



*Promoting Healthy Communities by
Protecting Our Environment Since 1998*

May 8, 2026

Kevin Barnes, Permit Lead
Mining Act Reclamation Program
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Via e-mail: emnrd.mmd2@emnrd.nm.gov

RE: Additional Public Comments on Chino Mine Closure/Closeout Plan (2024) Permit No. GR009RE Revision 24-2 and DP-1340

Dear Mr. Barnes:

The Gila Resources Information Project (GRIP) submits the following additional public comments on the Chino Mine Closure/Closeout Plan (CCP) under Mining Act permit GR009RE Revision 24-2. These comments are submitted to the Mining and Minerals Division (MMD) after the public hearing held on April 21, 2026 and before the close of the public comment period today.

Additionally, please find attached electronic files of public comments from GRIP's Executive Director delivered at the hearing on April 21.

5-Year Permit Renewal Requirement Under the Mining Act and Copper Rule

First, we'd like to thank MMD for adherence to the 5-year review period for the Chino reclamation plan as mandated by the Mining Act and Copper Rule. This was one of our major comments in 2019, since at the time the Chino Mine permit renewal had been delayed by over 10 years. We appreciate MMD's effort in enforcing this requirement. We were pleased to see from the recent public notice that the Tyrone Mine will also meet the required 5-year renewal schedule.

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Require Updated Precipitation Analysis in GRE9RE and DP-1340

Similarly, we appreciate that permit conditions for the last CCP revision and associated DP-1340 required a precipitation analysis to assess the adequacy of surface water conveyances to handle extreme precipitation events due to climate change. This was another of our major comments in 2019 given the occurrence of multiple 500-year storm events.

The analysis “[Updated Surface Water Conveyances Precipitation Analysis Task 3](#)” conducted by WSP USA Inc. in 2024 concluded that “[r]esults of the conveyance structure assessment indicate that all proposed CCP structures and all critical structures constructed on reclaimed lands at Chino, Tyrone, and Little Rock are designed (CCP) and built (existing reclaimed) to provide adequate capacity under projected climate change conditions” (p. 30).

However, “[r]esults of the modified Rational Formula Method analyses indicated that all structures analyzed provide adequate capacity with the exception of the main top surface channel at [Chino] Tailing Pond 4 East, which exceeded its channel capacity by an estimated 0.1 foot” (p. 30). The updated CCP (2024) does not mention how the reclamation design for Tailing Pond 4 has been modified for increased capacity given the Rational Formula Method modeling result. **We recommend that a conservative approach be taken to avoid flood risk. Therefore, we suggest that the conveyance design for Tailing Pond 4 East and associated reclamation cost estimate are revised.**

The report concludes that “changing precipitation in recent years will likely result in revised numbers in the updated NOAA Atlas 15 that is scheduled to be released in the next few years, and future evaluations may be needed if subsequent changes in the recent precipitation data merit another evaluation. Future design efforts will use the best available and most appropriate information in making informed decisions regarding extreme rainfall and flooding risks.” Given this recommendation, **we suggest that GRE9RE and DP-1340 include a permit condition requiring an updated precipitation analysis when the new NOAA Atlas 15 numbers are available.**

Dust Control for Evaporative Sprayers and Salt Storage Facilities

Gila Resources Information Project has documented instances of dust that is transported off the mine site, impacting communities and the environment.



Chino Mine looking to the east from Santa Clara in the morning. 2018



Timelapse video of dust from the Chino Mine open pit and Lampbright Leach Stockpile. Camera is downwind of the site looking to the west/southwest. To watch the timelapse video, click [HERE](#).

Chino Mine's consultant stated at the public hearing that no dust control would be required for the evaporative sprayers and toxic brine storage facilities, since these water treatment facilities would be located in the pit. However, GRIP has documented that dust from the open pit is being transported off site right now given current operations. **GRE9RE should include a permit condition to require dust control measures for evaporative sprayer operations and brine storage facilities to prevent off site contamination from windblown dust.**

Financial Assurance Calculations

The calculations for the updated financial assurance for the CCP (2024) have not yet been made public. As we did in 2019, **we would like to review and comment on the updated reclamation cost estimates and financial assurance calculations when they are publicly available.** For now, we are providing some preliminary comments on the methodologies used based on the calculations used in 2020. These comments were prepared by GRIP's technical consultant Dave Chambers of Center for Science and Public Participation.

Based on a review of the 2024 CCP, and on the most recent financial assurance calculations completed in 2020, we have identified three issues with the financial assurance calculations. The last update to the financial assurance ([Freeport-McMoRan 2020](#)) was based on the 2018 Closure Closeout Plan. If the 2026 update to the financial assurance follows the same calculation procedures as in the 2020 calculations, a significant under-monetization of the financial assurance is likely to occur.

- (1) The assumptions for the indirect costs, which are expressed as a percentage of the direct costs, appear to be lower than those typical of most financial assurance calculations, and are less than those recommended by the US Forest Service ([2004](#)).
- (2) It appears that the financial assurance is not being inflation-proofed for the period of time between Closure Plan renewals. If this is the case, it results in a significant deficit in the financial assurance by the end of the Plan renewal period.
- (3) The Net Present Value (NPV) calculation for long-term costs is being terminated too soon (i.e. it is not being run for a sufficient number of time periods), resulting in an under-monetization of the financial assurance.

These issues are explained in the sections below.

1. Closure/Closeout Plan (CCP) Financial Assurance Indirect Cost Assumptions

In the CCP, indirect costs of 30% are applied to the capital direct costs, and 17.5% indirect costs to the O&M direct costs (CCP 2024, Appendix F). 30% indirect costs, even if it were applied to both capital and O&M direct costs, would be less than the low end of the range of 38% minimum - 108% maximum indirect costs recommended by US Forest Service in their "[Training Guide for Reclamation Bond Estimation and Administration, for Mineral Plans of Operation Authorized and Administered Under 36 CFR 228A, USDA Forest Service, Minerals and Geology Management,](#)" April 2004.

Site-specific circumstances may allow indirect costs to be less than recommended by widely accepted sources, and less than is typical for most other reclamation estimates. Indirect costs typically include contingency, mobilization/demobilization, engineering redesign, engineering, procurement & construction management, contractor overhead, contractor profit, agency administration, and inflation.

However, if below-recommended costs are adopted, the justification for each exception should be noted on an indirect cost-by-indirect cost basis.

2. Financial Assurance Discounted for Net Present Value

The Total Financial Assurance is being calculated on the basis of the Net Present Value ([Freeport-McMoRan 2020](#)). Unless the entire amount of the NPV (\$228,393,363) is presently being held in an interest-bearing account belonging to the regulatory agency, the \$228,393,363 should be inflation-proofed.

There is no indication in the available correspondence that the financial assurance is being held in an interest-bearing account. Applying the 2.85% net discount rate, which was suggested by Freeport-McMoRan, over a 5-year period increases the total financial assurance approximately \$7 million every year. Instead of \$228,393,363, after 5 years the total amount becomes \$262,848,171. This is a 15% deficit in the financial assurance, and is a long-term liability to New Mexico taxpayers. If the financial surety is being held in any form other than in a revenue bearing account, the financial surety should be inflation-proofed for the period of the permit, and automatically increased for each year the permit is extended.

3. Time Period Assumed for the NPV Calculation for Long-Term Costs

The Net Present Value for the financial assurance for long-term water treatment was calculated by Freeport-McMoRan ([2020](#)). The NPV calculation was only run for a period of 100 years. Terminating the NPV calculation at 100 years is common assumption used by many mining companies and regulatory agencies, probably under the mistaken assumption that running the calculation for a longer period does not increase the NPV significantly.

NPV calculations should be run until the amount added to the total financial assurance is \$0 in the final year of the calculation. The NPV calculation is asymptotic, so the amount added in the final year will never actually reach zero, but it can easily be taken to the point where each additional year of the calculation does not increase the total by more than \$1 (rounded). For a more detailed explanation of this issue, see [Chambers 2024](#). The decision to terminate the NPV calculation at 100 years is totally arbitrary, and has no basis in either science or accounting. Running the NPV calculation until the amount added to the total financial assurance is \$0 takes only a few seconds longer to set up than a 100-year NPV calculation, so the additional work required is trivial.

The calculated NPV of the water treatment was \$94,853,729, and the additional amount added to the total financial assurance in the final year of the calculation at 100 years, the last year of the NPV calculation, was \$65,987 ([Freeport-McMoRan 2020a](#)). If the calculation had been continued until the amount added in the final year of the calculation is ~\$0, instead of terminating the NPV calculation at 100-years, an additional \$1.89 million dollars would be added to the total water treatment financial assurance, a 2% increase. The NPV calculation must be run for ~525 years to reach \$0-added to the total.

