# 2007 ANNUAL REPORT MINING ACT RECLAMATION PROGRAM

# TO THE NEW MEXICO MINING COMMISSION



Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
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#### **Cover Photo Information**

The cover photo was taken at the El Cajete Mine in August 2007. The photo depicts reclamation conducted at the site during summer 2007. Regrading, application of cover material, and reseeding was conducted in early summer. Soil materials salvaged during mining are placed to a depth of one to two feet over the regraded areas. The regraded areas are mulched and seeded with a mixture of forbs, grasses, and shrubs. Ponderosa pine seedlings will be planted at an average rate of about 375 seedlings per acre on every other acre. The photo also shows the application of a silt fence and logs, two Best Management Practices used to control erosion at the site. Redondo Peak, in the Jemez Mountains, is visible in the background.

Remnants of certified weed-free straw mulch can be seen in the cover material. The mulch is used to stabilize soils, protect seeds, and provide organic matter. Additionally, the mulch retains moisture in the soil, and since it is weed-free mulch, it will assist in minimizing the encroachment of weeds into the reclaimed area. The mulch also minimizes erosion by protecting the surface soil from the direct rain impact and allowing the moisture to drip into the soil. Dramatic fluctuations in soil temperature can retard or kill root systems of newly planted vegetation. Mulch minimizes soil temperature extremes to allow for successful root development.

The soils found at the mine site are similar to native soils found around the El Cajete Mine, which are rocky, poorly developed, and lacking in organic matter. Amending such soils appropriately is an important aspect in accelerating the reclamation process.

The photo shows the early emergence of several grass species that were part of the seed mixture used at the site. Some forbs and grasses included in the mix are: Streambank wheatgrass, Mountain brome, Sideoats grama, Intermediate wheatgrass, Prairie junegrass, Woods rose, Alsike clover (legume), and White yarrow.

The El Cajete Mine is a new unit of the Los Conchas Mine. The El Cajete new unit, operated by Copar Pumice Company, was permitted in January of 1998 and mines pumice on U.S. Forest Service property. Copar has been conducting concurrent reclamation (contemporaneous reclamation) at the site as part of the approved reclamation plan. The operator mines a portion of the site, and then reclaims the disturbance soon after removing the pumice. This technique is a good reclamation practice, reducing environmental impacts during mining, as well as reducing the operator's financial liability.

El Cajete's permit to mine recently expired, so Copar will reclaim the entire site in 2008. The reclamation activities at the El Cajete Mine are discussed further in Part 3 of this report.

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#### 1. Introduction

This report summarizes activities regulated by, and related to, the Mining Act Reclamation Program (MARP) of the New Mexico Mining and Minerals Division (MMD). Part 13 of the New Mexico Mining Act Rules (the Rules) requires an annual report be provided to the New Mexico Mining Commission. The report is to contain a general description of mining operations, reclamation practices, and production figures for the State.

Specifically, this report identifies activities related to the permitting and regulation of mines under the Mining Act for the two-year time frame, from January 2006 through December 2007. It also provides tables identifying all mining operations that have obtained or submitted a permit application under the Mining Act Reclamation Program (Program) since its inception in 1994.

The report includes production figures for New Mexico mines active during the 2006 calendar year, the most recent year that statistics are available. Mine operators are required to report these figures to MMD each calendar year. The production figures include statistics from all mines active in New Mexico, not just those regulated under the Mining Act.

Additionally, the report discusses reclamation activities and practices related to specific mines in the state of New Mexico. The statistics addressing reclaimed versus unreclaimed acreage originate from data provided to MMD in annual reports submitted by the mine operators, and identify activities which have taken place during the period from January 1, 2006 to December 31, 2006.

MARP continues to adjust for the increase in uranium exploration projects and associated potential for uranium mining applications coming into New Mexico. This involves training MARP staff in the technical issues related to uranium mine reclamation and radiation health physics, developing guidelines for performing reclamation at uranium mines, and distributing staff work loads to accommodate the additional number of applications. Additionally, MARP continues to develop its database, electronic permitting, and Geographical Information Systems (GIS) into the MARP work processes.

Finally, Section B of 19.10.13.1302 NMAC states that the report shall include proposed amendments to the Rules, if any. No Rule changes were made during calendar year 2007; however, MMD may propose changes during calendar year 2008.

## 2. New Mexico Mining Operations as of December 2007

The Mining Act Reclamation Program was established in the spring of 1994. Since then, all mining operations falling under the definition of "existing" mines – that is, operations having operated between January 1, 1970 and June 18, 1993 – have been fully permitted, including an approved closeout plan and financial assurance, with the exception of those mines shown in Table 3.

A number of new mines – that is, operations initiating activity after June 1993 – have been added to the list of permitted mines. These new mines all fall under the category of minimal impact exploration and mining operations. Exploration operations are small extractive operations, typically under 5 acres, involved in the sampling of ore bodies prior to full-scale mine development. This year has seen a significant increase in the number of new exploration applications involving uranium exploration. General Permit operations cannot excavate materials greater than 200 cubic yards per year, or disturb greater than 2 acres of surface at any one time. The General Permit category is one typically used by hobby and recreational miners. The Exploration and General Permit categories, totaling 267 permits, make up the largest number of permitted operations under the Mining Act Reclamation Program. All mining operations that have submitted permit applications under the categories of Regular Existing Mine, Minimal Impact Existing Mine, Minimal Impact New Mine, Exploration, and General Permit are identified in Appendix No. 1 in Tables 7 through 11. Not all of these operations have received a permit application approval, so total numbers will be different from the numbers provided for permitted sites in Table 1. Although some of the applications have not been approved, the Program spends a significant amount of time evaluating and developing these permits and conducting inspection and enforcement actions related to the regulation of these operations.

Table 1. Mining Operations Approved Since 1994

Type of Operation	Description	Number of Operations
Regular Mining	>10 acres of disturbance	29
Minimal Impact Existing Mining	<10 acres of disturbance	23
Minimal Impact New Mining	<10 acres of disturbance	19
Regular Exploration	> 5 acres of disturbance	2
Minimal Impact Exploration	<5 acres of disturbance	114
General (Recreational)	<200 cubic yards/yr of disturbance	150

**Total Mining Operations Permitted 337** 

Table 1 provides numerical figures of all the mine operations, by category, which have received permits since 1994. Table 2 identifies specific types of permit applications

submitted to MMD during 2007, and identifies those applications that have been approved and those that are still pending. Table 2 also provides a condensed view of where most of the Program's time was spent during 2007. Modifications and revisions can be as time consuming in processing and approving as initial permit applications, and are often much more complicated than minimal impact permit applications. One revision that falls into this category is the new Questa Mine Closeout Plan. This closeout plan is a major revision to the Questa Mine permit, involving updating financial assurance and involving a detailed reclamation plan, including ongoing studies and extended negotiations with the operator, other agencies, and the public. The Questa Mine Closeout Plan revision is particularly involved because of the need to coordinate reclamation plans with the Environmental Protection Agency's (EPA) Remedial Investigation and Feasibility Study, conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Table 2. 2007 Approved and Pending Permit Applications

Type of Operation	Description	Number of Operations			
Type of Operation	Description	Pending	Approved	Denied	
Regular Mining	> 10 acres of disturbance	4	0	0	
Minimal Impact Mining	< 10 acres of disturbance	4	0	0	
Regular Exploration	> 5 acres of disturbance	2	0	0	
Minimal Impact Exploration	< 5 acres of disturbance	5	16	4	
General Permits	< 200 cubic yards/yr of disturbance	1	7	0	
Revisions	Revision to an Existing Permit	3	0	0	
Modifications	Modification to an Existing Permit	7	10	0	

Table 3 identifies regular existing mining operations that have not yet received approval for their Closeout Plans. The two United Nuclear Corporation mines, the St. Anthony Mine and the Section 27 Mine, were involved in a lengthy court battle and are now working with MMD to develop permits. Another older uranium property, the JJ No. 1 Mine, initiated permitting in 2006, after it was determined that the property came under the Mining Act. These three permits, including closeout plans, are expected to be issued and approved in calendar year 2008. Two other operations, the Clodbuster Mine and the Challenge Mine, have been issued a series of notices of violation over the years and remain out of compliance. This year, the owner/operator of the Challenge property has been working with MMD and the United States Forest Service (USFS) to begin reclamation of the site. The General Pumice Mine has also been issued a number of violations, over the years, for lack of compliance with the Mining Act. MARP is patiently working with the owner of the mine, the City of Espanola, to help them achieve compliance. The Nacimiento Mine is an abandoned, openpit copper operation near Cuba, New Mexico. The owner is deceased, and a responsible party has not been identified for the reclamation of the site. Portions of the Nacimiento Mine are situated on state and federal property. The USFS, New Mexico State Land Office, and New Mexico Environment Department have worked together, in the past, with limited CERLA funds, to do a small amount of remediation. This year the Section 14 and Section 12 sites were added to the list of unpermitted, closed mining operations that require a closeout plan. These two sites are old uranium operations that should have applied for permits earlier. The operator is now under a Director's order to reclaim the sites. The Northstar Mine is an existing mining operation that was required to obtain an approved permit from MMD, but has not completed the process. The operation is under new ownership, and MMD is anticipating that the new owners will complete the permitting process in 2008.

Table 3. Existing Mining Operations without Approved Closeout Plans as of December 2007

Mine Name	Operator	Disturbed Acres
Challenge Mine and Mill	Challenge Mining Company	17
Clodbuster Mine and Mill	Agronics, Inc.	27
General Pumice Mine	City of Espanola	10
JJ No. 1 / L Bar Mine	Rio Tinto Energy	11
Nacimiento Mine	Leaching Technology, Inc.	611
North Star Mine	North American Metals LLC	2
Section 12 Mine	Southwest Resources Inc.	5
Section 14 Mine	Southwest Resources Inc.	1
Section 27 Mine	United Nuclear Corporation	15
St. Anthony Mine	United Nuclear Corporation	430

## 3. Reclamation Practices under the New Mexico Mining Act

Thirty sites, under permit with the Mining Act Reclamation Program, have now undergone some form of reclamation, two more sites than in calendar year 2006. In some cases, the entire site has been reclaimed; in others, a portion of the site has undergone reclamation. Once reclamation has taken place, mine operators must wait 12 years before they are eligible to apply for a complete release from the Mining Act's requirements. However, operators are allowed to apply for a partial financial assurance release once per year per permit. Several operators have received partial release for work performed towards final reclamation for activities such as performing earthwork to achieve a post-mining contour, placing cover over reclaimed areas, and performing demolition work at the site. The total amount of financial assurance released in 2007 was \$22,504,648. The majority of these funds where released back to Phelps Dodge Tyrone Inc., for approximately 1,381 acres of reclamation performed at the Tyrone Mine.

Operations where reclamation has been completed on the entire site include: Cunningham Hill Mine; Las Conchas Unit of the Las Conchas / El Cajete Mine; Boston Hill Mine; San Pedro Mine and Mill; KB Mine; KM Mine; Jersey Lily, Snowflake and Virtue Mines; Brockman Mine; Chino Limestone Mine; Hiawatha and Little Jim Mine; Deming Jigging Mill; Old Stope Leach Mine; Velarde Mill; Lordsburg Mine; Mesa Verde Resources Mill; Georgetown Mine; and Pinos Altos Mine. Two of these mines have received a complete release for reclamation or achieving the post-mine land use under the New Mexico Mining Act: the Boston Hill Mine, in Grant County, and the Mesa Verde Resources Mill, in Sandoval County. The Boston Hill Mine received a complete release for achieving the post-mining land use in 2002; Mesa Verde Resources Mill received a complete release in 2005. The Cunningham Hill Mine, owned by LAC Resources Inc., recently applied for complete release on a large portion of the mine that was reclaimed 12 years ago. However, the reclaimed area did not meet release criteria. LAC Resources, Inc. will apply for full release some time in the future, after reclamation improvements are complete.

The Mining Act Reclamation Program encourages innovative and experimental reclamation, particularly at sites where steep slopes and/or acid-producing materials present reclamation challenges. Four large operations permitted under the Mining Act Reclamation Program are currently evaluating test plots constructed over the last several years. The test plot programs are evaluating seeding rates, fertilizer rates, soil amendments, and infiltration rates using various soil covers and cover depths. It is still early to draw conclusions from vegetation results, but trends are beginning to develop. Molycorp's Questa Mine, Phelps Dodge's Tyrone and Chino Mines, and GCC Rio Grande's Tijeras Mine all have successful ongoing test plot programs at their mines.

MARP is also encouraging geomorphic reclamation approaches at hard rock mines. Geomorphic reclamation involves the use of reconstruction techniques, particularly on out slopes, which mimic natural drainage patterns to create a more stable and natural looking post-mine topography. Utilizing this new approach, the coal mines in New Mexico have enjoyed significant successes in erosion reduction, maintenance cost reductions, and

greater vegetation success. Hard rock mines are beginning to learn how this technique might improve their reclamation strategies. The Tyrone Mine, Tijeras mine, and Questa Mine are all exploring ways to incorporate geomorphic design into their reclamation plans.

