

### United States Department of the Interior

## BUREAU OF LAND MANAGEMENT COLORADO RIVER VALLEY FIELD OFFICE

2300 River Frontage Road Silt, CO 81652

www.blm.gov/office/colorado-river-valley-field-office

December 21, 2018

In Reply Refer To: COC-074205 (CON040)

CERTIFIED MAIL – 7018 1130 0001 5766 8462 RETURN RECEIPT REQUESTED

RMR Aggregates, Inc. Attn: Gregory Dangler, President 4601 DTC Blvd., Suite 130 Denver, CO 80237

Dear Mr. Dangler:

Your Plan of Operations Modification to expand mining activities at the Mid-Continent Quarry, T6S, R89W, Section 4, T5S, R89W, Sections 25 and 36, T5S, R88W, Sections 30 and 31, 6<sup>th</sup> P.M., Garfield County, Colorado, was received in this office on November 24, 2018. The Plan of Operations Modification has been assigned Bureau of Land Management (BLM) case file number COC-074205. Please refer to this number in future correspondence concerning this operation.

Consistent with the surface management regulations at 43 CFR §3809.411(a), the BLM has reviewed the Plan to determine if it meets the content requirements at 43 CFR §3809.401(b). Based on our review, the following information is required in order for the Plan of Operations Modification to be complete:

- 1. Page 1-3, 2.1.1 Provide consistency with DRMS Permit 1982-121. On 9/14/2017 and 5/11/2018, BLM required RMR to provide consistency with the DRMS permit. RMR must provide information about the uphill stormwater diversion structure in Technical Revision 1 and expand the weed management plan to include Russian Olive and Tamarisk as in Technical Revision 2.
- 2. Page 1-4, 2.1.1 Provide consistency with DRMS Permit 1982-121. RMR Aggregates Inc. states: "Therefore, the applicant requests that BLM lift and/or eliminate all current restrictions and commitments currently in place at the Mid-Continent Quarry." Define "restrictions and commitments". Per 43 CFR §3809.420(a)(4): You must take mitigation measures specified by BLM to protect public lands. Mitigations are in place to prevent unnecessary or undue degradation. This statement fails to adequately address the information required by BLM on 9/14/2017 and 5/11/2018 for RMR to correct the existing non-compliance.
- 3. Page 3-1, Exhibit 3. Per 43 CFR §3809.401(b)(1), If the operator is a corporation, you must identify one individual as the point of contact. Required operator information includes one individual as point of contact if the operator is a corporation. Please provide a point of contact for the operation.
- 4. Page 5-1, Description of Operations. RMR must describe how access will be maintained for the communication site C18884 Right of Way holder throughout quarry life reclamation.



- 5. Page 5-4, 2.3 Quarry Plan. RMR must provide a complete description of the proposed quarry benches, including the dimensions (length, width, and height) of all proposed working benches. If RMR anticipates any deviations from these proposed quarry bench dimensions, modification to the plan of operations will be required per 43 CFR §3809.431.
- 6. Page 5-6, 2.4 Material Transport. Please provide additional information about and conceptual designs for the proposed conveyor. The information must include, but is not limited to: how the conveyor will be constructed, the amount of surface disturbance, the type of foundation, the operating capacity, and the days and hours it will operate.
- 7. Page 5-7, 2.4.1 Pipe Conveyor. RMR must describe how material is proposed to be transported from the quarry bench during periods of pipe conveyor servicing.
- 8. Page 5-7, 2.4.1 Pipe Conveyor. RMR must specify if this Plan contains a proposal for a power generating station or a charging station for on-site equipment.
- 9. Page 5-10, 2.5 Quarry Blasting Operations. The Plan states: "Explosives and detonators will be initially stored in powder magazines..." RMR must describe where storage will be later in the operation. These magazines need to be depicted on maps.
- 10. Page 5-10, 2.5 Quarry Blasting Operations. RMR proposes to block Transfer Trail during blasting. Describe how this will be accomplished. Describe traffic safety devices to be used during road closure.
- 11. Page 5-10, 2.5 Quarry Blasting Operations. Clarify the statement that RMR will not design engineered plans for each bench until shortly before its construction. Per 43 CFR §3809.420(a)(2) Sequence of operations: "You must avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary mineral exploration, development, mining and reclamation sequence." Describe how RMR will follow a reasonable and customary sequence in the development of this operation.
- 12. Page 5-11, 2.6 Exploration Activity. RMR must provide additional information about the proposed exploratory drilling including the proposed depth, borehole diameter, location of boreholes, and plugging and reclamation techniques. Specify if the proposed drill holes will be mined-out during quarry operations.
- 13. Page 5-11, 3. Quality Assurance Plans. The Quality Assurance Plan is incomplete. BLM requires a description of the programs, plans, inspection intervals, maintenance schedules, and procedures for how RMR intends to ensure the quarry facilities are constructed as designed. This includes information about the following items: the constructed facilities listed in Section 4, the proposed conveyor, all proposed permanent and temporary roads, secondary containment liners, and stormwater control structures.
- 14. Page 5-15, 6. Ore Stockpile Area. Map C-2 shows stormwater management features such as sumps. RMR must describe how stormwater will be managed near the current entrance.
- 15. Page 5-15, 6. Ore Stockpile Area. Explain how RMR will determine when to use the stockpiles on the active bench and when to use the stockpiles on the north side of the permit area.
- 16. Page 5-15, 7.1 Topsoil and Overburden Stripping. RMR states that topsoil will be stripped from all areas, including both previously reclaimed areas and previously undisturbed areas, prior to quarrying or construction activities. Clarify if this statement refers to the existing stockpile on the west side of the mill bench. RMR must address this existing non-compliance issue.

