OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report
For the
MONTANA
Abandoned Mine Land Reclamation Program
Evaluation Year 2011

September 15, 2011

TABLE OF CONTENTS

(Cover Photo: Repository Construction at the McLaren Tailings, Cooke City, Montana.)

I. General

A. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior to oversee regulation of coal exploration, surface coal mining and reclamation operations, and reclamation of lands adversely affected by past mining practices. SMCRA provides that, if certain conditions are met, a state may assume primary authority for reclamation of abandoned mine lands (AML) within its borders. Once a state has obtained such approval, OSM has the responsibility to make investigations, evaluations, and inspections necessary to determine whether that State's AML program is being administered in accordance with approved program provisions. On November 24, 1980, the Secretary of the Department of Interior approved Montana's AML Reclamation Plan under Title IV of SMCRA. Montana's approved Reclamation Plan sets forth authority, policies, and procedures under which Montana operates its program. With the 1980 approval, the State assumed exclusive responsibility and primary authority for non-emergency AML projects within the State. On August 18, 1983, the Secretary approved Montana's April 20, 1983 amendment to its AML Reclamation Plan allowing Montana to assume responsibility for an emergency response reclamation program. On April 11, 1990, OSM announced in Federal Register notice (55 FR 13552) Montana has certified that all known coal problems had been addressed, and requested public comment. In Federal Register notice (55 FR 28022) of July 9, 1990, OSM approved the certification and authorized Montana to reclaim non-coal hazards. The Montana Department of Environmental Quality (MDEQ), Remediation Division, Mine Waste Cleanup Bureau, Abandoned Mine Lands Section currently administers these programs.

Evaluation of the State reclamation program is conducted by the Casper Field Office (CFO) of OSM. Evaluation Year (EY) 2011 consisted of a full twelve month period beginning on July 1, 2010 and ending on June 30, 2011. OSM's evaluation methods are based upon OSM Directive AML-22 (Evaluation of State and Tribal Abandoned Mine Lands Programs) and a Performance Agreement (PA) dated December, 2009 between Montana Abandoned Mine Lands Program (MTAML) and OSM. This agreement incorporates a shared commitment by the State and OSM in determining how annual evaluations will be conducted. The State takes an active role in the entire evaluation process. The process is designed to evaluate whether the State, through its AML reclamation (AMLR) program, is achieving the overall objective of Section 102 of SMCRA which states that AMLR programs are to:

> "... promote the reclamation of mined areas left without adequate reclamation prior to the enactment of this Act and which continue, in their unreclaimed condition, to substantially degrade the quality of the environment, prevent or damage the beneficial use of land or water resources, or endanger the health or safety of the public ..."

The agreement establishes a commitment between MTAML and OSM to identify topics for review, identify methodologies for enhancement and evaluation of performance reviews, and assist in the preparation of the final report. Assessment of MTAML performance includes reviews of selected topics such as 1) overall reclamation success, 2) emergency investigations and abatement efforts, 3) fiscal and administrative controls,

4) integration with the OSM Abandoned Mine Land Inventory System (AMLIS) database, 5) acid mine drainage, and 6) public interaction and outreach.

The following acronyms are used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
ATP	Authorization to Proceed
CFO	Casper Field Office
CIL	Certified in Lieu funds
EY	Evaluation Year
GPRA	Government Performance Results Acts
MDEQ	Department of Environmental Quality
MTAML	Montana Abandoned Mine Land Program
NTTP	National Technical Training Program
OIG	Office of the Inspector General
OSM	Office of Surface Mining
PA	Performance Agreement
PAD	Problem Area Definition
PBRF	Prior Balance Replacement Funds
SMCRA	Surface Mining Control and Reclamation Act
TIPS	Technical Innovation and Professional Services

B. Program Administration

Overall, the State of Montana administers MTAML under SMCRA, the approved State Reclamation Plan, the Federal Assistance Manual and associated rules, regulations and policy decisions. The State administers an excellent AMLR program in a manner reflecting high quality professionalism and performance, and excellent communication and cooperation between consulting agencies and other interested parties. The MTAML program currently supports 12.5 FTEs and is based in the capitol city, Helena. The CFO and MTAML regularly consult and interact with one another.

The Montana AMLR program was initiated in 1980 and for the next ten years the State concentrated on abating the hazards left by past coal mining practices. In 1990 the State certified that all known coal problems had been addressed and they were then authorized by OSM to begin reclaiming the multitude of high priority non-coal hazards in their inventory. However, any abandoned coal problems that are discovered must still be given priority funding over non-coal projects, and that requirement has been followed by Montana.

Initial investigation is usually conducted by the project officer who 1) conducts initial investigation; 2) obtains landowner consents; 3) negotiates inter-agency agreements if necessary; 4) writes environmental assessments; 4) conducts cultural resource and threatened and endangered species investigations and consultations; 5) conducts public meetings for information dissemination and comment; 6) prepares the submission to OSM for an Authorization to Proceed (ATP); and 7) conducts public meetings for the public stakeholders and potential construction contractors.

Prior to initiating any construction work, MTAML submits a documentation package to OSM with a request for an ATP. This package includes 1) a complete Environmental Assessment or Categorical Exclusion, 2) a project eligibility determination pursuant to 30 CFR 874.12 prepared by the DEQ Attorney, 3) a threatened and endangered plant and animal species survey, and consultation results with the U.S. Fish and Wildlife Service, 4) consultation results with the State Historic Preservation Office, and 5) site maps and photographs. If acceptable and complete, CFO issues an ATP pursuant to section 4-160-50D.3 of the 2011 Federal Assistance Manual to MTAML prior to reclamation or construction of each coal project.

The State uses an established bid process to obtain services from qualified environmental, engineering, design and construction companies at the lowest effective price. Environmental hazard investigations, construction design and reclamation construction portions of each AML project are completed by private contractors. Design and specification work is contracted to engineering firms and is accomplished during the winter months when most outside work is impractical. Actual reclamation work starts as soon as weather and ground conditions allow heavy equipment to be moved to a site. Many of the sites presently being reclaimed are in mountainous terrain and at high altitudes. This fact may drastically shorten the amount of time available for reclamation work because of snow, ice and mud. In recent years the construction season has also been shortened by wildfires which necessitate special operating conditions shortening the allowable work days. A part of the responsibility of each engineering design contractor is to provide an inspector for the construction work. This inspector is on site during working hours to ensure that the work is being completed according to the plans and specifications that have been approved by MTAML.