The overall disturbed acreage under permit with the Mining Act Reclamation Program is 23,660 acres. The total number of acres reclaimed throughout the entire history of the Program (1994-2006) is 2,560 acres. Table 4 shows the approximate number of acres disturbed and reclaimed, as of December 2006, for each mine under permit with the Mining Act Reclamation Program. Based on information supplied by operators in their 2006 annual reports, a total of 1,058 acres were reclaimed in 2006.

The biggest contributor to this total, as in 2005, was the Tyrone Mine, where 982 acres of reclamation took place in 2006. The operator, Phelps Dodge, has reclaimed a total of 1,531 acres since initiating reclamation in 2003.

During calendar year 2006, Phelps Dodge Tyrone Inc. continued several large-scale reclamation projects, addressing the cleanup and reclamation of tailings ponds and waste rock piles at their Tyrone Mine in Grant County. In 2007, Phelps Dodge began reclamation on approximately 300 acres associated with the No. 1A tailings pond, approximately 300 additional acres associated with the No. 1 tailings pond, and approximately 300 acres associated with the No. 1X tailings pond. In 2007, Phelps Dodge also completed the reclamation of approximately 400 acres associated with the No. 3 tailings pond, and 30 acres associated with the mill and concentrator unit, and completed most of the reclamation on 400 acres at the No. 2 tailings pond. In 2008, Phelps Dodge is on schedule to complete the reclamation of over 100 acres associated with the 1C outslopes, approximately 100 acres at the 7A stockpile, 150 acres at the No. 1 stockpile, and a majority of the reclamation at the Nos. 1, 1A, and 1X tailing impoundments. Since the inception of reclamation activities in 2003, Phelps Dodge has spent an estimated \$42 million on During 2007, Phelps Dodge, reportedly spent an estimated reclamation activities. \$8,722,169 on reclamation activities.

During the summer of 2007, Copar Pumice Company reclaimed approximately 20 acres at the El Cajete Mine site. This acreage is not included in Table 4; Table 4 only shows reclamation completed in 2006. The El Cajete Mine will continue to undergo reclamation during 2007 and 2008. The operation's U.S. Forest Service permit expired in November 2007, and consequently, its Mining Act permit was suspended. Reclamation of the 60 acres of disturbance is scheduled to be complete by the end of 2008.

During the summer of 2007, ASARCO reclaimed the Deming Tailings facility, located just north of Deming, New Mexico. Approximately 50 acres of original tailings and 65 acres of affected area were reclaimed. Because of the need to stabilize and contain an old tailings facility containing acid metal tailings, this particular facility had been a high priority reclamation project for many years. The operator and MARP agreed on a reclamation plan for the site early in 2007. The reclamation plan includes the removal and relocation of a large quantity of wind and water blown tailings that escaped from the facility during the early years of operation. The original tailings facility, along with tailings removed from the

affected area, has been recontoured, covered, and seeded.

Table 4. Number of Acres Disturbed and Reclaimed as of December 2006

Permit Number	Name	Permit Type	Disturbed Acres To Date	Reclaimed Acres To Date
BE001RE	Tijeras Mine and Mill	Regular Existing	548	49.2
CA002MN	Deadwood / Last Chance Mine	Minimal Impact New	2	0
CA003ME	Hiawatha and Little Jim Mine	Minimal Impact Existing	2	2
CI002RE	Mount Taylor Mine	Regular Existing	66	0
CI003MN	ANP No. 2 Mine	Minimal Impact New	2	0
CI004MN	Haskani Mine	Minimal Impact New	10	8
CI005RE	Tinaja Pit Mine	Regular Existing	40	0
CI006MN	Ray Claims No. 4 and No. 6 Mine	Minimal Impact New	6	0.5
CI007RE	JJ No. 1 / L Bar Mine	Regular Existing	11	0
GR001RE	Pinos Altos Mine	Regular Existing	9	9
GR002RE	Continental Mine and Mill	Regular Existing	860	10
GR006RE	Chino Limestone Quarry Mine	Regular Existing	55	55
GR007RE	Little Rock Mine	Regular Existing	88	0
GR008RE	Jersey Lily, Snowflake and Virtue Mines	Regular Existing	22	22
GR009RE	Chino Mine and Mill	Regular Existing	9,416	0
GR010RE	Tyrone Mine and Mill	Regular Existing	8,232	1,531
GR011ME	Summit Mine	Minimal Impact Existing	3	0
GR012MN	KB Mine	Minimal Impact New	41	41
GR018ME	Banks Mine (Lost New Summit No. 1 Mine)	Minimal Impact Existing	3	0
GR020RE	Georgetown Mine	Regular Existing	2	2
GR025ME	Mathis Lime Quarry Mine	Minimal Impact Existing	5	0
GR028RE	Center Mine	Regular Existing	5	0
GR029ME	Mount Royal Mine and Mill	Minimal Impact Existing	1	0
GR030ME	Chemical Lime Mine & Mill	Minimal Impact Existing	10	0
HI001RE	Lordsburg Mine and Mill	Regular Existing	15	15
HI002RE	Brockman Mine	Regular Existing	40	40

Permit Number	Name Permit T		Disturbed Acres To Date	Reclaimed Acres To Date
HI004MN	KM Mine	Minimal Impact New	9	9
HI008ME	Volcano Mine	Minimal Impact Existing	8	0
LI001ME	Warner Gulch Placer Mine	Minimal Impact Existing	2	2
LI005ME	Capitan Iron Mine	Minimal Impact Existing	12	0
LU001RE	Deming Jigging Plant	Regular Existing	16	16
LU008RE	Cyprus Deming Tailings Impoundment	Regular Existing	20	20
LU009RE	Asarco Deming Mill	Regular Existing	56.5	0
MK003ME	Star Lake Mine - Menefee	Minimal Impact Existing	3	2
MK005RE	Section 27 Mine	Regular Existing	15	0
MK006RE	St. Anthony Mine	Regular Existing	430	0
MK007ME	Star Lake Mine – Mesa Verde	Minimal Impact Existing	22.7	11.6
MK008ME	Pueblo Alto Mine	Minimal Impact Existing	10	7
MK009RE	Old Stope Leach Mine	Regular Existing	251	251
MK010MN	U-Mate Mine	Minimal Impact New	2	0
MK011MN	Morningstar Mine	Minimal Impact New	14	12
OT002MN	B.O.W. Mine	Minimal Impact New	0	0
RA001ME	Northstar Mine	Minimal Impact Existing	5	0
RA003ME	Cullum Pumice Mine	Minimal Impact Existing	20	0
RA004RE	Rocky Mountain Mine	Regular Existing	88.9	0
RA005RE	Velarde Mill	Regular Existing	27	27
RA006ME	General Pumice Mine	Minimal Impact Existing	10	0
SA001RE	Las Conchas / El Cajete Mine	Regular Existing	60	17.5
SA004MN	Copar South Pit Mine	Minimal Impact New	9	3
SA005ME	Menefee Mill	Minimal Impact Existing	9.7	0
SA009MN	Eagle Mesa Mine	Minimal Impact New	4	0
SA011MN	San Luis Mine	Minimal Impact New	5	0
SF001ME	San Pedro Mine and Mill	Minimal Impact Existing	9.9	0
SF002RE	Cunningham Hill Mine	Regular Existing	307	289

Permit Number	Name	Permit Type	Disturbed Acres To Date	Reclaimed Acres To Date
SF003ME	Silver Silica Mine	Minimal Impact Existing	3	0
SF006ME	CR Minerals Mill	Minimal Impact Existing	5	0
SI001ME	St. Cloud U.S. Treasury Mine	Minimal Impact Existing	6	2
SI005MN	Burbank Canyon Mine	Minimal Impact New	8	0
SI006RE	Zeolite Mine and Mill	Regular Existing	70	14
SI007ME	Midnight Mine	Minimal Impact Existing	4	0
SO001RE	Socorro Perlite Mine and Mill	Regular Existing	160	47
SO002MN	Sais Quarry Mine	Minimal Impact New	1	0
TA001RE	Questa Mine and Mill	Regular Existing	1,979	21
TA002RE	El Grande Mine and Mill	Regular Existing	170	0
TA003RE	U. S. Hill Mine	Regular Existing	49	25
TA005RE	No Agua Mine and Mill	Regular Existing	276	0
VA001ME	Lucero Quarry Mine	Minimal Impact Existing	9	0

TOTAL ACREAGE: 23,660.7 2,560.8

#### 4. Mineral Production Statistics for New Mexico in 2006

Over \$2.1 billion worth of minerals were extracted in New Mexico during 2006, breaking the previous production value record of \$1.8 billion in 2005. Higher commodity prices have driven a 75 percent increase in mineral production values from 2000 to 2006. New Mexico remains a leading producer of many mineral commodities, ranking first in potash, perlite and zeolite; third in copper; sixth in molybdenum; tenth in gold and silver; and twelfth in coal production value. Table 5 provides summary information on all mineral commodities produced in New Mexico in 2006.

Confidentiality laws do not allow production values specific to a mining operation to be made public. Therefore, we have provided production values by commodity, and not by a specific mining operation. Total production for commodities with less than three producers also must be held confidential. Not all commodities listed come under the Mining Act, but they have been included to provide a comprehensive list of all minerals produced in New Mexico. For example, some of the operations classified as industrial minerals and aggregates do not fall under the Mining Act's jurisdiction. Coal and potash operations do not fall under the Mining Act. Coal mines are permitted under the New Mexico Surface Coal Mining Act. Potash mines and refineries are not regulated under either act.

According to the U.S. Geological Survey (USGS), in 2006, New Mexico ranked fourteenth when ranking states by the production value of non-energy minerals. This is a sharp increase from previous years; e.g. New Mexico ranked twenty-fifth in 2003. Our state produces 2.27 percent of the U.S. total non-energy minerals production value. The principal minerals, in descending order of value, are coal, copper, potash, construction sand and gravel, molybdenum and cement (limestone). New Mexico's national rank jumps to eighth for per capita production value – nearly \$500 worth of minerals is produced for every New Mexican resident.

Coal, which set a record high for production value in 2006, remains the leading commodity for production value, revenue generation and payroll. Copper, industrial minerals and aggregates continued the recent trend of increased production value. For the third straight year, New Mexico has seen a significant increase in production value in the copper mining sector. Copper production value increased 51.3 percent in 2006; copper production decreased 14.1 percent. The production value trend is likely to continue through 2008 as copper spot prices have continued to remain at historically high levels — an average of over \$3 per pound in 2006 and 2007. While New Mexico's molybdenum production remained stable at 4.0 million pounds in 2006, production value decreased 18.0 percent to \$84.7 million. The drop in production value is due to a decrease in molybdenum prices. After rising dramatically from an average \$2.35 a pound in 2001 to an average \$32.69 per pound in 2005, molybdenum spot prices stabilized at \$24.75 per pound in 2006. The \$261.7 million production value of 2006 is a new record for industrial minerals. Although production value increased, total industrial mineral production decreased 7.3 percent to 2.2 million short tons. Production value for stone and aggregate set a new record high of \$140 million. While production value increased 8.8 percent, aggregate and stone production decreased 3.5 percent from the 2005 record high of 19.3 million short tons.

Payroll exceeded \$286 million in 2006, a 5.6 percent increase over 2005. The total number of employees in the mining industry topped 6,350 in 2006, a 5% increase from the previous year (Figure 1). The recent trend of increased contract employment reversed in 2006: direct employment rose 6.3 percent to 5,277 workers and contract employment dropped 13.3 percent to 1,083 workers. Copper continues to be the largest employer in the New Mexico mining industry. Copper employment remained stable in 2006, and payroll increased 28.7 percent. Molybdenum employment increased 38.2 percent, and payroll increased 36.9 percent. Employment in the industrial mineral sector decreased 13.8 percent to 517 workers, and payroll decreased 12.6 percent to \$21.2 million. Aggregate payroll and employment decreased 1.6 percent in 2006.

Reclamation employment increased 17 percent to 467, the highest reported reclamation employment on record. New Mexico uranium employment is near the ten-year high due to reclamation activities at Rio Algom's Ambrosia Lake/Old Stope Mine properties. Reclamation employment in the copper sector more than doubled to 189 workers, due to ongoing reclamation projects at Tyrone and Chino Mines. Molybdenum reclamation employment increased to 25 workers, a 67 percent increase from 2005. Reclamation employment remained stable at 12 workers for industrial minerals. Reclamation employment at aggregate and stone operations dropped by 25 percent from 2005 numbers, although it is still double the historical average of 40 employees.

There has been an average of 225 registered active mining operations in the state of New Mexico in recent years. In 2006, active operations included five coal mines, three potash mines and four potash mills, one molybdenum mine and mill, three major copper mines and related concentrators and solvent extraction/electrowinning (SX/EW) plants, 41 industrial mineral mines and mills and 189 stone and aggregate operations. Since 1998, the number of registered operations has increased by about 60, almost all in the industrial mineral and aggregate sector. New Mexico mining companies spent \$111 million on capital improvements and equipment in 2006, double 2005 spending levels.

