



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

Date: January 8, 2024

To: Mined Land Reclamation Board

From: Lucas West, DRMS

RE: Revenue Mine; DRMS File No. M-2012-032; Notice of Resumption of Mining Activity and Request for Status Change

The following documents have been included in this Board Packet:

- | | |
|---|-----------------|
| 1. Notice of Resumption/
Change of Status Request, Thorin Resources, LLC | January 4, 2024 |
| 2. Division Memo, DRMS | January 8, 2024 |

Sincerely,

DRMS Staff





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JAN 04 2024

Colorado Division of Reclamation,
Mining and Safety

Thorin Resources, LLC
FAFO Holdings LLC
1900 Main Street Unit 1 Ouray, Colorado
970.316.2294
December 28, 2023

Subject: Revenue Mine, Permit M-2012-032, request to exit Temporary Cessation and Resumption of Mining Operations

Thorin Resources, LLC (parent company FAFO Holdings LLC) hereby and herein proposes to resume mining and milling operations at its wholly owned mine and mill facility, the Revenue Mine, approximately 5 miles from the city of Ouray, Colorado, immediately off Highway 361, Ouray County, Colorado. The proposed resumption of mining activity shall be January 19th, 2024 with a recommissioning of the mill following approximately June 15th, 2024. Mining, in the context of this proposal, shall be limited to, what we are prepared to quantify, as previously mined and milled material, including waste materials previously mined and milled by others; predating Thorin's involvement. with the Revenue Property.

As discussed, and proposed, herein Thorin Resources, LLC proposes a scaled-up approach to the resumption of mining activity, and ultimately milling activity, such that operators become proficient in new mining and processing activities, and streamline processing activities on a small scale, the intent being to prove what we know, learn what we do not know, with an error-free record of accomplishment. Any revisions requiring approval will be submitted as Technical Revisions within operational rules and regulations.

PHASE 1:

Utilizing the existing 18,000 square-foot warehouse, located at 1900 Main Street, Ouray, Colorado, a portion of said warehouse shall be utilized as a temporary, closed-loop, processing facility. Within the 18,000 square foot building an area of 800 square feet shall be designated as R&D 1. The perimeter of R&D 1 shall be lined with double stacked water-resistant sandbags forming a rectangle 20 feet x 40 feet x 1.5 feet; this constitutes a water capture area, or containment, possessing a volume of 8,976 U.S. Gallons (USG) of water which is equivalent to 359 times more volume than 1 minute of operating time (1 minute of operating time equaling 25 U.S. Gallons (USG) of water), in effect proposed containment could retain a total system spill for 5.9 hours. Given other safe guards we are confident this is sufficient. All equipment both static, such as tanks and valves, and dynamic, such as pumps shaker tables, etc. shall be located within the containment area, with one exception; that being a 'panic button' type pneumatically controlled, water shutoff valve located at the main water source. In the closed-loop test, portal discharge water will be transported from the mine site in suitable transport containers. Water for the closed-loop test would be representative of the water for the actual process. During the closed-loop test, water samples will be drawn before and after processing. These samples will be sent to a laboratory for ABA testing. Phase 1 is R&D work only.

The closed loop system is described as potable water floating across a vibrating (shaker) table to accomplish gravity separation and recovery of precious metals from previously mined and processed material from the Revenue Mine, Mill Tail Pad. Subject material(s) are already ground to an acceptable sphere size, thereby eliminating further grinding; however, since we intend to similarly process waste rock, *i.e.*, rock mined and set aside because of its lesser presumed value, some blending of Mill Tails and Waste rock is anticipated: precise blending ratio to be determined as part of our R&D. For this purpose, we propose installing within the containment area a DC 24 10 HP Impact Mill, conveyor fed at a dry volume rate of approximately 10 cubic yards per hour (YPH) mixed into a ground rock/water, slurry. Subject slurry is then passed across a slightly tapered flat, vibratory surface to separate heavy, precious metals, from lighter valueless, gangue material. All material passes across the vibratory table surface; however, various materials are segregated as take-offs into various troughs about the perimeter of the table. Precious heavy metals are recovered for further processing and lighter, valueless materials, are similarly recovered for proper disposal. As to light gangue materials, this material will be returned to the Revenue Mine, Mill Tail Pad from whence it came. The containment area shall contain a submersible dewatering pump, nameplate plated rated 75 U.S. Gallons (USG) for emergency dewatering if required; 75 U.S. Gallons (USG) being three times the process flow rate of 25 U.S. Gallons (USG)