MTAML staff is very knowledgeable and dedicated to the accomplishment of program goals. An excellent working relationship exists between the staff of MTAML, CFO, and other State and Federal agencies contacted during the course of preparing projects for reclamation. MTAML personnel spend most of the construction season in the field coordinating and supervising reclamation work, and preparing future projects for reclamation. Some construction work may continue into the winter months but the staff primarily spends this time of the year working with the design contractors to get projects ready for the upcoming construction season.

II. Noteworthy Accomplishments

A. Overall Performance

Since the Program's inception, MTAML has spent $59,577,575 in reclaiming mining hazards on 3,525 Government Performance Result Act (GPRA) acre-equivalents. $23,858,333 has been spent reclaiming coal mine hazards on 2,540 GPRA acres. This money was spent on treatment of coal slack and wastes, closure of mine openings, coal fires, and removal and disposal of structures and equipment. MTAML has also spent $35,719,242 reclaiming abandoned industrial mineral mine hazards on 985 GPRA acres. Significant hazards on both coal and non-coal sites remain to be mitigated and future funding will be required. Details of past achievements are found in Table 1.

TABLE 1. MONTANA ABANDONED MINE LAND RECLAMATION NEEDS AND ACCOMPLISHMENTS SINCE PROGRAM APPROVAL

Problem nature	Unit	Coal-related problems				Noncoal-related problems	
		Abatement status			Total	Abatement status	
		Unfunded	Funded	Completed		UnFunded & Funded	Completed
Priorities 1, 2 and 3 (Protection of public health, safety, and general welfare)							
Clogged streams	Miles	0	0	3.3	3.3	21.5	19.6
Clogged stream lands	Acres	0	0	9.9	9.9	119.6	91.5
Dangerous highwalls	Lin. Feet	0	0	7,910	7,910	0	17,650
Dangerous impoundments	Count	0	0	3	3	0	0
Dangerous piles & embankments	Acres	0	0	72.8	72.8	261.2	98
Dangerous slides	Acres	0	0	0.9	0.9	0	0
Gobs	Acres	11	0	150.2	150.2	0	0
Highwall	Feet	0	0	1,170	1,170	1	0
Hazardous Equip. & Facilities	Count	0	0	252	252	642	70
Haul Road	Acres	0	0	0.5	0.5	0	0
Hazardous bench	Acres	0	0	0.8	0.8	0	0
Industrial/Residential Waste	Acres	0	0	274.4	274.4	620.1	282.3
Mine Opening	Count	0	0	1181	1181	279	762
Pits	Acres	0	0	15.8	15.8	1	16.3
Polluted Water: Agric. & Indust.	Acres	0	0	17	17	0	0
Polluted Water: Human Consum.	Acres	75	0	16	89	0	0
Subsidence	Acres	3.5	0.1	534.6	528.1	43.1	5.3
Spoil Area	Acres	0	0	796.2	796.2	0	12.6
Surface Burning	Acres	0	0	127.9	127.9	0	0
Slump	Acres	0	0	16.5	16.5	0	0
Underground Mine Fire	Acres	0	1.5	68.2	68.2	0	0
Water Problems	Gal/Min	100	0	132.5	232.5	0	0

Notes: All data in this table are taken from the Abandoned Mine Land Inventory System (AMLIS) 7/27/11.

Mine openings, portals and vertical openings were combined under mine openings. Equipment/Facilities were combined with Hazardous Equipment and Facilities.

Due to problems in the transition from legacy AMLIS to E-AMLIS, not all data has migrated between the two systems. While the numbers presented in this table accurately reflect what is in the E-AMLIS records, the numbers are not correct in representing the accomplishments of the AML program in that not all data is fully accounted. The deficiencies in E-AMLIS are being identified and corrected.

III. Utilization of OSM Technological Assistance

A. National Technical Training Program (NTTP)

Six MTAML staff members attended NTTP instructor-led training courses during EY 2011. Two staff member have now become instructors for the "Instructors Training Course," "Acid Forming Materials," and "Reclamation Project Management."

B. Technical Innovation and Professional Services (TIPS)

Staff from MTAML was provided the opportunity to attend TIPS instructor-led training throughout the reporting period. One MTAML staff member attended a TIPS course. One staff member has become an instructor for "Earth Vision Modeling Software" in the TIPS series.

C. Use of OSM Provided Equipment

MTAML requested use of the FLIR Infrared Thermography Camera. The camera was provided to MTAML on July 6, 2010 and was in use for much of the year. MTAML is using the thermal imaging camera to investigate numerous coal mines and outcrop fires in eastern Montana. MTAML also used OSM's Global Positioning Survey equipment for measurement and payment of construction quantities on coal fire sites where construction inspection was handled directly by AML staff. The equipment provided a mechanism for accurately measuring areas and volumes for earthwork calculations.

IV. Results of Performance Reviews

A. Performance Topics

The MTAML PA was signed in December, 2009 and applies to EY 2010 and 2011. The PA describes the topics selected for review to evaluate the performance of the MTAML program. On-the-ground, performance-based results were the principal focus of program evaluation and documentation.

Topic evaluations reports and individual project reports containing much more detail are on file in the 2010 Annual Evaluation files at the Casper Field Office. As identified in the 2010/2011 PA, the following topics were selected for evaluation: 1) overall reclamation success; 2) emergency investigations and abatement efforts; 3) fiscal and administrative controls; 4) maintenance of records and integration with the Abandoned Mine Land Inventory System (AMLIS) database; 5) acid mine drainage; and 6) public interaction and outreach. Results of the 2010 evaluations are provided below. The evaluations included field visits to AML projects, interviews with MTAML staff, and reviews of project specifications, grant applications and reports, and AMLIS inventories.

B. Overall Reclamation Success

MTAML completed one non-coal project, the Highland Mine, in 2010. Two other non-coal reclamation projects are in progress: the Bald Butte Mine/Great Divide Tailings Project which is in year 2 of a 3 year project and the McLaren Mine which is in year 2 of a 6 year project. Both the McLaren Mine and the Bald Butte Mine have ATPs issued by

OSM. Coal projects completed in 2010 include a series of coal mine and outcrop fires near Miles City. The O'Neill Coal Fire Construction Project is in progress.

Our 2011 evaluation of overall reclamation success was conducted to determine if MTAML's reclamation program met project goals. The 2011 review sample included one non-coal reclamation construction project in-progress during 2011 and two coal outcrop fire reclamation projects conducted in 2010.