Table 5. Summary of Commodity Production, Value, Employment, Payroll, Revenue and Ranking, 2006

Mineral	Production <sup>1</sup>	Production Rank <sup>2</sup>	Production Value \$	Employment <sup>3</sup>	Reclamation Employment <sup>4</sup>	Payroll <sup>5</sup>	Revenues <sup>6</sup>
Coal	26,118,082	12	\$ 718,486,289	1,512	92	\$ 98,369,535	\$ 31,482,765
Copper	249,392,535	3	\$ 716,130,354	1,659	189	\$ 68,345,437	\$ 5,451,122
Gold	13,488	10	\$ 8,146,685	4	4	\$ 128,500	\$ 63,218
Industrial Minerals 7	2,285,585	-	\$ 261,668,905	517	12	\$ 21,287,403	\$ 1,031,133
Aggregates 8	19,317,521	-	\$ 140,022,212	1,143	83	\$ 20,653,051	\$ 2,100,058
Other Metals	50,032	<del>-</del>	\$ 546,000	-	-	-	-
Molybdenum	4,057,024	6	\$ 84,706,672	380	25	\$ 14,814,589	-
Potash 9	825,540	1	\$ 237,603,468	1,078	2	\$ 61,205,363	\$ 4,572,545
Silver	209,254	10	\$ 2,420,975	-	-	-	\$ 16,756
Uranium 10	-			67	60	\$ 1,260,000	\$ 28,614
TOTAL	<u> </u>	,	\$ 2,169,731,560	6,360	467	\$ 286,063,878	\$ 44,746,211

Source: Mine Registration Program, Mining and Minerals Division, unless otherwise noted.

<sup>1</sup> Production for coal, industrial minerals, aggregates, magnetite and potash reported in short tons; copper and molybdenum in pounds; and gold and silver in troy ounces.

<sup>2</sup> Production rank based on production value in relation to other U.S. states. Sources: Coal, Energy Information Administration, United States Department of Energy. All other commodities. Mineral Resources Program, United States Geological Survey.

<sup>3</sup> Category includes direct and contract employees. Gold, silver and other metals are co-products of copper production. Production-related employment and payroll for these commodities are included in the copper numbers. Gold employment and payroll is for reclamation activities.

<sup>4</sup> Reclamation employment is included in total employment numbers.

<sup>5</sup> Payroll is for direct employment and does not include contract employees. Payroll does not include benefits.

Value reflects both federal and state revenues. State revenue (fiscal year 2006) includes royalties, rentals and bonuses from state trust mineral leases, and severance, resource excise and conservation tax revenues. Federal revenue (fiscal year 2006) includes 50% state share of federal royalties. Sources: State data, the New Mexico Taxation and Revenue Department and the New Mexico State Land Office. Federal data, Minerals Management Service.

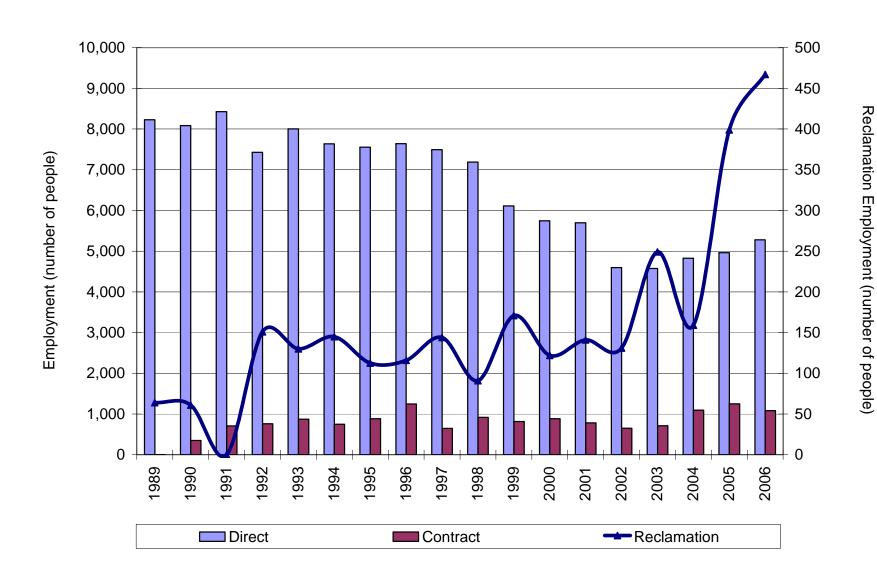
<sup>7</sup> Category includes gypsum, perlite, salt, limestone, calcite, dimension stone, silica flux, clay, humate, scoria, pumice, mica and zeolite.

<sup>8</sup> Category includes base course, caliche, clay/shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, riprap, sand, scoria, topsoil and travertine.

<sup>9</sup> Production is K<sub>2</sub>O mill production

<sup>10</sup> Employment and payroll numbers are for permitting, care and maintenance and reclamation activities.

Figure 1. New Mexico Mineral Industry Employment, 1989 - 2006



## **5. Financial Assurance Update**

Table 12, in Appendix No. 2, summarizes the types and amounts of financial assurance provided to the State of New Mexico by mining operators who have obtained approved permits and closeout plans. The forms of financial assurance include surety bonds, cash, letters of credit, collateral (real estate), and third-party guarantees. Financial assurance posted with MMD, to date, totals over \$602 million.

# 6. Amendments to the New Mexico Mining Act Rules

MMD did not petition the Mining Commission in 2007 for any rule changes. However, MMD may propose changes in calendar 2008.

## 7. Geographical Information System Initiative

The Mining Act Reclamation Program implemented a Geographical Information System (GIS) initiative directly related to its regulatory activities. MARP is now requesting and integrating geospatial information from mine operators into the permitting process. The GIS initiative also involves the active collection of geospatial data by program staff. The goals of this initiative are to enable MARP program staff (permit leads) to more accurately track disturbed and reclaimed areas of mine sites and to increase work efficiency by utilizing geospatial information in permitting actions. Where appropriate, the information will be available to the public to increase public access and understanding of state permitting activity.

Permit leads are currently using global positioning systems (GPS) to gather mine location data during inspections, creating a complete system of permitting details over time throughout the state. Permit leads will utilize GPS technology in the field for navigational purposes, to identify specific sampling sites, and to track acreage. During the course of inspections, program staff are tracing the perimeter of both mine disturbances and reclamation areas and are learning how to downloading and manipulating this information to create geospatial polygons and maps. Overlaying these polygons on permit boundary maps, aerial photographs, topographic maps, land-use maps, and other datasets can aid the permit leads with visual inspections of a mine and with determining compliance with permit requirements.

The geospatial information gathered will ultimately be utilized as an intranet application using Autodesk MapGuide, providing program staff with easy access to the resulting maps and to the most current information as it is acquired. Test plots and sampling sites, used to measure the effects of specific reclamation treatments, can be more comprehensively monitored for changes, over time, using the geospatial data.

Currently, mine operators are required to provide information concerning disturbed areas and reclaimed areas (pre- and post-treatment) to MARP in their annual reports. The Program is now requesting that these maps be submitted to MARP in a digital format compatible with the MMD GIS structure. Maps of mine features and areas created as AutoCAD or ESRI shape files are the most compatible with the MARP GIS. The Program advocates direct communication with the mapping specialists of interacting groups to facilitate the appropriate exchange of data in a compatible datum and coordinate system. Maps overlaid by date within a GIS make it easier to see the progression of reclamation and the relationships of features, such as hydrology, topography and mine structures. The GIS approach to sharing information will make the exchange of information more efficient between the regulating agencies and operators.

MARP is developing a GIS product, an interactive web-based map, for public viewing and use. The map will feature mine locations, general permit information, linked photographs, and web page hyperlinks. Appendix No. 3 includes a preview of some these maps.

## 8. Uranium Exploration and Mining

The Mining Act Reclamation Program has jurisdiction over exploration and conventional uranium mining activities, but does not cover in-situ leach uranium mining. The Mining Act exempts mining activity regulated by the Nuclear Regulatory Commission (NRC). The NRC regulates in-situ leach operations; therefore, they are exempt from the Mining Act.

Rising market prices are leading to renewed interest in uranium recovery and production. New Mexico has experienced a significant increase in uranium exploration activity in the past two years. In January 2006, the Mining and Minerals Division received the first uranium exploration application since 1998. Eighteen uranium exploration applications were submitted in 2006 and 2007. As of December 2007, six applications have been approved, three are pending, five have been denied and four were withdrawn.

In addition to the permitting of exploration sites, there are eight other uranium properties regulated by the New Mexico Mining Act. Six properties fall under the heading of "Regular Existing Operations." They include the Mount Taylor, Old Stope Leach, Section 27, St. Anthony, JJ No. 1, and Northeast Church Rock mines. The other two operations, the Section 14 and Section 12 sites, are old uranium mine operations that should have applied for permits earlier. The operator is now pursuing compliance with the Mining Act and preparing closeout plans.

The Mt. Taylor Mine, a flooded underground mine in Cibola County, remains on standby status and must amend its permit before mining can commence. The Old Stope Leach Mine is under permit and under reclamation. Although they will not be mined again, the St. Anthony, Section 27, Northeast Church Rock, and JJ No. 1 mines are all existing uranium properties that must obtain approved closeout plans and be reclaimed. After discussions with the Navajo Environmental Protection Agency and the United States Environmental Protection Agency (USEPA), the responsibility for remediation oversight of the Northeast Church Rock site has been transferred to the USEPA.

While uranium mining companies are eager to move forward, several significant obstacles lay in the path of large-scale uranium development in the near future. First, all of New Mexico's uranium mills have been decommissioned and demolished and new infrastructure is needed. Second, the Navajo Nation, which overlays a major portion of the uranium deposits in New Mexico, declared a moratorium on uranium production on Navajo lands in April 2005. Third, the All Indian Pueblo Council passed a resolution in June 2007, calling for the protection of Mount Taylor and the cultural properties of the Pueblos of Acoma and Laguna.

Other activity related to uranium mining focuses on the reclamation of the mines and mills left over from the boom years. New Mexico uranium employment is near the ten-year high, due to reclamation activities at Rio Algom's Ambrosia Lake/Old Stope Mine properties. Both the United Nuclear Corporation Mill in Church Rock and the Homestake Mill in Milan are also undergoing reclamation. United Nuclear Corporation continues work towards

approval of closeout and reclamation plans, as required by the New Mexico Mining Act, for its Section 27 and St. Anthony Mines. Kennecott Energy Company is also working towards closeout and reclamation plan approval for the JJ No. 1 Mine.

Last year, MARP implemented an initiative to increase the staff's knowledge and understanding of the unique technical issues associated with the reclamation of uranium mines. All uranium mining is expected to create surface disturbances. However, with conventional uranium mining, the impacts can include radiological hazards exposed at the surface during and after mining. The MARP staff is being trained to understand the potential radiological hazards posed by being on-site at a mine, as well as the technical issues associated with reclaiming disturbed land that may be impacted with radiological hazards. The exposure to uranium-238, radium-226, related daughter products, and heavy metals require that extra mitigation measures are taken during and after uranium mining activities.

In order for Mining Act Reclamation staff to increase their knowledge of mining and environmental issues related to uranium, staff are taking advantage of a number of training opportunities. Program staff has been involved in joint radiation hazard training with other agencies, such as the New Mexico Environment Department, the Navajo Environmental Protection Agency, and the Navajo Nation Abandoned Mine Land Program. Topics covered in these trainings included work plans for sampling uranium mine sites and radiation health physics. In addition, courses and seminars, offered by the Interstate Technology and Regulatory Council in Radiation Clean-up, are available to staff. Staff is trained in the area of health physics, through education and proper monitoring techniques, to ensure their safety while on mine sites.

Because of heightened concerns from the public, including Native American tribes and nations, MARP is developing a process to better inform the public about current and upcoming uranium mine projects, both for new permits and existing mine reclamation projects.

