



Tyrone Operations
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January 4, 2020

Via Electronic
Certified Mail #9171999991703580009530
Return Receipt Requested

Mr. David Otori
Energy, Minerals and Natural Resources Department
Mining and Minerals Division
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Otori:

**Re: Response to Comments on Little Rock Updated
Closeout Plan, Revision 20-1 to Permit No. GR007RE**

Freeport-McMoRan Tyrone Inc. (Tyrone) submitted an update to the Little Rock Closure/Closeout Plan (CCP) on June 20, 2020. The application was deemed administratively complete on July 6, 2020 by the Mining and Minerals Division (MMD). In a letter dated November 3, 2020, MMD provided comments and forwarded comments from the other agencies and the public to Tyrone. This letter is in response to the comment letters.

Below are MMD's comments (in italics) followed by Tyrone's responses.

1. *Section 1.6, Proposed Modifications to Permit Boundary and Open Pit Design Limit, page 4 of the Updated CCP states that Tyrone proposes to expand the Little Rock Mine Permit Boundary by 348 acres and the Mine Area Design Limit by 558 acres as shown in Figure 1-3 of the Updated CCP. The proposed expansion of the Permit Boundary and the Design Limit shows large, undisturbed areas within these boundaries near the Whitewater Canyon and the California Gulch located to the north and west of the proposed 2024 extent of mine disturbance. If Tyrone proposes future mine disturbance in these undisturbed areas, MMD will require a closeout plan and financial assurance for the proposed disturbance(s) and Tyrone will be required to apply for a permit modification or revision to the Little Rock Mine permit.*

In addition, if Tyrone performs exploration drilling in the undisturbed areas located within the expanded Permit Boundary, MMD will require that Tyrone provides adequate financial

assurance to plug and abandon the exploration drill holes and reclaim the surface disturbance at the drill sites and exploration access routes.

Tyrone will continue to follow all legal and permit requirements under these scenarios.

- 2. Section 2.1.4.2, Substation, Concrete Slabs, and Powerlines, page 7 of the Updated CCP states that Power poles will be left in place to serve as raptor perches after reclamation. See New Mexico Department of Game and Fish ("NMDG&F") comments attached. MMD concurs with the NMDG&F comments and does not support leaving power poles in-place after reclamation as raptor perches.*

MMD has repeatedly approved (with New Mexico Department of Game and Fish (NMGF) review and approval) leaving power poles at closeout to promote wildlife habitat for the past 20 years, including in 2014.

Although Tyrone disagrees with MMD and NMGF's decision for a variety of reasons, Tyrone will include FA for the removal of power poles at closure.

- 3. Section 2.3.4.1, Surface Water, page 11 of the Updated CCP states that, A diversion channel will be constructed during closure to convey surface water flows from Deadman Canyon along the eastern portion of the open pit. Figure 1-3, Proposed Changes to Mining Area Design Limit and Little Rock Mine Permit Boundaries, shows an alignment of the Deadman Canyon Diversion. Is the alignment of the Deadman Canyon Diversion shown in Figure 1-3 representative of the diversion channel constructed at mine closeout as stated in Section 2.3.4.1?*

Yes, Figure 1-3 shows the projected alignment of the Deadman Diversion at closure.

- 4. Section 2.3.8, Overburden Materials, page 15 of the Updated CCP states that the Little Rock mine topsoil salvaging plan will identify and salvage topsoil resources. Tyrone should include in the topsoil salvaging plan the recovery the cover material currently covering the reclaimed Copper Leach Stockpile and P-Plant area (as applicable) for use in future reclamation of the mine. MMD requests that Tyrone submit the topsoil salvaging plan including the proposed location(s) for storage of the Copper Leach Stockpile cover material and topsoil. The topsoil salvaging plan should include methods for preservation of the topsoil and salvaged cover material (i.e., seeding and preventing erosional loss).*

Tyrone will apply the topsoil salvaging plan found in Sections 2.1.2 and 2.3.8 of the Updated CCP to the cover material located on the top surface of the reclaimed Copper Leach Stockpile and P-Plant area (as applicable). Topsoil identified at the Little Rock area will be salvaged and stored at locations close to facilities to be reclaimed in the future. A map with specific locations will be provided once salvaging is completed. From

experience, topsoil stockpiles have self-revegetated due to the presence of seeds in the soil. Tyrone intends to allow the topsoil stockpiles to self-revegetate. The cover material at Little Rock has sufficient erosion resistance to prevent most erosion but will be stockpiled and graded in a manner to minimize erosion. Erosion control measures will be installed around the base of the stockpile to prevent offsite movement of stockpiled materials.