We compared MTAML's reclamation to project specifications, results of interagency consultation, and other information. Our evaluation focused on determining whether reclamation met project goals by implementing the scope of work to abate original hazards, complying with conditions (if any) resulting from interagency consultation, and improving overall site conditions compared to pre-reclamation conditions. Generally, we agreed projects met their goals if abatement and reclamation measures were intact and functional, and if no problems compromising those measures were apparent. We considered site conditions improved overall if hazards to public health and safety were abated and associated reclamation reduced environmental problems such as erosion and sedimentation while promoting re-vegetation.

Weather and ground conditions were atrocious for the spring of the year 2011. Heavy rains followed a heavy snow winter. Snow pack was at 200% of normal and in some areas up to 240%. Spring rains were sufficiently abundant that most areas of the state were months ahead of their annual rainfall at the time, and some areas had reached their annual precipitation amounts by May of the year. The abundant moisture resulted in full streams and rivers before snowmelt, reservoirs and ponds that were very low or dry due to drought conditions were now filled to the brim, and lake waters were being released to protect the integrity of the reservoirs and prepared for runoff conditions. Streams and rivers reached flood stages; roads and bridges were washed out. Due to high water conditions, any thunderstorm or high temperature event would usher a barrage of flood warnings from the National Weather Service since there was just nowhere for the water to go. At local levels, the flooding made roadways impassable; either washed out or muddy beyond use. Playa lakes appeared in fields preventing their crossing and planting. General muddy conditions prevented most off road travel in a State where 90% of the roads are dirt two tracks without gravel or prepared surfacing. Many reclamation sites could not be visited and reclamation contracts could not be initiated due to inclement ground conditions and weather.

1. O'Neill Outcrop Coal Fire

The O'Neill Outcrop Coal Fire (PAD No. MT049038NCA) is located in NE ¼ Section 34 and NW ¼ NW ¼ Section 35 of Township 14 North Range 51 East, about 10 miles northeast of the town of Terry in Prairie County Montana. The fire was identified to the MTAML in 2009 with construction activities originally planned for the summer of 2010. Delays offset the construction until the summer of 2011. Construction at the outcrop fire was supported by a Coal Outcrop Fire grant separate from normal AML Consolidated Grant Moneys.

The coal fire is located within the bluffs and dissected areas forming the northwestern and western banks of Cottonwood Creek and its tributaries. Direct evidence of active coal seam burning is present in these areas, and includes soil sloughing on outcrop features, cracks in soils above suspected fires, and subsidence features along the bluffs

above and around the burning coal seams. The burning coal is causing instability and failures within the overlying slopes. This results in cracking along the top of the bluff with venting steam and combustion gases. In 2010, sparse vegetation was found adjacent to the fire sites establishing along the toe of the failed slopes. In 2011, due to the increased level of spring moisture, grasses and weeds had nearly covered the burn area, making it nearly invisible until the visitor is nearly on top of the crevices and slumps, then the burn features become clearly visible (Figure 1). The O'Neill family ranch buildings are located just 500 feet to the west of the burn area (Figure 2).

Figure 1. View to the west of the O'Neill Outcrop fire. 2011 spring grassy growth inhibits clear vision of the burn areas.

The fire zone surface area mapped during field investigations approximates 2.5 acres but the actual burnt/burning area is unknown because the fire is underground. The total disturbance area, including potential quench pit areas will likely encompass 10 acres. Specific construction activities planned for the burn area include: a) establishing access, b) excavating, extinguishing the burning coal seam, and replacing the overburden material, c) grading and contouring disturbed areas, and d) re-vegetation. The Construction contract was awarded to Baxter Construction and the Notice to Proceed was anticipated to be issued in July of 2011.

2. Eastern Montana Coal Outcrop Fires

MTAML extinguished a number of coal outcrop fires in the 2010/2011 evaluation year. These fires occurred as a result of surface range fires that had ignited over the past three years and burned over small coal seams exposed at the surface. A minimum of ten outcrop fires were observed in the Pine Hills area south of Miles City, some being treated currently. Outcrop fires were extinguished using Prior Balance Replacement funds in both 2010 and 2011. Montana did not receive any Outcrop Fire moneys from OSM in evaluation year 2010. Montana did receive an Outcrop Fire grant in evaluation year 2011, but that money was earmarked for the O'Neill Coal Outcrop Fire.

Figure 2. View of the O'Neill Family ranch 500 feet west of the coal burn area.

Numerous small outcrop fires are located in the Pine Hills area approximately ten miles south of Miles City in eastern Montana. These fires erupted as a result of a range fire that passed through the area in 2003. These include the Waldie Coal Fire, the McNamee Fire, the Okermann Fire, the Tonn No. 1, Tonn No. 2, Tonn No. 3 and Tonn No. 4 fires. The fires were identified by cracking and sloughing of the surface, surface heat differentials, gas and smoke venting and visible open flames.

Treatment was the same in almost all circumstances: excavation of the overburden to the burning coal seam; removal of the burning embers; flush with water; mix with overburden; burial in a prepared pit repository; then covered with overburden and topsoil; graded to contour; and fertilized and seeded.

A construction contract for the extinguishment of the fires was let in the spring of 2010 to Baxter Construction Company of Billings, Montana. Construction was in progress at the time of the field visit with the Waldie, McNamee and Okermann fires having been extinguished and reclaimed, and the Tonn No. 1 fire under construction. In 2011, attempts were made to revisit these sites to evaluate reclamation success. In all cases, access roads to the sites were severely affected by the wet spring conditions, with some roads extremely muddy, situated in a mud bog or pond, or completely washed out. Only the McNamee (Figures 3 and 4) was fully accessible with the Okermann and Tonn No. 2 sites (Figures 5 and 6) being visible from a distance. In all cases the fires appear to have been extinguished, the grounds re-graded and soiled, and vegetation re-established. Vegetation growth was superb primarily due to wet spring conditions favoring the proliferation of grasses.

Figure 3. The repository area at the McNamee Coal Fire showing first year vegetative growth.

Figure 4. Looking back from the repository area towards the coal outcrop fire area at the McNamee Coal Fire Site.

Figure 5. View of the Okermann Coal Fire area, one year after re-vegetation. Taken with a zoom lens.

Figure 6. View of the Tonn No. 2 Coal Fire area, one year after re-vegetation. Taken with a zoom lens.

