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Lucas West
Colorado Division of Reclamation, Mining and Safety
101 S. 3rd St., Suite 301
Grand Junction, CO 81501

December 8th, 2021

***RE: Twin Canyon, File No. P-2021-018, Notice of Intent to Conduct Prospecting Operations (NOI)
Application Notice of Deficiencies Responses***

Mr. West,

In response to the Notice of Intent (NOI) application deficiencies noted in your December 6th letter, please find below clarification(s) and responses to each point raised.

Point 1a - There are 9 drill pads proposed for the Twin Canyon project from which a total of 13 drill holes may be drilled. The discrepancy between pad number and drill hole number (implying more than 1 drill hole from a given drill pad) is due to the need for two (2) drill holes at varying azimuths and/or inclinations from the following drill pads: TC-A, TC-C and TC-G. The final hole will remain as a contingency drill hole in the event that a hole must be abandoned prematurely, twinned or the original does not intercept the desired target.

Point 1b - All drill pads will require the construction of sumps for management of drill cuttings and water. Sump dimension are estimated to be approximately 15'L x 10'W x 5'D, for a total volume of 27.8 cubic yards per sump. With the exception of pad TC-G, drill pads have been located in relatively flat areas of prior disturbance and/or tree clearings. The estimated volume of additional leveling and/or grading to establish requisite pad dimensions for each drill pad is approximately 5 cubic yards or less. Drill pad TC-G may require additional leveling/grading to create a safe working space. However, the depth to bedrock is not known at this time and may preclude leveling/grading of the site. A high level estimate of material volume to create/reclaim pad TC-G is 30 cubic yards.

Point 1c - As noted in the NOI, it is highly unlikely that significant groundwater is encountered during the project. It is important to note that the limited window during which a drill hole may remain open during drilling (approximately 1 week) minimizes the opportunity for any interconnectivity between surface and/or groundwater and dramatically limits risk to water resources in the area. Per the NOI, all drill holes will be permanently abandoned immediately following completion of drilling. The permanent abandonment process is designed to prevent the comingling or interaction of surface water and groundwater (e.g., bentonite gel to within 30ft of surface, followed by an upper cement cap).

Point 2a - San Juan National Forest has provided an anticipated reclamation seed mix, distribution rate and vendor. The breakdown of reseeding options are listed below. No preferred distribution method was identified.

Unless otherwise authorized, a minimum of two native grass and one wildflower seed species from the list below will be used at the recommended rates. One of the annual species listed below can also be used along with the native species.

Native Grass Seed Species

- Arizona fescue (*Festuca arizonica*), variety Redondo 4#PLS/acre
- Western wheatgrass (*Pascopyrum smithii*), varieties Barton/Rosanna 10#PLS/acre

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- Mountain brome (*Bromus marginatus*) 10#PLS/acre
- blue grama (*Bouteloua gracilis*), varieties Alma/Hachita/Lovington 3#PLS/acre
- muttongrass (*Poa fendleriana*) 3# PLS/acre
- junegrass (*Koeleria macrantha*), varieties Prairie/Uncompahgre Plateau 4#PLS/acre
- Nelson's needlegrass (*Stipa nelsonii*) 6-8#PLS/acre
- Tufted hairgrass (*Deschampsia caespitosa*) 1-2#PLS/acre
- Blue wildrye (*Elymus glaucus*) 9#PLS/acre

Wildflower Seed Species 4#PLS/acre

- Rocky Mtn Penstemon (*Penstemon strictus*)
- Firecracker Penstemon (*Penstemon eatonii*)
- Blue Flax (*Linum perenne lewisii*)
- Annual Sunflower (*Helianthus annuus*)
- Silver Lupine (*Lupinus argenteus*)
- Golden Banner (*Thermopsis divaricarpa*)
- Rocky Mountain Bee Plant (*Cleome serrulata*)

Annual Species

- Barley (*Hordeum vulgare*) 80#PLS/acre
- Wheat (*Triticum aestivum* x *Secale cereale*) 80#PLS/acre
- Oats (*Avena sativa*) 80#PLS/acre

Point 2b - The project will require the construction of approximately 1160 linear feet of new, temporary access. This access will be fully reclaimed following the completion of the project.

Sincerely,



Gabriel Sweet, MSc, PG
Senior Geologist
Big Rock Exploration, LLC



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