites. Weather hampered its completion; however, the reclamation will be finalized within the next few months.

A Phase I & II bond liability release was granted on August 11, 2004, by IDSC on a site reclaimed by a surety company.

- **ACTIVE MINE SITE RECLAMATION** – Two bond liability release applications were submitted by the Jude Mining Company on its reclamation work.
- **AML CUSTOMER SERVICE – TRACKING OF PUBLIC INQUIRIES ETC.** - Iowa has a computer based public (citizen) inquiries tracking system that operates as an integral part of Iowa's AML program. This system consistently and accurately maintains a listing of all public contacts and results of these contacts.

August 15, 2005

- **TITLE IV - ON-THE-GROUND AML RECLAMATION SUCCESS** - The IDSC has been actively working on six AML reclamation sites. All sites are being completed in a timely and efficient manner. The Iowa AML Program is managed in a cost effective and professional manner. All projects are in compliance with appropriate laws and regulations. Designs are well thought out, reasonable, cost effective, and use the best technology currently available. Completed projects have resulted in elimination of extreme hazards to the public and restoration of beneficial land uses. Moreover, they are completed with minimal disturbance to the environment and protect endangered species.

- **ABANDONED MINE LAND INVENTORY SYSTEM CERTIFICATION AND DATA ACCURACY EVALUATION REPORT.** - The review concluded that the Iowa AML Program's process in ensuring data accuracy is successful.

August 15, 2005

I. 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, 2004, to June 30, 2005.

The primary focus of the OSM oversight policy in Iowa for EY 2005 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 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
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
EY	Evaluation Year
IDSC	Iowa Division of Soil Conservation
IU's	Inspectable Units
MCR	Mid-Continent Region
OSM	Office of Surface Mining
PAD	Problem Area Description
SMCRA	Surface Mining Control and Reclamation Act of 1977
TIPS	Technical Innovation and Professional Services

II. 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 500,000 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.

At the beginning of EY 2005, Iowa had twenty inspectable units (IU's). All but two units were abandoned and had their bond forfeited or the surety was conducting reclamation in lieu of forfeiting the reclamation bonds. During the EY, two of these IU's, American No. 7 and 8, were reclaimed and removed from the IU list. As a result, there are 18 IU's at the end of EY 2005.

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 have expired and have not been renewed. Since 1998, the number of inspectable units has decreased from 28 to 18. Yearly changes in the number of inspectable units are shown on the adjacent table. The number of inspectable units will continue to decrease as the bond forfeiture sites and the two non-forfeited sites are reclaimed.

INSPECTABLE UNITS

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

Before the enactment of SMCRA, approximately 13,764 acres were affected by coal mining in 17 Iowa counties. The current listing of hazardous conditions recorded in OSM's Abandoned Mine Land Inventory System (AMLIS) includes the following: 109,779 feet of dangerous high-walls; 1,427 acres of dangerous spoil piles and embankments; 54 hazardous water bodies; 28 vertical openings; 22 miles of sediment clogged streams; 2,209 acres of mine lands which cause flooding and sediment deposition on un-mined land.

III. Major Accomplishments/Issues/Innovations

Emergency Program

The State received and investigated six emergency complaints during Evaluation Year (EY) 2005. Two of these complaints were determined to be AML emergencies. These two complaints included the Garber 2 and Seeman Shaft emergencies. Both emergencies were handled in an expeditious manner.

This picture of the Garber 2 emergency depicts the original small opening in the yard. This was located about 25 feet from a residence and immediately adjacent to a previous mine subsidence project.



August 15, 2005

Prior to backfilling the void, a backhoe excavated the site so that the void was fully exposed which allowed it to be properly backfilled with suitable materials.



Appalachian Clean Streams Initiative

One of the clean stream projects 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 highwalls, clogged stream land, and a vertical opening on the southern portion of the site. This project was completed in August of 2004. Design for Phase II was finalized immediately thereafter. Phase II was let for bid in early June of 2005. This construction contract addresses the middle portion of the site, which includes a priority one dangerous impoundment, clogged stream, and dangerous highwalls. Reclamation is scheduled to be completed by June 2006. The final and third phase of the Mitchell Reclamation Project will address the northern portion of the site and will begin in 2006.



