

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report
for the
Abandoned Mine Lands
Program
Administered by the State
of
NORTH DAKOTA
for
Evaluation Year 1996
(January 1, 1996 to September 30, 1996)

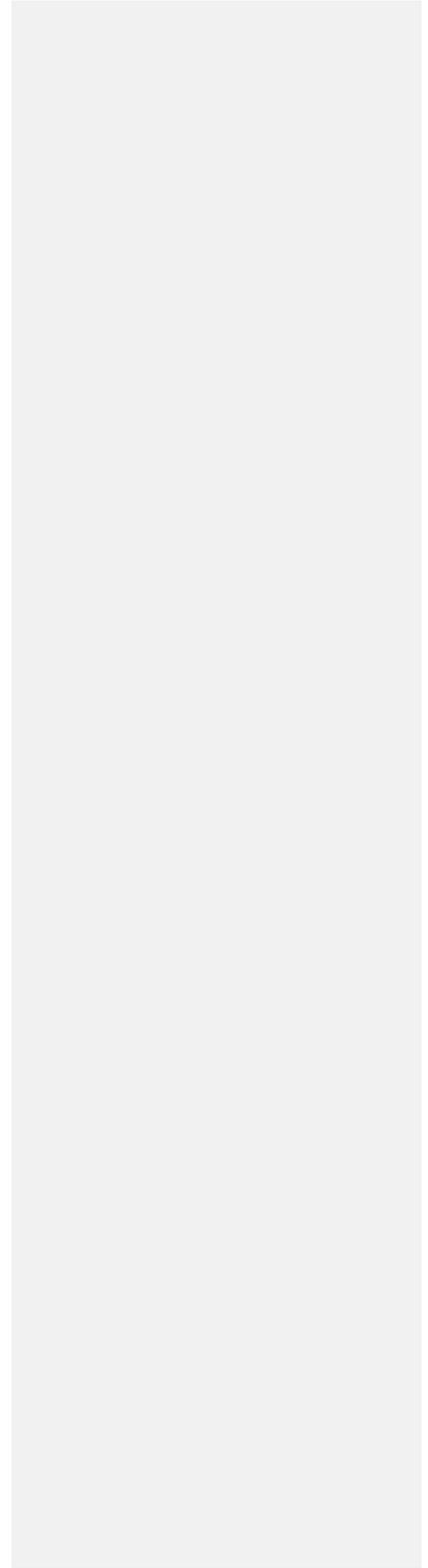


TABLE OF CONTENTS

I. Introduction1

II. Noteworthy Accomplishments2

III. Results of Enhancement and Performance Reviews3

 A. On the Ground Reclamation Success for AML Projects3

 B. AML Emergency Program4

 C. Inventory Maintenance4

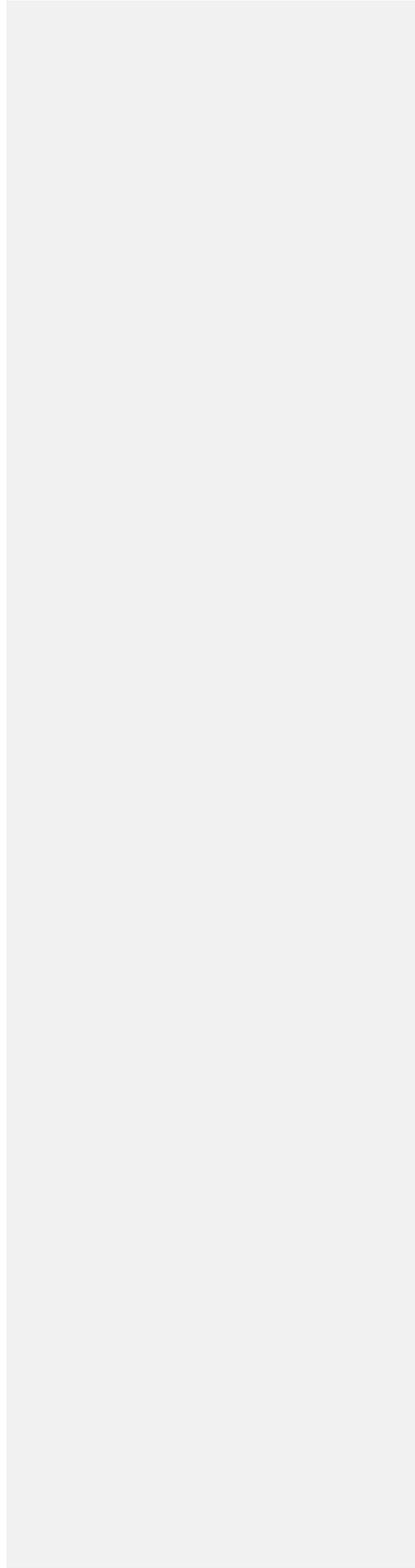
 D. Program Administration (Grants)4

IV. Accomplishments and Inventory Reports 5

Appendix A: Tabular Summary of Core Data to Characterize the Program6

Table 1 Abandoned Mine Land Reclamation Needs and Accomplishments Since Program ApprovalT-1