Ancillary equipment for the proposed closed-loop recovery system includes a sand filter; not dissimilar from large commercial swimming pools; Seven-position valving (Filter, Backwash, Winter, Re-Circulate, Closed, Rinse and Waste) a water feed tank to minimize pressure pulsations from feed water, 12 times feed volume, or 300 U.S. Gallons (USG); various piping arrangements, intentionally oversized for operation in laminar flow regions; *e.g.*, optimal flow for 25 U.S. Gallons (USG) per minute is 3/4 inch inside diameter, the flow being 12.7 ft/second (ft/s); we propose 1 inch (gray) CPVC (a copolymer) piping to assure laminar, non-turbulent flow(s) of 9.4 ft/second (ft/s). Laminar flow is considered to exist with fluid velocities < 10 ft/second (ft/s), Additionally, CPVC piping is Underwriters Laboratory (U.L.) approved whereas as to pressure/temperature ratings (white) PVC piping is not.

We do not envision any necessity for fugitive dust emission controls because ground material exiting Impact Mill, a point in processing when fugitive dust would be anticipated, is in fact a water/rock slurry, *i.e.*, no fugitive dust is envisioned. Further, since grinding is our first process step, thereafter our process material is a wet slurry.¹, including SPLP and ABA testing will be submitted to the Division as part of the Technical Revision. Phase 2 as described below will also be included in the Technical Revision submission.

PHASE 2:

Upon completion of **PHASE 1**, Thorin Resources proposes disassembly of closed loop system from the warehouse and transporting all equipment to the Revenue Mine site; near the Mill Tail Pad, Equipment is to be installed in the railyard between the portal entrance and mill entrance. The railyard will be modified to address secondary containment. The major distinctions involved in relocating a closed-loop system from warehouse to an *in-situ* processing facility involve surface protection from water spillage/system failure and water sourcing. To that end, we propose a concrete enclosure, effectively 40 feet x 20 feet (800 ft.²) and 2 feet in height, or 1,600 ft³ which presents a containment area of 11,968 U.S. U.S. Gallons (USG). Water sourcing-shall be portal discharge water run-off, on-site, captured; and retained as once again, a closed-loop system. Additionally, back-washed materials shall be analyzed for

contaminants, if any, before disposal and will be disposed of in a manner under state regulatory requirements. For this reason, we anticipate returning processed water, to original source, with lesser concentrations of contaminants, if any.

Upon completion of PHASE 2:

The entire closed loop system will either be commissioned to full service for beneficiation of ore, e.g., gold and silver, or disassembled in its entirety, the process area being returned to its original, as found, condition.

Financial Warranty:

As we have recently completed the Succession of Operator Permit process, we have recently validated our current Reclamation Bond for the Division of Reclamation, Mining, and Safety. We acknowledge future Technical Revisions related to the Milling Circuit may require additional bonding and we are prepared to meet any additional requirements arising from future Technical Revisions. A significant amount of the equipment required to complete Phase 1 and Phase 2 has already been procured. Additional capital requirements to complete Phase 1 and Phase 2 are relatively modest and have been accounted for in our funding and budgeting process. At the end of Phase 2, we are expecting to produce a saleable concentrate. Potential buyers of the concentrate have been identified with terms and conditions of a potential buyer contract to be met by the end of Phase 2.

Final Reclamation:

We are anticipating any future proposed changes to the Milling Circuit should be viewed as a reduction in the operating footprint as opposed to an expansion. As an example, we are anticipating the removal of the Rod Mill. Further, if chemical processing is required in the future, we believe the chemical processing profile would be significantly less than permitted today. To that end, we anticipate being able to meet the requirements of the Final Reclamation plan within the current permit. As to the life of the mine, we are still evaluating the life of mine economics, notionally, we do see the life of mine being several years.

