

2021 Annual Report

New Mexico Mining Act Reclamation Program

Energy, Minerals & Natural Resources Department
Mining and Minerals Division

Jerry Schoeppner, Director
Holland Shepherd, Program Manager
David Ennis, Senior Geoscientist



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On The Cover: The photograph on the cover is the Mt. Taylor Mine in Cibola County, New Mexico.

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1. Executive Summary

This annual 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 annual report is to contain a general description of mining operations, reclamation practices, proposed rule changes, and production figures for the state.

This report identifies activities related to the permitting and regulation of mines and mineral exploration under the Mining Act for the 2021 calendar year. In this report, we also provide production and reclamation statistics for the 2021 calendar year, as required by the Rules. This information is provided to us by our mine operators in annual reports that are required to be submitted by April of the following year. The 2021 information submitted in this report was provided by our operators in April 2022.

This report also provides tables identifying all mining and exploration operations that have obtained a permit, or submitted a permit application, under MARP since its inception in 1994.

This report includes:

- Production figures for New Mexico mines active during the 2021 calendar year;
- A description of reclamation activities and practices related to specific mines in the State of New Mexico;
- A description and summary of exploration and mine permitting activities for the 2021 calendar year;
- Summary of reclaimed and disturbed acreage for 2021;
- Summary of any actions undertaken by the Mining Commission in 2021;
- Summary of financial assurance amounts and instruments for each approved mine site and exploration project.

2. General Description of Mining Operations

Permit Types

Mining operations in New Mexico are defined by the following terminology:

- Minimal Impact Mining Operations are small extractive operations that are less than 10 acres in size or are <40 acres in size for certain commodities. Dolomite, garnet, humate, perlite and zeolite operations that are located outside Bernalillo, Doña Ana and Santa Fe counties and are committed to performing concurrent reclamation can be up to 40 acres in size under a rule revision approved in 2016. Minimal impact mining operations can be designated as either existing or new operations. Existing operations are those that operated between January 1, 1970, and June 18, 1993, while new operations are those permitted after 1993.
- Regular Mining Operations are larger mining operations of unlimited acreage and can be designated as either existing or new operations. Existing regular mining operations are those that operated between January 1, 1970, and June 18, 1993, while new operations are those permitted after 1993.
- Minimal Impact Exploration Operations are those that create less than 5 acres of surface disturbance and meet the definition of “minimal impact mining operations” as defined by the Rules. These are typically small extractive operations that involve the sampling of ore bodies prior to full-scale mine development.
- Regular Exploration Operations are those that exceed 5 acres of surface disturbance or do not meet the definition of “minimal impact mining operations” as defined by the Rules.
- 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 typically used by hobby and recreational miners.

The Minimal Impact Exploration and General Permit categories make up the largest number of permitted operations. Table 1 shows the various types of mining and exploration operations, by category, that have received approved permits since the start of MARP in 1994.

Table 1. Mining Operations Approved from 1994 to 2021

Type of Operation	Description	Number of Operations
Regular Existing Mining	>10 acres of disturbance	31
Regular New Mining	>10 acres of disturbance	0
Minimal Impact Existing Mining	<10 or <40 acres of disturbance	24
Minimal Impact New Mining	<10 or <40 acres of disturbance	39
Regular Exploration	>5 acres of disturbance	6
Minimal Impact Exploration	<5 acres of disturbance	175
General (Recreational)	<200 cubic yards/yr of disturbance	404
Total Mining Operations Permitted		679

Permit Modifications and Revisions

Every year, MARP typically receives and processes a large number of permit modifications and revisions, which can be just as time-consuming in processing and approving as new permit applications. Modifications and revisions can involve updating reclamation acreage, permit transfers, operator name changes, as well as adjustments to financial assurance instruments and amounts.

In 2021, MMD approved seventeen (17) modification applications and two (2) revision applications. The two approved revisions were an updated Closure/Closeout Plan for the Tyrone Mine and an interim Closure/Closeout Plan for the Old Stope Leach Mine. Table 2 identifies specific types of permit applications, including modifications and revisions, approved by MMD during the 2021 calendar year.

Table 2. Approved Permit Applications – 2021

Type of Operation	Description	Number of Approved Operations
		2021
Regular New Mining	> 10 acres of disturbance	0
Minimal Impact New Mining	< 10 or <40 acres of disturbance	1
Regular Exploration	> 5 acres of disturbance	0
Minimal Impact Exploration	< 5 acres of disturbance	2
General Permits	< 200 cubic yards/yr of disturbance	8
Revisions	Revision to an Existing Permit	2
Modifications	Modification to an Existing Permit	17

Additional On-Going Projects with Continued Permitting

Questa Mine: Chevron Mining Inc.'s ("CMI") Questa Mine has also involved a significant number of MARP staff and has required numerous MMD resources over the last several years. The Questa Mine has been designated a federal U.S. Environmental Protection Agency ("EPA") Superfund Site and MMD has been coordinating state reclamation plans with the EPA's prescription for remediation under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") process. After an extensive remediation investigation and feasibility study were conducted, a Record of Decision ("ROD") was signed December 2010. Further, CMI announced the permanent closure of the Questa Mine during calendar year 2014. A Partial Consent Decree/Settlement was agreed to with Chevron, EPA and the state agencies in August of 2016, for approximately 25% of the permitting area. Much work remains to be done to address further reclamation of the site under the CERCLA process and bring the remainder of the site under another Partial Consent Decree. Reclamation of the former tailing impoundment commenced during 2019 and continued through 2021. MMD performed monthly inspections of active reclamation at the Questa Mine throughout 2021.