- 17. Page 5-16, 7.2 Topsoil Storage. RMR must provide additional information about stormwater management near the proposed topsoil storage. Clarify the adequacy of stormwater capacity as topsoil is added inside of stormwater berms.
- 18. Page 5-18, 9. Quarry Office. Provide additional detail about the "more permanent office facility". Include the type of foundation, type of construction, and approximate dimensions. Also, describe the utilities to this new structure and note them on a map.
- 19. Page 5-18, Quarry Access Roads. RMR states: "No additional access road is proposed at this time"; however, Exhibit 18 includes a proposed re-alignment for one Transfer Trail segment and a proposed upgrade to a second Transfer Trail segment. These access road improvement plans require a narrative description and specific identification of stormwater management and sediment control locations and features.
- 20. Page 5-18, Quarry Access Roads. RMR must clarify which access roads will be open to the public during mining operations.
- 21. Page 5-19, 12. Utilities. Provide additional details about the proposed electric, gas, communication, and potable water utility line installation.
- 22. Page 5-19, 12. Utilities. Plans for support facilities must include a basic description of the facility purpose, size, disturbance area, construction procedures, operating capacity, and reclamation procedures. RMR must describe the approximate size of the shower house and type of construction. Describe the utilities to this new structure.
- 23. Page 5-19, 12. Utilities. Describe the source of non-potable water that will be pumped from the mill bench up to the production bench.
- 24. Page 5-20, 15.1 Seismic Monitoring. The seismic monitoring plan needs additional information. According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results.
- 25. Page 5-20, 15.2 Noise Monitoring. The noise monitoring plan needs additional information. It must address blasting as well and mining operations and trucking. According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results.
- 26. Page 5-20, 16.1 Quarry Surface Water. The Plan says that the C-2 map shows location of "some" stormwater controls. RMR must specify the locations of all proposed stormwater controls.
- 27. Page 5-21, 16.1 Quarry Surface Water Control. The Plan states: "During most quarrying operations, the active bench will have a sump near its eastern edge to collect runoff during storm events." Describe how water will be managed in the instances that there is no sump.
- 28. Page 5-21, 16.1.1 Surface Water. Describe how surface water from the haul and quarry roads will be managed.
- 29. Page 5-21, 16.1.1 Surface Water. Provide a written description of Outfall 001-A and Outfall 002-A.
- 30. Page 5-21, 16.1.1 Surface Water. RMR must describe how dust abatement on the quarry bench will be achieved if the sumps are dry.