Mitchell ACSI Site during reclamation



Mitchell Site after reclamation

The IDSC has identified several potential projects for Appalachian Clean Stream Initiative funding and/or Watershed Cooperative Agreement Groups. Currently the IDSC is working with the Red Rock Environmental Education Foundation and anticipates submitting an application on behalf of the group in mid August 2005. The IDSC is working to establish State, local, and Federal partnerships, or other cooperative arrangements to continue or complete reclamation on

one or more Watershed Cooperative Agreement projects in FY 2006 and 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 hazards to the public and restoration of beneficial land uses. Iowa continues to operate its AML Program in an effective and cost efficient manner.

Adopted Program amendments

During the EY 2005, Iowa adopted three rules to its approved program. These are as follows:

- Iowa adopted an amendment that removed provisions concerning the use of reference areas for determining productivity success on prime farmland from its April 1999 Revegetation Success Standards and Statistically Valid Sampling Techniques. In the same amendment, Iowa removed provisions concerning control area climatic adjustment to prime farmland average yields. These provisions were removed in the final rule for IA-014-FOR, which was approved by OSM and published on May 3, 2005.
- Iowa also amended the Small Operator assistance eligibility thresholds to conform to the changes made by OSM and restricted delivery of program services at IAC 27—40.41 (4) until Iowa revises its statutory requirements. These amendments were adopted by Iowa on March 30, 2005, became effective on July 1, 2005.

At this time there are no outstanding Program Amendments.

IV. 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 in Alton, Illinois.

A. Offsite Impacts

No new offsite impacts occurred in Iowa during the EY 2005. Currently there are eighteen (18) inspectable units. Sixteen (16) inspectable units are bond forfeiture mine sites and two mine sites are considered active in that reclamation activities are being

completed by the permittee.

The two active mine sites, Jude #4 and #5 are 100% free from offsite impacts. All offsite impacts in Iowa are located at bond forfeiture sites. Forty-four percent of the bond forfeiture mine sites are free from offsite impacts. On nine of the bond forfeiture sites, there are eleven (11) offsite impacts. All of these offsite impacts are related to hydrology and have affected land and water resources. Five of the impacts had a moderate impact on the resource. The remaining impacts were minor in nature. All existing off-site impacts were identified prior to EY 2002.

During this review period, reclamation activities eliminated one offsite impact. 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. Because the majority of inspectable units in Iowa are forfeited sites, very little of Iowa's disturbed acreage will actually undergo the bond release process.

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 bar chart entitled Iowa Bond Forfeiture Reclamation Schedule, dated June 14, 2005, 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 2005, the Reclamation Schedule for Bond Forfeiture mine sites identified four mine sites with ongoing reclamation work. These mine sites included American # 3, American # 5, American # 7 and American # 8. All work was completed on American Mine sites # 7 and # 8. The reclamation work on American Mine site # 3 and American # 5 will be completed later in calendar year 2005, at which time they will enter the one year vegetation maintenance period and should be released from any further forfeiture work during EY 2007.

Star 6 and ICMC wash plant were planned to start as one project, but the landowner of the wash plant site has objected to the reclamation plan for the site. This has resulted in a delay of reclamation of these sites. Star 6 will be independently designed and a reclamation contract will be initiated and signed.

Surety Reclamation

On the Star Coal Company, Star 11 mine site, the surety completed 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.

Active Mine Site Reclamation

Two active reclamation coal mine sites, Jude # 4 and Jude # 5 were reclaimed by the mine operator. He submitted applications for bond liability release for the two mine sites in October 2004. According to Iowa's Revegetation Success Standards and Statistically Valid Sampling Techniques, Phase II and III evaluation of vegetation could not be made until after May 15th, 2005. A field evaluation was completed during EY 2005 and a bond liability assessment will be completed in EY 2006.