Tronox Mines: In 2014, the U.S. District Court approved a legal settlement of nearly \$1 billion for approximately 50 uranium mines that were operated by Kerr-McGee Corporation on or near the Navajo Nation. Collaborative work with EPA Region 9, EPA Region 6, Navajo Nation and State of NM partners commenced in 2015. Since 2015, MMD has spent a considerable amount of time working with the various partners on prioritization of projects, review of documents, assistance with development of closure alternatives and providing management services and technical assistance. MMD continued to provide technical assistance to EPA Region 6 and the Navajo Nation throughout calendar year 2021, focused largely on development of reclamation alternatives for the Quivira Mine.

Mt. Taylor Mine

The Mt. Taylor Mine announced it was permanently closing in December 2019 and began implementation of the Closure/Closeout Plan in 2020. The Mt. Taylor Mine continued reclamation activities throughout 2021 including tasks such as dismantling the treated water pipeline, excavation and shipment of low-grade ore to the White Mesa Mill, construction of a disposal cell in the South Waste Rock Pile, demolition of buildings, and other closeout activities. MMD performed monthly inspections of active reclamation throughout 2021.

Exploration Projects and General Permits

Two (2) minimal impact exploration permit applications were approved by MMD during calendar year 2021. Table 3 identifies the specific exploration applications approved by MMD in 2021.

Table 3: Approved Minimal Impact Exploration Permits – 2021

Permit Number	Permit Name	Permit Operator	Commodity
CA027EM	Summa Silver Mogollon	Summa Silver	Gold, Silver
GR086EM	Malone Bronco Creek	Bronco Creek	Copper

Approved Minimal Impact Mining Projects in 2021

One (1) minimal impact new mining permit application was approved by MMD in calendar year 2021. The Arroyo Solar Pueblo Alto mine permit was split-off from the Mesa Verde Pueblo Alto mine permit to allow for new ownership and redevelopment of the post-mining land use from grazing to construction of a solar facility. The Table 4 below identifies the specific mining applications approved in 2021.

Table 4: Approved Minimal Impact New Mining Permits – 2021

Permit Number	Permit Name	Permit Operator	Commodity
MK054MN	Arroyo Solar Pueblo Alto	Arroyo Solar, LLC	N/A

Pending Regular Mine Applications

Two (2) new conventional mines are engaged in some phase of permit development in New Mexico, a summary of which is provided in Table 5:

Table 5: Pending Regular Mine Permit Development – 2021

Project Name	Operator	Surface Ownership	Commodity	Proposed Permit Area (acres)
Permitting In-Progress				
Copper Flat Mine	New Mexico Copper Corporation	BLM and Private Owners	Copper	2,190
Roca Honda Mine	Uranium Resources, Inc.	USFS and SLO	Uranium	183

Copper Flat Mine (Copper and Molybdenum): New Mexico Copper Corporation (“NMCC”) has proposed a new regular copper mine in Sierra County near Hillsboro, New Mexico. The mine is proposed to be an open-pit, truck and shovel operation with milling performed on-site. NMCC submitted the Permit Application Package to MMD in July 2012 and has been working with the BLM to address the federal National Environmental Policy Act

("NEPA") requirements. In November 2015, the BLM released the Draft Environmental Impact Statement ("DEIS"). The Final EIS was issued in April 2019, and the Record of Decision was issued in August 2019.

In 2018, NMCC addressed technical issues on the Mining Operation and Reclamation Plan and Probable Hydrologic Consequences documents. NMCC also submitted a financial assurance cost estimate for agency review in August 2018, then addressed technical comments on the cost estimate in a revised submittal dated December 2018. In December 2018, NMED issued Discharge Permit DP-1840 for the Copper Flat Mine. A second revised cost estimate was submitted to the agencies in August 2019.

In March 2020, the MMD Director rescinded the Notice of Technical Approvability citing uncertainty about when, and if, NMCC can secure the necessary water rights for the project. Recission of the Notice of Technical Approvability reopened the permit review process for consideration of issues surrounding water rights as well as a dam safety permit from NMOSE for the tailings storage facility.