For two reasons, the \$1.89 million increase in the total amount should probably be significantly larger. First, by terminating the calculations at 100 years, no additional capital replacement

costs for the water treatment facilities were included. These costs are significant, and plant replacement is typically required on a 50 to 75-year schedule. Adding replacement capital costs would contribute significantly to the total financial assurance. Second, the net discount rate for the financial assurance was increased from 2.85% in years 1-10, to 3.58% in subsequent years. This is a result of assuming that the investment rate of return on the invested financial assurance is 6.12% (and an assumed inflation rate of 2.54%). This change in return on investment is not explained, but it does result in a decrease in the NPV of the financial assurance.

It is generally recommended that government agencies not assume a net discount rate greater than 3%. In MMD's *Guidance for Calculating Net Present Value of Reclamation Costs* ([2020](#)), the recommended net discount rate for "Alternatives" and "Examples" all assume a net discount rate of less than 3%. That said, the MMD NPV guidance document fails to address the potential impact of how long to run the NPV calculation (i.e. how many years the calculation should be run). The guidance states:

"Use of the Long-Term Discount and Escalation Rates should be limited to the duration of the Reclamation Schedule and typically not exceed 100 years without appropriate justification as the variability in interest-rate forecasts over periods exceeding 100 years calls into question to practical utility of the NPV calculation."

This statement implies that predictions for net discount rate are unreliable for periods of over 100 years. While this may be the case, it is still necessary to make such assumptions for the financial assurances for perpetual water treatment, and for long-term monitoring and maintenance. To terminate the NPV calculation at 100 years, which MMD does in its examples in the guidance document, leaves taxpayers at risk for long-term costs.

For the CCP, the assumed rate-of-return on investment of 5.54%, which is 3% above the assumed escalation rate (inflation rate) of 2.54%. This is still a very healthy rate of return on investment in today's markets. Unless it can be demonstrated that this rate of return can be maintained for a government agency investment over the long-term, assuming a higher-than-normal rate of return will place the public at risk, because this assumption lowers the NPV of the financial assurance.

The Chino water treatment financial assurance was underfunded by approximately \$2 million in 2020, and because ongoing capital costs were not included, that amount could be considerably larger.

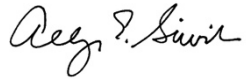
Financial Assurance Instruments

Finally, we strongly recommend that the Mining and Minerals Division and NMED not approve a third-party guarantee from the Chino Mine's parent company or a Freeport-McMoRan subsidiary as acceptable financial assurance for the Chino Mine Closure/Closeout Plan. As you know, the U.S. Forest Service and the Bureau of Land Management prohibit these risky forms of financial assurance. Since BLM and the state will likely jointly hold the FA, no 3rd party guarantees should be allowed.

It's our collective, moral responsibility to our children and grandchildren to prioritize a healthy future for Grant County. In order to do that, Freeport and state agencies should follow responsible mining best practice by rejecting a 3rd party guarantee and using cash or cash equivalents only in Chino's financial assurance package.

Thank you for your consideration of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Allyson Siwik". The signature is fluid and cursive, with the first name "Allyson" and last name "Siwik" clearly distinguishable.

Allyson Siwik
Executive Director

Cc: Brad Reid, NMED, Mining Environmental Compliance Section
Jordan Anderson, DP-1340 Permit Lead, NMED, Mining Environmental Compliance Section

Chino Mine Closure/Closeout Plan Public Hearing

Oral Comments by Allyson Siwik, Executive Director, Gila Resources Information Project

April 21, 2026

Good evening, my name is Allyson Siwik. I'm executive director of the Gila Resources Information Project, otherwise known as GRIP. Thank you for the opportunity to provide public comments on the Chino Mine Closure/Closeout Plan.

Our technical consultant Dave Chambers from Center for Science and Public Participation couldn't be here tonight, but I'll be summarizing his comments.

GRIP was founded in 1998 and has advocated for responsible mining for nearly 30 years.

Our mission is to promote community health by protecting our environment and natural resources in southwestern New Mexico. GRIP's role has been to facilitate informed public participation in natural resource use decisions that will have profound and long-lasting impacts on the region's environmental and economic health.

Decisions about the Chino Mine CCP affect more than economics.

They affect:

- drinking water supplies
- community health
- land and cultural resources
- whether or not we have a sustainable local economy for the future.

Mining should not come at the cost of weakening safeguards that protect communities and our air, land, and water.

Communities deserve a voice in decisions that shape their future. That's why we're here tonight. Thanks to MMD for holding this public hearing on the Chino Closure/Closeout Plan.

Other Permits

Our comments tonight are also pertinent to the BLM MPO and permit and the NMED Supplemental Discharge permit for closure – DP-1340.

These permits all work together so we will mention a few items even though we recognize that tonight's hearing is on the MMD permit.

- NMED – Ensure conditions are in DP-1340 for surface water quality protection until state permitting program is operational.

Permit Boundary and Pit Waiver

Before we dive in, a couple comments about important boundaries:

The PERMIT BOUNDARY defines the specific area authorized for mining or land disturbance.

Private land within permit boundary – We’re concerned that these landowners know that their land is within the permit boundary of the mine and that they understand the proposed permitted activities that will take place in this area of the mine that could encroach on private property and Hwy 152.

Require updated pit waiver map annually - Pit waiver area has changed significantly since 2003. Need updated maps every year to track with CCP.

Stockpile Reclamation

- **Reservoir 9 Area** – support inclusion of Reclamation Cost Estimate (RCE) for Reservoir 9 stockpile reclamation as highest cost reclamation option to ensure there is sufficient financial assurance for reclamation of this area.
- **Require test plots for Rubio Peak/Kessell material** before approval as Reclamation Cover Material (RCM). Need to demonstrate that this material will successfully grow vegetation and establish a Self-Sustaining Ecosystem
- **Lining of Kessell Stockpile** – Would facilitate “Leach to the Last Drop” and protect groundwater.

Windblown Tailings Reclamation

- Removal of 6 inches of windblown tailings downwind of Pond 7 tailings facility
 - How was cleanup area defined?
 - What is acreage?
 - What are the contaminants?
 - How will the area be reclaimed? How will it be revegetated? Will this area be required to meet Mining Act standards for a self-sustaining ecosystem?

Water Treatment Costs

Water treatment is the most significant component of the reclamation plan from a cost perspective and for long-term protection of groundwater quality. This is an area that overlaps with NMED's DP-1340, and is a key part of the reclamation plan. MMD and NMED work together to make sure that the water treatment plan, costs and financial assurance are adequate to cover this long-term liability.

Water treatment must continue in perpetuity, so we need to get it right.

Water Treatment Plant replacement is typically required on a 50 to 75-year schedule. Adding replacement capital costs would contribute significantly to the reclamation cost estimate and total financial assurance.

This is important. We need to ensure that there is enough Financial Assurance now to cover those future costs.

Containment System

- Interceptor wells must operate in perpetuity to contain groundwater contamination on site.
- Make sure we have sufficient containment around Pond 7 – impacts to Apache Tejo area groundwater - part of Grant Co. Regional Water Supply Project.
- Need to include capital replacement costs in RCE and run NPV calculation for longer than 100 years.

Monitoring

- Monitoring of surface water discharge to Whitewater Creek from water treatment facility
- GW monitoring – need more monitoring wells on west side of Pond 7 to protect Apache Tejo wells

Reclamation Cost Estimate (not available to the public yet)

- **Indirect costs are underestimated** and do not reflect the US Forest Service *Training Guide for Reclamation Bond Estimation and Administration, for Mineral Plans of Operation Authorized and Administered Under 36 CFR 228A*, USDA Forest Service, Minerals and Geology Management, April 2004.
 - Forest Service recommends indirect costs as 38% - 108% of direct costs

- Chino CCP (2020) - indirect costs of 30% are applied to the capital direct costs, and 17.5% indirect costs to the O&M direct costs
- **Include capital replacement costs** for water treatment facility and containment system

Financial Assurance

- **NPV calculation** for long-term water treatment, monitoring, maintenance – Must prevent shift in long-term liability for reclamation and cleanup to the public to protect future generations.
 - Run calculation longer than 100 years to account for replacement costs of water treatment, monitoring, maintenance (e.g., containment system)
 - Use net discount rate less than 3% following MMD's guidance
- **Financial instruments**
 - No 3rd party guarantee = corporate guarantee = self-bonding
 - Approve less risky forms of FA – cash trust, letters of credit, surety bonds.