5. *Section 3.1.2.2, Ground Water Flow Modeling Results, page 17 to 18 of the Updated CCP provides some of the pit lake conditions following closeout on the mine. Please provide the approximate total surface area and volume of water that the pit lake is predicted to contain at 30 years following mine closeout and the approximate pit lake water volume of water at 80 years after mine closeout. In addition, although Sheet 3, Proposed Mine Layout Post Reclamation of Appendix A of the Updated CCP depicts the pit lake, it would be helpful for Tyrone to provide a figure, similar to Figure 2-1, EOY ["End of Year"] 2024 Little Rock Mine Facilities and Mine Permit Boundaries of the Updated CCP that shows the pit lake at EOY 2024.*

Dewatering of the Tyrone pits results in the water table approximately 112 feet below the Little Rock pit bottom at EOY 2024. Once Tyrone dewatering stops, the water table will rebound and then the pit will begin to fill with water. At 30 years and 80 years following mine closeout, the Little Rock Pit Lake is predicted to cover approximately 37.8 acres and 39.2 acres, respectively. The predicted volume of water contained within the Little Rock Pit Lake is 1,861 acre-feet at 30 years and 2,207 acre-feet at 80 years. There will be no pit lake at EOY 2024 to show on a figure. However, we can provide figures showing the pit lake at 80 years following closure. An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

6. *Section 3.1.5, Infrastructure and Other Miscellaneous Facilities, page 20 of the Updated CCP states that, an additional 10 acres of area will be included in the reclamation cost estimate for allowance for additional disturbed areas within the Mine Permit area. Please specify the rationale used to determine that 10 acres of additional disturbed area in the reclamation cost estimate will be adequate. Additionally, for the purposes of the reclamation cost estimate, will the reclamation costs for the additional 10 acres of disturbed area include costs for applicable regrading, stormwater handling features, and cover material placement if the additional disturbed area(s) includes stockpiles?*

Tyrone did not intend these 10 acres to include stockpile regrading, etc. We will remove the phrase "stockpile expansions" from the paragraph in the CCP update. This update will be submitted along with the reclamation cost estimate within 45 days of this letter.

These additional 10 acres are intended to add costs for unforeseen minor peripheral disturbances that occasionally are needed for a mine operation. The selection of the size 10 acres is based on Tyrone's experience operating the Little Rock Mine over the past 10 years. The intent is to avoid long permitting processes and financial assurance adjustments for minor projects that were not

identified specifically in this CCP update. These projects typically only require costs for very minor grading, ripping and seeding, and so Tyrone is not including typical costs associated with stockpiles. Stockpile reclamation costs are completely covered in the cost estimate for the facilities identified in Section 3.1.1.

7. *Section 3.2.1, Stockpiles, Stockpile Cover and Revegetation, page 21 of the Updated CCP, states, Areas where the seedbed has limited fines and are rocky will receive four (4) inches of additional fine-grained cover material (obtained locally) to improve seedbed conditions. Please explain the rationale for determining that 4-inches of additional fine-grained cover material will be sufficient (as opposed to a greater thickness) to improve seedbed conditions during reclamation and explain the criteria that will be used to decide where it is necessary to place this additional cover material. Define what "fine-grained cover material" is in terms of U.S. Department of Agriculture ("USDA") size and textural parameters, specify the location(s) where the fine-grained cover material will be obtained and specify how Tyrone will excavate and apply these cover materials.*

This is not a new concept and has been approved in previous permits, including Permit GR007RE Revision 14-1. Tyrone provided the rationale for determining the thickness in an email dated November 19, 2015, related to this topic leading to approval of previous CCPs and permits. This concept was developed based on actual experience at various reclamation projects at Freeport sites, but also specifically at the USNR test plots and reclamation demonstration area where run-of-mine cover material from the active Little Rock pit was direct hauled and applied to the USNR reclamation site. During this project only approximately 4% of the cover material surface was too coarse for drill seeding, so Tyrone hauled in fine grained material and successfully remediated these small areas by applying an average of 4 inches of material that provided an adequate seed bed. This specification has been validated by in-the-field experience. The fine-grained material can be any material that meets the cover material criteria that Tyrone has always applied for reclamation, the USDA and size parameters being:

Top Surface: Loamy sands, sandy loams and sandy clay loams to 25% clay, 10 to 70% rock
Slopes: Loamy sands and sandy loams to 20% clay, 25 to 70% rock

In practice, Tyrone will generally select materials having lower amounts of rock to increase the fine-earth fraction (< 2mm) in the seedbed. The waste rock stockpiles left at Little Rock will largely meet these criteria, so the reclamation contractor will be able to find plentiful "fine-grained material" within any of the stockpiles themselves that are being reclaimed, the north waste rock stockpile and salvaged cover material or "topsoil" stockpiles.