In June 2020, MMD withdrew the March 2020 order, thereby reinstating the Notice of Technical Approvability, and entered into a settlement agreement with NMCC outlining the conditions by which MMD will issue a Part 6 mining permit for the Copper Flat Mine.

As of the end of 2021, MMD continues to review financial assurance calculations and other submittals from NMCC.

Roca Honda Mine (Uranium): The proposed Roca Honda Mine by Energy Fuels, Inc. is located in McKinley County on a combination of Cibola National Forest land, private land, and state trust lands. Energy Fuels, Inc. has submitted both the Sampling and Analysis Plan and several iterations of the Permit Application Package to MMD.

The U.S. Forest Service released the DEIS in 2013. However, several additions and changes to the mine plan of operations submitted by Energy Fuels, Inc. in 2015 and 2016 had to undergo public scoping by the Forest Service as a Supplement to the DEIS. The U.S. Forest Service continued to work on the Supplement to the DEIS in calendar year 2019, and MMD continues to collaborate with the U.S. Forest Service and the operator on this mine. Energy Fuels, Inc. submitted several technical documents to MMD throughout 2019 including addendums to the Baseline Data Report and responses to technical comments. During 2021, Energy Fuels provided some responses to technical comments as well as a report for characterization of the Rio San Jose.

3. General Description of Reclamation Practices

The use of erosion blankets is a common reclamation practice used at mine sites, and was implemented on the South Waste Rock Pile at the Mt. Taylor Mine. Erosion blankets are often temporarily placed on reclaimed slopes to prevent erosion before a cover material is placed on top. The use of erosion blankets holds soil and waste materials in place until an evapotranspiration cover or other suitable growth media is placed on top as a more permanent reclamation solution.



Erosion blanket installed at the Mt. Taylor Mine.

Mines Fully Released from The Mining Act

Twenty-two (22) mines have received a complete and final release for reclamation or for achieving the post-mine land use under the New Mexico Mining Act:

- Alley Gypsum Mine, Doña Ana County
- Black Hawk Tailings Impoundment, Grant County
- Boston Hill Mine, Grant County
- Brockman Mine, Hidalgo County
- Chaco Limestone Quarry, San Juan County
- Chino Limestone Mine, Grant County
- CR Minerals Mill, Santa Fe County
- Cullum Claims Mine, Rio Arriba County
- Deming Jigging, Luna County
- Double Tree I Mine, McKinley County
- KB Mine, Grant County
- Malone Mine, Grant County
- Mathis Limestone Quarry Mine, Grant County
- Mesa Verde Resources Mill, Sandoval County
- Pine Canyon/Spar Hill, Grant County
- Pinos Altos Mine, Grant County

- Sais Quarry Mine, Socorro County
- Section 14 Mine, McKinley County
- Section 2 Mine, McKinley County
- Shamrock Leach Site, Doña Ana County
- Toro Mine, Grant County
- Velarde Mill, Rio Arriba County

Total Disturbance and Reclamation

Total disturbance and reclamation across the state are reported by the mine operators. Overall disturbed and reclaimed acreage under permit with MARP for the 2021 calendar year is summarized in Table 6.

Table 6: Summary of Disturbed and Reclaimed Acres – 2021

Calendar Year	Disturbed Acres To Date	Reclaimed Acres To Date
2021	26,886.7	7,567.7

Appendix A contains summary tables of operator reports on disturbed and reclaimed acres for the 2021 calendar year.

Reclamation Guidelines

In 2021, MMD started the process of upgrading guidelines related to reclamation. The guidelines were completed at the end of 2022 after the development of several drafts and interaction with industry, other government agencies and the public. The three guidelines cover: Self-Sustaining Ecosystem, Revegetation and Soils and Cover Handling and Suitability. The guidelines interpret the language of the rules, which requirement the reclamation of mined lands to a condition that allows for the re-establishment of a self-sustaining ecosystem appropriate for the life zone of the surrounding areas. The guidelines are intended to help operators develop methodologies and reclamation techniques to evaluate baseline data and develop reclamation plans that meet the requirements of the NM Mining Act Rules. The guidelines can be found on the MMD website at:

www.emnrd.nm.gov/mmd/mining-act-reclamation-program/guidelines/

4. Financial Assurance Update

Appendix B 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 deposits, letters of credit, collateral (real estate), and third-party guarantees.

A summary of the amount of financial assurance held by MMD for the 2021 calendar year is in Table 7 below.

Table 7: Summary of Financial Assurance Held by MMD – 2021

Calendar Year	Financial Assurance Amount Held By MMD
2021	\$1,056,979,711.45

Appendix B lists financial assurance amounts for individual permits.

5. Amendments to the New Mexico Mining Act Rules

No amendments to the rules were taken by the New Mexico Mining Commission during calendar year 2021.