With the two Jude mine site bond release applications in for consideration, no other future bond liability release applications will be received by the State of Iowa unless a new coal mine operation is initiated

V. OSM Assistance

The primary mode of OSM assistance to IDSC is through grant funding. The amount of grant funding awarded to IDSC for the operation of the Regulatory Program in EY 2005 was \$128,736. OSM provided 50% of the total funding necessary for Regulatory Program operation. OSM provided 100% funding for the Abandoned Mine Land Program in Iowa, which totaled \$1.69 million in EY 2005. 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
ASCI	\$ 118,931.00
Total	\$ 1,687,982.00

The goal of OSM is to provide direct technical assistance to Iowa in all aspects of the Technical Innovation and Professional Services (TIPS), including installations, upgrades, updates, and patches, electronic permitting initiatives, Geographic Information System, 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 2005, the following technical assistance was provided by OSM to Iowa for their Bond Forfeiture projects:

- American Coal Company No. 3: Completed project design and submitted to the State for their review prior to bidding and construction.
- American Coal Company Wash Plant No 1: Project design was completed and delivered to the State in October. This site is both a bond forfeited site and AML site. Investigation is still ongoing to determine the appropriate expenditure of funds on this site. Because the site does not have sufficient surety bonds available to reclaim the Title V bond forfeited area, the State is investigating other sources of funding. During April, a site visit was conducted to sample runoff during a rainfall event, sample discharges, and in-pond water.
- Star Coal No. 6: A preliminary project design was completed in rough draft and forwarded to the State for their review. IDSC initiated the final project design work in EY 2005.
- Star Coal No. 10 Design Project: A site visit was conducted in April to collect field data for the design project to be submitted in EY 2006.
- Superior No. 1 Design Project: A site visit was conducted in June to collect field data for the design project to be submitted in EY 2006.
- American Coal Company No. 1A Design Project: A site visit was conducted in June to collect field data for the design project to be submitted in EY 2006.

VI. General Oversight Topic Reviews

The following oversight topics were reviewed during EY 2005. 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.

AML Customer Service –Tracking of Public Inquires, etc.

Iowa has a computer based public (citizen) inquiries tracking system that operates as an integral part of the State Abandoned Mine Land (AML) program. This system is routinely used to track public requests for information, assistance, investigations, outreach, and public meetings. It enables the State to provide for appropriate consideration, response, and closure to public concerns in a timely manner.

Iowa consistently enters and maintains all public inquiries in the tracking system in a timely and professional manner. The State program continues to effectively provide for Customer Service and Public Outreach.

On-the-ground AML Reclamation Success

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

Bluff Creek AML Site - The site consists of approximately forty acres of land which was surface mined in 1954. The project eliminated 0.3 miles of acidic sediment clogged stream, 34 acres of barren acidic spoils causing the sedimentation, one hazardous water body, 2,100 linear feet of dangerous highwalls, a residential trash dump, and a 2 acre polluted pit pond. The project created an approximately 23 acre pond with two islands planted with native grasses, forbs, and trees and



approximately 3.3 acres of associated wetlands. The remaining acres were planted with cool and warm season grasses and forbs and trees. Water drainage areas were lined with riprap to protect flowlines from erosion. A large dam was constructed along the level B Monroe County road. A concrete drop structure was installed under the road to control flooding, sediment leaving the pond, and erosion from pond overflow.

Swanson AML Site - This site consisted of a dangerous highwall averaging 20 feet high which extended along a water filled pit within 300 feet of a residence. The major reclamation work has been completed. Additional work is scheduled for EY 2006 after which the site will be completely reclaimed.

Jones AML Site - This consists of eighteen acres of clogged streams land, seven hundred feet of dangerous highwalls, approximately eighteen acres of dangerous piles and embankments and two portals. The initial ground work commenced in February 2005 and work is in progress.