Although the NM Mining Act allows mine operators to use Third Party Guarantees for a portion of their financial assurance, the parent company, Freeport-McMoRan, has historically provided a third-party guarantee for a portion of the reclamation cost. A parent company guarantee puts the state and the public at financial risk should Freeport go out of business, since it is nothing more than an I.O.U. If Freeport goes bankrupt and can no longer cover its environmental liabilities at Chino, then the State of New Mexico and the taxpayers will have to put up the cash for the cleanup.

Parent company guarantees are not industry best practice according to the Initiative for Responsible Mining Assurance. Similarly, the US Forest Service and Bureau of Land Management prohibit the use of parent company guarantees. Since BLM and the state have to jointly hold the FA, no 3rd party guarantees should be allowed.

It's our collective responsibility to our children and grandchildren to prioritize a healthy future for Grant County.

In order to do that, Freeport and state agencies should follow responsible mining best practice by rejecting a 3rd party guarantee and putting in place less risky forms of financial assurance. Freeport can add to the existing cash trust or provide a bond or letter of credit.

From: [Kay Plavidal](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Public Comment: Chino Mine Reclamation Plan
Date: Friday, May 8, 2026 11:26:10 AM

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To Whom It Concerns:

As a resident of Silver City and a former professor of environmental geology and environmental science, I have considerable concerns regarding the rapid expansion of the Chino Mine and the potential negative impacts to our community. And those concerns will continue even after the mine has closed. I urge you to follow the known best practices to ensure that residents of Silver City and neighboring communities will be able to live their lives here without fear of pollution of their water supplies, air and soil. Regarding the Chino Mine Reclamation Plan, I strongly encourage you to:

1. Ensure that the plan prevents releases of toxic pollution to water supplies, air and soil. Dust control is a must...and I can tell you that I have serious doubts that dust is being properly controlled even now. There are windy days when the dust blowing from the mine area can be seen for miles. I live in the Historic District and it is a common occurrence to find considerable dust on my car in the morning -- I suspect that some or all of that dust comes from the mine. All mine activities have the potential to produce toxic dust, including that associated with the Kessel Stockpile construction.
2. Require there to be systems to fully capture and monitor contaminated groundwater at closure...specifically around Pond 7 to prevent contamination of the Apache Tejo area groundwater wells that will be part of the Grant County Regional Water Supply Project.
3. Assure that there will be ample funds to fully cover the costs of reclamation, long-term water treatment, and perpetual care, so that financial liability will not be shifted onto the taxpayers and residents of surrounding communities. Freeport-McMoRan MUST bear the true cost of cleaning up ALL contamination and disturbance created by their mining activities. I urge the Mining and Minerals Division NOT to accept a third-party guarantee from Freeport-McMoRan as a valid financial assurance mechanism, as this is essentially an unsecured promise to pay. There needs to be a dedicated, reliable source of funds available for cleanup should the company face financial hardship or bankruptcy.

Thank you for considering my comments and for taking the proper steps to protect the health and well-being of area residents.

Kay R. Plavidal

5-5-2026
Albert Chang, Director
Mining & Minerals Division, EMNRD
1220 South St. Francis Drive
Santa Fe, NM 87505
emnrd.mmd2@emnrd.nm.gov

RE: Public Comments, Chino Closure Closeout Plan Revision

Dear Director Chang,

Thank you for the public hearing on the Chino Closure Closeout Plan (CCP) revision on April 21, 2026 in Silver City. Because of potential environmental impacts caused by the CCP to surface and ground water, wildlife, air quality, cultural sites and the overall health of adjacent communities in Grant County and Luna County I have the following concerns:

A) Under the proposed 800 acre footprint of the Kessel Waste Pile is the pre-historic cultural site Map Cave. Historic sites such as the Janos Copper Ore Mule Trail to Mexico and the unofficial swimming hole for Santa Rita, the "Bathtub", with its endangered Gila Leopard Frogs. These must first be cleared and then maybe possibly allowed by SHPO to be buried. In 1998 8,000 area residents signed a petition to protect the Kneeling Nun's cultural resources from future mining destruction such as the Kessel Waste Pile..

B) If allowed by SHPO line the Kessel Stockpile to protect groundwater.

C) Ensure sufficient containment around Tailings Pond #7 and have the new Tailings Pond #8 lined to protect groundwater that flows to Luna County.

D) Notify any landowners that may be within the permit boundary of the mine. In addition, private property landowners should be advised and protected from any possible impacts from CCP activities.

E) Factor in capital replacement costs of water treatment. Is the financial assurance provided by Chino adequate to cover reclamation costs should Freeport McMoran default (ie. go bankrupt)? Financial assurance must not become a public liability.

Thank you for your consideration of my comments. I would like a response to my concerns.

Sincerely

Glenn Griffin
3701 Tracy Circle
Silver City, NM 88061
[gilatreethinnners@gmail.com](mailto:gilatreehinnners@gmail.com)
575-590-2341 cell

From: [catherine swain](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] CHINO MINE RECLAMATION
Date: Thursday, May 7, 2026 9:54:07 PM

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To whom it may concern, I'm writing in regards to the reclamation plan.

It's very important that the Chino mine should adhere to certain rules and restrictions when it comes to safeguarding our environment during operation and time of clean up and restoration.

The reclamation plan should:

- 1) prevent releases of toxic pollution to air, land and water.
 - a) including dust control from evaporative sprayers.
 - b) lining the Kessel stockpile now to prevent groundwater contamination.
 - c) require systems to capture and monitor contaminated groundwater at closure including pond 7 to protect the Apache Tejo wells that are part of the Grant County Regional Water Supply Project.
 - d) Financial assurance that covers the cost of reclamation long term water treatment and perpetual care without shifting costs to taxpayers.

Bottom line...mining companies need to be financially responsible for their cleanup. Too many times companies file bankruptcy so they don't have to pay for cleanup, and, therefore taxpayers pay the bill, while these companies are enjoying their profits.

Also, third party insurers don't usually pay the bill. Enough is enough! Companies need to be responsible for paying for reclamation!

Sincerely,

Catherine Swain

[Yahoo Mail: Search, Organize, Conquer](#)

From: [Delia deVer Mudge](#)
To: [MMD](#), [EMNRD](#), [EMNRD](#)
Subject: [EXTERNAL] Chino Mine
Date: Thursday, May 7, 2026 5:23:21 PM
Attachments: [c6d6d8cc.png](#)
[fb08fa95.png](#)
[006a33b5.jpeg](#)

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Mining and Minerals Division
NM Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Good afternoon,

On behalf of the Chiricahua Apache Nation and National Foundation, I would like to offer our input regarding the Chino Mine closing and appreciate the opportunity to share our comments and requests.

We request that the Chino mine be completed with the utmost environmental sensitivity and safety. Bringing the altered and disrupted formations back to something more akin to a natural state, would be culturally, visually and environmentally healing. Bringing the landscape back to a more natural appearance, rather than leaving it scarred. We are also concerned about water contamination.

We are the descendants of the Chiricahua Apache who evaded capture and imprisonment. For the past few decades, we have been returning to our Traditional Territory, which includes the Grant County region. We are structured as a formal Sovereign Nation with a large Citizen role. With the Federal Government, primarily looking to the Chiricahua Apache descendants who were captured and imprisoned for Tribal input, we would like to bring your attention to how our group of descendants differs. We are re-establishing our presence in Silver City and Grant County.

Because of our history, our ancestors had to scatter and live outside of the region to evade capture and death. In this way, we have been a diaspora with the Oklahoma group being a separate organization. We also have relatives who chose to go to the Mescalero reservation upon their release from prison in 1913, although it is not within our Traditional Territory. Native Tribes are in direct relationship with the Sacred Lands they live with. No other place can replace this relationship. We have Citizens throughout New Mexico, the U.S. and the world. We are returning.