6. Mineral Production Statistics for New Mexico in 2021

New Mexico remains a leading United States mineral producer in the 2021 commodity rankings provided by reports from the U.S. Geological Survey (USGS) and U.S. Energy Information Administration (coal):

- Potash: 1st (used primarily in fertilizer, and in lesser amounts for chemical and industrial applications)
- Perlite: 1st (used in building construction products, horticultural aggregate, and fillers)
- Zeolite: top 5 (used primarily in animal feed, odor control, and water purification applications)
- Copper: 6th (down from 2nd in 2020; used primarily in building construction, transportation equipment, and electrical and electronic products)
- Coal: 12th (latest available information)
- Nonfuel Mineral Production: New Mexico ranks 23rd among the states, producing 1.43 percent of the U.S. total

Total federal and state revenues generated by 2021 mineral production in New Mexico increased 26 percent from 2020 levels, to \$37.2 million (all major commodity categories showed a revenue increase). State revenue information is provided by the Taxation and Revenue Department and the State Land Office and includes state trust land mineral lease royalties, rentals and bonuses, and associated taxes. Federal revenue information is provided by the Department of Interior's Office of Natural Resources Revenue and includes a 50 percent state share of federal royalties. In any production year, these revenues only accrue if the lessee is mining and producing commodities on federal or state land.

Copper was the largest employer in New Mexico's mining industry, followed by sand and gravel operations, and coal operations. Reported industry payroll (excluding benefits) decreased almost 7 percent from 2020 to \$271 million (Figure 1). Overall, reported employment decreased in 2021. By category, compared to 2021, direct employment decreased 15 percent from 3,971 to 3,365 employees; contract employment decreased 26 percent from 529 to 392 employees; and reclamation employment decreased 12 percent from 214 to 187 employees (Figure 2).

Table 8: Mineral Production Value, Rank, Employment, Payroll, and Revenue – 2021

TABLE 1 New Mexico Summary of Commodity Production, Production Value, Employment, Payroll, Revenue. and Ranking: 2021

Mineral	Production ¹	Production Rank ²	Production Value \$	Employment ³	Reclamation Employment	Payroll \$ ⁴	Revenue Generated \$ ⁵	
							State	Federal
Coal	9,234,395	12	\$ 430,383,525	837	101	\$ 86,860,759	\$ 11,959,817	\$ 3,303,662
Copper	178,358,035	6	\$ 756,782,060	1,076	8	\$ 87,971,327	\$ 6,656,478	\$ -
Gold ⁶	5,720,198	-	\$ 10,294,240	-	-	-	\$ 84,398	\$ -
Industrial Minerals ⁷	2,142,334	-	\$ 136,821,367	173	6	\$ 8,115,753	\$ 152,423	\$ 503,307
Aggregates ⁸	14,619,904	-	\$ 116,904,443	1,004	49	\$ 30,764,526	\$ 5,590,529	\$ -
Other Metals	-	-	-	-	-	-	\$ -	\$ -
Molybdenum	-	-	-	-	-	-	\$ -	\$ -
Potash	447,740	1	\$ 291,309,832	640	14	\$ 56,290,287	\$ 3,725,124	\$ 5,237,678
Silver ⁶	123,888	-	\$ 3,117,603	-	-	\$ -	\$ 21,767	\$ -
Uranium ⁹	-	-	\$ -	27	9	\$ 992,689	\$ -	\$ -
TOTAL			\$ 1,745,613,070	3,757	187	\$ 270,995,341	\$ 28,190,536	\$9,044,647

Source: Operator reports submitted to the Mining and Minerals Division, unless otherwise noted

¹ Production is in short tons for coal, industrial minerals, aggregates, other metals, and potash; in pounds for copper; and in troy ounces for gold and silver.

² Production rank, where available, is based on 2020 production in relation to other states.

Sources: Copper and potash: *Mineral Resources Program, United States Geological Survey*
Coal: *Energy Information Administration, United States Department of Energy*

³ Employment category includes direct and contract employees.

⁴ Payroll does not include benefits.

⁵ NM State Land Office revenue: mineral lease royalties, rentals, bonuses; NM Taxation and Revenue Department revenue: severance, resource excise, and conservation taxes.
Federal revenue includes 50% state share of federal royalties.

Sources: State data: *New Mexico State Land Office, New Mexico Taxation and Revenue Department*
Federal data: *Office of Natural Resources Revenue*

⁶ Gold and silver are by-products of copper production. Employment/payroll for gold/silver included in copper.

⁷ Category includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite; USGS ranks NM first in perlite and zeolite.

⁸ Category includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil.

⁹ Employment/payroll numbers are for reclamation activities/maintenance at closed mines and mills.