8. *a. Section 3.2.2, Open Pit, page 21 of the Updated CCP states, The performance objectives for closure/closeout of the Little Rock open pit includes establishment of a self-sustaining ecosystem, and, The Pit configuration at the EOY 2024 will encompass approximately 260 acres. Where applicable, please specify and describe the areas within the open pit that Tyrone proposes will not be actively reclaimed (e.g., open pit highwalls, etc.). Tyrone should also state why these areas will not be actively reclaimed.*

All areas within the Little Rock Pit will be reclaimed as wildlife habitat. Appendix A Sheet 12 shows the areas that are projected to be covered by a pit lake and areas to be revegetated, as well as areas that cannot be revegetated (only highwalls and small areas close to highwalls that cannot be accessed safely). However, Tyrone takes issue with the terminology used in this comment because no area is exempt from achieving the PMLU of wildlife habitat. Tyrone has made it clear for the past 20 years that the open pit highwalls mimic canyon walls in the nearby life zone around Little Rock, and therefore provide valuable habitat for flora and fauna that utilize canyon walls [cliffs and talus slopes] (for example fauna includes, but is not limited to, insects, birds, reptiles and even mammals such as squirrels, porcupines and desert bighorn sheep). The active reclamation steps associated with highwalls and the open pit are listed in Table 3-2 of the CCP and include providing fencing and signage to discourage human access for safety purposes. These concepts have been approved and encouraged by MMD for the past 20 years including in Permit GR007RE Revision 14-1.

b. Figure 6-1, Proposed Wildlife Habitat Post Mine Land Use ["PMLU"] Area shows that the entire mine area is proposed as wildlife habitat following mine closeout. Figure 6-2, Disturbance Areas at the EOY 2024, shows Existing Unit and New Unit areas of the mine including the proposed open pit and stockpile disturbances at EOY 2024. Section 19.10.5.507.A NMAC, Performance and Reclamation Standards and Requirements, provides the performance and reclamation standards for Existing Unit disturbances. Section 19.10.5.508 NMAC, New Units, provides the performance and reclamation standards for New Unit disturbances. Figures 6-1 and 6-2 of the Updated CCP indicate that the entire proposed Little Rock Mine area will have a wildlife PMLU and the proposed disturbed area will meet either the Section 507.A or Part 508 performance and reclamation standards. If Tyrone intends to leave any disturbed areas such as open pit highwalls at the Little Rock Mine un-reclaimed, Figures 6-1 and 6-2 should be revised to show these areas.

All the Little Rock pit will be reclaimed as a wildlife PMLU. See answer to 8.a.

9. *Section 3.2.5, Infrastructure and Other Miscellaneous Facilities, page 22 of the Application states that, Utility poles associated with the power line will be left in place as bird perches to support the designated Lost Mine Land Use. Please see Comment #2, above.*

See Tyrone's response to comment number 2.

10. *Section 4.1, Stockpiles, page 23 of the Updated CCP states, the stockpiles will (or are) composed of non-acid generating material overburden waste rock. Tyrone has proposed regrading the Little Rock Mine waste rock stockpiles, providing stormwater controls and revegetating the stockpiles with no additional vegetative cover material other than providing 4- inches of fine-grained cover material in places to improve seedbed conditions*

where needed (see Comment #6 above). MMD requires that Tyrone has a current approved material handling plan to assure that acid generating rock will not be placed on the stockpiles. In addition, MMD has not yet approved the pre-Cambrian waste rock overburden material from the Little Rock Mine as suitable vegetative cover material. This material is currently being evaluated as a vegetative cover material at the USNR test plots at the Tyrone Mine and the results of these test plots are not yet known. Depending on the results of these test plots, Tyrone may be required to propose an alternative vegetative cover material and revise the closeout plan and financial assurance for the Little Rock Mine.

Tyrone has a material characterization and handling plan that was approved by the New Mexico Environment Department Groundwater Quality Bureau on June 8, 2016. As MMD correctly indicated, the USNR test plot is evaluating the suitability of Precambrian Granite as a cover material and is in its fifth year. Tyrone has been providing study results of the test plot to the MMD annually. The test plot has shown great success in plant establishment and is on trajectory to meeting the MMD vegetation success standards. Tyrone is confident that based on the USNR test plots performance, Precambrian Granite will be approved as a reclamation cover material.

11. *Section 4.2.2, Planned Closure/Closeout Activities [Open Pit], page 24 to 25 of the Updated CCP provides information on the closeout of the open pit. MMD requests that Tyrone justify how the closeout plan for the open pit proposed in the Updated CCP will meet a PMLU or self-sustaining ecosystem ("SSE") pursuant to 19.10.5.507.A NMAC, and why Tyrone is not seeking a waiver pursuant to 19.10.5.507.B NMAC for the open pit. Also, please see Comment #7a, above.*

Tyrone assumes that the last reference above should be Comment #8a, rather than #7a. Tyrone provided the reasons why we have not applied for a waiver for the Little Rock Pit in the past in letters dated April 17, 2015 and July 21, 2015. To summarize, Tyrone's original intent was to seek a waiver for the open pit; however, MMD asked Tyrone directly not to seek a waiver and indicated a willingness to approve a combination of revegetated surfaces, pit lake and highwalls as part of the wildlife habitat PMLU.