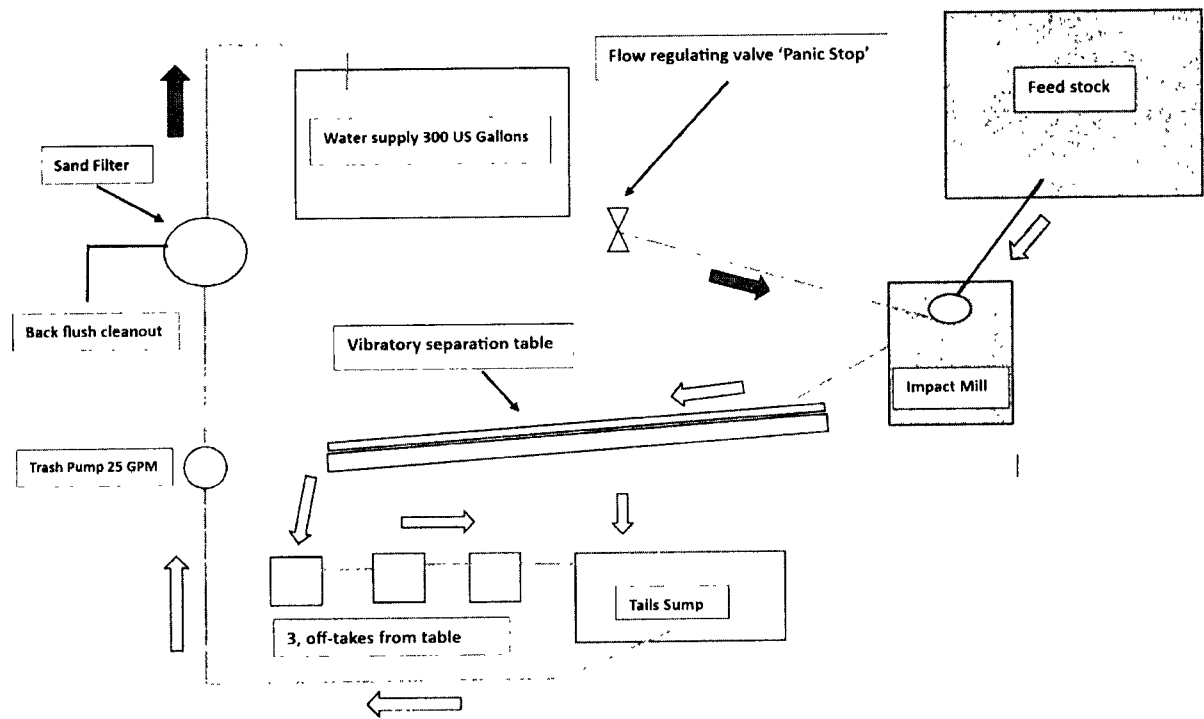
Thank for you your consideration and hopefully our staged development and scaling plan will be received favorably.

Sincerely,

Sturges Karban

Sturges Karban
CEO Thorin Resources LLC
Managing Director, FAFO Holding LLC

Appendix 1: Proposed Process Flow Diagram



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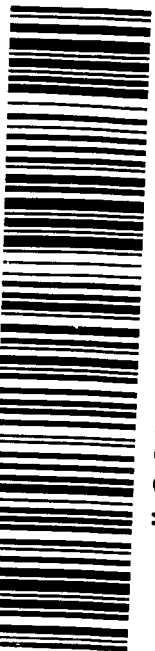
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COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

Date: January 8, 2024

To: Mined Land Reclamation Board

From: Lucas West, DRMS

RE: Revenue Mine; DRMS File No. M-2012-032; Notice of Resumption of Mining and Request of Status Change

Dear Members of the Board,

The Revenue Mine has been in a status of Temporary Cessation since August 16, 2022. On December 13, 2023, the Division approved the Succession of Operator and Transfer of Minerals Permit (SO) from the previous Operator of the above listed site to the current Operator, Thorin Resources, LLC. The Permit is in good standing and the Division does not oppose the acceptance of the Notice to Resume Mining Operations nor the approval of the Status Change from Temporary Cessation to Active. Thank you for your Consideration,

Lucas West
Environmental Protection Specialist
Division of Reclamation, Mining and Safety