The Federal Government issued Federal recognition to just the descendants who were imprisoned and who remain at the place of their imprisonment in Oklahoma (far from our Traditional Territory, sadly). This group made a deal with the Federal Government to exchange much of the region here, for an amount of \$1-\$18 dollars an acre back in the 1970's. After the group had been disconnected from our Traditional Territory for almost 100 years. Along with that transaction, the Federal Government issued them Federal recognition, excluding all other Chiricahua Apache. It's not difficult to understand that this arrangement has negatively impacted all others who are also descendants. There's a false narrative that all the Chiricahua Apache were captured. This is not true. Unfortunately, at this time, the Oklahoma group is not inclusive of other Chiricahua Apache. Their position has been one that excludes other descendants. Having Federal recognition has come with financial support and gives them power over other Chiricahua groups. More enrollments would mean more funds they would have to share. Although Federal recognition would benefit us as well, being the "Free" Chiricahua Apache, we don't carry the same kinds of needs or constraints that those impacted by the reservation or imprisonment systems need or have arranged. We have needs, but they are different. We aren't structured as a reservation and do not have the same kinds of basic living support needs. We are, however, in need of support to help bring our plans to fruition. There are certainly injustices that hold us back. We are working diligently to change that. We have an opportunity for you to be part of that!

A lasting impact you can make towards a tremendously positive project for our Chiricahua Apache Culture and Legacy, would be to have your support in funding a Chiricahua Apache Cultural Center in Silver City, NM. This would have a significant and positive impact for our Tribe and the Culture. We have been impacted by the interests of mining since the early 1800s. This is a way for you to have a large role in bringing restorative

justice to our Tribe. With growing strains between mining and Tribal Lands, this would be a way to show respect and a different relationship for the future. We have plans forming to develop a Cultural Center and request that you consider being part of it! It's an idea that has been well-received in the overall community and beyond. It will have both a Cultural and Economic impact to our region. It offers another experience and opportunity that will attract visitors as well. It would reflect positively on your Mining company and would show great care towards leaving something so beneficial.

Please consider what your Company can do, as a lasting Legacy, to fund our Chiricahua Apache Cultural Center in Silver City, New Mexico. It's an opportunity to be a big part of our efforts towards healing both Native and non Native cultures that our community still struggles with. It's an inspiring opportunity and has the potential to uplift and celebrate our Chiricahua Apache History and Culture, along with the diversity here. It would reach far beyond our region and impress the World!

We invite you to visit our new mural, thanks to a local 30Something grant, featuring historic images of our ancestors and contemporary Chiricahua, who are instrumental in our movement to return and raise our presence.

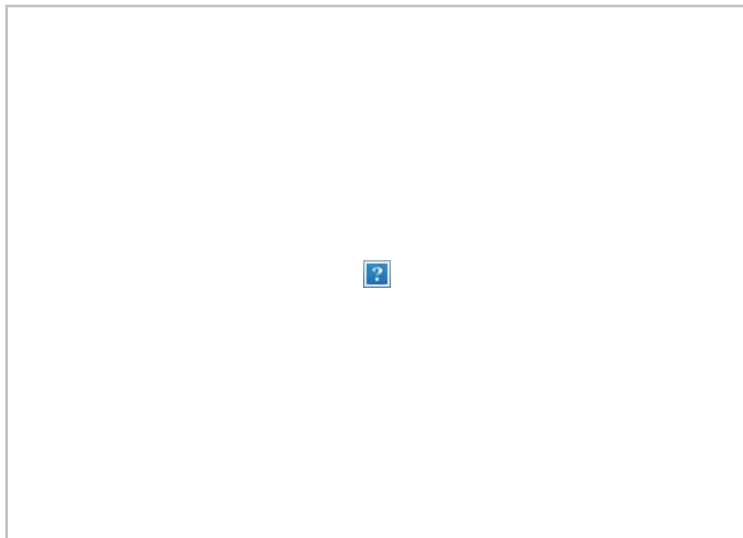
My contact information is below. I welcome time to discuss this opportunity and partnership further,

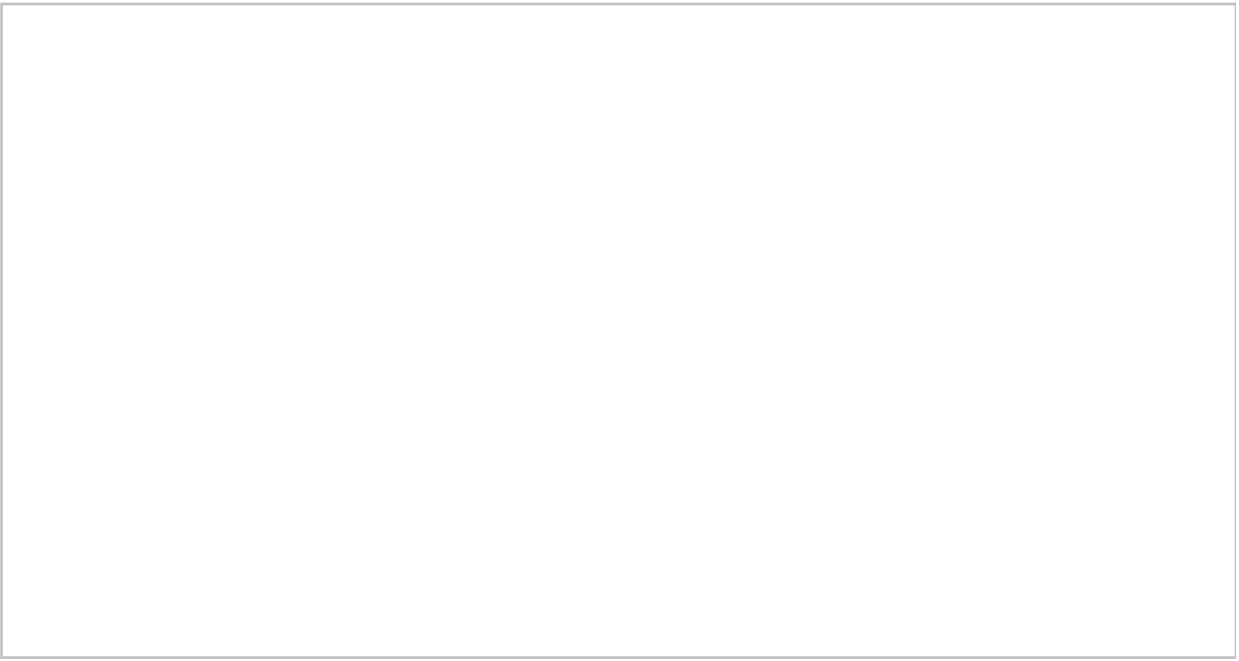
Ixexe,

Thank you,

Delia deVer

Invitation to our upcoming Mural dedication:





Delia deVer Mudge

Administrative Director

Chiricahua Apache National Foundation

www.chiricahuaapachenation.org

delia@chiricahuaapachenation.org

From: [Laura Watchempino](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Chino Mine Permit Revision 24-2; Closure-Closeout Plan
Date: Thursday, May 7, 2026 5:49:22 PM

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I herein submit my public comments on Freeport-McMoRan's application to revise and update its Closure-Closeout Plan (CCP) for the Chino Mine.

The CCP should provide sufficient dust control at the mine site with evaporative sprayers.

The Kessel Stockpile and any additional or expanded wet waste piles should be double-lined with a leak detection system to prevent future groundwater contamination in the Apache Tejo well field or groundwater wells that will feed the Grant County Regional Water Supply Project.

Recommendations for additional preventative measures beyond the estimated lifespan of any installed liners should also be required.

Financial Assurances should be sufficient to cover all foreseeable costs of reclamation, long-term water treatment to meet applicable water quality standards, and perpetual care without shifting financial liability onto New Mexico taxpayers, regulatory agencies, or surrounding communities.

The Mining and Minerals Division should not accept a third-party guarantee from Freeport-McMoRan in lieu of a dedicated funding source for any future excursions from the mine site in the event that ownership of the mine changes or the company experiences financial hardship.

Thank you for affording members of the public this opportunity to comment on Freeport-McMoRan's Closure-Closeout Plan, Chino Mine Permit Revision 24-2.

L. Watchempino
P.O. Box 407
Pueblo of Acoma, NM 87034

From: [Maree McHugh](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Chino Mine permit revision - comments
Date: Thursday, May 7, 2026 9:34:35 PM

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May 7, 2026

Comments regarding the Chino Mine Permit Revision.

Thank you for the opportunity to comment. I live in the Mimbres Valley, and drive past the mine frequently. I am in awe of the massive operation, the unique history of the mines in this district, and the amount of energy and water it takes for the mine operations.

Water is a very valuable resource. I encourage Freeport-McMoRan to have a solid plan to ensure the reclamation plan for the Chino Mine prevents releases of toxic pollution to air, land, and water, including requiring sufficient dust control from evaporative sprayers and lining the Kessel Stockpile now while it is being built to prevent groundwater contamination if the unit is leached in the future. It is important that Freeport-McMoRan plan includes systems to fully capture and monitor contaminated groundwater at closure, including sufficient monitoring and containment around Pond 7 to prevent pollutants from contaminating Apache Tejo area groundwater wells that will be part of the Grant County Regional Water Supply Project.