Tyrone has also provided justification for how the CCP meets the SSE PMLU in previous CCPs and associated correspondence numerous times over the past 20 years, and MMD's approval of the permit indicates that they have agreed with Tyrone's justifications. There is no significant change to the mine plan or nature of the CCP that has changed in the current proposal, and therefore Tyrone's plan continues to meet the requirements of 19.10.5.507.A NMAC.

Tyrone does not believe that MMD has a question about whether a reclaimed in-pit stockpile should be approved as part of the wildlife habitat PMLU, nor the pit lake if

NMED determines it meets applicable standards. The justification for the highwalls and associated areas is provided in the response to comment 8a above. Finally, all the updated information and studies concerning the geology, pit lake, reclamation success using the available materials, etc., continue to validate the proposed CCP so Tyrone continues to support this approach as the right approach.

Ultimately, Tyrone reserves the right to propose a waiver for the open pit if the agencies' determinations change; however, this change would be severely detrimental to Tyrone's business and employees due to likely delays in permitting.

12. *Section 5.4, Revegetation Success Monitoring, page 30 of the Updated CCP, provides general details on the post-reclamation vegetation monitoring that will be performed at the Little Rock Mine. Section 2.3.8, Overburden Materials, page 14 of the Updated CCP mentions the USNR test plots, however, it does not describe the treatments being tested at the test plots. MMD requests that additional information on the USNR test plots should be included in the Updated CCP that includes a brief description of the test plot treatments, a timeline of the USNR test plot construction and monitoring and provides a drawing depicting the test plots.*

The USNR test plot as-built report was submitted to the MMD and NMED in 2017 and contained a detailed description of the test plot construction and the treatments applied. The as-built report also contains the layout and design of the test plot treatments. Tyrone will add a sentence that references the as-built in the Updated CCP. The test plot reports that are submitted to the agencies annually provide monitoring results. Tyrone will respectfully request that the test plot information remain in the test plot reports instead of updating the CPP with this information.

13. *Section 6.1, Post-Mining Land Use Designation, page 32 of the Updated CCP, states that the power poles will remain in place to provide perching spots [for birds]. Please see Comment# 2, above.*

Please see Tyrone's response to comment number 2.

14. *Section 6.2, Site Specific Revegetation Success Guidelines, page 33 of the Updated CCP discusses the use of a vegetation reference area in determining revegetation success. Appendix A of Revision 14-1 to Permit No. GR007RE requires Tyrone to submit, prior to revegetation success monitoring, a suitability review for the approved vegetation reference for the Little Rock Mine, which is currently the same approved vegetation reference area for the Tyrone Mine. MMD intends to include this requirement for the revegetation success monitoring requirements of Revision 20-1.*

Comment noted. As of today, Tyrone believes that the approved reference area located on the northeast side of the Tyrone mine is still the best representation of the grass-shrubland plant community that, at the time of revegetation success monitoring, will be comparable to the reclamation's plant community structure at the Little Rock Mine after 12 years. However, Tyrone is open to further discussions on a new reference area for Little Rock, after the CCP is approved.

15. a. *Section 6.2.3, Plant Diversity, page 34 of the Updated CCP discusses the plant diversity requirements for the revegetated areas of the Little Rock Mine after mine closeout and proposes the technical standard to be used to evaluate plant diversity. It states that, site stability and erosion control are primary performance objectives. Since the PMLU for the Little Rock Mine is wildlife habitat, another primary performance objective is the establishment of vegetation that is supportive of wildlife habitat.*

Comment noted.

- b. *Section 6.2.3, Plant Diversity, page 34 of the Updated CCP does not provide a rationale for the removal of the cool season grasses from the Proposed Interim Seed Mix shown in Table 6- 1 of the Updated CCP. Section 7.3.3, Plant Diversity of the 2013 Tyrone Mine Closure/Closeout Plan Update, as revised April 29, 2020 ("Tyrone Updated CCP"), discusses the removal of the cool season grasses from the plant diversity numerical standard and the Tyrone Proposed Interim Seed Mix. Please include a similar discussion for the Little Rock Updated CCP.*

Comment noted. Tyrone will update the CCP to provide rationale for the removal of the cool season grasses from the plant diversity numerical standard and the Tyrone Proposed Interim Seed Mix. This update will be submitted along with the reclamation cost estimate within 45 days of this letter.

