Electronic Transmission

May 16, 2025

Sherry Burt-Kested
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P.O. Box 10
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RE: Comments Regarding Lampbright Investigation Unit Draft Feasibility Study, Lampbright Investigation Unit (LIU), Chino AOC

Dear Sherry Burt-Kested,

The Ground Water Quality Bureau (GWQB) of the New Mexico Environment Department (NMED) received the Draft Feasibility Study (Study) dated November 5, 2024, from Freeport-McMoRan Chino Mines Company (Chino). NMED has reviewed the Study and received comments from stakeholders. The following comments are provided for Chino's revision of the Study.

General Comment:

Although this Feasibility Study (FS) follows the same format as the STSIU FS the unique nature of the LIU in terms of the lack of predicted risk makes the presentation of the information in the FS different from the STSIU. The document needs to present the information clearly and concisely to complete the FS analysis and process, and it would better support the Proposed Plan development and the public's understanding if a No Action is warranted and chosen. To accomplish this, the current Section 3 (Description of the current situation) should be provided before the current Section 2 (Regulatory components of the FS). Additionally, the current Section 3 would benefit from being organized such that the nature of releases and extent of transport are clearly summarized (e.g., include a summary of findings) as well as the risk assessment findings (e.g., include a summary that there is no risk to current site receptors under current use scenarios and the high likelihood that anticipated future receptors/uses won't change). Revising the FS to signify limited transport and no risk in the current land use scenario, codifying that abatement alternatives for sediment, surface water and groundwater under sitewide abatement and Discharge Permit 376 are fully in-place and enforceable, would allow for FS alternatives such as, General Response Actions, be limited to No Action, ICs regarding potential future land use scenarios, Monitoring, Excavation and Disposal, and In-Situ Treatment; and the screening of Excavation and Disposal, and In-Situ Treatment, could be thoroughly vetted without going in-depth into different technology options (i.e., the various amendments and phytoremediation for treatment). It would also provide a more logical flow for the presentation of the risk assessment and other data to describe the low potential risks in the LIU before discussing the ARARs etc.

NMED GWQB Specific Comments:

1. Figure 1-1. The figure could benefit from adding the boundary of the Discharge Permit to the figure and in the legend.

2. Figure 1-2. The text in Section 1.1 references a planned expansion of the South and Southwest stockpiles. Please clarify if this is the Kessel Stockpile shown in Figure 1-2.

3. P.1. (Sec 1.1). Information presented in Section 2.5 could be included in this section.

4. P. 2 (Sec 1.1). The second full paragraph mentions some areas in Martin and Rustler Canyons as having 'more persistent pools'. Perennial pools were also observed in Lampbright during the CLF investigations. These should be included in this discussion.

5. P 2. (Sec 1.1). Please rephrase the first two sentences of the Soil RAC section to: "NMED did not identify soil Pre-FS RAC for ecological or human health specific to the LIU based on the results of the risk assessments conducted in the LIU. Risk in those assessments was determined to be low for all chemicals and did not require the development of IU-specific Pre-FS RACs. NMED did state that because the receptors and soil-based exposure pathways were the same in the LIU as those assessed in the STSIU the Pre-FS RACs developed for the STSIU should be considered in the LIU FS. Those Pre-FS RACs were…"

6. P. 2. (Sec 1.1). Last paragraph. There is no Table 1 listed in the LIU FS Table of Contents. Please correct the reference.

7. P. 3. (Sec 1.1). The 5th bullet under Surface Water RAC appears to be a formatting error and should be removed to make this a paragraph.

8. P. 3. (Sec 1.1). The bullets under Sediment RAC and Groundwater RAC also appear to be formatting errors and should be removed. Under the Sediment RAC section, add a reference to the section of the document where benthic habitat is discussed.

9. P. 3. (Sec 1.1). The first sentence of the last paragraph should say; "The FS was and the Record of Decision (ROD) will be completed…"

10. P.4. (Sec 1.2). Information presented in Section 2.1 could be included in this section.

11. P.4. (Sec 1.2). The third sentence of the first paragraph references Section 1.1. Section 1.0 might serve as a better reference.

12. P. 4. (Sec 1.2). Please add a citation for the documentation of the completion of monitoring discussed in the first bullet point.

13. P. 7. (Sec 1.3). The CLF Survey discussion that begins on Page 7 should be moved to the end of Section 3.1.1. It's a Previous Investigation and it would be more appropriate to include it there instead of in the introduction to the FS. It's already referenced in the key reports in this section, a summary for only that report is out of place here.

14. P. 8. (Sec 1.3). The first sentence of the second from last paragraph should be changed to indicate that: Prior to the completion of the CLF survey, the suitability of the habitat for CLF in the LIU was largely unknown.

15. P. 8. (Sec 1.3). Please provide a reference to the source of the CLF benchmarks referenced in the 2nd to the last paragraph.