Table 2 Status of AMLR Funds Awarded to North DakotaT-2



Part I. Introduction

The North Dakota Abandoned Mine Land Reclamation (AMLR) program is operated under the guidelines of the Surface Mining Control and Reclamation Act (SMCRA), an informal Programmatic Agreement between the State and the Casper Field Office (CFO) of the Office of Surface Mining Reclamation and Enforcement (OSM), the Federal Assistance Manual, and associated rules, regulations and policies. North Dakota was granted primacy in 1981, and this gave the State the authority to conduct an AMLR program within its borders. Oversight of the North Dakota program is conducted by the CFO. The topics of this oversight report were selected in a shared commitment process with the State, and the evaluation methods are based upon OSM Directive AML-22 and the informal Programmatic Agreement. This report covers the period of January 1, 1996 to September 30, 1996.

North Dakota continues to administer an excellent AMLR program in full compliance with State and Federal laws, regulations, procurement standards and their approved Abandoned Mine Land Reclamation Plan. Design and specifications for reclamation projects are completed in-house with the four full time AML personnel, and project construction is contracted out to the lowest qualified bidder. One additional temporary project inspector is hired during the summer months to assist in on-site inspection of active construction projects. Our evaluation of the program has concluded that all work is done in the most cost effective manner possible. The design work is accomplished during the winter months when the majority of on-site reclamation is halted by the severe weather conditions usually encountered in North Dakota. When the weather permits reclamation activities to resume in the Spring, the State is ready to proceed with the new projects as funding will allow.

The North Dakota AML staff is extremely competent, well trained and dedicated to the program. An excellent working relationship has been developed between the State Abandoned Mine Division and the CFO. No issues were noted during this evaluation period and no past unresolved issues are attributed to the program. The Abandoned Mine Land Division also enjoys good working relations with the other State and Federal agencies that must be contacted during the course of preparing projects for reclamation.

One amendment to the North Dakota AML Reclamation Plan was approved in May of 1996. The amendment revised the North Dakota Century Code (NDCC) 38-14.2-03(14); revised bidder eligibility for AML contracts, procurement procedures, contract procedures, contract and procurement policies; and revised the North Dakota Public Service Commission's organizational chart. The State has been cooperative and efficient in keeping their Reclamation Plan up to date.

The following list of acronyms are used in this report:

AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
AVS	Applicant Violator System
BTTI	Branch of Technical Training and Information
CFO	Casper Field Office
EY	Evaluation Year
MOU	Memorandum of Understanding
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NOV	Notice of Violation
PSC	Public Service Commission
OSM	Office of Surface Mining Reclamation and Enforcement
RSI	Random Sample Inspections
SHPO	State Historic Preservation Office
SMCRA	Surface Mining Control and Reclamation Act of 1977
SPATS	State Program Amendment Tracking System
TDN	Ten Day Notice
TIPS	Technical Information Process System

Part II. Noteworthy Accomplishments

One of the most noteworthy aspects of the North Dakota AMLR program is the continued cost effectiveness of the overall program. Because of innovative reclamation techniques, in-house project design and constant communication with construction contractors, most reclamation projects are accomplished for less than the original budget. The State also employs flyash as a grout component in many of the underground grouting projects. The Abandoned Mine Division conducted research into the use of this product, and it was approved for underground use by the State Health Department. This saves approximately \$85 per ton on the grout mixture and results in a significant savings to the program, without any loss in reclamation efficiency. A staff member presented a paper on the use of this material in a wet mine environment at the National Association of Abandoned Mine Land Programs annual conference in Kalispell, Montana in September of 1996. The presentation was well received. Several other states have expressed an interest in using flyash as a grout component, and North Dakota is providing the results of their program to them. An independent audit on the program during this reporting period found no discrepancies.