 Table 6.
 Mining Act Reclamation Program Staff

Employee Name & Title	Telephone	E-Mail Address
Holland Shepherd Program Manager - Applied Ecologist	(505) 476-3437	holland.shepherd@state.nm.us
Diana Sainz Records Manager & Public Records Officer	(505) 476-3433	diana.m.sainz@state.nm.us
David Ohori Senior Reclamation Specialist - Soil Scientist	(505) 476-3432	david.ohori@state.nm.us
Chris Eustice Environmental Engineer	(505) 476-3438	chris.eustice@state.nm.us
Joe Vinson Senior Reclamation Specialist – Soil Scientist	(505) 476-3414	joe.vinson@state.nm.us
James Hollen Senior Reclamation Specialist - Geologist/Hydrologist	(505 476-3436	james.hollen@state.nm.us
Paul Lyons Reclamation Specialist – Plant Scientist	(505) 476-3439	paul.lyons@state.nm.us

Appendix No.1 Mining Oper	rations in New Mexico a 2007	as of December

Table 7. Regular Existing Mines as of December 2007

Permit No.	Mine Name	Operator	Permit Status	Mining Status	Commodity
BE001RE	Tijeras Mine and Mill	GCC Rio Grande, Inc.	Approved	Active Mining, Active Reclamation	Limestone
CA005RE	Challenge Mine and Mill	Challenge Mining Company	Enforcement	Permanent Closure, Active Reclamation	Gold, Silver
CI002RE	Mount Taylor Mine	Rio Grande Resources Corporation	Approved	Temporary Suspension	Uranium
CI005RE	Tinaja Pit Mine	C & E Concrete, Inc	Approved	Active Mining	Limestone
CI007RE	JJ No. 1 / L Bar Mine	Kennecott Energy Co.	Pending	Permanent Closure, Active Reclamation	Uranium
GR001RE	Pinos Altos Mine	Chino Mines Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Metals, Silica Flux
GR002RE	Continental Mine and Mill	Cobre Mining Company	Approved	Temporary Suspension	Copper, Zinc, Magnetite
GR006RE	Chino Limestone Mine	Chino Mines Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Limestone
GR007RE	Little Rock Mine	Phelps Dodge Tyrone, Inc.	Approved	Temporary Suspension	Copper
GR008RE	Jersey Lily, Snowflake and Virtue Mines	Phelps Dodge Tyrone, Inc.	Approved	Permanent Closure, Reclaimed Awaiting Release	Silica Flux
GR009RE	Chino Mine and Mill	Chino Mines Company	Approved	Active Mining, Active Reclamation	Copper, Gold, Silver, Molybdenum
GR010RE	Tyrone Mine/Mill	Phelps Dodge Tyrone, Inc.	Approved	Active Mining, Active Reclamation	Copper
GR020RE	Georgetown Mine	Sierra Corporation	Approved	Permanent Closure, Reclaimed Awaiting Release	Copper, Gold, Silver
GR028RE	Center Mine	Douglas E. Hanson	Approved	Temporary Suspension	Silica Flux, Silver
HI001RE	Lordsburg Mine and Mill	Lordsburg Mining Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Silica Flux
HI002RE	Brockman Mine	Phelps Dodge Hidalgo, Inc	Approved	Permanent Closure, Reclaimed Awaiting Release	Silica Flux
LU001RE	Deming Jigging Mill	American Minerals, Inc.	Approved	Permanent Closure, Reclaimed Awaiting Release	Magnesium
LU008RE	Cyprus Deming Tailings Impoundment	Chino Mines Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Copper, Zinc
LU009RE	Asarco Deming Mill	Asarco, Inc.	Approved	Permanent Closure, Reclaimed Awaiting Release	Copper, Zinc
MK004RE	Northeast Church Rock Mine	United Nuclear Corporation	Pending	Permanent Closure, Active Reclamation	Uranium

Permit No.	Mine Name	Operator	Permit Status	Mining Status	Commodity
MK005RE	Section 27 Mine	United Nuclear Corporation	Pending	Permanent Closure, Active Reclamation	Uranium
MK006RE	St. Anthony Mine	United Nuclear Corporation	Pending	Permanent Closure, Active Reclamation	Uranium
MK009RE	Old Stope Leach Mine	Rio Algom, LLC	Approved	Permanent Closure, Active Reclamation	Uranium
RA004RE	Rocky Mountain Mine	CR Minerals, LLC	Approved	Active Mining	Pumice
RA005RE	Velarde Mill	Oglebay Norton Specialty Minerals	Approved	Permanent Closure, Reclaimed Awaiting Release	Mica
SA001RE	Las Conchas/El Cajete Mine	Copar Pumice Company	Approved	Active Mining, Active Reclamation	Pumice
SA002RE	Clod Buster Mine and Mill	Agronics, Inc.	Enforcement	Permanent Closure, No Reclamation	Humate
SA003RE	Nacimiento Mine	Leaching Technology, Inc.	Denied	Permanent Closure, No Reclamation	Copper
SF002RE	Cunningham Hill Mine	LAC Minerals Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Gold
SI006RE	Zeolite Mine and Mill	St. Cloud Mining Company	Approved	Active Mining	Zeolites
SO001RE	Socorro Perlite Mine and Mill	Dicaperl Corporation	Approved	Active Mining	Perlite
TA001RE	Questa Mine and Mill	Molycorp, Inc.	Approved	Active Mining, Active Reclamation	Molybdenum
TA002RE	El Grande Mine and Mill	Dicaperl Corporation	Approved	Active Mining	Perlite
TA003RE	U. S. Hill Mine	Pueblo of Picuris	Approved	Permanent Closure, Active Reclamation	Mica
TA005RE	No Agua Mine and Mill	Harborlite Corporation	Approved	Active Mining	Perlite

## **Total Regular Existing Mine Permit Applications 35**

Total Regular Existing Mine Permits Approved 28
Total Regular Existing Mine Permits Pending 4
Total Regular Existing Mine Permits Enforcement 2
Total Regular Existing Mine Permits Denied 1

Table 8. Minimal Impact Existing Mines as of December 2007

Permit No.	Mine Name	Operator	Permit Status	Mine Status	Commodity
CA003ME	Hiawatha And Little Jim Mine	Volcanic Stone Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Tin
GR011ME	Summit Mine	Royal Group Technologies Ltd.	Approved	Under Development	Silica Flux, Gold
GR016ME	Malone Mine	Louis Osmer	Approved	Permanent Closure, No Reclamation	Silica
GR018ME	Banks Mine (Lost New Summit No. 1 Mine)	Micrex Development Corporation	Approved	Permanent Closure, No Reclamation	Silica Flux, Silver
GR019ME	Boston Hill Mine	Town Of Silver City	Released	Permanent Closure, Reclaimed and Released	Manganese
GR025ME	Mathis Lime Quarry Mine	Mathis Rocks	Approved	Permanent Closure, Active Reclamation	Limestone
GR029ME	Mount Royal Mine and Mill	Micrex Development Corporation	Approved	Permanent Closure, No Reclamation	Gold
GR030ME	Chemical Lime Mine & Mill	Chemical Lime Company	Approved	Permanent Closure, No Reclamation	Silica Flux
HI008ME	Volcano Mine	Dane Mining & Exploration	Approved	Permanent Closure, Reclaimed Awaiting Release	Gold, Silver, Silica
LI001ME	Warner Gulch Placer Mine	American Eagle Mining Company	Approved	Permanent Closure, Reclaimed Awaiting Release	Gold
LI005ME	Capitan Iron Mine	El Capitan Ltd.	Approved	Under Development	Iron
MK003ME	Star Lake Menefee Mine	Menefee Mining Corporation	Approved	Active Mining	Humate
MK007ME	Star Lake Mesa Verde Mine	Mesa Verde Resources	Approved	Active Mining	Humate
MK008ME	Pueblo Alto Mine	Mesa Verde Resources	Approved	Temporary Suspension	Humate
MK023ME	Section 14 Mine	Southwest Resources Inc.	Enforcement	Permanent Closure, No Reclamation	Uranium
MK024ME	Section 12 Mine	Southwest Resources Inc	Enforcement	Under Development	Uranium
RA001ME	Northstar Mine	Northern American Metal LLC	Pending	Under Development	Gold
RA003ME	Cullum Claims Mine	Pueblo of Santa Clara	Approved	Permanent Closure, Active Reclamation	Pumice
RA006ME	General Pumice Mine	City Of Espanola	Pending	Permanent Closure, Active Reclamation	Pumice
SA005ME	Menefee Mill	Menefee Mining Corporation	Approved	Active Mining	Humate
SA010ME	Mesa Verde Resources Mill	Mesa Verde Resources	Released	Permanent Closure, Reclaimed and Released	Humate

Permit No.	Mine Name	Operator	Permit Status	Mine Status	Commodity
SF001ME	San Pedro Mine and Mill	St. Cloud Mining Company	Annrovad	Permanent Closure, Reclaimed Awaiting Release	Copper, Gold
SF003ME	Silver Silica Mine	Oro Blanco Mining Company, LLC	Approved	Active Mining	Silica
SF006ME	CR Minerals Mill	CR Minerals Company		Permanent Closure, Active Reclamation	Pumice
SI001ME	St. Cloud US Treasury Mine	St. Cloud Mining Company	Annroved		Silica, Gold, Silver
SI007ME	Midnight Mine	Larry L. Harris	Annroved	Permanent Closure, No Reclamation	Gold, Copper
VA001ME	Lucero Quarry Mine	New Mexico Travertine, Inc.	Approved	Active Mining	Travertine

## **Total Number of Minimal Impact Existing Mine Permit Applications 27**

Total Number of Minimal Impact Existing Mines Approved 21
Total Number of Minimal Impact Existing Mines Released 2
Total Number of Minimal Impact Existing Mines Pending 2
Total Number of Minimal Impact Existing Mines Enforcement 2

Table 9. Minimal Impact New Mines as of December 2007

Permit No.	Mine Name	Operator	Permit Status	Mine Status	Commodity
CA002MN	Deadwood / Last Chance Mine	Micrex Development Corporation	Approved	Permanent Closure, No Reclamation	Silica, Silver
CI003MN	ANP No. 2 Mine	Acid Neutralizing Products, Inc.	Approved	Temporary Suspension	Travertine
CI004MN	Haskani Mine	Acid Neutralizing Products, Inc.	Approved	Active Mining	Travertine
CI006MN	Ray Claims No. 4 and No. 6 Mines	International Stone Company	Approved	Active Mining	Travertine
DA002MN	Shamrock Environmental Mine	Espanola Transit Mix Company	Approved	Permanent Closure, Active Reclamation	Precious Metals
GR012MN	KB Mine	Southwest Silica Flux Co., Inc.	Approved	Permanent Closure, Reclaimed Awaiting Release	Silica
GR022MN	Farmers Back Breaker Mine	Larry Moore	Enforcement	Permanent Closure, No Reclamation	Gold
GR023MN	Copper Conglomerate Mine	Copper Creek Exploration	Enforcement	Permanent Closure, No Reclamation	Copper
GR031MN	Toro Mine	Toro Mining and Minerals, Inc.	Released	Permanent Closure, Reclaimed and Released	Perlite
GR036MN	Groom Mine	Steven Groom	Pending	Under Development	Gold
GR056MN	McCauley Perlite Mine	St. Cloud Mining Company	Approved	Under Development	Perlite
HI004MN	KM Mine	Southwest Silica Flux Company, Inc.	Approved	Permanent Closure, Reclaimed Awaiting Release	Silica
LU011MN	Herb Bailey No. 1 Mine	Boot Heel Minerals	Enforcement	Permanent Closure, No Reclamation	Turquoise
LU012MN	Herb Bailey No. 2 Mine	Boot Heel Minerals	Enforcement	Permanent Closure, No Reclamation	Turquoise
MK010MN	U-Mate Mine	U-Mate International, Inc.	Approved	Active Mining	Humate
MK011MN	Morningstar Mine	Morningstar Corporation	Approved	Permanent Closure, No Reclamation	Humate
OT002MN	B.O.W. Mine	B.O.W. Corporation	Approved	Under Development	Garnet
SA004MN	Copar South Pit Mine	Copar Pumice Company	Approved	Active Mining	Pumice
SA006MN	Copper City Mine	Crystal Mining Corp.	Enforcement	Permanent Closure, No Reclamation	Humate
SA009MN	Eagle Mesa Mine	Rammsco, Inc.	Approved	Active Mining	Humate
SA011MN	San Luis Mine	Horizon Ag-Products	Approved	Active Mining	Humate
			•		•

Permit No.	Mine Name	Operator	Permit Status	Mine Status	Commodity
SI005MN	Burbank Canyon Mine	The Beenah Group, Inc.	Approved	Permanent Closure, No Reclamation	Precious Metals
SI020MN	Coyote No. 1 Mine	Greg Richards	Approved	Active Mining	Zeolites
SI021MN	Coyote No. 1 Mine	Greg Richards	Approved	Active Mining	Zeolites
SJ001MN	Morningstar Mill	Morningstar Corporation	Pending	Active Mining	Humate
SO002MN	Sais Quarry Mine	New Mexico Travertine	Approved	Active Mining	Schist
SO004MN	Alamosa Mine	Tognoni & Lufkin	Enforcement	Permanent Closure, No Reclamation	Beryllium
SO005MN	San Lorenzo Claim Mine	Tim Apodaca	Approved	Under Development	Gold

### **Total Number of Minimal Impact New Mine Permit Applications 28**

Total Number of Minimal Impact New Mine Permits Approved 19
Total Number of Minimal Impact New Mine Permits Released 1
Total Number of Minimal Impact New Mine Permits Pending 2
Total Number of Minimal Impact New Mine Permits Enforcement 6