16. P. 9. (Sec 1.3). Please add; "of Lampbright Draw" after West Fork in bullet No. 1.

17. P.9. (Sec 1.4). Discharge permit requirements are called out in section title but are not discussed in text of this section.

18. P. 11. (Sec 2.1). Minor typo in the 1st sentence. Change Sections 3 to Section 3.

19. P.13. (Sec 2.2). Consider replacing "standards" in the titles of Tables 2-1 to 2-3 to "regulations".

20. P.13. (Sec 2.3). RAOs not reflective of no risk or commensurate with no action being warranted. If Section 3 is converted into the new Section 2, the RAOs can be adjusted to reflect site characterization and risk assessment findings. Additionally, ARARs could be streamlined if Section 3 is moved up.

21. P.14. (Sec 2.3). The third RAO bullet states restore water quality to water quality objectives that are protective... The text does not describe these overarching water quality objectives. Consider changing bullet to "Restore surface water quality to Pre-FS RAC for surface water…", to be consistent with rest of text.

22. P.14. (Sec 2.3). The fourth RAO bullet states restore groundwater quality to water quality objectives that are protective... The text does not describe these overarching water quality objectives. Consider changing bullet to "Restore groundwater quality to groundwater quality criteria that are protective…, to be consistent with rest of text.

23. P.16. (Sec 2.5). First use of SOW in the 1st sentence of the section. Please define.

24. P.17. (Sec 3). Section title infers that only abiotic media are addressed. Risks to ecological and human receptors are discussed in the section. Consider changing title to Summary of Current Contamination and Risk.

25. P. 18. (Sec 3.1). The last paragraph of Section 3.1 describes the wind as blowing from the north and west to the south and east. The text suggests that the soils to the east of the stockpiles would not be likely to be affected by dust emissions from the stockpiles. If the wind blows west to east, the soils to the east would be directly impacted by blowing dust. Please correct or provide more information about why the areas to the east of the stockpiles would not be affected by blowing dust.

26. P. 18. (Sec 3.1.1). This section is very repetitive with the Nature and Extent section presented later in Section 3. Suggest providing only summary discussions of the documents here (similar to what was provided in the Pre-FS RAC letter for the risk assessments) and keep the more complete discussions in the Nature and Extent section.

27. P. 19. (Sec 3.1.1). Ecological decision criteria values are referenced in the 3rd paragraph. Please provide a description of and reference to the criteria.

28. P. 20. (Sec 3.1.1). The last full paragraph discusses Pre-FS RACs. Since this is a summary of the RI findings, the Pre-FS RAC information should be removed from this section since they were not part of the RI.

29. P. 24. (Sec 3.1.1). The Sitewide ERA is discussed in the last full paragraph on the page. The relationship between the distance to the smelter and pCu effects is irrelevant in areas where smelter emissions are not included in the conceptual site model. Delete the reference.

30. Sec 3.1.1. Please add the CLF discussion currently in Section 1.3 to the end of this section.

31. P. 26. (Sec 3.1.1). Please add a reference to the discussion of habitat at these locations in this section. The photos that are shown in the introductory memo from Chino include photos of these habitats, but the photos and habitats are not clearly discussed in the FS. This discussion needs to be added and a reference to it is needed here.

32. P. 27. (Sec 3.1.3). The introductory paragraph cites Section 3.1.1 as the location for the CLF data collected after the ERA. The data are not, however, discussed in that section. Please correct taking the previous comments related to the flow of the document and the placement of the CLF information into account.

33. P. 33. (Sec 3.3). In the first paragraph, the text notes that persistent benthic habitat has not been identified at the sediment locations where PEC exceedances were observed. The cited Figure 3-33 shows only a map of the locations. No photos of the locations or descriptions of the habitat at those locations are provided. More information is needed here to clearly show the habitat at the locations where the PECs were exceeded. A better definition of what is meant by persistent benthic habitat is also needed.

34. P. 34 (Sec 4.0). In lieu of monitoring, consider Monitoring Natural Attenuation/Recovery.

35. P. 34 (Sec 4.1). The preliminary screening performed in this section does not screen some of the General Response Actions in Section 4.0.

36. P. 41 (Sec 4.2.5). With the surface water not being “relocated” for treatment and the installation of limestone features within the surface water drainage, this would be considered in-situ.

37. (Sec 5.3). Tables 5-3 through 5-5 are cited in the section. These tables are not shown in the table of contents and were not provided in the draft of the document.