Financial assurance must fully cover the cost of reclamation, long-term water treatment, and perpetual care without shifting financial liability onto taxpayers or surrounding communities. To ensure the company bears the true cost of cleaning up the contamination and disturbance it created, the Mining and Minerals Division (MMD) should not accept a third-party guarantee from Freeport-McMoRan as a valid financial assurance mechanism. A third-party guarantee is essentially an unsecured promise to pay, not a dedicated, reliable source of funds available for cleanup if the company faces financial hardship or bankruptcy.

The natural resources in the mining district have served the economy and industry for decades. The resources, especially water are limited and must be wisely and safely managed today and for the future.

Sincerely,

Maree McHugh
147 Galaz Street
San Lorenzo, New Mexico

From: [Heart of the Gila](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Chino Mine closure Plant
Date: Thursday, May 7, 2026 9:04:21 PM

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Here are my comments.

- **Ensure the reclamation plan prevents releases of toxic pollution to air, land, and water,** including requiring sufficient dust control from evaporative sprayers and lining the Kessel Stockpile now while it is being built to prevent groundwater contamination if the unit is leached in the future.
- **Require systems to fully capture and monitor contaminated groundwater at closure,** including sufficient monitoring and containment around Pond 7 to prevent pollutants from contaminating Apache Tejo area groundwater wells that will be part of the Grant County Regional Water Supply Project.
- **Financial assurance must fully cover the cost of reclamation, long-term water treatment, and perpetual care without shifting financial liability onto taxpayers or surrounding communities.** To ensure the company bears the true cost of cleaning up the contamination and disturbance it created, the Mining and Minerals Division (MMD) should not accept a third-party guarantee from Freeport-McMoRan as a valid financial assurance mechanism. A third-party guarantee is essentially an unsecured promise to pay, not a dedicated, reliable source of funds available for cleanup if the company faces financial hardship or bankruptcy.

Sincerely

Patrice Mutchnick

9 Airstrip Road,

Mimbres, NM 88049

Albert Chang, Director
Mining & Minerals Division, EMNRD
1220 South St. Francis Drive
Santa Fe, NM 87505
emnrd.mmd2@emnrd.nm.gov

RE: Public Comments, Chino Closure Closeout Plan Revision

Dear Director Chang,

I attended the public hearing for the Chino Closure Closeout Plan (CCP) revision on April 21, 2026. Because of potential environmental impacts caused by the CCP to surface and ground water, wildlife, air quality, and the overall health of adjacent communities in Grant County and Luna County I ask that you implement the following measures with the Plan.

- 1) Require test plots for Kessel and Rubio material before it is approved as Reclamation Cover Material.
- 2) Line Kessel Stockpile to protect groundwater.
- 3) Ensure sufficient containment around Tailings Pond #7.
- 4) Monitor surface water into Whitewater Creek.
- 5) Notify any landowners that may be within the permit boundary of the mine. In addition, landowners should be advised of any possible impacts from CCP activities.
- 6) Factor in capital replacement costs of water treatment. My concern is that the financial assurance provided by Chino is inadequate to cover reclamation costs should Freeport McMoran default (ie. go bankrupt). Total indirect costs should be calculated at a minimum of 38% if not higher. Financial assurance must not become a public liability.

Thank you for your consideration of my comments.

Sincerely

Randy Chulick
5203 Little Walnut Road
Silver City, NM
505-681-9056
gilaconglom@yahoo.com

From: [Sally Smith](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Comments: Chino Mine Permit Revision 24-2
Date: Thursday, May 7, 2026 4:54:16 PM

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Thank you for your continued oversight, detailed inspections, permitting, and monitoring.

I have lived in Grant County NM for 45 years in the vicinity of Chino Mine.

I have serious concerns about air and water quality as the mine continues to expand. The monitoring of both current and long term operations and expansions and the details of closure and long term maintenance are of utmost importance.

I fully agree with the following list of concerns for financial insurance, monitoring. I believe replacement cost and post mining land use and water treatment are also of utmost importance.

- **Ensure the reclamation plan prevents releases of toxic pollution to air, land, and water**, including requiring sufficient dust control from evaporative sprayers and lining the Kessel Stockpile now while it is being built to prevent groundwater contamination if the unit is leached in the future.
- **Require systems to fully capture and monitor contaminated groundwater at closure**, including sufficient monitoring and containment around Pond 7 to prevent pollutants from contaminating Apache Tejo area groundwater wells that will be part of the Grant County Regional Water Supply Project.
- **Financial assurance must fully cover the cost of reclamation, long-term water treatment, and perpetual care without shifting financial liability onto taxpayers or surrounding communities.** To ensure the company bears the true cost of cleaning up the contamination and disturbance it created, the Mining and Minerals Division (MMD) should not accept a third-party guarantee from Freeport-McMoRan as a valid financial assurance mechanism. A third-party guarantee is essentially an unsecured promise to pay, not a dedicated, reliable source of funds available for cleanup if the company faces financial hardship or bankruptcy.

Thank you for your continued service to the public.
Sally Smith

From: [Steve Mudge](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] Reclamation of Chino Mine
Date: Thursday, May 7, 2026 8:27:31 PM

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Too who it may concern:

Hi, this has less to do with the water and toxins concerns currently being debated and more to do with grading all the excavated soils when the mine starts ceasing operations. It's an aesthetic subject---instead of contouring the excavations pyramid style, as they currently are, would it be possible to make more natural, rounded (hilly) contours so the mine fits back into the surrounding landscape better. It would be a great gift to Silver City to have a more natural vista again. Also, I hope there are plans to hydro seed native seeds over the finished grade to hasten the regrowth of the ecosystem.

Thank you for your consideration.

Steve Mudge

From: [Janet Wallet-Ortiz](#)
To: [MMD, EMNRD, EMNRD](#)
Subject: [EXTERNAL] CHINO MINE RECLAMATION PLAN
Date: Friday, May 8, 2026 12:44:33 PM

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Re: My PUBLIC COMMENT

I have been a citizen of Grant County for over 40 years and I have seen too many issues regarding mining reclamation remain unaddressed.

I am I insisting that the powerfully wealthy company of Freeport be held to account to protect both our environment, our water and our air in their reclamation plans.

1) NMED MUST ensure that reclamation plans prevent releases of toxic pollution to air, land, and water. Part of this plan needs to include serious and sufficient dust control. In addition, the KESSEL stockpile must be LINED NOW while it is being built—to prevent underground water contamination.

2) NMED MUST require a system to fully capture AND monitor containment ground water at closure, INCLUDING sufficient monitoring and containment around Pond 7 to prevent pollutants from contaminating the Apache Tejo Area of groundwater wells that will be part of the Grant County Regional Water Supply Project—that I will be getting water from.

3) NMED MUST GUARANTEE financial assurance in the strictest interpretation of the law. It must fully cover the cost of reclamation, long-term water treatment and perpetual care without shifting financial liability onto taxpayers or surrounding communities. NO 3rd party guarantee! 3rd party guarantees ARE NOT RELIABLE!

Thank you.

Janet Wallet-Ortiz
2009 N Juniper Ave
Silver City, NM 88061

Sent from my iPhone



RE: Public Comment submitted to New Mexico Energy, Minerals, and Natural Resources in regard to Chino Mine Reclamation Plan Revision 24-2

To Whom It May Concern,

This letter is being submitted on behalf of the Silver City Grant County Chamber of Commerce.

Our Chamber represents a broad and diverse membership that cares deeply about both economic opportunity and the long-term health of our land, water, and community.

Chino Mine has played an important role in the economic foundation of Grant County for generations. Today, it continues to support approximately 980 jobs locally while generating wages, business activity, vendor spending, and tax revenues that help sustain families, small businesses, and public services throughout our region. Company materials also indicate significant broader economic benefits tied to Grant County and New Mexico operations.

We also recognize that long-term success requires responsible stewardship and thoughtful planning for the future.

We recognize that this Closure Closeout Plan update is part of the regulatory process intended to address future reclamation responsibilities, environmental safeguards, water quality considerations, and financial assurances under state oversight. We commend the process and the work Chino/Freeport has already demonstrated in carefully planning for the future.

Whatever one's views on mining, most people can agree that proper planning, accountability, and sufficient funding should be in place well in advance. We believe that Chino/Freeport is doing this.