Figure 1. Percentage of Production Value, Employment, Payroll, and Revenue by Commodity - 2021

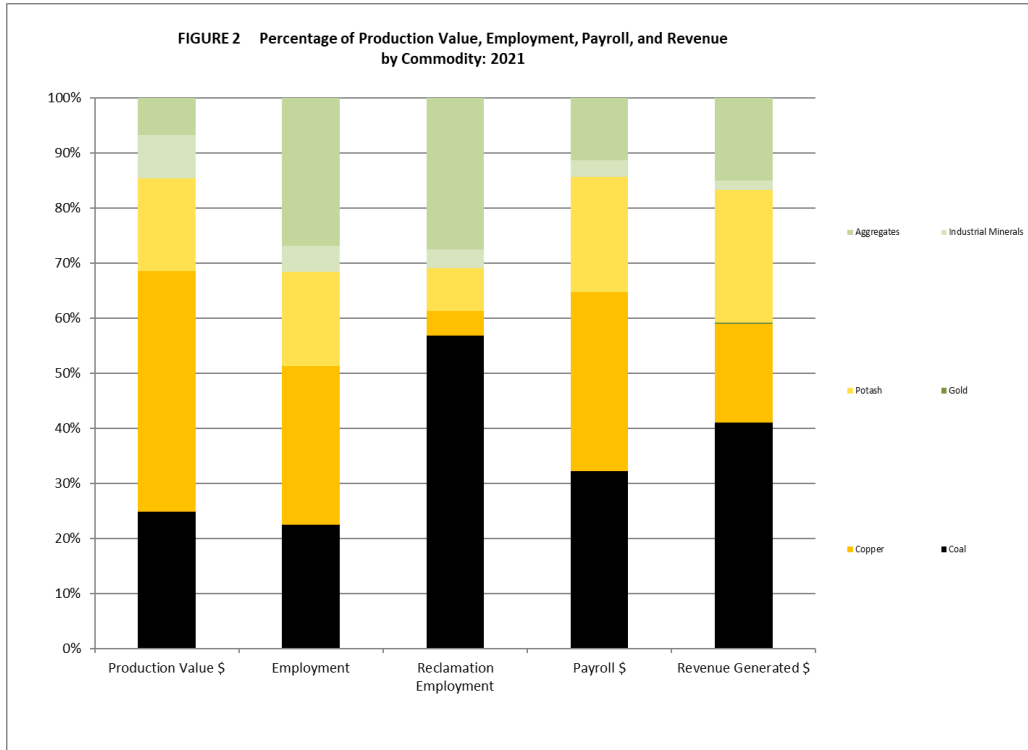
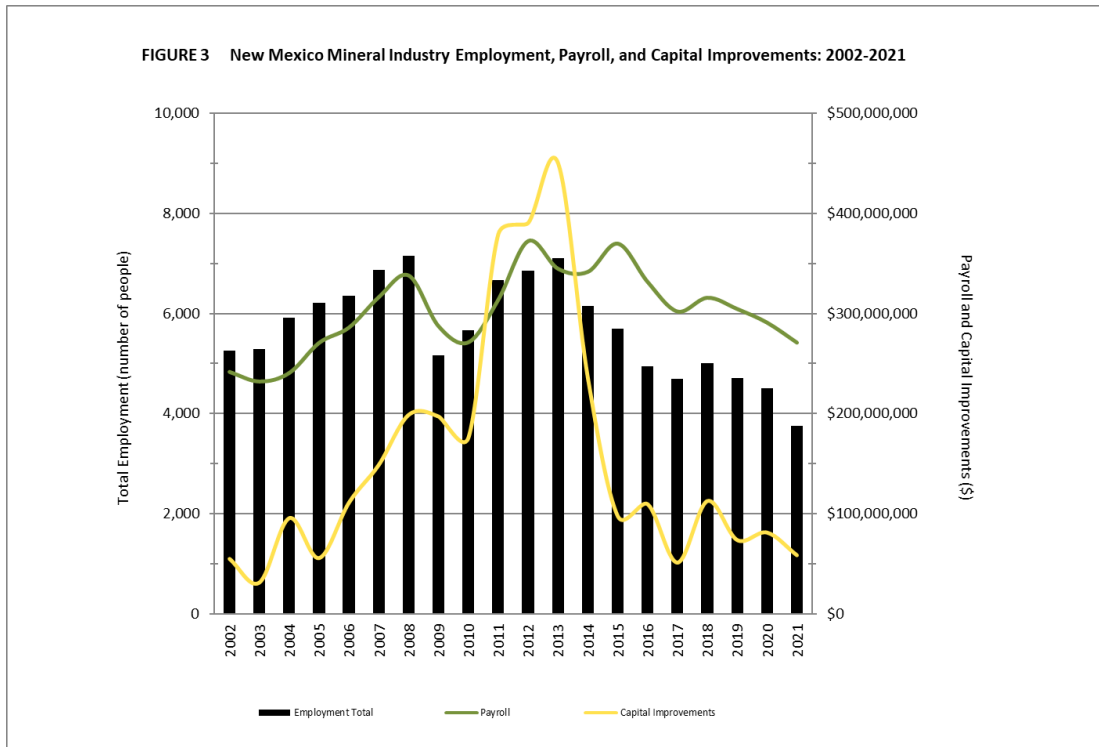


