

State of New Mexico  
Energy, Minerals and Natural Resources Department

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Mining and Minerals Division



**Electronic Transmission**

April 14, 2025

Sherry Burt-Kested, Environmental Services Manager  
Freeport-McMoRan Tyrone Inc.  
P.O. Box 571  
Tyrone, New Mexico 88065

**RE: Technically Complete/Response to Comments, Tyrone Peak Exploration Project,  
Regular (Part 4) Exploration Permit Application, Permit No. GR093ER**

Dear Ms. Burt-Kested,

MMD has received your letter *Response to Comments, Tyrone Peak, Regular (Part 4) Exploration Permit Application, Permit No. GR093ER*, dated January 31, 2025. During the agency review period, the New Mexico Office of State Engineer (OSE) had determined information on planned azimuth and inclination was necessary to adequately evaluate the proposed boreholes in relation to true vertical depth to groundwater. On March 25, 2025 the requested information was provided by Tyrone. Please see additional comments from OSE in the attachment labeled "OSE Completed Review of GR093ER". MMD hereby deems Permit No. GR093ER Technically Complete.

If you have any questions, please contact Clint Chisler at (505)-467-9589 or via email at: [Clinton.Chisler@emnrd.nm.gov](mailto:Clinton.Chisler@emnrd.nm.gov)

Sincerely,

*Alaina Osimowicz*

Alaina Osimowicz, Permit Lead  
Mining Act Reclamation Program (MARP)

cc: DJ Ennis, Program Manager, MARP  
Raechel Roberts, Senior Environmental Scientist, Tyrone Mine

Attachments: OSE Completed Review of GR093ER

Mine File (GR093ER)

**From:** [Angel, Christopher, OSE](#)  
**To:** [Osimowicz, Alaina, EMNRD](#)  
**Cc:** [Valentine, Lloyd, OSE](#); [Zemlick, Katie, OSE](#)  
**Subject:** GR-093-ER Tyrone Peak Exploration OSE Analysis  
**Date:** Monday, April 14, 2025 8:31:42 AM

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Good morning Alaina,

The New Mexico Office of the State Engineer (NMOSE) has completed a review of the GR093-ER-Tyrone Peak angled borehole information. The vertical section (distance between the surface hole location and bottom hole location in map view) was calculated utilizing both the planned (1,000 feet (ft)) and permitted (2,500 ft) measured depths (MD), and the inclination of the borehole. Based on the information provided, the vertical section for each measured depth is tabulated below.

Inclination (degrees)	1,000 ft MD (ft)	2,500 ft MD (ft)
60	500	1,250
65	422	1,056
70	342	855
75	259	647

The groundwater elevation map in Trauger (1972) was used to estimate the groundwater elevation at each location. In general, groundwater is estimated to be between 5,600 and 5,800 feet above sea level (asl). Based on the true vertical depths (depth of a borehole as measured in a straight vertical line downward from the surface hole location), groundwater should be encountered in each of the boreholes.

No hydrogeologic concerns were observed during this review.

The borehole pathways do not appear to be within 50 feet of wells of other ownership and do not appear to represent a concern to wells of other ownership.

Two boreholes if drilled to 2,500 ft MD would likely enter the Highway 90 S Right-Of Way:

1. If TP23-N is drilled with an inclination of 70 degrees and an azimuth of 135 degrees this borehole will traverse across the Highway 90S right-of-way.
2. If TP23-X is drilled with an inclination of 70 degrees and an azimuth of 250 degrees this borehole will likely extend into the Highway 90S right-of-way.

Tyrone has indicated that the boreholes do not intend to enter the highway right-of-way (Osimowicz, 2025).

If the borehole enters a highway right-of-way then the New Mexico Department of

Transportation should be contacted to determine if any special permitting is required for a borehole traversing a highway right-of-way.

**Reference**

Osimowicz, Alaina. Letter to Christopher Angel. "Tyrone Peak Highway Right-of Way," April 14, 2025.

Trauger, Frederick D. "Water Resources and General Geology of Grant County, New Mexico." New Mexico Bureau of Geology and Mineral Resources, 1972.

<https://doi.org/10.58799/HR-2>.

Please let me know if you have any questions.

Sincerely,

Christopher E. Angel, PG  
Senior Hydrologist  
New Mexico Office of the State Engineer  
Hydrology Bureau  
5550 San Antonio Dr. NE  
Albuquerque, NM 87109-4127  
Office: 505-383-4018  
Cell: 505-469-1796