We believe it is worth noting that substantial, quality reclamation work has already been reported at Chino and Tyrone, including more than 6,000 combined reclaimed acres of tailings and stockpiles, with recognition through reclamation and conservation awards. To us, this signals a responsible company and thus, support their current plan.

The Chamber believes a strong economy and responsible environmental practices can and must coexist. The mine is extremely important to our economy in southwestern New Mexico.

We support a fair, thorough, and timely review of this Closure Closeout Plan update through the regulatory process. We appreciate the opportunity for public input, and **we support a path forward that allows Chino to continue operating within a clear, accountable, and responsible framework that benefits both our economy and our community.**

Thank you,

A handwritten signature in black ink, appearing to read "Sabrina Pack".

Dr. Sabrina Pack on behalf of the Silver City Grant County Chamber of Commerce-Board Member and Past Chairman

Notes on Appendix C of
Attachment 1, GSA (2021)

William R. Norris, Botanist, Western
New Mexico University Feb. 22 2025

New
Name

#13 ~~Complanata vivipara~~
current name: Escobaria vivipara

#18 Cercocarpus montanus, native
to New Mexico but not locally.
Use Cercocarpus breviflorus
(Southwestern Mountain Mahogany),
an evergreen tree which is locally
common in Grant Co. NM

#39 Astrogolus ~~mollissimus~~
↓ spelling error
Mollissimus

New
Name

#40 ~~Bchia obtusifolia~~
current name:
Picra deniopsis obtusifolia

New
Name

#45 ~~Cryptantha ciliata~~
current name: Oreocarya
suffruticosa

#62 correct spelling:
Euphorbia serpyllifolia

New name #64

~~Glandularia bipinnatifida~~
Glandularia pubera

#66 correct spelling
Helianthus longifolia
↑

#75 Morrubium vulgare
NOT NATIVE → invasive

#71 Lactuca scariola
NOT NATIVE

#76 ~~Mentzelia pumila~~
~~not New Name~~
Mentzelia rusbyi

#87 Solanum elaeagnifolium
NOT NATIVE → invasive

#95 Verbascum thapsus
NOT NATIVE → invasive

~~Cylindropuntia spinosior~~
14 New Name: *Cylindropuntia imbricata*
Var. *spinosior*

90 *Sonchus arvensis*
→ NON-NATIVE

State of New Mexico. The GSA survey report is included as *Appendix C* of **Attachment 1**. GSA (2021) developed a list of the 114 plant species encountered during survey of the Assessment Area and their relative abundance. This list is presented in **Table 1** below.

Table 1. Observed Plant Species and Their Relative Abundance in the Assessment Area (Table 2 from GSA 2021).

	Scientific Name	Common Name	Relative Abundance
	Relative Abundance: A=Abundant; C=Common; U=Uncommon; S=Sparse		
	Trees		
1	<i>Juglans major</i>	Arizona walnut	S
2	<i>Juniperus deppeana</i>	alligator juniper	C
3	<i>Pinus edulis</i>	piñon pine	C
4	<i>Prunus serotina</i>	chokecherry	S
5	<i>Quercus emoryi</i>	Emory oak	C
6	<i>Quercus grisea</i>	gray oak	A
	Shrubs		
7	<i>Agave parryi</i>	Parry's agave	S
8	<i>Ageratina herbacea</i>	fragrant snakeroot	U
9	<i>Arctostaphylos pungens</i>	manzanita	U
10	<i>Atriplex canescens</i>	fourwing saltbush	U
11	<i>Baccharis pteronioides</i>	yerba de pasmo	C
12	<i>Brickellia californica</i>	California brickellbush	C
13	<i>Coryphantha vivipara</i>	Arizona spiny star	S
14	<i>Cylindropuntia spinosior</i>	cane cholla	U
15	<i>Dasylerion wheeleri</i>	sotol	U
16	<i>Ericameria laricifolia</i>	turpentine bush	S
17	<i>Ericameria nauseosa</i>	rubber rabbitbrush	C
18	<i>Cercocarpus montanus</i>	Mountain mahogany	C
19	<i>Fallugia paradoxa</i>	Apache plume	C
20	<i>Eriogonum wrightii</i>	Wright's buckwheat	C
21	<i>Garrya wrightii</i>	Wright's silktassel	C
22	<i>Gutierrezia sarothrae</i>	broom snakeweed	A
23	<i>Isocoma tenuisecta</i>	burroweed	U
24	<i>Lonicera albiflora</i>	western white honeysuckle	S
25	<i>Lycium pallidum</i>	pale wolfberry	S
26	<i>Mimosa biuncifera</i>	catclaw mimosa	A
27	<i>Nolina microcarpa</i>	beargrass	U
28	<i>Opuntia chlorotica</i>	pancake pricklypear	U
29	<i>Quercus turbinella</i>	shrub live oak	C
30	<i>Rhus trilobata</i>	three-leaf sumac	C
31	<i>Yucca bacata</i>	banana yucca	U
32	<i>Yucca elata</i>	soaptree yucca	U
	Forbs		
33	<i>Acemispson</i> (syn.= <i>Lotus</i>) <i>wrightii</i>	Wright's deervetch	U

	Scientific Name	Common Name	Relative Abundance
34	<i>Ambrosia acanthicarpa</i>	flat-spine burr-ragweed	U
35	<i>Argemone pleiacantha</i>	Southwestern pricklypoppy	U
36	<i>Artemisia carruthii</i>	Carruth's sagebrush	A
37	<i>Artemisia dracunculus</i>	tarragon	U
38	<i>Artemisia ludoviciana</i>	silver sagewort	U
39	<i>Astragalus mollossimus</i>	woolly locoweed	U
40	<i>Bahia absinthifolia</i>	hairseed bahia	S
41	<i>Baileya multiradiata</i>	desert marigold	S
42	<i>Cirsium neomexicanum</i>	New Mexico thistle	U
43	<i>Comandra umbellata</i>	bastard toadflax	S
44	<i>Croton texensis</i>	doveweed	S
45	<i>Cryptantha cinerea</i>	James' cryptantha	S
46	<i>Cucurbita foetidissima</i>	buffalo gourd	S
47	<i>Dalea sp.</i>	prairie clover	S
48	<i>Datura wrightii</i>	sacred datura	S
49	<i>Dieteria asteroides</i>	fall tansy-aster	C
50	<i>Dyssodia papposa</i>	fetid marigold	U
51	<i>Bouchera sp.</i>	rockcress	U
52	<i>Brickellia eupatorioides</i>	false boneset	U
53	<i>Brickellia floribunda</i>	Chihuahuan brickellbush	U
54	<i>Brickellia lemmonii</i>	Lemmon's brickellbush	U
55	<i>Chaetopappa ericoides</i>	rose heath	U
56	<i>Erigeron neomexicanus</i>	New Mexico fleabane	S
57	<i>Eriogonum alatum</i>	winged buckwheat	S
58	<i>Eriogonum jamesii</i>	James' buckwheat	U
59	<i>Eriogonum polycladon</i>	sorrel buckwheat	S
60	<i>Euphorbia albomarginata</i>	whitemargin spurge	S
61	<i>Euphorbia revoluta</i>	threadstem spurge	S
62	<i>Euphorbia serpyllifolia</i>	thyme-leaf sandmat	S
63	<i>Evolvulus sericeus</i>	silver dwarf morningglory	S
64	<i>Glandularia bipinnatifida</i>	Dakota mock vervain	U
65	<i>Grindella arizonica</i>	Arizona gumweed	U
66	<i>Heliomerus longifolia</i>	longleaf false goldeneye	U
67	<i>Heterotheca subaxillaris</i>	camphorweed	U
68	<i>Hymenopappus filifolius</i>	fineleaf hymenopappus	U
69	<i>Hymenothrix wrightii</i>	Wright's thimblehead	U
70	<i>Hymenoxys richardsonii</i>	pingue	U
71	<i>Lactuca serriola</i>	prickly lettuce	U
72	<i>Lappula occidentalis</i>	flatspine stickseed	U
73	<i>Lepidium sp.</i>	pepperweed	S
74	<i>Machaeranthera tanacetifolia</i>	tanseyleaf tansyaster	U
75	<i>Marrubium vulgare</i>	horehound	S