Figure 2. New Mexico Mineral Industry Employment from 2000-2021



Appendix A:

Summary of Operator Reports
for
Disturbed and Reclaimed Acreage
2021

Table A-1. Number of Acres Disturbed and Reclaimed as of December 2021

Permit No.	Permit Name	Total Acres Disturbed To Date	Total Acres Reclaimed To Date
BE001RE	Tijeras Mine and Mill	673.2	103.5
CA002MN	Deadwood / Last Chance Mine	1	0
CA003ME	Hiawatha And Little Jim Mine	2	0
CA005RE	Challenge Mine and Mill	0	0
CA010MN	Apache Camp No. 1 Mine	0	0
CI002RE	Mt. Taylor Mine	147.7	0
CI003MN	ANP No. 2 Mine	2	0
CI004MN	Haskani Mine	13.3	0.5
CI005RE	Tinaja Pit Mine	40	0
CI006MN	Ray Claims No. 4 and No. 6 Mine	0.2	0.5
CI007RE	JJ No. 1 Mine	0	20
DA001MN	Shamrock Leach Site	2	2
DA003MN	Alley Gypsum Mine	1.2	1.5
GR001RE	Pinos Altos Mine	9	9
GR002RE	Continental Mine and Mill	1,173	19
GR006RE	Chino Limestone Mine	55	55
GR007RE	Little Rock Mine	263	32
GR008RE	Jersey Lily, Snowflake and Virtue Mines	22	22
GR009RE	Chino Mine and Mill	10,867.7	889
GR010RE	Tyrone Mine and Mill	8,559.1	4,611
GR011ME	Summit Mine	2.5	9
GR012MN	KB Mine	41	42
GR016ME	Malone Mine	0	0
GR018ME	Banks Mine (Lost New Summit No. 1 Mine)	0	0
GR019ME	Boston Hill Mine	0	0
GR020RE	Georgetown Mine	0	0.8
GR024MN	Toro Mine	0	0
GR025ME	Mathis Limestone Quarry Mine	0	0
GR028RE	Center Mine	3.3	3.3
GR029ME	Mount Royal Mine and Mill	1	0
GR030ME	Chemical Lime Mine & Mill	0	20.7
GR036MN	Grooms Placer Mine	0	0
GR056MN	McCauley Perlite Mine	0	0
GR058MN	Billali Mine	1.7	0
GR065MN	Jim Crow Mine	2.2	0.5
GR077MN	Pine Canyon/Spar Hill	0.5	0.5

HI001RE	Lordsburg Banner Mill	15	5
HI002RE	Brockman Mine	40	40
HI004MN	KM Mine	9	11.5
HI008ME	Volcano Mine	8	0
LI001ME	Warner Gulch Placer Mine	2	2
LI002ME	Smokey Mine	0	0
LI005ME	Capitan Iron Mine	12	0.5
LU001RE	Deming Jigging Mill	16	16
LU008RE	Cyprus Deming Tailings Impoundment	20	23.9
LU009RE	Asarco Deming Mill	56.5	44
LU012MN	Herb Bailey No. 2 Mine	0	0
LU026MN	Little Lode #3 Mine	1	1
MK002RE	Section 35 Mine	40	30
MK003ME	Star Lake Mine - Menefee	19	19
MK004RE	Northeast Church Rock Mine	0	17
MK005RE	Section 27 Mine	17	15
MK006RE	St. Anthony Mine	435	0
MK007ME	Star Lake Mine - Mesa Verde	94.1	70.4
MK008ME	Pueblo Alto Mine	51.3	49.3
MK009RE	Old Stope Leach Mine	81	78
MK010MN	U-Mate Mine	5.4	0
MK011MN	Morningstar Mine	14	19
MK012MN	Jaramillo Humate Mine	2	0
MK026MN	Black Spring Mine	49.5	40
MK037MN	Section 2 Mine	25.5	25.5
MK038MN	Double Tree I	0	0
MK039MN	Brie I Mine	59.2	36.9
MK043MN	Ojo Encino Humate Mine	23.6	15.7
MK052MN	Fruitland Mine	0	0
OT001RN	Wind Mountain Quarry Mine	0	0
OT002MN	B.O.W. Mine	1.6	1
OT005MN	Orogrande Placer Gold Mine	1.8	0
OT006MN	Iron Duke Mine	0	0
RA001ME	Northstar Mine	1.3	0
RA003ME	Cullum Claims Mine	60	0
RA004RE	Rocky Mountain Mine	217.3	48.3
RA005RE	Velarde Mill	28	27.4
RA006ME	General Pumice Mine	17	135
SA001RE	El Cajete Mine	68	54.5
SA002RE	Clod Buster Mine and Mill	0	0
SA004MN	Copar South Pit Mine	9	18.5