- c. *Table 6-3, Proposed Plant Diversity Guidelines for the Little Rock Mine, shows that the Minimum Occurrence (% cover) for shrubs to be 0.5%, however, the minimum shrub diversity occurrence proposed in Section 6.2.3 of the Updated CCP is 1%. The minimum shrub diversity occurrence approved in Revision 14-1 to Permit GR007RE for the Little Rock Mine is also 1%. Please correct the minimum shrub diversity occurrence in Table 6-3 to 1%. Also, please note that Section 7.3.3, Plant Diversity and Table 7-4 of the 2013 Updated Tyrone CCP (dated April 29, 2020) has the same discrepancy.*

Comment Noted. Tyrone will correct appropriately in the update to the CCP. This update will be submitted along with the reclamation cost estimate within 45 days of this letter.

16. *Section 7.0, Basis for Capital and Operation and Maintenance Cost Estimates, and Appendix C, Reclamation Cost Basis Summary Report of the Updated CCP, state that the reclamation cost estimate for the Updated CCP will be submitted once the scope of work is approved. MMD generally approves the scope of work for the reclamation plan presented in the Updated CCP and requests a draft of the reclamation cost estimate (see comments below). MMD believes that by reviewing the draft cost estimate prior to final approval of the scope of work and determining that the application for Revision 20-1 is technically approvable will better support MMD's processing the Application a timely manner.*

Due to the longevity of approving the CCP, Tyrone believes it is more efficient to submit a cost proposal one time using current costs versus multiple times with multiple versions of costs. Tyrone is currently building the cost estimate and will submit it within 45 days of this letter.

17. *Section 7.1, Basis for Capital Cost Estimates, page 36 of the Updated CCP shows 10 acres for the Allowance for Other Disturbed Area in the Earthwork Material Take-Off Summary table. Please see Comment #6, above.*

See response to comment number 6.

18. *Section 7.2, Basis for Operational and Maintenance Cost Estimates, Erosion Control and Monitoring, page 37 of the Updated CCP; and Section 3.6, Erosion Control and Monitoring, page 22 of Appendix C, Reclamation Cost Basis Summary Report, state that the annual erosion control and monitoring cost estimates will be based on an erosion control crew engaged for 10 days per year for the first year [after mine reclamation] and then 4 days per year for an additional 11 years. How many people are proposed for the erosion control crew?*

The erosion control crew includes 1 labor foreman, 2 laborers, 1 equipment operator, and 2 truck drivers. The crew and cost will be listed on O&M Worksheet 2 of the CCP RCE Spreadsheet. The crew costs are based on NM Department of Labor Type H (Heavy Engineering) labor rates, as referenced on page 5 of the Earthwork Cost Estimate Process Report Summary.

19. *Section 8.0, Reclamation Schedule, page 38 of the Updated CCP, states that, The EOY 2024 was chosen for the development of the CCP in that it represents the most conservative earthwork takeoff volumes and thus the highest reclamation cost estimate for the five-year period under evaluation. Please confirm that the EOY 2024 represents the highest reclamation cost estimate for the five-year period 2021 to 2025 since the processing of Revision 20-1 is likely to extend into 2021 and the consequent five-year approval period of the Updated CCP may extend into 2026.*

Yes, the EOY 2024 configuration still does represent the projected highest cost reclamation year for the next 5 years. The five-year period is not necessarily 2021 to 2025, and instead is 5 years of operating at Little Rock Mine. Based on recent information, the EOY 2024 mine configuration is likely to extend beyond 2025.

20. *Table 3-2, Summary of Key Design Criteria for Facilities to be Closed, page 2 of 2 of the Updated CCP, states that, Power poles will be left in place to serve as raptor perches after reclamation. Please see Comment #2, above.*

See response to comment number 2.

21. *Table 6-1, Proposed Interim Seed Mix and Rates for the Little Rock Mine Reclamation Sites of the Updated CCP. MMD has received comments from a botany professor at Western New Mexico University regarding whether certain plant species from the proposed seed mix (Interim Seed Mix and Alternate Seed Mix) are native to Grant County, southwest New Mexico or to the United States. The list of plant species is attached along with a letter from a resident of the Oak Grove subdivision that accompanied the list. The letter also contains several comments and questions regarding the Little Rock and Tyrone Mines. Please respond to the letter and plant species list.*

Comment noted. See response to Carol Martin's and NMGF comments below.

22. *Figure 1-2, Existing Little Rock Mine facilities and Permit Boundaries of the Updated CCP. Please provide a revised drawing with a 1 inch = 800 feet scale to facilitate the comparison with the other figures in the updated CCP.*

An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

23. *Figure 1-3, Proposed Changes to Mining Area Design Limit and Little Rock Mine Permit Boundaries of the Updated CCP. Please provide a revised drawing that more clearly shows the current boundary between the Little Rock Mine and the Tyrone Mine (i.e., the combination magenta and blue line should show the blue portion of the line in bolder thickness).*

An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

24. *a. Figure 2-1, EOY 2024 Little Rock Mine Facilities and Mine Permit Boundaries of the Updated CCP. Although this figure is intended to show the mine facilities at EOY 2024 it would be helpful to the viewer to add a line depicting the extent of the open pit at the*

predicted end of mine life. In addition, if applicable, please add a line depicting the Deadman Canyon Diversion to this figure.