Kurimski AML Site - This site included a 35 foot high by 400 foot long highwall, barren and toxic spoil and a clogged stream. The highwall was within approximately 40 feet of a well traveled road. Construction activity at this site was completed in 2003. Minor repairs, seeding and mulching are needed and it is anticipated to be completed by October 31, 2005.

McVay #2 Site - This 75 acre site contained several dangerous highwalls including a 40 foot high, 870 foot long highwall, a 35 foot high, 770 foot long highwall, a 30 foot high, 370 foot long highwall plus several other similar dangerous highwalls. The area also

included an unauthorized industrial and residential waste dump, barren acidic spoils and polluted and hazardous water bodies. All reclamation activities, including final seeding were completed in the spring of 2005.

East Marysville Site -- This site contained five acres of dangerous piles and steep embankments. The vegetation was established in EY 2005 including initial tree planting. Additional trees are scheduled to be planted in EY 2006.

Abandoned Mine Land Inventory System Certification Data Accuracy Evaluation

An evaluation was conducted at the IDSC to determine the accuracy of data in the Abandoned Mine Land Inventory System (AMLIS). 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.

The process of ensuring data accuracy in the AMLIS was determined by the IAO (1) “walking through” the certified procedures with the Iowa AML staff, and (2) selecting a random sample of Problem Area Description’s (PAD’s) in AMLIS 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.

Appendix A: Iowa Bond Forfeiture Reclamation Schedule

On the following table:

American Coal Company, Mines 7 and 8 have been completely reclaimed. Superior 1 and Superior 2A are both underground mines. All other mines are surface mines.

August 15, 2005

Appendix B: Anticipated AML Project Completion Schedule

August 15, 2005

Appendix C: Required REG 8 Tables 1 through 12

- 1. Table 1 Coal Production**
- 2. Table 2 Inspectable units**
- 3. Table 3 State Permitting Activity**
- 4. Table 4 Off-site Impacts**
- 5. Table 5 Annual State Mining and Reclamation Results**
- 6. Table 6 Optional table**
- 7. Table 7 State Bond Forfeiture Activity**
- 8. Table 8 State Staffing**
- 9. Table 9 Funds Granted to State by OSM**
- 10. Table 10 State of Iowa Inspection Activity**
- 11. Table 11 State of Iowa Enforcement Activity**
- 12. Table 12 Lands Unsuitable Activity**

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 Program's comments on the draft Evaluation Report, which the AFD received on August 12 , 2005. The State's comments follows this page.

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

Disposition of Comments:

Comment # 1. Report has been changed to reflect State comment.

Comment # 2. Table 7 has been corrected.

Comment # 3. Table 10 has been modified to include the partial inspections conducted.

From: Coffelt, Todd [mailto:TODD.COFFELT@idals.state.ia.us]
Sent: Friday, August 12, 2005 4:56 PM
To: Andrew Gilmore
Cc: Tow, Ken; Jeske, Julia
Subject: Iowa Annual Evaluation Summary Report for Regulatory and AML

Andrew-

Our staff has reviewed the draft Iowa Annual Evaluation Summary Report for the Regulatory and Abandoned Mine Land Programs for Evaluation Year 2005.

There are three items that need to be corrected:

- 1) Page 5, the second to last paragraph, ACC 5 is not yet complete with construction activity and has not entered the one year liability period.
- 2) Table 7, The acres in the first box (unreclaimed as of June, 2004) should read 3,334 acres. This is the number submitted by D.V.
- 3) Table 10, we failed to report 8 partial inspections for active sites. These would be for the Jude sites.

If this email does not constitute official response for reviewing the draft document, please let Ken know as I will be out of the office until August 22, 2005 and we will respond as necessary. I called today and just missed you for whether or not this was acceptable.

Otherwise, we look forward to seeing the final copy.

Thanks for your help-

Todd A. Coffelt
Environmental Specialist Senior
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
Todd.Coffelt@idals.state.ia.us
(515) 281-4253

August 15, 2005