Table 10. Exploration Projects as of December 2007

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date
BE001EM	HRI Inc. Exploration Project	HRI, Inc.	Uranium	Approved	3/19/1998
CA004EM	Gutapa Exploration Project	Sunburst Mining Company	Gold, Platinum	Approved	4/19/1997
CA005EM	Cow Springs Exploration Project	Derek Kuester	Gold, Silver, Copper	Withdrawn	NA
CA006EM	Deep Creek Project	Derek Kuester	Gold, Silver, Copper	Approved	5/19/1998
CA007EM	Faith Mining Association Project	Faith Mining Association	Gold, Rare Earths	Approved	11/1/2004
CA008EM	Southwest Research No. 1 Project	Southwest Research and Dev. Co.	Silver, Gold, Platinum	Approved	11/23/1998
CA009EM	Apache Camp Exploration	Faith Mining Association	Gold	Approved	11/1/2004
CA011EM	Sunburst/Deadwood Exploration Project	Micrex Development	Silver, Gold, Copper	Approved	8/14/2007
CI001EM	ANP No. 1 Project	Acid Neutralization Product, Inc.	Travertine	Approved	10/26/1995
CI002EM	La Jara Mesa Confirmation Drill Project	Anaconda Resources, Inc.	Uranium	Approved	5/19/1998
CI003ER	Zia Mines Exploration Project	Lee Stewart	Uranium	Withdrawn	NA
CI004EM	Twenty Two Project	Jim Herrison	Travertine	Approved	11/19/2003
CI008EM	La Jara Mesa Exploration Project	Laramide Resources, Inc.	Uranium	Approved	10/12/2006
CI008EM R1	La Jara Mesa Exploration Project Renewal	Laramide Resources, Inc.	Uranium	Approved	10/18/2007
CI009EM	La Jara Mesa Extension Exploration Project	Urex Energy Corp	Uranium	Pending	
CI010EM	Treeline II Exploration Project	Western Energy Development Corp	Uranium	Denied	NA
CI0011EM	DD No. 1 Exploration Project	Rampart Resources, Inc.	Uranium	Withdrawn	NA
DA001EM	Alivio Exploration Project	Louis Gonzales	Gold	Approved	4/21/2003
DA002EM	Golden Link Exploration Project	Don Snodgrass	Gold, Silver	Approved	5/5/2005
GR001EM	Deadman Canyon Project	Copper Creek Exploration Ltd.	Copper	Approved	3/23/1995
GR002EM	Pinos Altos Project	Pinos Altos Gold Exp. Inc.	Gold	Approved	1/19/1996
GR004EM	Tyrone West Drilling Program	Copper Creek Exploration Ltd.	Copper	Approved	1/5/1996
GR005EM	Gold Rush Project	Harvey Lee Harvey	Gold, Silver	Approved	12/31/1999
GR006EM	Navarro Mineral Project	D. Gilbert Navarro	Gold	Approved	10/31/1996
GR007EM	Lone Mountain Project	Lone Mountain Mining Ltd.	Copper	Approved	12/8/1996
GR009EM	Good Cheer Group Project	Don Yelsma		Approved	12/19/1997
GR010EM	Beaumont Silver Mine Project	Lou Osmer	Silver	Approved	6/8/2003
GR010EM R1	Beaumont Exploration Project Renewal	Lou Osmer	Silver	Approved	6/8/2006
GR011EM	Shamrock Gold Mine Project	Lou Osmer	Gold	Approved	6/8/2003
GR012EM	Astrologer Gold Mine Project	Lou Osmer	Gold	Approved	6/8/2003

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date
GR013EM	Chocolate Peak Project	Harold Hoegberg	Gold, Silver, Copper, Zinc	Approved	8/6/1998
GR014EM	Copper Mountain South Project	Phelps Dodge Tyrone, Inc.	Copper	Approved	7/19/2000
GR015EM	Golden Eagle Exploration Project	John Bernal	Gold	Approved	3/22/2005
GR017EM	Toro Mining Exploration Project	Charles Grey	Perlite	Approved	9/19/2001
GR018EM	Emma Exploration Drilling Project	Phelps Dodge Tyrone, Inc.	Copper	Approved	9/30/2001
GR019EM	SW Area Drilling Project	Phelps Dodge Tyrone, Inc.	Copper	Approved	9/30/2001
GR020EM	Nellie Bly Exploration Project	Phelps Dodge Tyrone, Inc.	Copper	Approved	12/19/2002
GR021EM	Hachita Project	Ken Krahulec	Precious Metals	Approved	11/20/2002
GR022EM	Tyrone Peak Project	Phelps Dodge Tyrone, Inc.	Copper	Approved	12/18/2002
GR023EM	Brockman Exploration Project	Kennecott Exploration Company	Gold	Approved	3/27/2003
GR024EM	Don Snodgrass Project	Don Snodgrass	Silver, Gold	Approved	1/27/2005
GR024EM R1	Don Snodgrass Project Renewal	Don Snodgrass	Gold	Approved	6/8/2006
GR025EM	Lawrence Pierce	Lawrence Pierce	Gold	Approved	8/15/2005
GR026EM	Gutapa Project	Sunburst Mining Corp.	Gold, Platinum	Approved	1/9/1995
GR027EM	Neglected Mine Project	William Hinkle, Jr.	Gold, Silver, Copper	Approved	7/14/2004
GR027EM R1	Neglected Mine Project Renewal 1	William Hinkle, Jr.	Gold	Approved	10/23/2006
GR027EM M1	Neglected Mine Project Modification 2007	William Hinkle, Jr.	Gold, Silver, Copper	Approved	10/5/2007
GR028EM	Thornwell Exploration Project	Thornwell Rogers	Silver, Copper, Zinc	Approved	12/8/2005
GR029EM	Galway Lone Mountain Project	Galway Resources US, Inc.	Copper, Lead, Zinc	Approved	3/1/2007
GR030EM	Malone Project	Evolving Gold Corporation	Gold, Silver	Approved	7/30/2007
GR031EM	Gold Lake Prospect Project	New Mexico General Minerals LLC	Copper	Approved	10/22/2007
GR032EM	Galway Lone Mountain Project Modification 2007	Galway Resources US, Inc.	Copper, Lead, Zinc	Approved	8/17/2007
HI001EM	San Simon Project	Cyprus Metals Company		Approved	3/7/1995
HI002EM	Beck Mine Project	Beck Silver Mines	Gold, Silver	Approved	2/27/1995
HI003EM	Sterling Project	Noranda Exploration, Inc.	Copper	Approved	1/5/1996
HI004EM	Willow Draw Project	Mark Osterberg	Copper	Approved	3/25/1996
HI005EM	Comstock Project	Bush Mining and Ranching	Gold, Silver	Withdrawn	NA
HI006EM	Hachita Peak Project	Teck Resources	Gold	Approved	10/31/1996
HI007EM	Apache Hills Project	Madison Resources (NM), Inc.	Metals	Approved	4/30/1997
LI001EM	Vera Cruz Project	Placer Dome, Inc.	Gold, Copper	Approved	11/23/1994
LI003ER	Bonito Gold & Silver Project	David Dunn	Gold, Silver	Withdrawn	NA

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date
LI004EM	M & R Project	Richard Mendoza	Rare Earth	Approved	9/22/2003
LI006EM	Stage 4 Exploration Project	El Capitan Ltd	Metals	Withdrawn	NA
LI007EM	AN6 Project	El Capitan Ltd	Metals	Withdrawn	NA
LI008EM	El Capitan Reclamation Project	El Capitan Precious Metals, Inc.	Precious Metals	Pending	
LI008ER	El Capitan Exploration Drilling Project	El Capitan Precious Metals, Inc	Precious Metals	Pending	
LU001EM	Victorio Project	Lone Mountain Mining Ltd.	Gold	Approved	10/31/1996
LU002EM	Homer's Little Diggins Project	Homer Nute	Agate	Approved	5/23/2006
LU002EM R1	Homer's Little Diggins Project Renewal	Homer Nute	Agate	Approved	5/19/2005
LU003EM	Mahoney Exploration Project	James M. Telford	Zinc	Approved	5/17/2005
LU010EM	Cameo Exploration Project	Philip Chambless	Etc	Approved	10/17/2005
LU013EM	Kling Exploration	C.A. Kling	Agate	Approved	12/11/2006
LU014EM	Galway Exploration	Galway Resources US, Inc.	Silver, Gold, Etc	Approved	8/23/2006
LU015EM	Victorio Mountain Exploration 2007	Galway Resources US, Inc.	Metals	Approved	9/17/2007
MK009EM	Gamerco Project	U Mate International	Humate	Approved	7/31/1997
MK010EM	West Ambrosia Project	HRI, Inc.	Uranium	Approved	5/13/1998
MK011EM	Andrea Corporation Project	Hal Collins	Humate	Approved	9/16/2004
MK012EM	Treeline Exploration Project	Western Energy Development Corp.	Uranium	Approved	4/12/2006
MK013EM	Ambrosia Lake Exploration	Neutron Energy	Uranium	Approved	2/27/2007
MK014EM	Roca Honda Exploration	Strathmore Minerals Corp.	Uranium	Approved	5/9/2007
MK015EM	Church Rock Exploration Project	Strathmore Minerals Corp.	Uranium	Withdrawn	NA
MK016EM	Hosta Butte Section 3 Project	Quincy Energy Corp.	Uranium	Denied	NA
MK017EM	Crownpoint Section 19 Project	Quincy Energy Corp.	Uranium	Denied	NA
MK018EM	Treeline III Exploration Project	Western Energy Development Corp	Uranium	Denied	NA
MK019EM	Section 12 Exploration Project	George Lotspeich	Uranium	Enforcement	NA
MK020EM	San Mateo Mesa Exploration Project	Uranium Energy Corp.	Uranium	Pending	
MK021EM	Section 11 Exploration	George Lotspeich	Uranium	Enforcement	NA
MK022EM	Roca Honda Sections 5, 9 and 10 Project	Roca Honda Resources	Uranium	Withdrawn	NA
MK023ER	Marquez Mine Confirmation Drill Project	Neutron Energy	Uranium	Pending	
OT002EM	Oro Grande Project	Lone Mountain Mining Ltd.	Gold, Copper	Approved	12/10/1996
OT003EM	Metalline Mining Exploration Project	Metalline Mining Co.	Garnet	Approved	2/19/2002
OT003EM R1	Metalline Mining Exploration Project Renewal	B.O.W. Corporation	Garnet	Approved	12/6/2005
OT004EM	B.O.W Exploration project	B.O.W. Corporation	Garnet	Approved	1/7/2007

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date
RA001ER	Northstar Mill Project	Northstar 1991 Family Living Trust	Gold	Withdrawn	NA
RA002EM	Mid Way Exploration Project	Al Puckett	Gold	Approved	8/23/2004
SA001EM	Los Griegos Project	Copar Pumice Company	Pumice	Approved	7/7/1995
SA003ER	Georgia Claims Project	Centex American Gypsum	Gypsum	Approved	7/31/1996
SA004EM	Vallecitos Drilling Project	Copar Pumice Company	Pumice	Approved	9/30/1997
SA012EM	Lily Exploration Project	Uranium Company of NM	Uranium	Approved	9/7/2007
SF001EM	Cerro de Oro Nos. 2 and 11 Project	Joan Oller	Gold	Approved	9/12/1994
SF002EM	Jack's Place Project	Jack Nelson	Gold	Approved	9/12/1994
SF003EM	Three B's Nos. 1 and 2 Project	Brian Kew	Gold	Approved	9/12/1994
SF004EM	Rafelita Project	Joseph Gonzales	Gold	Approved	9/12/1994
SF005EM	Carache Canyon 4 Project	LAC Minerals (USA) Inc.	Gold	Approved	9/12/1994
SF006EM	Jones Hill Project	Champion Resources	Silver, Gold	Approved	11/10/1994
SF007EM	NMGMA Project	Texas Gold - NMGMA	Gold	Approved	11/1/1996
SF008EM	Jones Hill Project	Davenport Minerals Corp	Silver, Gold, Copper, Zinc	Approved	4/19/1999
SI001EM	Hillsboro Project	Placer Dome, Inc.		Approved	11/23/1994
SI002EM	Hackberry Draw Project	Grubstake Mining & Exploration, Inc.	Gold	Approved	2/9/1995
SI006EM	Log Cabin Project	Troy L. Grimes	Gold, Silver	Withdrawn	NA
SI007EM	Drolte Mine Project	Drolte Mining	Metals	Approved	3/8/1995
SI008EM	Colossal Project	Ed Rudder	Gold	Approved	11/30/1996
SI009EM	Gold Run No. 1 Placer Project	John D. Whiteside	Gold	Approved	6/28/1995
SI010EM	Deep Pockets Nos. 1 and 2 Project	Arthur Hartman	Gold	Withdrawn	NA
SI011EM	Drotle Claims Project	Mary Alice Drolte	Gold	Approved	4/9/1996
SI012EM	B. Franklin Claims Project	Dan Dodl	Gold, Silver, Platinum	Approved	6/19/1997
SI013EM	Gold Silver Exploration Project	Dan Medley	Gold	Approved	6/30/1998
SI014EM	Dictator Mine Project	Megastar Ventures	Gold, Silver, Copper, Lead, Zinc	Approved	7/29/1998
SI015EM	Sonny's Tailings Project	Ken Schmatjen	Gold	Approved	7/13/2004
SI016EM	Iron Mountain Exploration Project	Great Western Exploration		Approved	11/18/2004
SI016EM R1	Iron Mountain Exploration Project Renewal	Great Western Exploration	Beryllium	Approved	4/3/2006
SI017EM	East of Winston Exploration Project	Great Western Exploration		Approved	4/3/2006
SI018EM	Franklin Mine Project	Sonny Riggs	Gold	Pending	5/24/2006