	Scientific Name	Common Name	Relative Abundance
76	<i>Mentzelia multiflora</i>	Adonis blazingstar	S
77	<i>Mentzelia pumila</i>	dwarf mentzelia	S
78	<i>Noccaea fendleri</i>	alpine pennycress	U
79	<i>Packera neomexicana</i>	New Mexico groundsel	U
80	<i>Pectis angustifolia</i>	lemonscent	S
81	<i>Pectis filipes</i>	five-bract chinchweed	S
82	<i>Penellia micrantha</i>	mountain cross	S
83	<i>Penstemon barbatus</i>	beardlip penstemon	S
84	<i>Penstemon linarioides</i>	toadflax beardtongue	S
85	<i>Physaria</i> sp.	bladderpod	S
86	<i>Plantago patagonica</i>	woolly plantain	S
87	<i>Salsola tragus</i>	Russian thistle	U
88	<i>Senecio flaccidus</i>	threadleaf groundsel	S
89	<i>Solanum elaeagnifolium</i>	silverleaf nightshade	S
90	<i>Sonchus asper</i>	spiny-leaf sow-thistle	S
91	<i>Sphaeralcea digitata</i>	juniper globemallow	S
92	<i>Sphaeralcea fendleri</i>	Fendler's globemallow	S
93	<i>Sphaeralcea laxa</i>	caliche globemallow	S
94	<i>Stephanomeria pauciflora</i>	brownplume wirelettuce	S
95	<i>Verbascum thapsus</i>	common mullein	U
96	<i>Verbesina encelioides</i>	golden crownbeard	S
97	<i>Xanthisma gracile</i>	grass-leaf sleepy daisy	U
98	<i>Xanthisma spinulosum</i>	lacy sleepy daisy	S
99	<i>Zinnia grandiflora</i>	Rocky Mountain zinnia	U
Graminoids			
100	<i>Aristida purpurea</i>	purple threeawn	C
101	<i>Bothriochloa barbinodis</i>	cane bluestem	U
102	<i>Bouteloua curtipendula</i>	sideoats grama	C
103	<i>Bouteloua eriopoda</i>	black grama	A
104	<i>Bouteloua gracilis</i>	blue grama	C
105	<i>Bouteloua hirsuta</i>	hairy grama	U
106	<i>Carex</i> sp.	sedge	S
107	<i>Festuca arizonica</i>	Arizona fescue	U
108	<i>Muhlenbergia emersleyi</i>	bullgrass	C
109	<i>Muhlenbergia longiligula</i>	long-tongue muhly	U
110	<i>Muhlenbergia torreyi</i>	ring muhly	S
111	<i>Piptochaetium fimbriatum</i>	piñon ricegrass	S
112	<i>Schizachyrium scoparium</i>	little bluestem	S
113	<i>Scleropogon brevifolius</i>	burro grass	S
114	<i>Sporobolus cryptandrus</i>	sand dropseed	C
Relative Abundance: A=Abundant; C=Common; U=Uncommon; S=Sparse			

Emma Pit

Reclamation of the disturbed area shall be initiated as soon as possible following the completion or abandonment of the exploration operation, unless the disturbed area is included within a complete permit application for a new mining operation.

- A. Provide a description of the native vegetation of the area to be disturbed. Include tree, shrub and grass communities of the area.

Mixture of multiple plant communities including alluvial grasslands primarily composed of tarragon, blue grama, purple three-awn Apache plume, and bricklebush. Also included are Piedmont scrub savannas consisting of grama grasses, beargrass, broom snakeweed and mimosa. Lastly, the area includes some mountain slope mixed evergreen woodlands dominated by oak and juniper species.

- B. Describe the topsoil or topdressing depth and how topsoil or topdressing will be salvaged, stockpiled and distributed for the re-establishment of vegetation.

Mixture of coarse loamy and sandy Haplustolls and Torrifluvents, loamy skeletal, clayey-skeletal, and fine aridic Haplustaffs and Haplustolls ranging from a few inches to a few feet in thickness.

Where practical, topsoil will be stripped and staged near the drill pad for use in reclamation. Depending on the slope of the pad location, the topsoil may be needed for construction of the pad so additional material does not have to be brought in from borrow sources at Tyrone.

- C. Describe in detail the plant species to be used in the re-establishment of vegetation.

Plant name	Seeding Rate (lbs./acre)
<u>Blue grama</u>	1
<u>Sideoats grama</u>	2
<u>Sand dropseed</u>	0.25
<u>Indian ricegrass</u>	2
<u>Purple prairie clover</u>	2
<u>Scarlet globemallow</u>	1

- D. Provide the methods to be used during revegetation operations and provide a schedule of when the operations are to begin and end.

Once the project is fully completed and it is determined that no additional exploration drilling will take place, pads and roads (excluding roads that are

June 2020

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites

This is an etch,
grass not active
the under sites

Species ^a	Scientific Name	Common Name	Life-Form	Duration ^b	Seasonality	Rate ^{a,c}	PLS/ sq ft ^d
Primary Seed Mix							
<i>Bouteloua curtipendula</i>		Sideoats grama	Grass	Per	Warm	1.50	6.58
<i>Bouteloua eriopoda</i>		Black grama	Grass	Per	Warm	0.10	3.06
<i>Bouteloua gracilis</i>		Blue grama	Grass	Per	Warm	0.50	9.47
<i>Leptochloa dubia</i>		Green sprangletop	Grass	Per	Warm	0.25	3.09
<i>Eragrostis intermedia</i>		Plains lovegrass	Grass	Per	Intermediate	0.05	4.02
<i>Dalea candida</i>		White prairie clover	Forb	Per	NA	0.25	2.03
<i>Linum lewisii</i>		Blue flax	Forb	Per	NA	0.25	0.98
<i>Sphaeralcea</i> spp.		Globeamallow spp.	Forb	Per	NA	0.10	1.15
<i>Cercocarpus montanus</i>		Mountain mahogany	Shrub	Per	NA	1.50	1.63
<i>Fallugia paradoxa</i>		Apache plume	Shrub	Per	NA	0.10	0.96
<i>Krascheninikovia lanata</i>		Winterfat	Shrub	Per	NA	1.00	2.82
Native species is <i>Cercocarpus breviflorus</i>						Total	35.79
Alternate Seed Mix							
<i>Andropogon gerardii</i>		Big bluestem	Grass	Per	Warm	ND	ND
<i>Andropogon hallii</i>		Sand bluestem	Grass	Per	Warm	ND	ND
<i>Andropogon scoparius</i>		Silver bluestem	Grass	Per	Warm	ND	ND
<i>Aristida purpurea</i>		Purple three-awn	Grass	Per	Warm	ND	ND
<i>Bothriochloa barbinodis</i>		Cane beardgrass	Grass	Per	Warm	ND	ND
<i>Bothriochloa ischaemum</i>		Yellow bluestem	Grass	Per	Warm	ND	ND
<i>Bouteloua dactyloides</i>		Buffalograss	Grass	Per	Warm	ND	ND
<i>Digitaria californica</i>		Arizona cottontop	Grass	Per	Warm	ND	ND
<i>Heterotheca contortus</i>		Tanglehead	Grass	Per	Warm	ND	ND
<i>Hilaria belangeri</i>		Curtly mesquite	Grass	Per	Warm	ND	ND
<i>Muhlenbergia montana</i>		Mountain mulhy	Grass	Per	Warm	ND	ND
<i>Muhlenbergia porteri</i>		Bush mulhy	Grass	Per	Warm	ND	ND
<i>Muhlenbergia rigens</i>		Deergrass	Grass	Per	Warm	ND	ND