The State is in the forefront of computer technology in abandoned mine reclamation. The Director of the North Dakota Abandoned Mine Division serves on the committee that is designing a Windows-based user interface to replace the current Telnet access to the Abandoned

Mine Land Inventory System (AMLIS). When put in use, it is expected that this system will make the AMLIS much more user friendly.

The State is experimenting with the use of geophysical techniques to detect underground mine voids, and they are developing a computerized database for their inventory that will include digitized maps and the use of a Geographical Information System (Arc View). In addition, the home page of the Abandoned Mine Division is continually updated to reflect the current activities of the AMLR program.

Many of the subsidence problems in the State are within road right-of-ways and produce severe hazards for the traveling public. To be able to more quickly and efficiently respond to these hazards, the Abandoned Mine Division has signed an Emergency Protocol agreement with the State and county road authorities. With the cooperation of these entities some cases of reclamation of roadway subsidence are completed within a day or two of notification of the problem.

Part III. Results of Enhancement and Performance Reviews

A. On The Ground Reclamation Success for AML Projects

North Dakota has achieved excellent success with its reclamation projects. During this evaluation period seven AML projects that have been completed were visited. Most of these projects were completed in the mid to late 1980's and at this point are not identifiable as abandoned mine sites. The contouring of the sites and the abundant vegetation blends in so well with the surrounding terrain that the site boundaries have to be pointed out to anyone unfamiliar with the sites. Water has been retained whenever possible on each site and wildlife habitat enhancement is a consideration in all reclamation projects.

Two sites on which reclamation had not started were also visited. These were areas where cultivated fields were undermined and subsidence has occurred. Reclamation had been accomplished in the past on both sites, but additional subsidence features had appeared recently. The holes generally ranged from 20 to 60 feet in depth and most of them had vertical walls. Cultivation equipment had passed within a few feet of the edge of some of the holes. Such subsidence is a common problem in parts of the State where the mines were shallow and there is no rock strata in the overburden to consolidate the soil and form a stable mine roof. Many subsidence holes of this type would be considered emergency projects if they occurred in a populated area, but on private property in a rural setting they are considered high priority coal projects.

One project under construction was also visited. A large subsidence hole appeared in a heavily used road just outside the city of Dickinson. Through exploratory drilling, it was discovered that approximately one mile of the road was undermined, with underground voids marked from 15 to

60 feet below the road surface. This drilling project was accomplished during the winter months so that reclamation would be ready to start as soon as weather permitted. A grouting program was underway to stabilize the road and initial indications are favorable for successful reclamation.

B. AML Emergency Program

North Dakota acquired the responsibility for the operation of their emergency program in 1993. One emergency project was reclaimed during this evaluation period, a subsidence occurrence in the town of Beulah. The State has reclaimed three emergency projects since the inception of their program. Two of these projects were completed in five days and one took seven days to complete. All of these projects were very hazardous and occurred in populated business or residential areas. In each case the hazard to the public health and safety was abated under the emergency program and any further reclamation work necessary was completed under a scheduled AML project.

C. Inventory Maintenance

The North Dakota Abandoned Mine Land Division continues to investigate and evaluate reports of AML hazards from public officials and private citizens across the State. Their inventory of abandoned mine sites is continually upgraded, as is the computerized Abandoned Mine Land Inventory System that is maintained in OSM Headquarters. The Rural Abandoned Mine Program (RAMP) which is operated by the Natural Resource Conservation Service of the Department of Agriculture, is still active in the State. The Abandoned Mine Land Division coordinates very closely with them on abandoned mine inventories to ensure that while the hazards are abated, there is no overlap in the reclamation programs.

D. Program Administration (Grants)

North Dakota submitted all AML financial reports on a timely basis. All reports were complete. North Dakota agreed to report any overdraws from the U. S. Treasury or any instances where excess cash was held as a result of drawdowns. CFO conducted a drawdown analysis sampling drawdowns occurring between January 1, 1996 and August 1, 1996. In all cases, expenditures occurred before the drawdown and the amount of the draw coincided with the amount of the expenditure.

In a single A-128 Audit completed for two years ending June 30, 1994, there was one finding where the Public Service Commission had paid unallowable overcharges for vehicle use from the State motor pool in the amount of \$2,802 for abandoned mine land purposes. The PSC paid back OSM this amount immediately and the finding is considered resolved.

CFO conducted financial reviews of payroll, procurement, accounts payable, and travel pertaining to the North Dakota AML program. Approvals, verifications, and backup information

was reviewed. Internal controls were in place, were adequate and were being applied. There are no other unresolved issues relative to previous A-128 Audits. Another A-128 Audit is currently being conducted for the period July 1, 1994 through June 30, 1996.