3. McLaren Tailings Site

The McLaren Tailings Sites is an abandoned hardrock mine/mill site located in Park County in Section 25 of Township 9 South, Range 14 East of the Montana Principle Meridian. The McLaren Mine is located in the New World Mining District bounded on the south by the Montana-Wyoming state line, on the west by Yellowstone National park and on the north and east by the Absaroka-Beartooth Wilderness area boundary. The district is characteristic of high alpine regions of the northern Rocky Mountains with elevations that range from approximately 7,000 feet to over 10,500 feet in elevation. Accumulated snow pack can range from 10 feet to over 20 feet deep where drifting occurs. The ground is generally snow covered from late October through Mid May at the lower elevations and from early October through late July at the higher elevations. Perennial and semi perennial snowfields occupy the north facing slopes of the highest mountain peaks.

In 1933, the McLaren Gold Mines Company discovered the McLaren ore deposit on Henderson Mountain. The McLaren mine ore consisted of limestone and shale replaced by auriferous pyrite with some copper mineralization. The ore was mined on a non-selective basis using open cut methods. In 1934, a flotation mill was constructed on the Copper Glance mill site near Cooke City, Montana, and a tailings impoundment was constructed on the adjoining Horseshoe and Greeley placers. The McLaren Mill produced a gold and copper concentrate that was shipped to Anaconda, Montana, for smelting. Extensive exploration work at the mine in 1937 and 1938 resulted in the discovery of additional reserves and the mill was remodeled to increase capacity. During the operation of the mill, Soda Butte Creek's channel was filled with tailings and the stream was pushed into a ditch and culvert that ran along the south side of the impoundment. Tailings disposal was problematic as overflow from the tailings impoundment flowed downstream into Yellowstone National Park. The McLaren Mill operated until 1953 when excess stripping ratios at the mine made the operation unprofitable.

After careful study and analysis, the final reclamation plan called for the excavation, removal and permanent disposal of 267,000 cubic yards of on-site wastes (tailings, waste rock dump and old stream channel wastes) in an unlined repository with a multi layered cap to be constructed on approximately five acres located immediately southwest of the tailings impoundment. The repository would be located on the bench above the south bank of Soda Butte Creek. The five acre repository site, the acreage comprising the majority of the disturbed lands containing the mill tailings and the waste dump, are located within a 33.2 acre parcel of land acquired with AML funds as part of the reclamation project.

OSM issued an Authorization to Proceed on the McLaren Project on October 15, 2007. Significant investigative work was performed by DEQ over the following two years to design and develop specifications for construction dewatering, water treatment and lime stabilization of the tailings. The project was finally contracted to Knife River Corporation in the spring of 2010, and construction began in the summer of 2010.

Tailings have been removed from the upper part of the site, hauled down to the repository area and stockpiled until a sufficient portion of the repository has been excavated to accept the tailings (Figure 7). Tailings that are being excavated and/or awaiting excavation are neutralized in place by mixing lime into the tailings material with a deep penetrating mixing machine (Figure 8). Approximately 11,000 cubic yards of tailings were stabilized during the 2010 construction season, stockpiled and covered with a temporary liner in the repository. All tailings excavated during the 2011 construction

season were spread in lifts and compacted in the repository. Contaminated soils were also removed from the stream channel and moved to the repository area, while excavated uncontaminated soils from the repository were moved to the stream channel and placed as rock and new cover soil for the stream drainage. Other soils excavated from the repository location were transported to the excavated tailings area and stockpiled for use as cover soil in areas where the tailings have been neutralized and removed (Figure 9).

Multiple measures have been enacted to ensure equipment failures and delays in deliveries do not interrupt the reclamation work. A lime silo was erected during the 2011 construction season to increase the lime storage capacity onsite to maintain an adequate supply of lime for the stabilization of water saturated tailings. In addition, two lime spreaders and a disk have been utilized during the 2011 construction season to supplement the lime mixing machine and facilitate tailings stabilization when the mixer is being serviced.

Ordinarily, a project of this magnitude should require two to three years to complete but due to a multitude of considerations the construction project is anticipated to take as long as six years to complete. A primary reason for the project complexity and duration is that the tailings overlie an artesian aquifer in hydraulic connection with Soda Butte Creek. This condition requires an extensive construction dewatering system, a water treatment system, and physical stabilization of the tailings in order to construct the mine waste repository in the seismically active area near Yellowstone National Park. In addition, construction activities are hampered by the long narrow perspective of the property involved, high altitude, long winter conditions and the shortness of the working season.

Figure 7. Construction of the repository at the McLaren Tailings site, note stockpiled and covered tailings pile to the left.

Figure 8. Lime mixing machine at the McLaren Tailings site. Lime is injected directly into the subsurface through the mixing head, a rotor tiller like machine attached to a track hoe. The mixing head is inserted into the tailings in an up and down motion to a depth of 22 feet evenly mixing lime with the pyritic tailings.

Figure 9. General tailings area at the McLaren Tailings site. Construction of the stream channel is in the far back, stockpiled cover soil is to the right behind and in front of the red fuel tank.

C. AML Emergency Investigations and Abatement Efforts

Our 2011 evaluation of AML emergency investigations and abatement efforts examined whether emergency criteria of the State AMLR plan were satisfied and the subsequent project(s) were completed as described in the AML Emergency Investigation report. The 2011 review sample included all AML emergency complaints received during the EY, and all emergency projects completed during the EY. Due to unusually wet conditions, numerous coal subsidences were reported throughout eastern Montana during the spring of 2011. None of these threatened human health or safety, or threatened property damage so none were considered to be emergencies. MTAML did respond quickly to landowner notifications, generally filling subsidences within 60 days of report. During EY 2011, the MTAML did not receive any complaints of AML emergencies.

D. AML Grant Fiscal and Administrative Controls

1. Abatement Results of Increased AML Funding FY 2008 through FY 2011

In 2006, Congress approved the Surface Mining Control and Reclamation Act Amendments of 2006 as part of the Tax Relief and Health Care Act of 2006 (P.L. 109-432). Part of the amendments changed the funding amounts and funding calculations to both certified and uncertified States and Tribes. The Amendments created two new funding mechanisms for certified States and Tribes: Prior Balance Replacement Funds (PBRF) under Section 411(h)(1) and Certified in Lieu Funds (CIL) under Section 411(h)(2). PBRF are State Share moneys that were not distributed over past years and now will be distributed in their entirety over a seven year period starting in Federal FY 2008. PBRF may be used for those purposes the State legislature or Tribal council establishes, giving priority to addressing the impacts of mineral development (30 CFR § 872.31). CIL funds are State Share moneys that would be currently distributed from the Abandoned Mine Lands Fund, only these moneys for certified States and Tribes are now distributed from the general funds of the United States Treasury that are otherwise unappropriated. CIL funds are distributed to certified States and Tribes at 25% the first year, 50% the second year, 75% the third year and 100% the fourth year and thereafter starting in Federal FY 2009 (30 CFR § 872.33). There are no limitations or restrictions on the use of CIL funds in the SMCRA Amendments of 2006 (30 CFR § 872.34).