SA005ME	Menefee Mill	9.7	0
SA006MN	Copper City Mine	1	0
SA009MN	Eagle Mesa Mine	32.4	25.5
SA010ME	Mesa Verde Resources Mill	0	0
SA011MN	San Luis Mine	15	10
SA012MN	Horizon Ag-Products Cuba Facility	3	0
SA015MN	H2 Screen Facility	4.2	2.6
SF001ME	San Pedro Mine and Mill	12	12
SF002RE	Cunningham Hill Mine	307	289
SF003ME	Silver Silica Mine	4	0.5
SF006ME	CR Minerals Mill	8	8
SI001ME	St. Cloud U.S. Treasury Mine	10	3
SI005MN	Burbank Canyon Mine	0	0
SI006RE	Zeolite Mine and Mill	51	36.5
SI007ME	Midnight Mine	4	0
SI020MN	Coyote Cliff No. 1 Mine	0.6	0
SI021MN	Coyote Cliff No. 2 Mine	1	0
SI025MN	Harding Mine	0	0
SJ001MN	Morningstar Humate Plant	7.7	0
SJ002MN	Chaco Limestone Quarry	2	3.5
SO001RE	Socorro Mine and Mill	160	43.4
SO002MN	Sais Quarry Mine	3.7	0
SO005MN	San Lorenzo Claim Mine	0	0
TA001RE	Questa Mine and Mill	2,300	372
TA002RE	El Grande Mine and Mill	170	14
TA003RE	U. S. Hill Mine	60	61.5
TA005RE	No Agua Mine and Mill	327.4	0
VA001ME	Lucero Quarry Mine	9.3	0
TOTAL:		26,886.7	7,567.7

Appendix B:

Table of Financial Assurance Amounts

Table B-1. Financial Assurance as of December 2021

Permit No.	Permit Name	Type of FA	Amount of FA (\$)
BE001RE	Tijeras Mine and Mill	Surety Bond	2,674,238.25
		Third Party Guarantee	7,889,985.75
		Surety Bond	70,000.00
CA003ME	Hiawatha And Little Jim Mine	Certificate of Deposit	736.00
CA027EM	Summa Silver Mogollon	Letter of Credit	153,800.00
CI002RE	Mt. Taylor Mine	Letter of Credit	7,606,477.00
CI004MN	Haskani Mine	Certificate of Deposit	32,743.00
CI005RE	Tinaja Pit Mine	Letter of Credit	161,514.00
CI006MN	Ray Claims No. 4 and No. 6 Mine	Surety Bond	20,405.00
CI007RE	JJ No. 1 Mine	Surety Bond	53,685.60
DA0045EM	Palm Park Dona Ana 2019	Certificate of Deposit	24,909.66
GR002RE	Continental Mine and Mill	Trust	5,760,000.00
		Collateral Bond	15,250,400.00
		Third Party Guarantee	1,618,477.00
		Surety Bond	632,612.00
GR007RE	Little Rock Mine	Surety Bond	4,158,815.00
GR008RE	Jersey Lily, Snowflake and Virtue Mines	Letter of Credit	1,228.00
GR009RE	Chino Mine and Mill	Third Party Guarantee	89,582,363.00
		Trust	138,811,000.00
		Surety Bond	3,581,931.00
		Surety Bond	5,048,702.00
		Surety Bond	254,800.00
GR010RE	Tyrone Mine and Mill	Third Party Guarantee	40,396,711.00
		Letter of Credit	170,874.00
		Trust	57,537,878.41
		Collateral Bond	48,549,200.00
		Surety Bond	6,780,518.00
		Surety Bond	25,000,000.00
GR011ME	Summit Mine	Surety Bond	95,175.00
GR020RE	Georgetown Mine	Certificate of Deposit	5,200.00
GR028RE	Center Mine	Certificate of Deposit	1,560.00
GR030ME	Chemical Lime Mine & Mill	Surety Bond	62,287.00
GR037EM	Codebreaker Enterprises, Inc. Santo Nino Claim	Certificate of Deposit	17,940.00
GR079EM	Emma Exploration Project	Letter of Credit	166,113.00
GR080EM	West Little Rock Expl. Project	Letter of Credit	81,396.00
GR082EM	Kennecott Steeplerock Explor.	Surety Bond	359,600.00