Part IV. Accomplishments and Inventory Reports

During this reporting period North Dakota had five active AML reclamation projects under construction. Two of the projects were to grout underground voids and stabilize the surface area; two were to eliminate highwalls resulting from surface mining, and one was an exploratory drilling project to locate and map underground mine voids. The State selects projects for reclamation that are the most hazardous to the largest number of citizens. Their Reclamation Plan contains a weighted matrix that is used in the selection procedure, but because of the small staff some sites may be selected for reclamation that are not at the top of the matrix list. These are high priority sites that are located close to one of the top matrix sites. With this type of project selection, one staff member is able monitor work on several projects during a construction season and better utilize available funding.

The State also takes advantage of the ten percent set-aside provision of SMCRA. They feel that problems with abandoned mines will continue in the State long after the AMLR program has expired. Ten percent of the State Share of each annual AMLR allocation is placed in an State's interest bearing account to be used for reclamation purposes only after the expiration of the AMLR program. North Dakota is a minimum program State receiving 1.5 million dollars a year to operate the program. This is not enough funding to allow them to complete the AML problems on the inventory before the program expires.

Appendix A contains tables that document the accomplishments of the AML Program.

APPENDIX A

Tabular Summaries of Data Pertaining to Abandoned Mine Land Reclamation Program Administration

These tables present data pertinent to Abandoned Mine Land activities within North Dakota. They also summarize funding provided by OSM to North Dakota. Unless otherwise specified, the reporting period for the data contained in all tables is the 1996 evaluation year (January 1, 1996 - September 30, 1996). Additional data used by OSM in its evaluation of North Dakota performance is available for review in the evaluation files maintained by the Casper Field Office.

TABLE 1

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ABANDONED MINE LAND RECLAMATION NEEDS AND ACCOMPLISHMENTS SINCE PROGRAM APPROVAL								
m nature	Proble	Unit	Coal-related problems				Noncoal-related problems	
			Abatement status			Total	Abatement status	
			Unfunded	Funded	Completed		Funded	Completed
Priority 1 & 2 (Protection of public health, safety, and general welfare)								
Clogged streams	Miles	0	0	0	0.0	0	0	
Clogged stream lands	Acres	0	0	0	0.0	0	0	
Dangerous highwalls	Lin. Feet	93,125	13,000	40,449	146,574	0	0	
Dangerous impoundments	Count	0	0	4	4.0	0	0	
Dangerous piles & embankments	Acres	30	0	283	313.0	0	0	
Dangerous slides	Acres	0	0	35	35.0	0	0	
Gases: hazardous/explosive	Count	0	0	0	0.0	0	0	
Underground mine fires	Acres	0	0	0	0.0	0	0	
Hazardous equip. & facilities	Count	5	0	14	19.0	0	0	
Hazardous water bodies	Count	0	0	18	18.0	0	0	
Industrial/residential waste	Acres	17	0	2	19.0	0	0	
Portals	Count	10	0	13	23.0	0	0	
Polluted water: agric. & indust.	Count	5	0	6	11.0	0	0	
Polluted water: human consumption	Count	1	0	0	1.0	0	0	
Subsidence	Acres	1199	685	1072.5	2,956.5	0	0	
Surface burning	Acres	0	0	1	1.0	0	0	
Vertical opening	Count	22	20	88	130.0	0	0	
Priority 3 (Environmental restoration)								
Spoil areas	Acres	110	0	0	110.0	0	0	
Benches	Acres	0	0	0	0.0	0	0	
Pits	Acres	0	0	0	0.0	0	0	
Gob piles	Acres	1	0	0	1.0	0	0	
Slurry ponds	Acres	0	0	0	0.0	0	0	
Haul roads	Acres	0	0	0	0.0	0	0	
Mine openings	Count	0	0	0	0.0	0	0	
Slumps	Acres	0	0	0	0.0	0	0	
Highwalls	Lin. Feet	0	0	0	0.0	0	0	
Equipment/facilities	Count	0	0	0	0.0	0	0	
Industrial/residential waste	Acres	1	0	0	1.0	0	0	
Water problems	Gal./min.	0	10	0	10.0	0	0	
Other	--	0	0	0	0.0	0	0	
<p>Note: All data in this table are taken from the Abandoned Mine Land Inventory System (AMLIS). Since information concerning noncoal-related problems and accomplishments did not have to be included in AMLIS until November 26, 1991, the table may not reflect all noncoal-related accomplishments.</p>								

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