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date
SI019EM	Bat Cave Canyon Project	Sonny Riggs		Approved	2/13/2006
SI020EM	Socorro 2006A Exploration Project	Melvin R. Mathis	Gold, Precious Metals	Approved	7/26/2006
SI020EM R1	Socorro 2006A Exploration Project Renewal	Melvin R. Mathis	Gold, Precious Metals	Approved	6/26/2007
SI021EM	Rifleshot Project	Geoinformatics Alaska Exploration	Silver, Copper, Lead, Zinc	Pending	
SO001EM	San Juan Exploration Shaft	Al Meyers	Gold, Silver	Approved	12/31/1999
SO002EM	Northside Drilling Project	Kalahari Exploration LLC	Copper	Approved	8/31/2000
SO003EM	San Juan Drilling Project	Kalahari Exploration LLC	Copper, Gold	Withdrawn	NA
SO004EM	Alamosa Exploration Project	Bob Lufkin and David Tognoni	Beryllium	Enforcement	NA
SO005EM	Andrea Ann Exploration Project	Cliff Strieber	Fluorite	Approved	3/22/2005
SO005EM R1	Andrea Ann Exploration Project Renewal 2006	Cliff Strieber	Fluorite	Approved	4/4/2006
SO005EM R2	Andrea Ann Exploration Project Renewal 2007	Cliff Strieber	Fluorite	Approved	11/13/2007
SO005EM M1	Andrea Ann Exploration Project Modification	Cliff Strieber	Fluorite	Approved	11/13/2007
SO006EM	Sullivan Ranch Exploration Project	Great Western Exploration	Rare Earth	Denied	NA
SO007EM	Burma Exploration Project	Great Western Exploration	Beryllium	Approved	5/5/2005
SO008EM	Socorro 2005A Exploration Project	Socorro Minerals Corp.	Gold, Precious Metals	Approved	5/5/2005
SO010EM	Sullivan Ranch (Revised) Project	Great Western Exploration	Beryllium	Denied	NA
SO011EM	Bingham Exploration Project	Ramon Demark	Other	Approved	8/23/2006
SO012EM	Riley Exploration Project	Max Resources Corporation	Uranium	Approved	5/11/2007
TA001ER	Pilar Project	Golden Rod Mining	Gold	Withdrawn	NA
TA002EM	Champion Project	St. Mary Mineral Inc.	Copper	Approved	8/1/1995
TA002ME	Champion Project	Summo USA Corp.	Copper	Approved	4/19/1996
TO001EM	3 in 1 Project	George Ramirez	Copper	Approved	7/31/1996
TO002EM	3 in 1 Project	Ciro Ramirez	Copper	Approved	6/22/1998

## **Total Number of Exploration Project Applications 146**

Total Number of Exploration Projects Approved 116

Total Number of Exploration Projects Pending 7

Total Number of Exploration Projects Denied 6

Total Number of Exploration Projects Enforcement 3

Permit No.	Exploration Project Name	Operator	Commodity	Status	Approval Date	
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Total Number of Exploration Projects Withdrawn 14

Table 11. General Permits as of December 2007

Permit No.	Name	Date Submitted	Date Issued	Location
BE001WET	Robert Lipinski	8/11/2004	8/17/2004	Rio Grande
CI001DRY	International Stone Company	7/9/2002	7/15/2002	Cerro Verde
GR020DRY	Ener G. Corp., Inc.	7/31/1997	8/7/1997	Near Chocolate Peak
GR022DRY	Cathy Heslet	3/23/1998	3/30/1998	Golden Duck
GR023WET	Weston Wolff	2/4/1998	3/11/1998	Black Sand Claim Nos. 1-6; Pa Chal Ma Claim
GR025DRY	John Bernal	5/4/1998	5/12/1998	Golden Eagle No. 1 Claim
GR029DRY	Paul Plunkett	4/21/1998	4/28/1998	Gold Gulch; T20S, R16W, Sec 26
GR030DRY	John Huntress	4/6/1999	5/1/1999	American Turquoise; T27S, R16W, Sec 35
GR031DRY	Samuel Munoz	7/15/1999	7/21/1999	Twin Sisters Creek
GR032DRY	Dana Bates	7/5/2000	7/8/2000	near Pinos Altos
GR033WET	Weston Wolff	7/10/2000	7/24/2000	Gold Gulch
GR034WET	Weston Wolff	8/15/2001	8/21/2001	Gold Gulch
GR035WET	Weston Wolff	9/3/2002	9/4/2002	Gold Gulch
GR050WET	Robert Batchler	2/23/1998	2/26/1998	Black Sand No. 1 Claim
GR051DRY	Mark Welch	1/24/2003	2/17/2003	Steeple Rock Area
GR052WET	Weston Wolff	8/4/2003	8/4/2003	Gold Gulch
GR053DRY	John Scully	12/5/2003	12/17/2003	Grant County
GR054WET	Weston Wolff	8/2/2004	8/3/2004	Gold Gulch
GR055WET	Weston Wolff	9/15/2005	9/21/2005	Gold Gulch
GR056WET	Weston Wolff	8/15/2006	8/30/2006	Gold Gulch
GR057WET	Weston Wolff	8/9/2007	PENDING	Gold Gulch; T20S, R16W, S/2 Sec 21,NW/4 Sec 28, NE/4 Sec 27; Black Sand Nos. 1-6, Pa Chal Ma, and Wolf Clan Nos. 1-2 Claims
LI027DRY	Paul Plunkett	4/21/1998	4/28/1998	Ancho Gulch; T5S, R12E, Sec 4
LI028DRY	Amos Black III	6/7/1999	7/7/1998	Against the Wind, Ancho
LI029DRY	Vincent Sanders	8/31/2007	PENDING	T5S, R12E, Sec 4
OT031DRY	Harvey Snowden	8/26/1997	8/29/1997	Near Orogrande
OT032DRY	Harvey Snowden	8/31/1998	9/11/1998	Best Laugh Claim; Orogrande
OT033DRY	Amos Black III	6/7/1999	7/7/1998	Old Dry Placer No. 1 in Orogrande
OT034DRY	Mike Pittman	5/16/2006	8/30/2006	T16S, R10E, Secs 4 & 5

Permit No.	Name	Date Submitted	Date Issued	Location
OT035DRY	Daniel Curtis	6/27/2007	7/17/2007	Old Dry Placer No. 1 (40 acre GPAA Claim); T22S, R8E, Sec 10; vicinity of Orogrande
RA001WET	Rhonda Shinpoch	4/28/1997	5/8/1997	Placer Creek
RA002WET	Ed Shinpoch	5/18/1998	6/2/1998	Placer Creek
RA003WET	Charles Alston	3/16/1998	3/30/1998	Placer Creek
RA004WET	Terry Nelson	4/21/1997	4/24/1997	Placer Creek
RA005WET	Donavon Maddox	5/19/1997	5/22/1997	Placer Creek
RA006WET	James White	5/7/1997	5/10/1997	Negrito Creek
RA007WET	Thomas Sena	5/19/1997	5/29/1997	Placer Creek, Apache Creek
RA008WET	Buell Williams	5/19/1997	5/29/1997	Tres Piedras Area
RA009WET	Arnold Hale	5/19/1997	5/29/1997	Placer Creek
RA011WET	Steven Hill	5/19/1997	5/29/1997	Placer Creek, Percha Creek
RA012WET	Lynn Files	5/19/1997	5/29/1997	Placer Creek
RA014WET	Philip Fattori	5/27/1997	5/27/1997	Placer Creek
RA015WET	Stuart Scantlin	6/3/1997	6/18/1997	Placer Creek
RA016WET	Jim Edwards	6/17/1997	6/18/1997	Placer Creek
RA017WET	Harold Phelps	6/25/1997	6/30/1997	Placer Creek
RA018DRY	Robert Threlkeld	3/28/1998	3/30/1998	Old Dry Placer No. 1
RA018WET	Robert Threlkeld	3/23/1998	3/30/1998	Placer Creek
RA019WET	Harold Conley	5/12/1998	6/11/1998	Placer Creek and near Tusa Mountain
RA024WET	Bruce Gibson	2/11/1998	2/24/1998	Placer Creek
RA026WET	David Eckles	4/30/1998	5/11/1998	Placer Creek
RA030WET	Richard Freeze	6/26/1998	7/6/1998	Placer Creek
RA031Wet	Willy Skigen	6/26/1998	7/6/1998	Placer Creek
RA032WET	Mike Cogburn	4/23/1999	5/15/1999	Placer Creek
RA033DRY	Richard Vondrak	5/11/1999	6/21/1999	Barela Canyon
RA034WET	Harold Phelps	5/24/1999	5/24/1999	Placer Creek
RA035WET	Amos Black III	6/7/1999	7/7/1998	Placer Creek Nos. 1-3
RA036WET	Mark Barber	6/25/1999	7/1/1999	Placer Creek
RA037WET	Robert Shober	6/22/1999	7/1/1999	Placer Creek
RA038WET	Larry Melvin	8/9/1999	8/21/1999	Placer Creek
RA039WET	Ed Shinpoch	3/20/2000	3/23/2000	Placer Creek

Permit No.	Name	Date Submitted	Date Issued	Location
RA040WET	Timothy Haller	3/20/2000	3/23/2000	Placer Creek
RA041WET	Richard Freeze	5/3/2000	5/17/2000	Placer Creek
RA042WET	Mike Cogburn	5/11/2000	5/17/2000	Placer Creek
RA043WET	Jeff Shute	5/26/2000	5/26/2000	Placer Creek
RA044WET	Harold Conley	5/30/2000	5/30/2000	Placer Creek
RA045WET	Robert Shober	6/19/2000	7/1/2000	Placer Creek
RA046DRY	Richard Vondrak	6/20/2000	6/21/2000	Barela Canyon
RA047DRY	Robert Gibbens	7/2/2001	7/9/2001	Petaca Tantulum
RA047WET	John Fegel	6/30/2000	6/30/2000	north Placer Creek
RA048WET	Richard Bird	6/29/2000	7/6/2000	Placer Creek
RA049WET	Don Classen	7/20/2000	7/21/2000	Placer Creek
RA050WET	Steve Klahn	4/12/2001	4/16/2001	Placer Creek
RA051WET	Amos Black III	5/11/2001	5/14/2001	Placer Creek
RA052WET	David Krenek	5/15/2001	5/16/2001	Placer Creek
RA053WET	Richard Bird	5/21/2001	5/21/2001	Placer Creek
RA054WET	Richard Freeze	5/21/2001	5/21/2001	Placer Creek
RA055WET	Ed Shinpoch	5/25/2001	5/29/2001	Placer Creek
RA056WET	Ron Burnside	5/31/2001	5/31/2001	Placer Creek
RA057WET	Richard Torres	6/5/2001	6/5/2001	Placer, Goose, Pioneer Creeks
RA058WET	Harold Conley	6/15/2001	6/15/2001	Placer Creek
RA061WET	Robert Shober	7/19/2001	7/20/2001	Placer Creek
RA062WET	John Garcia	8/1/2001	8/1/2001	Placer Creek
RA063WET	Norman Van Camp	2/27/2002	2/27/2002	Placer Creek
RA064WET	Amos Black III	4/12/2002	4/16/2002	Placer Creek
RA065WET	Ed Shinpoch	4/12/2002	4/16/2002	Placer Creek, Vallecitos Creek
RA066WET	Robert Shober	7/18/2002	7/18/2002	Placer Creek No. 1-3
RA067WET	Karl Murphy	4/25/2003	WITHDRAWN	Placer Creek No. 1-3
RA068WET	Cecil Morrow	5/12/2003	5/12/2003	Placer Creek No. 1-3
RA069WET	Jeff Jaramillo	5/28/2003	5/28/2004	Placer Creek No. 1-3
RA070WET	Ronald Stanley	6/1/2003	6/13/2003	Placer Creek No. 1-3
RA071WET	Gary Fannin	6/12/2003	6/13/2003	Placer Creek No. 1-3