GOLDER

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites

Species ^a	Scientific Name	Common Name	Life-Form	Duration ^b	Seasonality	Rate ^c	PLS/ sq ft ^d
Alternate Seed Mix (cont.)							
	<i>Muhlenbergia torreyi</i>	Ring muhly	Grass	Per	Warm	ND	ND
	<i>Muhlenbergia wrightii</i>	Spike muhly	Grass	Per	Warm	ND	ND
	<i>Panicum obtusum</i>	Vine mesquite	Grass	Per	Warm	ND	ND
	<i>Panicum virgatum</i>	Switchgrass	Grass	Per	Warm	ND	ND
	<i>Pleuraphis jamesii</i>	Galleta grass	Grass	Per	Warm	ND	ND
	<i>Pleuraphis multica</i>	Tobosa	Grass	Per	Warm	ND	ND
	<i>Schizachyrium scoparium</i>	Little bluestem	Grass	Per	Warm	ND	ND
	<i>Setaria viridis</i>	Plains bristlegass	Grass	Per	Warm	ND	ND
	<i>Sorghastrum nutans</i>	Indiangrass	Grass	Per	Warm	ND	ND
	<i>Sporobolus airoides</i>	Alkali sacaton	Grass	Per	Warm	ND	ND
	<i>Sporobolus cryptandrus</i>	Sand dropseed	Grass	Per	Warm	ND	ND
	<i>Sporobolus giganteus</i>	Giant dropseed	Grass	Per	Intermediate	ND	ND
	<i>Sporobolus wrightii</i>	Sacaton	Grass	Per	Warm	ND	ND
	<i>Achillea millefolium</i>	Western yarrow	Grass	Per	Warm	ND	ND
	<i>Baileya multiradiata</i>	Desert marigold	Forb	Per	NA	ND	ND
	<i>Berlandiera lyrata</i>	Chocolate flower	Forb	Ann	NA	ND	ND
	<i>Calochortus 20mbiguos</i>	Desert mariposa lily	Forb	Per	NA	ND	ND
	<i>Calylophus hartwegii</i>	Lavenderleaf primrose	Forb	Per	NA	ND	ND
	<i>Castilleja integra</i>	Indian paintbrush	Forb	Per	NA	ND	ND
	<i>Castilleja sessiliflora</i>	Downy paintbrush	Forb	Per	NA	ND	ND
	<i>Coreopsis lanceolata</i>	Lanceleaf tickseed	Forb	Per	NA	ND	ND
	<i>Coreopsis tinctoria</i>	Plains tickseed	Forb	Per	NA	ND	ND
	<i>Dalea candida</i>	White prairie clover	Forb	Per	NA	ND	ND
	<i>Dalea jamesii</i>	James' dalea	Forb	Per	NA	ND	ND
	<i>Gaillardia aristata</i>	Blanket flower	Forb	Per	NA	ND	ND

→ **GOLDER**

Native to this area MT not Great Co.

June 2020

Lupinus argenteus is a NOVE LOHBY
Native lupine is SW WY. Lupinus anemonifolius

20136957

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites

Species ^a	Scientific Name	Common Name	Life-Form	Duration ^b	Seasonality	Rate ^{a,c}	PLS/ sq ft ^d
Alternate Seed Mix (cont.)							
<i>Gaillardia pulchella</i>	Firewheel	Forb	Per	NA	ND	ND	
<i>Gilia tricolor</i>	Bird's eyes	Forb	Per	NA	ND	ND	
<i>Glandularia gooddingii</i>	Desert verbena	Forb	Per	NA	ND	ND	
<i>Helianthus multiflora</i>	Showy goldeneye	Forb	Per	NA	ND	ND	
<i>Ipomopsis ambigua</i>	Scarlet gilia	Forb	Per	NA	ND	ND	
<i>Lesquerella gordonii</i>	Gordon bladderpod	Forb	Per	NA	ND	ND	
<i>Lupinus arizonicus</i>	Arizona lupine	Forb	Per	NA	ND	ND	
<i>Lupinus perenne</i>	Perennial lupine	Forb	Per	NA	ND	ND	
<i>Machaeranthera bigelovii</i> var. <i>bigelovii</i>	Bigelow's tansyaster	Forb	Per	NA	ND	ND	
<i>Machaeranthera tanacetifolia</i>	Tansyleaf tansyaster	Forb	Per	NA	ND	ND	
<i>Mirabilis multiflora</i>	Wild Four 'O Clock	Forb	Per	NA	ND	ND	
<i>Monarda citrodora</i>	Lemon beebalm	Forb	Per	NA	ND	ND	
<i>Monarda fistulosa</i>	Wild bergamot	Forb	Per	NA	ND	ND	
<i>Oenothera elata</i>	Hooker evening primrose	Forb	Per	NA	ND	ND	
<i>Oenothera macrocarpa</i>	Missouri evening primrose	Forb	Per	NA	ND	ND	
<i>Penstemon ambiguus</i>	Sand penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon barbatus</i>	Scarlet bulger	Forb	Per	NA	ND	ND	
<i>Penstemon eatonii</i>	Firecracker penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon fendleri</i>	Fendler's penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon palmeri</i>	Palmer penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon pseudospectabilis</i>	Desert penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon superbus</i>	Superb penstemon	Forb	Per	NA	ND	ND	
<i>Penstemon virgatus</i>	Wandbloom penstemon	Forb	Per	NA	ND	ND	
<i>Phacelia campanularia</i>	Bluebells	Forb	Per	NA	ND	ND	

Top 10 species aggregated by the native seed bank

Dieteria bigelovii

GOLDER

not native to southwestern WY

Native to WY to SW
not SW New Mexico

Lupinus perenne does not occur in WY

June 2020

not native to Grant Co.

Native to NW but not Grant Co.

20136957

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites						
Species ^a	Common Name	Life-Form	Duration ^b	Seasonality	Rate ^{a,c}	PLS/ sq ft ^d
Alternate Seed Mix (cont.)						
<i>Phacelia crenulata</i>	Desert bluebells	Forb	Per	NA	ND	ND
<i>Ratibida columnifera</i>	Mexican hat	Forb	Per	NA	ND	ND
<i>Rudbeckia hirta</i>	Black-eyed Susan	Forb	Per	NA	ND	ND
<i>Senecio longilobus</i>	Silver groundsel	Forb	Per	NA	ND	ND
<i>Senna covillei</i>	Desert senna	Forb	Per	NA	ND	ND
<i>Solidago canadensis</i>	Canada goldenrod	Forb	Per	NA	ND	ND
<i>Sphaeralcea ambigua</i>	Desert globemallow	Forb	Per	NA	ND	ND
<i>Sphaeralcea coccinea</i>	Scarlet globemallow	Forb	Per	NA	ND	ND
<i>Sphaeralcea grossularifolia</i>	Gooseberry globemallow	Forb	Per	NA	ND	ND
<i>Thelesperma filifolium</i>	Greenthread	Shrub	Per	NA	ND	ND
<i>Agave parryi</i>	Parry's agave	Shrub	Per	NA	ND	ND
<i>Amorpha fruticosa</i>	False indigo-bush	Shrub	Per	NA	ND	ND
<i>Artemisia ludoviciana</i>	White sagebrush	Shrub	Per	NA	ND	ND
<i>Atriplex canescens</i>	Fourwing saltbush	Shrub	Per	NA	ND	ND
<i>Brickellia californica</i>	Canyon bricklebrush	Shrub	Per	NA	ND	ND
<i>Calliandra eriophylla</i>	Fairy duster	Shrub	Per	NA	ND	ND
<i>Chilopsis linearis</i>	Desert willow	Shrub	Per	NA	ND	ND
<i>Dalea formosa</i>	Feather dalea	Shrub	Per	NA	ND	ND
<i>Dasyliiron wheeleri</i>	Sotol	Shrub	Per	NA	ND	ND
<i>Erimacra nauseosa</i>	Rubber rabbitbrush	Shrub	Per	NA	ND	ND
<i>Lycium pallidum</i>	Wolfberry	Shrub	Per	NA	ND	ND
<i>Mahonia repens</i>	Creeping Oregon grape	Shrub	Per	NA	ND	ND
<i>Nolina microcarpa</i>	Beargrass	Shrub	Per	NA	ND	ND
<i>Rhus trilobata</i>	Skunkbush sumac	Shrub	Per	NA	ND	ND
<i>Ribes leptanthum</i>	Canyon gooseberry	Shrub	Per	NA	ND	ND

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The species *A. filifolia* is not native to SW NW
 The species *R. trilobata* is the common species

June 2020

20136957

Table 6-1: Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites

Species ^a	Scientific Name	Common Name	Life-Form	Duration ^b	Seasonality	Rate ^{a,c}	PLS/ sq ft ^d
Alternate Seed Mix (cont.)							
	<i>Robinia neomexicana</i>	NM locust	Shrub	Per	NA	ND	ND
	<i>Yucca baccata</i>	Broadleaf yucca	Shrub	Per	NA	ND	ND
	<i>Yucca elata</i>	Soap tree yucca	Shrub	Per	NA	ND	ND
	<i>Yucca elata</i>	Spanish bayonet	Shrub	Per	NA	ND	ND

Notes:

- ^a Seed mix and rates are subject to change based on future investigations
- ^b Per - Perennial; Ann = Annual
- ^c Rate is in pounds of pure live seed (PLS) per acre; substitutions may change seeding rates
- ^d PLS/sq ft = Pure live seed per square foot, estimated based on published values for seeds per pound
- lb/ac = pounds per acre
- NA = Not applicable
- ND = Not determined

Native to US but Great Co.