An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

b. Section 3.1.2, Open Pit states that, a total of approximately 4.9 acres of accessible flat areas [are] targeted/or reclamation (Figure 2-1). Figure 2-1 in the Updated CCP does not show the proposed accessible flat areas that are targeted for reclamation. Please delineate the 4.9 acres of accessible flat areas on Figure 2-1 or another figure of the Updated CCP.

These areas can be seen in Appendix A Sheet 12. The accessible flat areas will also be added to Figure 2-1 and submitted along with the reclamation cost estimate within 45 days of this letter.

25. *Figure 6-1, Proposed Wildlife Habitat Post Mine Land Use Area of the Updated CCP. Please add a line or area depicting the projected pit lake as shown in Appendix A, Sheet 3, Proposed Mine Layout Post Reclamation.*

An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

26. *Figure 6-2, Disturbance Areas at the EOY 2024 of the Updated CCP. A gold shaded area is shown outside of the Existing Little Rock Mine Permit Boundary located to the west of the proposed NRW Waste pile. This area should be shaded green to represent part of a New Unit at EOY 2024. Please revise this figure to correct this discrepancy.*

An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

27. *Figure 4, Generalized Regional Topographic Map, showing the proximity of the Red Rock/Oak Grove Subdivision to the Little Rock Mine; Figure 5, General Minerology of Little Rock Mine; and Figure 7, Minerology Cross Sections of Little Rock Mine, were received by MMD after the submittal of the Application and Updated CCP and will supplement the Application. Cross sections A-A', B-B', and C-C' of Figure 7 show that sulfides will potentially be encountered and exposed during mining. What effect will the excavation and exposure of these sulfides have on the closeout plan?*

The potential for sulfide exposure at Little Rock has always been shown to be expected in the Little Rock pit. This is not a change. However, our assessments continue to indicate that the exposed sulfides do not change the favorable behavior of the site for closeout. Most of the sulfides are covered by the pit lake and/or in-pit stockpiles.

28. *Appendix A, Sheet 2, Proposed Mine Layout Pre-Reclamation (End of 2024), of the Updated CCP. Please add a line depicting the projected pit lake at EOY 2024 to this drawing.*

There is no pit lake at the EOY 2024. We will add dashed lines showing pit lake extents at 80 years post closure (year pit lake elevation stabilizes). An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

29. *Appendix A, Sheet 6, Deadman Diversion/East In-Pit Waste Closure Plan - Plan Views, of the Updated CCP. How will stormwater be directed off of the top surface of the East In-Pit Waste Pile?*

Stormwater that occurs on the top surface of the East In-Pit Waste stockpile will be allowed to infiltrate into the stockpile. Minor regrading of the top surface of the stockpile will take place to ensure water does not accumulate near the crest of the stockpile.

30. *Appendix A, Sheet 8, NRW Waste Closure Plan - Plan Views, of the Updated CCP. How will stormwater be directed off of the top surface of the NRW Waste Pile? The caption on the Pre-reclamation and Post-reclamation drawings list this pile as the "NWR Waste" instead of NRW Waste Pile.*

Stormwater that occurs on the top surface of the NRW Waste stockpile will be allowed to infiltrate into the stockpile. Minor regrading of the top surface of the stockpile will take place to ensure water does not accumulate near the crest of the stockpile. The caption will be corrected to "NRW Waste". An updated figure will be submitted along with the reclamation cost estimate within 45 days of this letter.

31. *Appendix A, Sheet 12, Revegetation Areas, of the Updated CCP shows the revegetated areas shaded in green. MMD notes that while the green shaded areas will be actively revegetated by Tyrone during reclamation, the North Stockpile and the West Canyon Stockpile are considered mine disturbance that was reclaimed and are required to meet the revegetation standards of Permit No. GR007RE.*

Comment noted.

32. *Appendix A, Sheet 13, Reclamation Haul Roads, of the Updated CCP, show, in part, the proposed reclamation haul routes for the Little Rock Mine. Please indicate the roads or other routes that will be maintained by Tyrone for post-closeout monitoring and maintenance.*

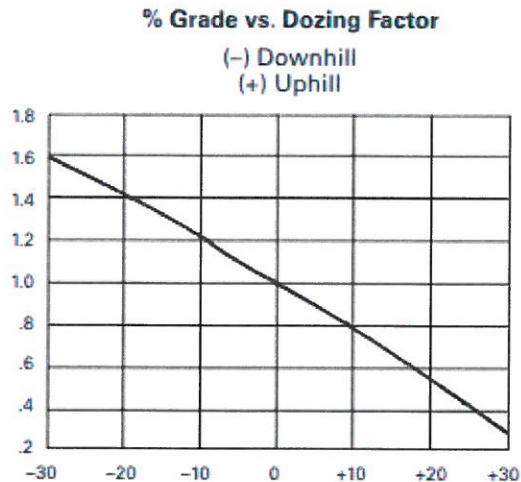
In Appendix A, Sheet 12 shows portions of the Little Rock Haul Road, Northern Haul Road, and Southern Haul Road being used for maintenance activities (areas that are not revegetated).