GR084EM	BHP Oak Grove Exploration	Surety Bond	91,237.74
HI001RE	Lordsburg Banner Mill	Surety Bond	708,301.00
HI004MN	KM Mine	Certificate of Deposit	1,824.00
HI008ME	Volcano Mine	Collateral Bond	28,652.00
		Letter of Credit	20,225.00
HI013ER	Lordsburg Exploration Project II	Certificate of Deposit	126,100.00
HI018EM	Lordsburg Playa Lithium	Cash	17,400.00
HI019EM	Lordsburg West	Surety Bond	304,020.00
LI001ME	Warner Gulch Placer Mine	Letter of Credit	10,000.00
LI005ME	Capitan Iron Mine	Certificate of Deposit	15,000.00
		Certificate of Deposit	59,495.00
		Certificate of Deposit	5,350.00
LU008RE	Cyprus Deming Tailings Impoundment	Letter of Credit	132,588.00
LU009RE	Asarco Deming Mill	Collateral Property	254,056.21
LU038EM	Gila Mill Peru Mill Tailings	Surety Bond	22,550.00
MK003ME	Star Lake Mine - Menefee	Surety Bond	9,120.00
MK005RE	Section 27 Mine	Surety Bond	377,000.00
MK006RE	St. Anthony Mine	Surety Bond	25,867,200.00
		Letter of Credit	71,892,417.00
MK007ME	Star Lake Mine - Mesa Verde	Certificate of Deposit	2,832.00
		Certificate of Deposit	4,408.00
		Certificate of Deposit	5,000.00
		Certificate of Deposit	21,193.00
		Certificate of Deposit	5,000.00
		Certificate of Deposit	24,794.00
		Certificate of Deposit	817.00
		Certificate of Deposit	75,000.00
MK008ME	Pueblo Alto Mine	Certificate of Deposit	22,000.00
		Certificate of Deposit	21,051.00
		Certificate of Deposit	27,825.00
		Certificate of Deposit	74,933.17
MK009RE	Old Stope Leach Mine	Letter of Credit	578,000.00
		Third Party Guarantee	67,005,000.00
		Letter of Credit	22,335,000.00

MK010MN	U-Mate Mine	Certificate of Deposit	8,844.00
		Surety Bond	29,000.00
MK011MN	Morningstar Mine	Certificate of Deposit	2,880.00
MK026MN	Black Spring Mine	Certificate of Deposit	25,000.00
		Certificate of Deposit	10,930.00
		Certificate of Deposit	29,628.64
		Certificate of Deposit	2,500.00
		Certificate of Deposit	11,000.00
MK039MN	Brie I Mine	Letter of Credit	136,863.44
		Letter of Credit	45,600.00
		Letter of Credit	59,965.00
MK043MN	Ojo Encino Humate Mine	Certificate of Deposit	62,964.64
MK04MN	Arroyo Solar Pueblo Alto	Surety Bond	12,216.00
OT002MN	B.O.W. Mine	Letter of Credit	15,932.00
OT006MN	Iron Duke Mine	Certificate of Deposit	15,597.00
		Certificate of Deposit	25,466.52
OT040EM	Cornudas Wind Mountain Project	Certificate of Deposit	58,826.12
RA001ME	Northstar Mine	Certificate of Deposit	10,000.00
RA003ME	Cullum Claims Mine	Letter of Credit	161,500.00
RA004RE	Rocky Mountain Mine	Letter of Credit	365,279.00
		Letter of Credit	267,703.00
RA006ME	General Pumice Mine	Certificate of Deposit	15,439.36
SA001RE	El Cajete Mine	Surety Bond	78,747.00
		Surety Bond	12,103.00
SA004MN	Copar South Pit Mine	Surety Bond	33,516.00
SA005ME	Menefee Mill	Certificate of Deposit	16,000.00
		Certificate of Deposit	35,529.00
SA009MN	Eagle Mesa Mine	Letter of Credit	126,041.21
SA011MN	San Luis Mine	Letter of Credit	20,000.00
SA012MN	Horizon Ag-Products Cuba Mill	Letter of Credit	34,603.00
		Letter of Credit	83,305.00
SA015MN	H2 Screen Facility	Letter of Credit	28,170.00
SF001ME	San Pedro Mine and Mill	Certificate of Deposit	8,288.00
SF002RE	Cunningham Hill Mine	Surety Bond	401,741.00
SF003ME	Silver Silica Mine	Certificate of Deposit	9,404.78
SF038EM	Corelis Explor.	Certificate of Deposit	10,409.00
SI001ME	St. Cloud U.S. Treasury Mine	Certificate of Deposit	1,857.00
SI005MN	Burbank Canyon Mine	Certificate of Deposit	30,000.00
SI006RE	Zeolite Mine and Mill	Collateral Bond	190,000.00
		Collateral Bond	337,000.00

SJ001MN	Morningstar Humate Plant	Certificate of Deposit	51,257.06
SO001RE	Socorro Mine and Mill	Surety Bond	2,132,500.89
SO022EM	Ramsey NM Spike Camp	Certificate of Deposit	11,980.00
TA001RE	Questa Mine and Mill	Letter of Credit	113,998,805.00
		Third Party Guarantee	280,696,632.00
		Letter of Credit	1,355,634.00
TA002RE	El Grande Mine and Mill	Surety Bond	1,246,703.00
TA003RE	U.S. Hill Mine	Certificate of Deposit	6,300.00
TA005RE	No Agua Mine and Mill	Surety Bond	1,863,272.00
VA001ME	Lucero Quarry Mine	Certificate of Deposit	24,515.00
TOTAL:			1,056,979,711.45