Comments Received from NMED Surface Water Quality Bureau (SWQB)

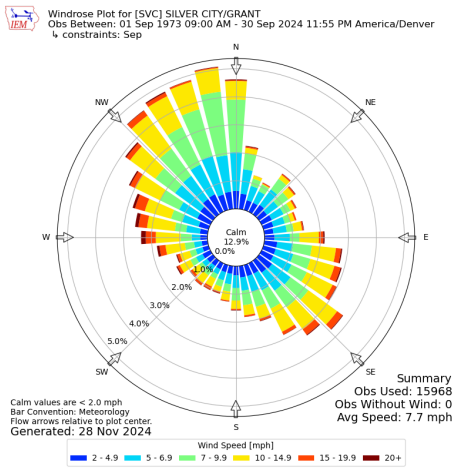
Tributary 1 and Tributary 2 of Lambright Draw, and Lampbright Draw itself are ephemeral Surface Water of the State (SWOT). Mine activities may affect SWOTS, which include ephemeral streams and all tributaries of such waters within the area of mining operations, as defined in New Mexico’s Standards for Interstate and Intrastate Surface Waters (20.6.4.7 NMAC), Ephemeral surface waters are subject to water quality criteria under 20.6.4.808 NMAC. Furthermore, operations must ensure compliance with General Criteria at 20.6.4.13 NMAC. “General criteria are established to sustain and protect existing or attainable uses of surface waters of the State. These general criteria apply to all surface waters of the state at all times… Surface waters of the State shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property.” (20.6.4.13 NMAC)

SWQB recommends selection of Alternative 2: Monitoring, as the preferred alternative. Continued monitoring of Tributary 2, outside of the sitewide abatement program would require minimal effort and could provide valuable information to inform future decisions. Discontinuing monitoring at the sites that

still exceeded criteria (LBT-11 and 2202) would eliminate potentially valuable data from analysis for future decisions.

Comments Received from the United States Fish and Wildlife Service (USFWS)

1. On page 3, under "Surface Water RAC" fourth bullet replace "endangered" with "federally listed threatened" with regards to the status of the Chiricahua leopard frog.
2. In many places throughout the document, the exceeded criteria are deemed to likely be associated with the minerology of the area or the remediation that occurred in 2007-2008, rather than any actions of the mine. Please provide additional information discussing where in the RI/FS process these decisions were reached to help readers without long-term experience at the Site understand the conditions at the Site.
3. Page 18, last paragraph before 3.1.1 – While the overall assessment of wind direction is correct, there is some seasonal variation that should be considered. During certain times of the year (e.g. September), there are significant winds that come from the South-Southeast and blow to the North-Northwest (where the reference sites are located). See image below. Data is from Silver City/Grant airport, was collected from 1973-2024, and is plotted by Iowa Environmental Mesonet. Please provide additional information from the RI/FS process to show how this was considered in the selection of the background data for the Site.



4. Page 18, last paragraph, and page 19, first paragraph. Please provide additional information from the RI/FS process to explain the justification for stating that these components (Arsenic, Aluminum, Vanadium) are not associated with ore processing?
5. Page 29, third paragraph – What about other nearby wells? It seems possible that contaminants may have migrated in other directions.
6. Page 29, fourth paragraph – this paragraph attributes the recovery of the stream to the remedial actions performed in 2007-2008, however, these remedial actions were in response to a significant release event, not the normal mining operations. The exceedances observed since 1999 suggest that the normal mining operations were the cause of the contamination, and this may have taken numerous years to accumulate before reaching levels that exceeded criteria. While the remedial actions may have removed these contaminants, how can we be sure that

ongoing operations, like the ones that initially caused the exceedances, do not continue to negatively impact this drainage in a way that will eventually see them return to pre-remedial action levels?

7. Page 48, the following statements were made in support of the monitoring alternative: “The monitoring alternative can be used to further evaluate natural attenuation of metals and the effectiveness of work performed under sitewide abatement on the sediments, as sediment concentrations are not compared to PECs under the sitewide abatement program. This would provide more certain long-term effectiveness and permanence of the protectiveness of the sediment, in addition to the protection of surface water and groundwater monitored under the sitewide abatement program”, “Limited additional effort is required to conduct this monitoring alternative”, “it allows for complete understanding of risks to aquatic life…”, and “vegetation and habitat would not be disturbed by the monitoring alternative with the exception of minor bioturbation”.

   The following statements were made against the monitoring alternative: “Greenhouse gas emissions associated with shipping samples, sampling analysis, and light vehicle use associated with the transportation of samples would occur on a limited basis” and “A disadvantage of this alternative is that it expends funds…”, and “sitewide abatement program would likely capture any new issues arising from the Stockpiles”.

   Overall, the preferred alternative section selects the No Action alternative in light of the above arguments, despite the multiple benefits offered by the monitoring alternative. The greenhouse gas emissions discussed are extremely small, trivial, and likely negligible compared to the operations of the mine. The monitoring alternative is not necessarily redundant to the statewide abatement program if it provides additional benefits, such as the comparison of sediment concentrations to PECs or the identification of shortcomings in the statewide abatement program activities. Finally, the increased costs are not unnecessary if the alternative has the possibility of providing greater environmental protection. Overall, it seems that the monitoring alternative would be better suited for the overall protection of the environment.

If you have any questions, please contact me at (505) 372-8545.

Sincerely,

David W Mercer

David W. Mercer, Chino AOC Project Manager
Mining Environmental Compliance Section
Ground Water Quality Bureau

DM

cc: Erica Almance, USEPA (via email)
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