33. *Appendix B, Facility Characteristics Forms, West In-pit Waste Stockpile, page B-1 of the Updated CCP indicates that 49.2 acres of this waste pile will be reclaimed, however, Section 2.1.2, Waste Rock Stockpiles, page 6 of the Updated CCP states that the West In-pit Stockpile is projected to cover approximately 42.9 acres. Similarly, the NRW Waste Stockpile reclaimed area is projected to be 51.4 acres in Appendix B, while it is listed as covering approximately 40.1 acres in Section 2.1.2. Other waste stockpiles have similar differences between the Reclaimed Area and the areas that Tyrone projects the stockpile will cover as shown on page 6 of the Updated CCP. While MMD is aware that there may be a difference in the area of these waste stockpiles prior to reclamation from the reclaimed area, it would be helpful to list the pre-reclamation area and the reclaimed area for each waste stockpile in the Facility Characteristic Forms of Appendix B.*

The areas presented in Section 2.1.2 of the Updated CCP represent stockpile areas at the EOY 2024 prior to reclamation. In contrast, the areas presented in Appendix B of the Updated CCP represent reclamation areas that account for stockpile regrading associated with the reclamation plan. The final reclaimed acreages will be confirmed, and documents checked for consistency. Because the closure costs are based on reclaimed areas, including the pre-reclaimed areas may add confusion.

34. *Appendix C, Reclamation Cost Basis Summary Report, Table 2, Earthwork Equipment Production Factors, of the Updated CCP, Value for Grade Factor -Tops is 1.0 (reference CPH 48: 19-55) for 1% to 5% slopes. The CPH 48:19-55 shows that the grade factor ranges from 0.9 to 1.0 for 1 to 5% slopes, that average to a value of 0.95. Please change the Grade Factor - Tops to 0.95 or provide an explanation why a 1.0 Grade factor was chosen.*

The grade factor ranges from 0.9 to 1.0 for a positive (uphill) 1 to 5% slope but ranges from 1.0 to 1.1 for a negative (downhill) 1 to 5% slope. These slopes are graded with heavy equipment moving downhill. A grade factor of 1.0 is more conservative than a grade factor of 1.1. This value has been agreed upon in previous CCP RCE's, including Chino Mine (Telesto, 2019), 9 Waste Rock Stockpile (Telesto, 2019), Tyrone Mine (Telesto, 2020), and others.



(from CPH 48:19-55)

35. MMD received a letter, dated July 13, 2020 from the Gila Resources Information Project ("GRIP") requesting that a public hearing be held by MMD on the Application and Updated CCP pursuant to 19.10.9.904.A NMAC (copy of GRIP letter attached). MMD responded to GRIP's public hearing request in a letter, dated July 17, 2020, confirming that MMD will conduct a public hearing on Revision 20-1 to Permit No. GR007RE (copy of MMD letter attached). The date of the public hearing has not yet been set and MMD will advertise the public hearing pursuant to 19.10.9.904.B NMAC.

Comment noted.

Below are Tyrone's responses to the New Mexico Environment Department.

Comments noted and look forward to seeing NMED's comments in a future letter.

Below are Tyrone's responses to the New Mexico Air Bureau's comments.

Tyrone is currently working to update their air quality permits to include the areas within the CCP. All required permits will be obtained prior to work commencing.

Below are Tyrone's responses to the New Mexico Surface Water Bureau's (NMSWB) comments.

Tyrone has applied for the required US Army Corps of Engineers permits. Tyrone is working with the NMSWB to determine which standards apply and to show that Tyrone meets them. Tyrone will obtain all required permits prior to work commencing.

Below are Tyrone's responses to the Department of Cultural Affairs Historic Preservation Division (DCAHPD).

A cultural resource study was completed, by Westland Resources, in December 2020 on the undisturbed portions of the design limit that were not previously surveyed. A copy of the report will be sent to MMD, DCAHPD, BLM, and FS when finalized.

Below are NMGF's comments (in italics) followed by Tyrone's responses.

