

State of New Mexico
Energy, Minerals and Natural Resources Department

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Mining and Minerals Division



Via Electronic Mail

June 7, 2024

Tyler R. Johnson, Chief Engineer
Environmental Services
Freeport-McMoRan Chino Mines Company
P.O. Box 10
Bayard, NM 88023

**RE: Conditional Approval of Updated Work Plan
FMI Pinos Altos – Cyprus Deming Tailing Impoundment,
MMD Permit No. LU008RE, Luna County, NM**

Dear Mr. Johnson:

The Mining and Minerals Division(MMD) has reviewed the 2024 Proposed Maintenance Work Plan submitted on May 31, 2024 plus supplemental work plan information provided on June 6, 2024 (2024 Updated Work Plan) by Freeport-McMoRan Chino Mines Company (FMI Chino). FMI Chino's 2024 Updated Work Plan is in response to MMD's February 29, 2024 letter requesting a work plan proposal for establishment of vegetation in area on the top surface of the former Cyprus Deming Tailing Impoundment in Luna County, NM under MMD permit No. LU008RE. MMD requested additional information on May 31, 2024, and FMI Chino provided the 2024 Updated Work Plan a few days later. The plan proposes to place 6 to 12 inches of gila conglomerate sourced from existing FMI Chino borrow areas near Hurley, NM and re-seed approximately 2 acres of the tailing impoundment, where vegetation is poorly established or absent.

After review of the 2024 Updated Work Plan, MMD hereby approves the plan with the following conditions:

1. FMI Chino must revise the 1999 approved seed mix as shown in Attachment A by eliminating showy evening primrose, and sunflower, and resetting the seeding rate to below 100 seeds per square foot. Additional native plant species may be substituted or added, depending on the seed availability. For example, adding galleta/tobosa grass or other grasses, forbs and shrubs listed in Attachment B seed mix for an adjacent Deming site.

June 7, 2024

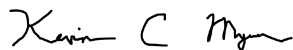
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2. FMI must notify MMD and the New Mexico Environment Department Mining Environmental Compliance staff in Silver City via email with brief weekly updates beginning with the start of implementation of the work plan.
3. Within 90 days after completion of the seeding and mulching, FMI must provide MMD an as-built figure(s) and construction completion summary report that details activities, such as the following: equipment used, actual quantities of gila conglomerate hauled, map of area(s) where gila conglomerate placed, whether rills/erosion features were filled, photographs of the construction, final seed list with seeding rate, quantity of mulch, seeding method and reclamation of access roads or staging areas.

MMD will likely schedule a site inspection during implementation of the 2024 Updated Work Plan or shortly after the seeding is complete.

If you have any questions concerning this letter, please call 505-490-0726.

Sincerely,



Kevin Myers
Hydrologist, Permit Lead MMD No. LU008RE
Mining Act Reclamation Program/MMD

cc: Sherry Burt-Kested, Manager FMI Chino
Christian Krueger, Environmental Services, FMI Chino
Libia Gonzalez, Senior Reclamation Engineer, FMI
Matt Gutierrez, Reclamation and Closure Specialist, FMI Chino
Lynn Lande, Chief Environmental Engineer, FMI Discontinued Operations
DJ Ennis, Program Manager, MARP/MMD
Joe Fox, Program Manager, MECS/NMED
Anne Maurer, Mining Act Team Leader, NMED
Sean Madden, Water Resources Specialist, NMED

DEMING TAILING SEED MIX AND RATES

Species	Common Name	lbs/ac ^a
Grasses		
<i>Bouteloua gracilis</i> (Hachita)	Blue grama	2.0
<i>Bouteloua curtipendula</i> (Vaughn)	Sideoats grama	4.0
<i>Eragrostis intermedia</i>	Plains lovegrass	1.0
<i>Sporobolus cryptandrus</i>	Sand dropseed	0.5
Shrubs		
<i>Prosopis juliflora</i>	Mesquite	1.0
<i>Atriplex canescens</i>	Fourwing saltbush	6.0
Forbs		
<i>Oenothera speciosa</i>	Showy evening primrose	0.5
<i>Sphaeralcea imbigua</i> ambigua	Desert globemallow	0.25
<i>Helianthus annuus</i>	Sunflower	1.0
Total		16.25

^a Rate is in pounds of pure live seed (PLS) per acre (lb/ac); substitutions may change seeding rates

1999 seed mix would have over 130 seeds per square foot. Recommend adjustments to approximately 40-60 seeds per square foot. Substitutions and additions may be made using Attachment B depending on seed availability.

B. Seed Mix

Plant Species			Grass	Seeding Rate
Common Name	Scientific Name	Duration	Seasonality	lbs PLS/ac
Grasses				
Alkali sacaton	<i>Sporobolus airoides</i>	Perennial	Warm	0.1
Spike dropseed	<i>Sporobolus contractus</i>	Perennial	Warm	0.1
Purple threeawn	<i>Aristida purpurea</i>	Perennial	Warm	0.3
Sand dropseed	<i>Sporobolus cryptandrus</i>	Perennial	Intermediate	0.1
Sideoats grama	<i>Bouteloua curtipendula</i>	Perennial	Warm	1.0
Plains lovegrass	<i>Eragrostis intermedia</i>	Perennial	Warm	0.5
Black grama	<i>Bouteloua eriopoda</i>	Perennial	Warm	0.5
Shrubs				
Fourwing saltbush	<i>Atriplex canescens</i>	Perennial	NA	0.5
Broom dalea	<i>Psoralea scoparius</i>	Perennial	NA	0.5
Desert willow	<i>Chilopsis linearis</i>	Perennial	NA	0.1
Longleaf jointfir	<i>Ephedra trifurca</i>	Perennial	NA	0.2
Whitethorn acacia	<i>Vachellia constricta</i>	Perennial	NA	0.2
Soap tree yucca	<i>Yucca elata</i>	Perennial	NA	0.6
Forbes				
Desert marigold	<i>Baileya multiradiata</i>	Annual/pere.	NA	0.2
Desert globemallow	<i>Sphaeralcea ambigua</i>	Perennial	NA	1.0
Prairie aster	<i>Machaeranthera tanacetifolia</i>	Perennial	NA	0.2
Prairie coneflower	<i>Ratibida columnifera</i>	Perennial	NA	0.2
Desert Penstemon	<i>Penstemon psuedospectabilis</i>	Perennial	NA	0.2
See Below			Approximately 6.5	
<p>Final seed mix subject to availability of seeds, and proposed changes must be approved by MMD. Seed mixes should preferentially include native, perennial plants. A general rule of thumb is 20 to 40 pure live seed (PLS) per square foot – drilled seed, and 40 to 60 PLS per square foot – broadcast. When broadcasting seed, higher rates are usually recommended because fewer of the seed will end up at optimum burial depth. Generally speaking seeding rates are doubled if seed is broadcast.</p>				