Montana certified completion of all known P1 and P2 coal problems on April 11, 1990, with the Secretary of Interior concurring on July 9, 1990. Montana's funding is now exclusively derived from funds under Sections 411(h)(1) and 411(h)(2). As a condition of certification, Montana is required to treat all Priority 1, 2 and 3 coal problems as they arise.

The Montana legislature allocates all PBRF and CIL moneys to the MTAML to fund abandoned mine reclamation activities. Rather than using PBRF moneys for projects of their choosing as is allowed under the law (30 CFR 872.31), the Montana Legislature has designated all funds to the Abandoned Mine Reclamation program for the satisfaction of its mission (Montana Code Annotated, 82-4-1006 Abandoned Mine Reclamation Account). Montana's PBRF moneys remain constant at $8,069,086 until it expires in Federal Fiscal Year 2014. Montana's CIF moneys will reach 100% in Federal FY 2012 and remain at that level until FYs 2018 and 2019 when the percentages of 75%, 50% and 25% not paid out respectively in FYs 2008, 2009 and 2010 are recaptured and paid out in two equal payments in 2018 and 2019 in addition to the annual CIL payment. It is

presumed that MTAML will continue reclamation of all Priority 1, 2 and 3 coal problems as they are identified, and direct the remaining moneys to hard rock and other non-coal mining problems. A summary of how Montana has distributed its PBRF and CIL moneys over the past 4 years is shown in Table 3. Specific projects initiated and completed in those years are shown in Table 4.

Table 3. Distribution of Montana's PBRF and CIL Funding from FY 2008 to FY 2011

Year	Moneys Requested	PBRF	CIL Funds	Use
2008	$ 8,069,086	$8,069,086		Mine Reclamation
2009	$ 9,547,050	$8,069,086	$1,477,964	Mine Reclamation
2010	$10,673,897	$8,069,086	$2,604,811	Mine Reclamation
2011	$12,163,821	$8,069,086	$4,094,735	Mine Reclamation

Table 4. Mine Reclamation Projects Initiated and Completed in FY2007 to 2011

Project Name	Construction Value*	Start	Finish	Comments
Trail Creek Coal Mines	$ 650,548	2007	2008	2 coal mines
Snowshoe Mine/Mill	$ 3,337,581	2007	2010	non-coal mine and mill
Toston Smelter	$ 623,793	2008	2008	non-coal smelter site
Mine Subsidence Sites	$ 33,380	2008	2010	26 coal subsidences
Adit/shaft closures	$ 39,542	2008	2010	6 non-coal mines
Spring Meadow Lake	$ 2,269,272	2009	2009	non-coal mill tailings
McLaren Dewater Wells	$ 262,757	2009	2009	non-coal tailings
Gardner Emergency	$ 95,178	2009	2009	coal subsidence
McLaren Tailings	$20,148,194	2010	2011	non-coal mill tailings
Bald Butte/Great Divide	$ 4,658,355	2010	2012	non-coal mine and tailings
Miles City Coal Fires	$ 375,966	2010	2011	8 coal outcrop fires
Highland Mine	$ 343,106	2010	2010	non-coal mill tailings
Shepherd Coal Fires	$ 441,798	2010	2010	3 coal mine fires
Comet Site Tree Planting	$ 10,055	2010	2010	4000 trees planted on mine
O'Neill Coal Fire	$ 49,757	2011	2011	coal outcrop fire grant

*Construction costs only, engineering and inspection fees not included.

2. Annual Consolidated AML Grant Review

Montana's total 2011 AML Consolidated grant was $12,441,740.64 consisting of $8,069,086 in PBRF moneys, $4,094,735 in CIL moneys, and $277,919.64 in prior year de-obligated moneys. The grant was designated for a period of ten years expiring on June 30, 2021. A separate grant of $47,000 was awarded to Montana from Fire Outcrop Funds. The original grant was to expire on July 6, 2011 but has been extended one year to July 6, 2012 to provide for delays in initiating construction.

MTAML maintains a very cost efficient program with 6.95% of the grant dedicated to Administrative Costs and project administration, while 93.5% is spent on project design and construction. The grant funding and expenditures are broken down as follows:

2011 AML Consolidated Grant	
Prior Balance Replacement Funds – h(1)	$ 8,069,086.00
Certified in Lieu Funds – h(2)	$ 4,094,735.00
Prior Year De-Obligated Moneys	$ 277,919.64
Total	$12,441,740.64
2011 Fire Outcrop Grant	$ 47,000.00
Grant Line Item Budgets	
Administrative Costs – h(2)	$ 845,926.00
Coal Construction Costs - h(2)	$ 176,336.64
Non-coal Construction Costs – h(2)	$ 3,350,392.00
Coal Construction Costs – h(1)	$ 4,000,000.00
Non-coal Construction Costs – h(1)	$ 4,069,086.00
Total	$12,441,740.64
Fire Outcrop Construction Costs	$ 47,000.00

Montana has certified that all known coal problems have been addressed, and is now completing high priority non-coal reclamation. Montana addresses any coal problems as they are identified.

In the past, Montana chose to phase their funding for larger AML projects over a period of several years to avoid spending a large amount of money and time on one project while other hazards remain untreated. This allowed funding to be distributed more equally to different regions of the State each year and still allowed MTAML to reclaim the most hazardous abandoned mine sites in a timely manner. This practice was permitted by the Senior Fiscal Analyst for the Montana Department of Environmental Quality, however due to the uncertainty of future AML funding through OSM, the Senior Fiscal Analyst has now discontinued the practice. For all future projects, the MTAML is required to accumulate the total estimated construction value of a project prior to putting a project to bid. Carrying a project over several years without a guarantee of future funding will no longer be acceptable and practiced by the MTAML.

