December 4, 2025

Mr. Mark Urfer
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Curry Jones, Permitting Section Manager
U.S. Environmental Protection Agency (USEPA), Region 6
Water Division – Permitting Section (WDPE)
1201 Elm Street
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Re: Updated State of New Mexico Antidegradation Review of Outfalls 001 and 004; NPDES Renewal Application No. NM0022306, Chevron Mining, Inc. – Questa Mine

Dear Mark Urfer and Curry Jones:

Water quality standards include a framework and methodology known as "antidegradation" for deciding if, when, and how water quality may be degraded. Antidegradation applies to all activities with the potential to adversely affect water quality or existing or designated uses, including any new, increased, or modified point source discharges. The New Mexico Environment Department (NMED), acting under authority delegated by the Water Quality Control Commission, implements water quality standards in the State of New Mexico, including the antidegradation policy and implementation plan. As such, NMED "*requires the highest and best degree of wastewater treatment practicable and commensurate with protecting and maintaining the designated uses and existing water quality*." (20.6.4.8(B) New Mexico Administrative Code or NMAC). In general, all point source discharges regulated by individual National Pollutant Discharge Elimination System (NPDES) permits are subject to an antidegradation review at the time of issuance, modification, or renewal of a permit. The first NPDES permit for Questa Mine was issued to Molycorp, Inc. (owner of the mine prior to Chevron Mining, Inc.) in 1977.

Questa Mine is a historic molybdenum mine near the Village of Questa, New Mexico. The mine consists of a former underground molybdenum mine, milling facility, and tailing disposal impoundments owned and operated by Chevron Mining, Inc. (CMI). The mine site includes a historic open pit and nine massive waste rock piles. The mine was designated as a Superfund site in the late 1990s and permanently ceased mining operations in June 2014, which resulted in CMI shifting to remediation activities at the site. The Environmental Protection Agency's (EPA) Record of Decision (ROD) for the site, which provides a full description of the site contamination, risk assessment, remedial alternatives and the selected remedy, indicated that Outfall 001 (mine site/milling), Outfall 002 (tailing facility) and Springs 13 and 39 Best Management Practices (BMPs), as well as stormwater discharges at Outfalls 004 and 005, are required to be addressed in the individual NPDES permit. CMI is also required to obtain coverage under the EPA's Multi Sector General Permit (MSGP) for other stormwater discharges not covered by the individual permit.

When there is a new discharge or a substantial change at a facility that discharges pollutants into surface waters in New Mexico, the Clean Water Act and the New Mexico Administrative Code both require that, "*[w]here the quality of a surface water of the state exceeds [the standards], that quality shall be maintained and protected.*" (20.6.4.8 (A)(2) NMAC). Currently, the Red River is better than the water quality standards for its designated uses; the one outlier is high turbidity, which is impairing the aquatic life use. The mine remediation process will continually change the water sources as new groundwater extraction wells come online, therefore NMED will need to re-evaluate antidegradation on a regular basis, most likely during the 5-year NPDES permit renewal process, to ensure effluent limits are still protective of New Mexico's water quality

standards and designated uses and the latest, Commission-approved, science-based criteria are evaluated and incorporated into the permit, as appropriate. CMI is requesting to renew their existing NPDES permit for Questa Mine, which triggered the May 13, 2025, antidegradation review and analysis and this updated review and analysis for Outfall 004.

CMI Questa Mine currently discharges to the Red River under NPDES permit number NM0022306. The Red River from the Rio Grande to Placer Creek is a classified water of the state protected under 20.6.4.122 NMAC with designated uses of coldwater aquatic life, fish culture, irrigation, livestock watering, wildlife habitat and primary contact. Pursuant to New Mexico's antidegradation regulations and procedures, the Department's Surface Water Quality Bureau (SWQB) conducted an antidegradation review of CMI Questa Mine discharges to Red River.

SWQB evaluated water quality data from the Bureau's upper Rio Grande monitoring surveys in 2009 and 2017-2018 to determine baseline water quality and assimilative capacity of the receiving water (Red River; 20.6.4.122 NMAC). SWQB also evaluated data provided in the NPDES permit application and in NMED groundwater discharge permits 933 and 1055 (DP-933 and DP-1055) monitoring reports to estimate the proposed effluent discharge concentrations. SWQB analyzed the available water quality data to determine if the effluent from the Questa Mine discharges will cause degradation of the receiving water.