Permit No.	Name	Date Submitted	Date Issued	Location
RA072WET	Russel Palmer	6/6/2003	6/13/2003	Placer Creek No. 1-3
RA073WET	Joe Walker	7/30/2003	8/5/2003	Placer Creek, Apache Creek
RA074WET	Harold Phelps	8/12/2003	8/12/2003	Placer Creek
RA075WET	Matthew Hindi	8/14/2003	8/14/2003	Placer Creek
RA076WET	Jerry Emerson	11/7/2003	2/15/2003	Placer Creek Nos. 1-3
RA77WET	Eugene Leggett	1/8/2004	1/20/2004	Placer Creek, Apache Creek
RA078WET	Ronald Stanley	2/2/2004	2/25/2004	Placer Creek
RA079WET	Ed Shinpoch	4/2/2004	4/12/2004	Placer Creek
RA080WET	Joe Whitley	4/12/2004	4/20/2004	Placer Creek Nos. 1-3
RA081WET	Rex Anderson	4/21/2004	4/21/2004	Placer Creek Nos. 1-3
RA082WET	Robert Lipinski	5/18/2004	5/25/2004	
RA083WET	Richard Freeze	5/28/2004	6/3/2004	Placer Creek Nos. 1-3
RA084WET	David Alexander	5/28/2004	6/3/2004	Placer Creek Nos. 1-3
RA085WET	Alan Boissy	6/18/2004	6/21/2004	Placer Creek
RA086WET	Eugene Leggett	1/5/2005	1/7/2005	T28N, R6E, Secs 1 & 12
RA087WET	Ronald Stanley	2/23/2005	3/10/2005	Placer Creek Claims Nos. 1,2, and 3
RA088WET	Frank Mullally	4/11/2005	6/1/2005	Placer Creek Claims Nos. 1, 2, and 3
RA089WET	Jeff Jaramillo	5/9/2005	5/25/2005	Placer Creek
RA090WET	Matthew Brandt	5/17/2005	6/8/2005	Placer Creek Nos. 1-3
RA091WET	Robert Maras	5/18/2005	6/10/2005	Placer Creek, Claims Nos. 1-3
RA092WET	Ed Shinpoch	5/20/2005	7/5/2005	Placer Creek Claims Nos. 1 & 2
RA093WET	Richard Freeze	6/9/2005	6/29/2005	Placer Creek Claims Nos. 1-3
RA094WET	David Nielson	6/27/2005	6/29/2005	Placer Creek
RA095WET	Rex Anderson	8/18/2005	8/1/2005	Placer Creek Claims Nos. 1-3
RA096WET	Tijerina Luis	8/3/2005	8/9/2005	Placer Creek
RA097WET	Steven Wright	3/20/2006	5/3/2006	Placer Creek
RA098WET	Ed Shinpoch	4/10/2006	5/23/2006	Placer Creek
RA099WET	Carl Kirby	4/17/2006	5/3/2006	Placer Creek
RA100WET	Robert Hall	5/3/2006	5/24/2006	Placer Creek
RA101WET	David Nielson	5/24/2006	6/5/2006	Placer Creek
RA102WET	Frank Mullally	5/30/2006	6/8/2006	Placer Creek

Permit No.	Name	Date Submitted	Date Issued	Location
RA103WET	Earnest Clark	6/6/2006	6/27/2006	Placer Creek
RA104WET	Patrick Smith	12/18/2006	PENDING	Placer Creek
RA105WET	Joe Whitley	2/8/2007	PENDING	Placer Creek
RA106WET	Joseph Grayson	3/1/2007	PENDING	Placer Creek
RA107WET	Frank Mullally	5/11/2007	6/11/2007	Hopewell Lake , Placer Creek; T28N, R6E, Secs 1 & 12
RA108WET	Bobby Morrow	4/30/2007	6/11/2007	Hopewell Lake , Placer Creek ; T28 N, R6E, Secs 1 & 12
RA109WET	Ignacio Dennis Garcia	5/31/2007	6/11/2007	Hopewell Lake, Placer Creek, Carson National Forest; GPAA Claims Nos.1-3; T28N, R6E, Secs. 1 & 12;
RA110WET	David Nielson	5/31/2007	7/6/2007	Hopewell Lake , Placer Creek; T28N, R6E, Secs 1 & 12
RA111WET	Daniel Curtis	6/27/2007	7/9/2007	Hopewell Lake , Placer Creek, Carson National Forest; GPAA Claims Nos. 1-3; T28N, R6E, Secs. 1 & 12
SA021DRY	David Barnhill	3/13/1998	3/30/1998	Insanity No. 1 Claim
SA022DRY	Craig Muma	11/23/2004	12/2/2004	T17N, R2W, Sec 19
SF001DRY	Michael Bailey	1/24/2003	2/17/2003	Cerrillos Area
SF002DRY	Tim Haller	2/10/2004	2/11/2004	Golden
SF003DRY	Paul Plunkett	6/12/2004	6/16/2004	San Pedro
SF004DRY	Philip Chambless	6/17/2005	6/27/2005	Turquoise
SF005DRY	Paul Plunkett	7/12/2005	8/1/2005	
SF009DRY	Paul Plunkett	6/28/2006	7/19/2006	T12N, R7E, Sec 28
SF010DRY	Paul Plunkett	7/9/2007	7/17/2007	East of Golden; T12N, R7E, Sec. 28 NW/4
SF011DRY	Philip Chambless	8/8/2007	PENDING	Cerrillos Hills Mining District; Verde Claim - NMMC 170406; T14N, R8E, Sec 5 NW/4
SI028DRY	Paul Plunkett	4/21/1998	4/28/1998	Animas Gulch; T15S, R7W, Sec 25
SI029DRY	Amos Black III	6/7/1999	7/7/1998	Kingston; Sunrise Claim Nos. 1-4
SI029WET	John Williams, Jr.	3/3/2003	5/12/2003	Elephant Butte
SI030DRY	Wayne Rutland	11/19/2007	PENDING	Pittsburg Mining District; T16S, R4W, Sec 4, NE/4
SM050WET	Robert Staffel	7/2/2001	7/2/2001	Willow Creek
SO001DRY	Paul Plunkett	1/26/1999	3/1/1999	Crestone Lode Mine, Magdalena
SO002DRY	Ramon De Mark	1/24/2000	2/9/2000	south of Bingham
SO003DRY	Michael Sanders	2/7/2000	2/9/2000	south of Bingham
SO004DRY	Tom Nelson	3/9/2000	3/10/2000	south of Bingham
SO005DRY	Thomas Massis	5/15/2000	5/18/2000	south of Bingham
SO006DRY	John Scully	12/3/2003	12/17/2003	Socorro County

Permit No.	Name	Date Submitted	Date Issued Location				
SO007DRY	Jo Drake	2/27/2004	3/5/2004 Socorro County				
SO008DRY	Jo Drake	2/17/2005	3/10/2005 T6S, R8E, Sec 29				
SO009DRY	Michael Tune	4/8/2005	4/21/2005 south of Magdalena, Cibola National Forest				
SO011DRY	Jo Drake	1/25/2006	2/1/2006 T6S, R8E, Secs 20 & 29				
SO012WET	Dean Brubaker	2/26/2007	PENDING				
TA010DRY	Vaughn Sowards	5/20/1997	5/22/1997 Cerrito Dormilon, Petaca Peak				
TA013DRY	S. Glassmire	2/25/1999	3/1/1999 Latir Peak				
TA014WET	Robert Lipinski	6/29/2004	7/6/2004				
TA015WET	Jeff Jaramillo	8/16/2004	8/18/2004 Rio Hondo				
	·						
	Total Number of General Permits Submitted 159						

Total Number of General Permits Approved 150
Total Number of General Permits Pending 8
Total Number of General Permits Withdrawn 1

Appendix No. 2 New Mexico	Financial Assura 2007	nce as of December

Table 12. Financial Assurance as of December 2007

Permit Number	Permit Name	Operator	Commodity	Permit Type	Instrument	Amount	Joint Agency	Disturbed Acreage		
				Desules	3 <sup>rd</sup> Party Guarantee	\$2,812,500				
BE001RE	Tijeras Mine and Mill	GCC Rio Grande, Inc.,	Limestone		Letter of Credit	\$867,500		504		
DEUUTKE	DE0011KE Tijeras wille and will	Tijeras, NM	Limestone	Regular	Surety Bond	\$70,000	USFS	304		
					Subtotal:	\$3,750,000				
CA003ME	Hiawatha And Little Jim	Volcanic Stone Company,	Tin	Minimal	Certificate of Deposit	\$736	USFS	7.5		
CAUUSIVIL	Mine	Albuquerque, NM		Subtotal:	\$736		7.5			
CI002RE	Mt. Taylor Mine	Rio Grande Resources Corp.,	Uranium	Regular	Surety Bond	\$725,056		66		
CIOUZINE	Wit. Taylor Willie	Grants, NM	Ofariidiff	Subtotal:	\$725,056		00			
CI004MN	Haskani Mine	Acid Neutralizing Products, Inc.,	Travertine	Travertine Minimal Impact	Certificate of Deposit	\$32,743		10		
CIOCHINI	Tiaskaili Willie	Albuquerque, NM	Travertine		Subtotal:	\$32,743		10		
CI005RE	Tinaja Pit Mine	C & E Concrete, Inc.,	Limestone	Regular	Letter of Credit	\$161,514		40		
CIOOSINE	Tiliaja i it ivillie	Milan, NM	Tregular Tregular	Subtotal:	\$161,514		40			
CI006MN	Ray Claims No. 4 and	International Stone Company,	Travertine Minimal Impact	Travertine	Travertine		Certificate of Deposit	\$20,405	BLM	10
Olooowiit	No. 6 Mine	Scottsdale, AZ		Subtotal:	\$20,405		10			
GR001RE	Pinos Altos Mine	Chino Mines Company,	Copper, Gold,	Regular	Letter of Credit	\$343,600		12		
OROUTE	I IIIOS AITOS MIIIC	Hurley, NM	Silver, Zinc	rtogulai	Subtotal:	\$343,600		12		
					3 <sup>rd</sup> Party Guarantee	\$18,398,673	NMED			
GR002RE	Continental Mine and	Cobre Mining Company,	Copper, Gold, Molybdenum,	Regular	Collateral Bond	\$6,173,600	NMED	928		
ONOUZINE	Mill	Hurley, NM	Silver	rtogulai	Trust	\$3,000,000	NMED	920		
					Subtotal:	\$27,572,273				
GR006RE	Chino Limestone Mine	Chino Mines Company,	Limestone	Regular	Letter of Credit	\$18,400		50		
ONOUGHL	Offino Effications willis	Hurley, NM	Limestone	rtogulai	Subtotal:	\$18,400		30		
GR007RE	Little Rock Mine	Phelps Dodge Tyrone, Inc.,	Copper	Regular	Letter of Credit	\$1,355,400	NMED	85		
ONOOTIL	Little Nock Wille	Tyrone, NM	Coppei Regulai	rtogulai	Subtotal:	\$1,355,400		00		
GR008RE	Jersey Lily, Snowflake	Phelps Dodge Tyrone, Inc.,	Silica flux	Regular	Letter of Credit	\$46,600		22		
J. (0001)	and Virtue Mines	Tyrone, NM	Cinoa nax	. togalai	Subtotal:	\$46,600				

Permit Number	Permit Name	Operator	Commodity	Permit Type	Instrument	Amount	Joint Agency	Disturbed Acreage
		Chino Mines Company,			3 <sup>rd</sup> Party Guarantee	\$121,136,201	NMED	
GR009RE	Chino Mine and Mill	Hurley, NM	Copper	Regular	Trust	\$64,042,304	NMED	9,416
		1.6.1.69, 1.1.1.			Subtotal	\$185,178,505		
					Collateral Bond	\$27,951,986		
					Letter of Credit	\$31,780,518	NMED	
GR010RE	Tyrone Mine and Mill	Phelps Dodge Tyrone, Inc.,	Copper	Regular	Letter of Credit	\$170,874	BLM	7,440
GINOTOINE	Tyrone wille and will	Tyrone, NM	Сорреі	Regulai	3 <sup>rd</sup> Party Guarantee	\$136,185,617	NMED	7,440
					Trust	\$22,000,000	NMED	
					Subtotal	\$218,088,995		
GR012MN	KP Mino	Southwest Silica Flux Co., Inc.,	Silica flux	Minimal	Certificate of Deposit	\$24,182	USFS	15
GRUIZIVIN	KD WITHE	Hanover, NM	Silica liux	Impact	Subtotal	\$24,182		15
GR020RE	Coorneteum Mine	Sierra Corp.,	Cibran	Regular	Certificate of Deposit	\$21,500	NMED	3
GRUZUKE	Georgetown Mine	Fort Worth, TX	Silver	Regulai	Subtotal	\$21,500		3
GR022MN	Farmers Backbreaker	Jack Sills,	( <del>-</del> Old	Minimal Impact	Certificate of Deposit	\$15,000	USFS	- 10
GRUZZIVIN	Mine	Glenwood Spring, CO			Subtotal	\$15,000		
GR024MN	Toro Mino	Toro Mining & Minerals, Inc.,	Perlite	Minimal	Certificate of Deposit	\$9,300	BLM	10
GRUZ4IVIIN	TOTO WITTE	Mill Creek, OK	remile	Impact	Subtotal	\$9,300		10
GR025ME	Mathis Limestone	Mathis Rocks,	Limestone	Minimal	Certificate of Deposit	\$3,000	USFS	16.6
GINOZSIVIL	Quarry Mine	Idyllwild, CA	Limestone	Impact	Subtotal	\$3,000		10.0
GR028RE	Center Mine	Royal Minerals, Inc.,	Silica flux, Gold,	Regular	Surety Bond	\$12,500		6
GINOZOINE	Center Willie	Duncan, AZ	Silver	rtegulai	Subtotal:	\$12,500		U
GR030ME	Chemical Lime Mine &	Chemical Lime Company,	Silica flux	Minimal	Surety Bond	\$40,243	USFS	19
GINOSOIVIL	Mill	Fort Worth, TX	Ollica Hux	Impact	Subtotal:	\$40,243		19
HI001RE	Lordsburg Mine and	Lordsburg Mining Co.,	Silica flux	Pogular	Certificate of Deposit	\$3,830		15
HIUUIKE	Mill	Truth or Consequences, NM	Silica flux Regular	Subtotal:	\$3,830		15	
HI002RE	Phelps Dodge Hidalgo, Inc.,	Phelps Dodge Hidalgo, Inc.,	Silion fluy	Regular	Letter of Credit	\$276,900		40
HIUUZKE	Brockman Mine	Hurley, NM	Silica flux	Regulai	Subtotal:	\$276,900		40
HI004MN	KM Mine	Southwest Silica Flux Co., Inc.,	Silica flux	Minimal	Certificate of Deposit	\$8,124		4
HUU4WIN	KINI MILLE	Hanover, NM	Silica liux	Impact	Subtotal:	\$8,124		4