Bald Butte and McLaren tailings projects are among the projects where MTAML is now required to accumulate the total estimated construction cost. Now, grant moneys are earmarked to pay the total estimated construction costs of these two projects. The AML grants that hold these funds will not be drawn down until completion of the construction projects. For practical purposes the earmarking of these funds means that the majority of MTAML's available grant moneys are effectively spent and only limited work can be completed on other projects until a new AML grant is received by the program.

E. Maintenance of Records

1. Data Management System

MTAML maintains an inventory of all abandoned mines identified within the State of Montana. The database is organized by the Kaisen Planning Process. All coal and non-coal sites are listed on a site by site basis recording all relevant data that may later be entered into AMLIS. The database includes site location, type, description, ownership, priority, status and investigative studies. Individual site data is organized by staging through the AML process with each step being identified, i.e., investigation, pre-bid, bid, construction, maintenance and monitor, and emergency. All reports of investigation are annotated and listed on the site entry, and then entered into the database as a PDF file attached to the individual site entry at the stage completed. All actions, status, etc. are tied to the database. Hard copies of all electronic files are maintained as both open files and shelf entries. Entries into AMLIS are derived from data in the state inventory.

2. Integration with Abandoned Mine Land Inventory System (AMLIS)

Our 2011 evaluation of AMLIS determined whether or not information entered into AMLIS agrees with information in the State's files. This topic was mandated for review due to a September, 2004 report issued by Interior's Office of the Inspector General (OIG). The report criticized the accuracy of AMLIS data, based on the OIG review of AMLIS data for four eastern States' AML programs. The OIG's review concluded that AMLIS data did not match data in those States' files and recommended establishing "a quality control system that ensures that States, Tribes, and OSM, as applicable, review and certify the accuracy of data entered into AMLIS." In response to the OIG's recommendation, OSM required its field offices to implement two requirements. The first requirement was to "assure that each State and Indian Tribe AML program has procedures in place to ensure and certify the accuracy of data entered into AMLIS. The EY 2006 oversight determined Montana has such a system in place that is adequate to ensure accurate data is entered into AMLIS.

The second requirement implemented by OSM in response to the OIG's recommendation stated, "[o]nce these State and Indian Tribe procedures are in place, OSM will annually review a random sample of [PADs] to see if the information entered into AMLIS agrees with the information in the PAD." As a result, the focus is to ensure the data States and Tribes entered into AMLIS PADs (an integral part of AMLIS) agrees with information in their files. CFO and MTAML chose to include this assurance as part of the EY 2011 oversight. The evaluation goal was to determine whether or not the information Montana entered into AMLIS for projects completed during the evaluation year agrees with information in its files.

MTAML compiles data from EXCEL spreadsheets for input into AMLIS. Upon award of a construction contract after completion of the bidding process, the engineer's estimate and contractor's bid are entered into an EXCEL spreadsheet to maintain cost accounting throughout the duration of the construction project and to prepare contractor invoice forms. The Fiscal Officer maintains control of the EXCEL spreadsheet. At the completion of the project, construction quantities and costs are reconciled by the contractor and engineer, approved by the project manager and transferred to the Fiscal Officer for final reconciliation. The engineer completes the Final Construction Completion Report using the same engineer's estimate and format as originally prepared in the Engineer's Evaluation and Cost Analysis. The Project Officer enters the costing data from the Final Construction Completion Report into the AMLIS PAD completed category.

During 2010 and 2011, the AMLIS system was being redesigned and rebuilt resulting in months of down time where entries could not be made, nor data retrieved. This has

resulted in difficulties for the MTAML in entering data onto individual PADs as well as difficulties for the OSM reviewer in retrieving and reviewing data entered into AMLIS. Due to problems in the transition from legacy AMLIS to E-AMLIS, not all data has migrated between the two systems. This means that when inquiries are made of the E-AMLIS system, the data received reflects only what has migrated into the new system, not the total accomplishments of the AML program. The deficiencies in E-AMLIS are being identified and corrected.

Data entries into the new E-AMLIS began on May 4, 2011. MTAML conducted 18 entries consisting of ten completion data entries, 1 new PAD with completion data, two new problems added and 5 edits and uploads.

F. Acid Mine Drainage

In 1990, the Governor of Montana certified to the Secretary that Montana had completed reclamation of all known Priority 1 and 2 coal problems. Acid Mine Drainage (AMD), normally a Priority 3 problem, continued to plague the State's waterways. The heaviest concentrations of AMD are found in the Belt/Sand Coulee areas of the Great Falls Coal Field where twenty-six coal sites pose unmanageable AMD problems. These sites have had successful Priority 1 and 2 reclamation performed on surface features, but passive treatment of AMD problems has been unsuccessful. Passive treatments that have been attempted include limestone channels/drains, diversion of meteoric waters, and aerobic/ anaerobic constructed wetlands at the Johnson, Centerville, French Coulee and Stockett sites. All of these attempts have failed due to high concentrations and loads of acidity, metals, and sulfates in AMD waters thereby causing armoring of de-acidifying materials. Additionally, Montana's harsh winters froze wetlands and massive metalliferous precipitation inhibited vegetation growth. The MTAML has monitored AMD on these sites since 1995.

AMD issues in the western states were brought to OSM's attention at the time of the 1994 Appalachian Clean Stream Initiatives. In April of 1996, a field tour was conducted of eight sites in the Great Falls Coal Field to consider the possibility of using Clean Streams Initiative Funding for the AMD problems. Those in attendance consisted of staff from Montana DEQ (including MDEQ Director), the Montana Bureau of Mines and Geology, and the OSM (including OSM-Western Region Director). Although AMD problems were acknowledged, no decisions were made for treatment. It was implied that there wasn't enough AML funding to act on the AMD problems. These problems were not entered into AMLIS (there was no requirement for Priority 3 sites to be entered at that time). OSM was aware of the AMD problems, but did not require Montana to continue addressing them due to the inadequate funding and failed past treatment attempts. The AMD issue has been largely unaddressed since then.

Montana is re-approaching the AMD problem at this time due to three reasons: 1) Montana now has more funding available ($12.16 million in 2011 versus $3.45 million in 2007), 2) treatment of AMD by active systems may now be a viable option and 3) under the 2006 Amendments to SMCRA, certified states must now address Priority 3 problems to maintain certification.