As a result of the antidegradation review, SWQB concludes that the proposed discharge of certain metals from Outfall 004 may result in "significant degradation" as defined in New Mexico's Antidegradation Policy Implementation Procedure and characterized by the baseline water quality evaluation (Table 1). Summaries of the updated antidegradation analysis calculations and results for Outfalls 001 and 004 are attached.

Table 1. Pollutants of concern with "significant degradation" in the Red River, a Tier 2 water.

Outfall	**Pollutant of Concern**	**CAS**	**Water Quality Standard** mg/L	**In-Stream Concentration** mg/L	**Allowable Effluent Concentration** mg/L (daily MAX)	**Allowable Effluent Loading** lbs/day (daily MAX)	**Geomean, Effluent Data** mg/L	**Proposed Effluent Loading** lbs/day
001	No "significant degradation" of any pollutants evaluated.							
002	No "significant degradation" of any pollutants evaluated.							
004	Cobalt, dissolved	7440-48-4	0.050	0.000644	0.203	0.269	0.310	0.411
004	Copper, dissolved	7440-50-8	0.0233	0.000181	0.095	0.125	0.360	0.477
004	Manganese, dissolved	7439-96-5	3.62	0.0884	14.6	19.3	25.0	33.2
005	No discharge; no data available.							

This antidegradation review process and letter provides an update to the review of Outfall 001 and Outfall 004. The antidegradation review process for Outfall 002 and Outfall 005 were completed on May 13, 2025. Improved and enhanced stormwater controls to ensure stormwater capture (i.e., de minimis or no discharge) and/or effluent limitations for cobalt, copper, and manganese for Outfall 004 are necessary in the NPDES permit to protect water quality in Red River, the receiving water.

According to the State's Antidegradation Policy Implementation Procedure, if a regulated entity proposes a discharge that would significantly degrade water quality, the entity is required to conduct an alternatives analysis to identify cost-effective and reasonable *less degrading* or *non-degrading* approaches for reducing discharge-related impacts, so they do not result in significant degradation of the receiving water. CMI should address reasonable and cost-effective alternatives, or mix of alternatives, in their analysis. NMED staff and CMI should meet to discuss these and other issues early in the process. It is the responsibility of CMI to screen for and propose a list of reasonable, cost-effective alternatives that will be evaluated in detail. NMED may require that additional alternatives be analyzed. This process is detailed in the State of New Mexico's Water Quality Management Plan and Continuing Planning Process Appendix A: https://www.env.nm.gov/surface-water-quality/2020-wqmp-cpp/ (*see* Section 6 and Appendix A.1 for more information).

Please reach out to SWQB to discuss CMI's ability to address the significant degradation findings through the design of treatment scheme(s), stormwater controls, or other potential alternatives that will reduce the concentration and loading of the metals identified in Table 1 and meet the allowable antidegradation effluent limitations. Additionally, it is recommended that CMI, and their contractors, schedule a meeting with USEPA Region 6 and SWQB to discuss the next steps regarding the NPDES permitting process.

If significant degradation occurs even after applying reasonable, cost-effective alternatives, CMI must demonstrate to the Water Quality Control Commission that allowing lower water quality is necessary to accommodate important social or economic development. In allowing such degradation, the level of water quality necessary to protect existing uses must be maintained and all cost-effective and reasonable best management practices (BMPs) for nonpoint source control must be implemented. Finally, NMED must assure that the highest statutory and regulatory requirements for the discharge are achieved (20.6.4.8(A)(2) NMAC). This process is detailed in the State of New Mexico's Water Quality Management Plan and Continuing Planning Process Appendix A: https://www.env.nm.gov/surface-water-quality/2020-wqmp-cpp/ (*see* Sections 7-8 and Appendices A.2-A.5 for more information).

If you have any questions regarding this letter, SWQB's antidegradation analysis, or next steps, please contact Jason Martinez by email at jason.martinez2@env.nm.gov or by phone at 505-372-8376.

Sincerely,

Shelly Lemon Digitally signed by Shelly Lemon
Date: 2025.12.04 17:54:26 -07'00'

Shelly Lemon, Bureau Chief
Surface Water Quality Bureau

CITATIONS: 20.6.4.8 NMAC Antidegradation Policy and Implementation Plan
20.6.4.122 NMAC Red River in the Rio Grande Basin
Statewide Water Quality Management Plan and Continuing Planning Process (WQMP/CPP)
Appendix A, Antidegradation Policy Implementation Procedure for Regulated Activities
40 C.F.R. §131.12 Antidegradation policy and implementation methods

encl: Antidegradation Calculations Outfall 001
Antidegradation Calculations Outfall 004 (acute)

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