Permit Number	Permit Name	Operator	Commodity	Permit Type	Instrument	Amount	Joint Agencies	Disturbed Acreage
HI008ME	Volcano Mine	Dane Mining & Exploration, Ltd.,	Other	Minimal	Collateral Bond	\$28,652		9
THOUGIVIE	Voicario Mille	Tucson, AZ	Other	Impact	Subtotal:	\$28,652		9
LI001ME	Warner Gulch Placer	American Eagle Mining	Gold	Minimal	Letter of Credit	\$10,000	USFS	10
LIOUTIVIL	Mine	Company, Carlsbad, NM	Impact	Subtotal:	\$10,000		10	
LI003ER	Bonito Gold Silver	David Dunn,	Gold	Exploration	Cash	\$200	\$200	0.2
LIOUSLIX	Project	Vancouver, BC, Canada	Gold	Exploration	Subtotal:	\$200		0.2
LI005ME	Capitan Iron Mine	El Capitan Ltd.,	Iron	Minimal	Certificate of Deposit	\$15,000	USFS	6
LIOUOIVIL	oapitan non mine	Capitan, NM	11011	Impact	Subtotal:	\$15,000		
LU001RE	Deming Jigging Mill	American Minerals, Inc.,	Manganese	Regular	Surety Bond	\$100,000	NMED	13
LOGOTINE	Denning digging will	El Paso, TX	Manganese	rtegulai	Subtotal:	\$100,000		10
LU008RE	Cyprus Deming	Chino Mines Company,	Copper	Regular	Letter of Credit	\$132,588	NMED	13
LOGOOTEL	Tailings Impoundment	Hurley, NM	Соррсі	rtegulai	Subtotal:	\$132,588		
LU009RE	Asarco Deming Mill	Asarco, Inc.,	Copper, Zinc Regular Su	Regular	Surety Bond	\$850,000		56
LOOUSIKE	Asaroo benning inin	Phoenix, AZ		Subtotal:	\$850,000			
MK003ME	Star Lake Menefee Mine	Menefee Mining Corporation,	Humate	Minimal	Surety Bond	\$13,000		9.4
IVII (OOOIVIL	Otal Lake Melicice Mille	Dallas, TX	Tidiliato	Impact	Subtotal:	\$13,000		0.4
MK007ME	Star Lake Mesa Verde	Mesa Verde Resources,	Humate	nate I ·····	Surety Bond	\$13,277		9.9
IVIICOTIVIL	Mine	Placitas, NM	Tidiliato	Impact	Subtotal:	\$13,277		0.0
MK008ME	Pueblo Alto Mine	Mesa Verde Resources,	Humate	Minimal	Surety Bond	\$21,051		9.9
IVII (OOOIVIL	1 debie Alto Illine	Placitas, NM	Tidiliato	Impact	Subtotal:	\$21,051		0.0
MK009RE	Old Stope Leach Mine	Rio Algom Mining LLC,	Uranium	Regular	Letter of Credit	\$577,616		230
WII TOOOT TE	Old Otope Ledon Mille	Grants, NM	Ordinani	rtogular	Subtotal:	\$577,616		200
MK010MN	U-Mate Mine	U-Mate International, Inc.,	Humate	Minimal	Certificate of Deposit	\$8,844		5.5
IVII (O I OIVII (	o mate mine	Scottsdale, AZ	Impact	Subtotal:	\$8,844		0.0	
OT002MN	B.O.W. Mine	B.O.W. Corporation,	Garnet	Minimal	Letter of Credit	\$15,932		10
O I OOZIVII V	5.5.77. 1411110	El Paso, TX	Carriot	Impact	Subtotal:	\$15,932		10
RA001ME	Northstar Mine	North American Metal,	Gold	Minimal	Letter of Credit	\$10,000		2
TO TOO TIVIL	Horaistai milio	Santa Fe, NM	00.0	Impact	Subtotal:	\$10,000		۷

Permit Number	Permit Name	Operator	Commodity	Permit Type	Instrument	Amount	Joint Agencies	Disturbed Acreage
RA003ME	Cullum Claims Mine	Pueblo of Santa Clara, Espanola, NM	Pumice	Minimal Impact	Letter of Credit	\$161,500		20
					Subtotal:	\$161,500		20
RA004RE	Rocky Mountain Mine	CR Minerals Company, LLC, Santa Fe, NM	Pumice	Regular	Surety Bond	\$289,810		60
KAUU4KE					Subtotal:	\$289,810		00
RA005RE	Velarde Mill	Oglebay Norton Specialty Minerals, Velarde, NM	Mica	Regular	Surety Bond	\$287,821	NMED	35
INAUUSINE					Subtotal:	\$287,821		
		Can as Burniag Ca	Pumice		Letter of Credit	\$78,747	USFS	70
SA001RE	El Cajete Mine	Copar Pumice Co., Espanola, NM		Regular	Letter of Credit	\$12,103	USFS	18.5
		Lopariola, run			Subtotal:	\$90,850		
SA003ER	Georgia Claims	Centex American Gypsum, Albuquerque, NM	Gypsum	Exploration	Surety Bond	\$5,000	BLM	0.2
SAUUSER					Subtotal:	\$5,000		
SA004MN	Copar South Pit Mine	Copar Pumice Co., Espanola, NM	Pumice	Minimal Impact	Letter of Credit	\$33,516	USFS	- 6
SAUU4IVIIN					Subtotal:	\$33,516		
SA005ME	Menefee Mill	Menefee Mining Corporation, Dallas, TX	Humate	Minimal Impact	Certificate of Deposit	\$16,000		9.6
SACOSIVIL					Subtotal:	\$16,000		
SA006MN	Copper City Mine	Crystal Mining Corp., Albuquerque, NM	Humate	Minimal Impact	Cash	\$800		3.4
SACCOUNTY					Subtotal	\$800		
SA009MN	Eagle Mesa Mine	Rammsco, Inc., Katy, TX	Humate	Minimal Impact	Letter of Credit	\$7,270		3.5
SACCEIVIIN					Subtotal	\$7,270		
SA010ME	Mesa Verde Resources Mill	Resources, Placitas, NM, NM	Humate	Minimal Impact	Surety Bond	\$18,856		5.3
OAOTOWL					Subtotal	\$18,856		
SA011MN	San Luis Mine	Horizon Ag-Products, Modesto, CA	Humate	Minimal Impact	Letter of Credit	\$25,000		10
					Subtotal:	\$25,000		
SF001ME	San Pedro Mine and Mill	St. Cloud Mining Co., Truth or Consequences, NM	Copper, Gold, Silver, Garnet	Minimal Impact	Certificate of Deposit	\$8,288		9
					Subtotal	\$8,288		
SF002RE	Cunningham Hill Mine	LAC Minerals (USA) LLC, Cerrillos, NM	Gold	Regular	Trust	\$378,766		307
					Subtotal	\$378,766		
SF006ME	CR Minerals Mill	CR Minerals Company, LLC, Santa Fe, NM	Pumice	Minimal Impact	Surety Bond	\$127,439		5
OI OOOIVIL					Subtotal:	\$127,439		

Permit Number	Permit Name	Operator	Commodity	Permit Type	Instrument	Amount		Disturbed Acreage
SI001ME	St. Cloud U.S. Treasury Mine	St. Cloud Mining Co., Truth or Consequences, NM	Silica flux, Gold, Silver	Minimal Impact	Certificate of Deposit	\$1,857	NMED	- 6
					Subtotal:	\$1,857		
SI005MN	Burbank Canyon Mine	The Beenah Group/Titan Mining, Englewood, CO	Precious metals	Minimal Impact	Certificate of Deposit	\$30,000		9.9
					Subtotal	\$30,000		
SI006RE	Zeolite Mine and Mill	St. Cloud Mining Co., Truth or Consequences, NM	Zeolite	Regular	Collateral Bond	\$157,719	NMED	- 51
					Subtotal:	\$157,719		
	Socorro Mine and Mill	Dicaperl Minerals Corp., Socorro, NM	Perlite	Regular	Letter of Credit	\$688,166		162
SO001RE					Letter of Credit	\$106,237		
					Subtotal:	\$794,403		
SO002MN	Sais Quarry	New Mexico Travertine Belen, NM	Schist	Minimal Impact	Certificate of Deposit	\$2,661		3.7
					Subtotal:	\$2,661		
	Questa Mine and Mill	Molycorp Inc. Questa Div, Questa, NM	Molybdenum	Regular	Letter of Credit	\$1,355,634	NMED	
TA001RE					Letter of Credit	\$23,027,393	NMED	1,200
					3 <sup>rd</sup> Party Guarantee	\$117,752,599	NMED	800
					Letter of Credit	\$16,223,474	NMED	
					Subtotal:	\$158,359,100		
TA002RE	El Grande Mine and Mill	Dicaperl Minerals Corp. Taos, NM and Antonito, CO	Perlite	Regular	Letter of Credit	\$711,497		204
TAUUZRE					Subtotal	\$711,497		
TA003RE	U. S. Hill Mine	Pueblo of Picuris, Penasco, NM	Mica	Regular	Letter of Credit	\$613,849	USFS	65
					Subtotal:	\$613,849		
TA005RE	No Agua Mine and Mill	Harborlite Corp., Antonito, CO	Perlite	Regular	Surety Bond	\$833,121.00		275
					Subtotal:	\$833,121		
VA001ME	Lucero Quarry Mine	New Mexico Travertine, Belen, NM	Travertine, Dimension stone	Minimal Impact	Certificate of Deposit	\$24,515		9.9
					Subtotal:	\$24,515		

Total Financial Assurance \$602,484,604 Total Disturbed Acreage 22,462

Appendix No. 3 Map	es of New Mexic Regulated by N	o Mines and Ex MARP in 2007	ploration Projects

Figure 2. Regular and Minimal Impact Mines as of December 2007

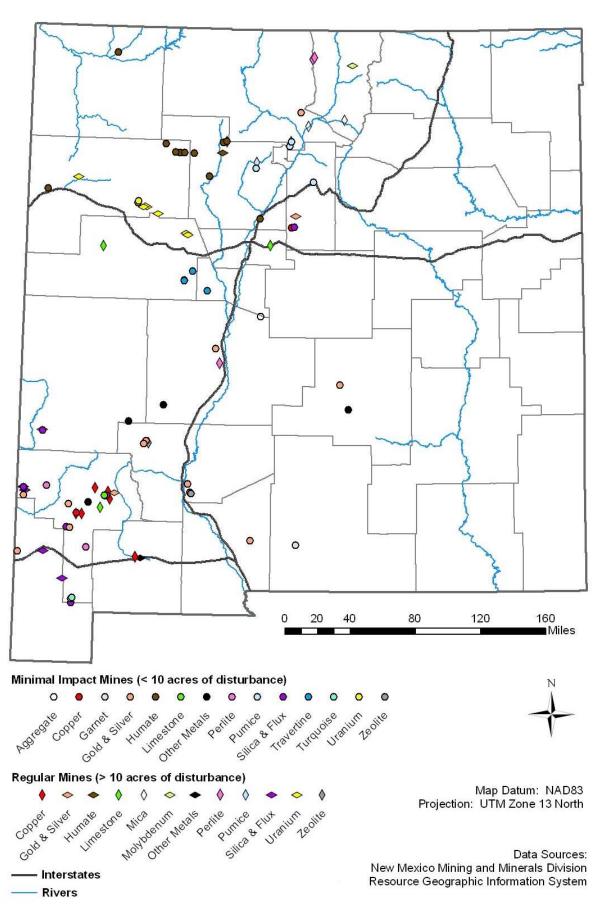


Figure 3. Location of Exploration Permit Applications Submitted Calendar Year 2007