Since passive AMD treatment systems have been largely unsuccessful, MTAML is considering the construction of active water treatment facilities. MTAML is reviewing the possibility of constructing several water treatment plants at strategic locations along

Belt and Sand Coulee Creeks. Polluted water could be piped from multiple problem areas to one or more treatment facilities. MTAML has indicated that construction, maintenance and repair of water treatment facilities for just three of 26 AMD problem areas near Belt would require over $42 million. Treatment of all 26 AMD problem areas would require approximately $228.4 million. A current re-evaluation is underway to update the treatment options and costs.

MTAML's current contracted obligations include two multi-year projects, the McLaren Tailings site ($16,000,000 remaining) and Bald Butte complex ($3,000,000 remaining), both hard rock sites. These commitments may delay the updated AMD treatment plans.

CFO has informed the MTAML that they must now enter the AMD sites into AMLIS as per current policy. MTAML has agreed and will be entering these sites pending the outcome of a current re-evaluation of the situation. Expected entry into AMLIS is November of 2011.

G. Public Interaction and Outreach

Our 2011 evaluation of public interaction investigated whether or not MTAML is performing public outreach efforts by holding public meetings subsequent to new grant applications. The Montana AMLR Plan requires that the public be afforded the opportunity to comment on abandoned mine reclamation projects. MTAML considers the public an important component of the reclamation program, and conducts public meetings in the community nearest each project. The meetings are well publicized and are held in evenings or on weekends to allow maximum citizen participation. Overall plans for the project area, construction design, maps, overlays and aerial photographs are presented and discussed at each public meeting.

Individuals may submit comments in writing, or meet with the project officers at any time prior to completion of the comment period on a project. Project officers also meet with affected landowners to explain each project in detail, and keep them informed of the progress throughout the construction phase. Work plans are often altered to conform to comments received from landowners, contractors and the general public.

General information and project update meetings were conducted for the McLaren Tailings Project in Cooke City, Montana and in Cody, Wyoming, for the Forest Rose Project in Drummond, Montana, and the Broken Hill Project in Heron, Montana. These meetings allowed for the dissemination of more information to stakeholders in any given project area than would have been given at a pre-construction meeting for contractors. These meetings are directed at land owners, agencies, organizations, county commissioners, water districts and city councils where people can consider preplanning activities and need to know how AML construction may affect them.

MTAML goes to great lengths to develop and maintain good working relationships with all State and Federal agencies, such as the U.S. Forest Service, the Bureau of Land Management, U.S. Fish and Wildlife Service, the Montana Department of Natural Resources and the Montana Department of Fish Wildlife and Parks. In most cases, these agencies will accept National Environmental Policy Act efforts conducted by MTAML for projects within Federal and State jurisdiction. This practice carries over into relationships with local agencies and groups, and to landowners who have AML sites on their land.

MTAML provides further opportunities for public participation and involvement through its internet website and press releases. MTAML posts Expanded Engineering Evaluation/Cost Analysis Reports of proposed projects, Reclamation Investigation reports, environmental reports, construction bid notices, notices of public hearings of proposed AML projects, final construction reports and "A Guide to Abandoned Mine Reclamation" on its website at http://www.deq.mt.gov/AbandonedMines/default.mcpx. They have also recorded a significant amount of Montana mining history on the website to help mitigate the loss of important cultural resources during the reclamation process and provide that information to educational facilities, and interested parties through the website.

DEQ has a public relations person who has been in the position for one year and is aggressive in releasing news items to media outlets such as local TV stations, the Helena Independent Record, the Queen City News and on the DEQ website. Recent articles on MTAML activities in EY 2011 have included discussions of coal fires in eastern Montana (n=4), announcements of public meetings (n=3), and general project updates on the McLaren project (n=2). MTAML has also participated in several public outreach activities such as Environmental Discovery Days on the Montana Capital grounds.

We have concluded that MTAML is adhering to the public participation and involvement policy of the Montana AMLR plan by holding public meetings regarding potential AML project sites. They have also gone far beyond what is in their plan by conducting tours, participating in public events, giving local presentations and otherwise making their presence and the benefits of the AML program known to the public.

V. Conclusions

OSM has completed its evaluation of topics specified in the Performance Agreement between MTAML and OSM. This evaluation specifically examined six topic areas to evaluate MTAML performance:

1) Overall reclamation Success,
2) Emergency Investigations and Abatement Efforts,
3) AML Grant Fiscal and Administrative Controls,
4) Integration with AMLIS,
5) Acid Mine Drainage, and
6) Public Outreach.

MTAML met the goals of abating hazards and improving site conditions at both coal and non-coal projects. Industrial wastes associated with abandoned hardrock mills were disposed in appropriate repositories constructed both off- and on-site. Hazardous equipment and wastes were removed and the areas sufficiently reclaimed for use by the general public. Coal mine fires were extinguished, coal exposures and slack were buried, and sites were re-vegetated. All construction adhered to the standards of construction excellence maintained by MTAML. There were no emergency actions in EY year 2011 to review.

Financial Stature Reports were submitted within the required timeframes with no deficiencies noted. Review of the Montana AML Grant Accounting program confirmed that recent audits had no questioned or disallowed costs associated with OSM-Montana AML grant(s).

MTAML has developed a very complex data management program and uses that system to supplement AMLIS. Their data entries into AMLIS are correct and complete to the degree that development of the new E-AMLIS system has hampered data entry.

The MTAML has been regularly monitoring AMD problems in Montana and pursuing possible ways to address the problem in a cost effective manner. They have employed various techniques to address and control AMD but to no avail. MTAML continues to monitor the problem and pursue any alternative to procure funding at the level necessary to resolve the AMD problem.

We have concluded that the MTAML is adhering to the public participation and involvement policy of the Montana AMLR plan by holding public meetings regarding potential AML project sites. They have also gone far beyond what is in their plan by conducting tours, participating in public events, giving local presentations and otherwise making their presence and the benefits of the AML program known to the public.

APPENDIX A: State Comments and CFO's Responses to the Draft Annual Evaluation Summary Report

(OSM CFO response in italics following each comment)

Montana AML Comments on
Draft Annual Evaluation Summary Report
for the Montana Abandoned Mine Reclamation Program
Evaluation Year 2011

General Comment: Table 1 (page 4) lists Montana Abandoned Mine Land Reclamation needs and accomplishments. This table is apparently a direct report based on the numbers contained in E-AMLIS the National AML database maintained by OSMRE. Montana believes that E-AMLIS does not contain an accurate list of sites reclaimed and funds expended by the AML program. Montana believes that E-AMLIS understates the accomplishments and expenditures of the Montana AML program. Part of these problems may be due to data migration between the old AMLIS system and the new E-AMLIS system; other problems may be due to a historic under reporting of problems and accomplishments by the AML program. Montana AML is currently reviewing the data between the databases in an effort to identify data discrepancies.