In Section 6.1 of the Updated Closure/Closeout Plan (CCP) FMI states, the pit lake that will form after reclamation is expected to benefit local wildlife. The Department believes that the final water quality of the pit lake cannot be predicted with any certainty, but conditions at other post mining pit lakes in the U.S. suggest that water quality would likely become hazardous to wildlife. The Department recommends that wildlife should not be encouraged or allowed to access the pit lake area. The perimeter fencing around the pit lake should be designed to exclude wildlife, having a minimum height of eight feet, and be constructed with woven wire material. The bottom of the fence should be buried 6-12 inches to prevent animals from digging underneath, and the bottom two feet above surface level should be wrapped in a durable corrosion-resistant material with a mesh size of 3/8th inch to exclude small mammals and other terrestrial wildlife. FMI also states that power poles will be left in place to provide perching spots, the Department disagrees with leaving the power poles in place and recommends that they are removed when no longer needed.

Many things go into determining whether a pit lake will or will not be hazardous to wildlife, with the primary factor being geology. There are multiple pit lakes across the US that are not hazardous to wildlife. The geology at Little Rock is very favorable to producing a pit lake that is not hazardous to wildlife, and the pit lake modeling at Little Rock indicates that the Little Rock pit lake will meet applicable standards. This is supported, not just by a model, but various current monitoring indicators; therefore, there is no reason to exclude wildlife from the pit lake and the pit lake is expected to be a beneficial feature for wildlife habitat. FMI would be happy to discuss the geologic and hydrologic conditions at the Little Rock Mine, and the associated geochemical modeling results with the NMGF's expert in this field to answer any concerns the department may have.

It is the Department's understanding that the Little Rock Mine will be using the same reference area that was originally established for the Tyrone Mine, which is located in an alluvial bottomland area. The Department believes that the current reference area may not adequately represent the undisturbed habitat that is immediately adjacent to the higher elevation Little Rock Mine. Since a mine site inspection was not conducted due to Covid-19, the Department cannot fully evaluate the possible need for a separate reference area that would be more appropriate to evaluate the revegetation success for the Little Rock Mine, and recommends that MMD may need to consider establishing a separate reference area for Little Rock.

See Tyrone's response to MMD comment 14. Note that the elevation of the No.1 Stockpile at Tyrone is identical to the elevation of the Little Rock Mine Area. The elevational difference between the reference area and Little Rock is approximately 250 feet and is relatively insignificant from an ecological perspective.

The Department concurs with the reclamation seed mix but recommends that FMI include at least two cool season grasses, even though they were dropped from the seed mix because past experience seemed to indicate poor success rates. Any alternate seeds used to substitute for primary plant species that are unavailable at the time of reclamation should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site.

Comment noted. Tyrone typically uses native species, although New Mexico mine regulation does allow for adapted non-native species. Prior to reclamation of any facility, Tyrone submits a seed mix to MMD for approval. Tyrone will continue to work with Game and Fish and the MMD to ensure successful reclamation at the Tyrone mine.

Below are Tyrone's responses to Carol Martin's comments.

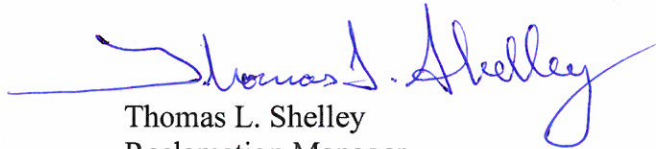
Thank you for your comments. Most of the responses to your comments are already provided in the CPP or in the responses provided in agency comments above. Tyrone, however, wants to state that the mine has an approved seed mix from the New Mexico mining regulatory agencies. The seed mix includes species that are native to the Silver City region as well as commercially available species that are endemic to New Mexico, though may not have been documented in Grant County. Seeds planted in the reclamation should have a goal of helping the reclamation meet the MMD success standards and the post mine land use of wildlife habitat. Tyrone has successfully established vegetation on over 3,000 acres and completed several test plot programs at the Tyrone mine and is in the fifth year of another test plot program at the Little Rock Mine. These test plot programs were designed to evaluate seed mixes as well as other best reclamation practices. Results from these studies guide species selection and our reclamation operations. Tyrone has made efforts to source seeds that are derived from genetic materials as close to our site as practically possible, and that is evident in the high success rate of the reclamation completed to date. Tyrone has also corresponded with suppliers from the Silver City area but has had limited success.

It should be noted that, topsoil in the vicinity of Little Rock is very shallow or nonexistent. Tyrone has, however, salvaged and used topsoil in reclamation where practicable. Tyrone will continue to work with the MMD towards successful reclamation.

Mr. David Otori
January 4, 2021
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Please contact Ms. Mandy Lilla at (575) 912-5388 if you have questions.

Sincerely,



Thomas L. Shelley
Reclamation Manager
Environmental/Sustainable Development

TLS:mjl
20210104-101

- c. Holland Shepherd – MMD
- Jerry Schoepner – MMD
- Keith Ehlert – NMED
- Kurt Vollbrecht - NMED