A Statement has been inserted at "notes" on Table I explaining the discrepancies.

Editorial comments and edits:

Section III Utilization of OSM Technological Assistance
B. Technical Innovation and Professional Services (TIPS)

Note: Six Montana AML staff attended TIPS courses during the evaluation period.

Correction made.

C. Use of OSM Provided Equipment

Note: (page 5) MTAML utilized OSM provided GPS equipment for measurement and payment of construction quantities on Eastern Montana coal fires where construction inspection was handled directly by AML staff. OSM provided equipment allowed the AML staff to assume construction inspection duties by providing a mechanism to accurately measure areas and volumes for earthwork.

Statement merged into text.

Section IV Results of Performance Reviews
B. Overall Reclamation Success

Note: (page 5) Proper spelling for O'Neill coal fire should be carried through entire report (not O'Neil).
Note: (page 5) Bald Butte project also has an ATP from OSM dated 1/5/09. Report states that McLaren Mine is the only non-coal mine which has an ATP from OSM.
Note: (page 7) Spelling of O'Neill needs to be corrected in caption for Figure 1, also in last paragraph.
Note: (page 8) Spelling of O'Neill in caption for figure 2.
Note: (page 8) 1st paragraph. List of coal fires: Waldie, McNamee, Okerman, Tonn No. 1, Tonn No. 2, Tonn No.3, and Tonn No. 4.
Note: (page 8) Last paragraph. Tonn #1 should be Tonn No. 1.
Note; (page 10) Figure 6 caption. View is only of the Tonn No.2 fire area.

Corrections made on all above notes.

3. McLaren Tailings Site

Comment: (page 11) Please delete third paragraph as the ranking score given for McLaren tailings does not accurately portray the extent of the AML problem at McLaren Tailings site. McLaren Tailings do not contain high levels of hazardous substances such as lead and arsenic, hence the relatively low ranking. Ranking does not accurately account for the reactive pyrite in the tailings, the extent of water contamination from that pyrite released to Soda Butte Creek, the effect of that contamination to the Soda Butte fishery, or the discharge of contaminated water into Yellowstone National Park a short distance downstream from the tailings site.

Paragraph deleted as requested.

Note: (page 11, 5th paragraph). McLaren tailings project was contracted to Knife River Corporation in the spring of 2010 and construction began in the summer of 2010.

Correction made.

Comment: (page 11, 5th paragraph). Significant investigatory work was performed by DEQ in 2008 and 2009. This work was necessary to design and develop specifications for construction dewatering, water treatment, and lime stabilization of the tailings.

Statement merged into text.

Comment: (page 11, 5th paragraph). Soils excavated from the repository location have been stockpiled onsite and will be used in the future as cover soils to be spread over the project following the removal of mine wastes. Approximately 11,000 cubic yards of tailings were stabilized during the 2010 construction season and stockpiled and covered with a temporary liner in the repository. All tailings excavated during the 2011 construction season have been spread in lifts and compacted in the repository, without any double handing being performed.

Suggested text merged into narrative.

Comment: (page 12, 1st paragraph). Multiple measures have been enacted to ensure that equipment breakdowns and delays in deliveries do not interrupt the reclamation work. A lime silo was erected during the 2011 construction season to increase the lime storage capacity onsite to maintain an adequate supply of lime for the stabilization of water saturated tailings. In addition, two lime spreaders and disk have been utilized during the 2011 construction season to supplement the ALLU mixing machine, and facilitate tailings stabilization when the ALLU mixer is being serviced.

Suggested text merged into narrative.

Comment: (page 12, 2nd paragraph). A primary reason for the project complexity and duration is the fact that the tailings overlie an artesian aquifer in hydraulic connection with Soda Butte Creek. This condition requires an extensive construction dewatering system, a water treatment system, and physical stabilization of the tailings in order to construct the mine waste repository in the seismically active project area near Yellowstone National Park.

Suggested text merged into narrative.

Note: (page 13) Figure 8, second sentence in caption. Lime is injected at the subsurface directly into the mixing head based on the volume of tailings being mixed (not spread on the surface).

Correction made.

D. AML Grant Fiscal and Administrative Controls

Comment: (page 14) Montana Code Annotated, 82-4-1006 restricts expenditures of both CLF and PBRF funds to abandoned mine sites that meet the same eligibility requirements required for reclamation under SMCRA. Montana does not have authority to expend any AML funds "for any purpose deemed necessary by MTAML program."

Suggested text merged into narrative.

Comment: (page 15, second paragraph) Bald Butte and McLaren tailings project are among the projects where MTAML is now required to accumulate the total estimated construction cost. Currently grant monies are earmarked to pay the total estimated construction costs of these two projects. While the AML grants that hold these funds will not be drawn down until completion of the projects, for practical purposes the earmarking of these funds to pay construction costs for these two projects effectively means that the majority of MTAML's currently available grant funds are effectively spent and only limited work can be completed until a new AML grant is received by the program.

Suggested text merged into narrative.

E. Abatement Results of Increase AML funding FY 2008 through FY 2011

Note: Table 3. (page 16) Highland Mine (no Mill). Highland Mill was reclaimed by USFS in separate project not associated with MTAML.

Correction made.

Note: Table 3. (page 16) Shepherd Coal Fires (spelling).

Correction made.

F. Maintenance of Records (note: should be section **F** as **E** was already used in outline)

Sections D and E were merged under the title of Section D, AML Grant Fiscal and Administrative Controls. Abatement Results became part 1 and Review of AML Grant became Part 2. This allowed the discussion of PBRF and CIL moneys to be more concise and less repetitive, and permitted a more concise discussion of MCA 82-4-1006. Section E. Maintenance of Records remained unchanged.

1. Data Management System. Spelling: "Kaisen Planning Process."

Correction made.

G. Acid Mine Drainage (Note: should be section **G** not **F** – ordering out of sequence).
Note: (page 18, last paragraph). Montana AML is reviewing the possibility of constructing several water treatment plants at strategic locations along Belt and Sand Coulee Creeks.

Section F. Acid Mine Drainage remains the same as lettered. The suggested text was merged into the narrative.

Thank you for the opportunity to comment on the 2011 Evaluation Report. Montana AML appreciates the confidence that OSM has in the Montana AML program.