- 31. Page 5-21, 16.1.1 Surface Water. RMR must describe how the existing unauthorized stormwater control structures will be managed or reclaimed.
- 32. Page 5-24, 16.1.1 Surface Water. RMR states that the proposed quarry bench area is 14.5 acres. Describe what is included within this area. Specify if the bench size will always be 14.5 acres or if each bench will be a different size. If the bench size does change, describe if it will it be large enough to catch 100yr/24hr flood events.
- 33. Page 5-24, 16.1.1 Surface Water. The 25-foot tall visual berm may be considered a dam. Contact the Colorado Division of Water Resources State Engineer to ensure the proposed quarry design is in conformance with all state and federal laws. RMR must obtain water rights in relation to dam safety regulations and water impoundment. Verify that the post-reclamation drainage plan does not include a dam, which will require future safety inspections.
- 34. Page 5-27, 16.1.3 Ground Water. While the groundwater baseline study is currently under development, RMR must state a commitment to submit a groundwater monitoring plan. As discussed with RMR, the Plan of Operations Modification must reference this baseline study and monitoring plan. Upon approval of the baseline study proposal, RMR must update the Plan of Operations Modification with groundwater monitoring plan details.
- 35. Page 5-28, 18. Stability Monitoring. The stability monitoring plan needs additional info According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results.
- 36. Exhibit 6, Reclamation Plan. The reclamation plan requires additional information. RMR must define the post-mining land use and the subsequent reclamation objectives. As discussed in past meetings with RMR, BLM's approach to the reclamation of this project has the following goals:
  - Recreation
    - o Preserve year-round access to White River National Forest
    - o Preserve year-round parking
  - Wildlife habitat
    - Create a diverse mosaic of native grasses and forbs intermingled with patches of shrubs
    - o Approximate pre-mining conditions
  - Visuals (VRM Class II)
    - While maintaining slope stability, provide a rough diverse topography that blends with surrounding undisturbed areas.
    - o Repeat the existing character of the landscape.
    - o Management activities may be seen, but should not attract the attention of the casual observer.
    - o Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
  - Accommodate existing rights of way

The proposed reclamation plan does not meet all of these goals.

37. Exhibit 6, Reclamation Plan. The reclamation plan must clearly identify post-closure activities and the operator's commitment to performing the required work. Throughout this section, the text indicates different methods and activities that "may be used". The reclamation plan must specify what will be done and then indicate which adaptive actions may be implemented if initial actions do not prove successful.

- 38. Exhibit 6, Reclamation Plan. RMR must describe how all utilities will be reclaimed.
- 39. Page 6-1, Reclamation Plan. Besides vegetation monitoring, there is no discussion of reclamation monitoring in a post-closure management plan. RMR must describe reclamation-related activities that continue after the majority of reclamation work has been completed including stormwater monitoring and slope stability monitoring. Post-reclamation stormwater management must ensure that flowpaths are adequately maintained and controlled with erosion control devices.
- 40. Page 6-2, 1.2 Materials Transport System. RMR must adequately describe the reclamation of the conveyor and its footprint including any proposed scarifying, topsoil and amendments prior to revegetation.
- 41. Page 6-4, Quarry Slope Access Roads. The reclamation plan does not contain a complete description of access road reclamation. Provide detailed reclamation information for all quarry access roads that are proposed to be reclaimed.
- 42. Page 6-6, 8. Backfilling, Grading, & Post-mining Topography. The regrading and shaping plan does not include information about the location and size of stormwater controls within the permit area to prevent erosion. RMR must describe the temporary or permanent stormwater BMPs that will be utilized to prevent erosion upon reclamation. Include a description of how RMR will maintain sheet flow on 3:1 regraded slopes to prevent rilling, gullying, and headcutting as well as how RMR will armor areas where water may channelize based on the proposed regrading plan. This information must also be depicted on a map.
- 43. Page 6-8, 9. Topsoil & Subsoil Handling. Describe how fertilizer and other amendments be mixed into the subsoil.
- 44. Page 6-13, 9.5.4 Soil Gouging. Describe what equipment would be used to create soil gouging. Also, specify the dimensions of the proposed depressions.
- 45. Page 6-13, 10. Mulching & Cover Crops. RMR must describe the criteria to determine whether mulch will be used.
- 46. Page 6-15, 11. Revegetation Plan. The plan must include a description of stabilization of the reclamation area during vegetation establishment. Revegetation plans must also include proposed criteria for what would constitute successful revegetation. The revegetation objectives must be specific, measurable, attainable, reasonable, and time-bound.
- 47. Page 6-15, 11. Revegetation Plan. BLM policy is to utilize native species in reclamation. BLM Manual 1745 Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants states that: "Native species shall be used, unless through the NEPA process it is determined that: (1) Suitable native species are not available; (2) The natural biodiversity of the proposed management area will not be diminished; (3) Exotic and naturalized species can be confined within the proposed management area; (4) Analysis of ecological site inventory information indicates that a site will not support reestablishment of a species that historically was part of the natural environment; (5) Resource management objectives cannot be met with native species." If RMR proposes a seed mix which includes annual cereal grains or sterile hybrid species, RMR must provide research or other empirical information that indicates the benefits of a nurse crop outweigh the competitive interactions with desirable native perennial vegetation. RMR must refine the revegetation plan to be in conformance with BLM policy.
- 48. Page 6-16, Table 6-3 Potential Reclamation Species. RMR must include a proposed seed mix instead of a "typical seed mixture" or an exhaustive list of every species that occurs in Garfield County. The seed mix can be modified as part of adaptive management later, but BLM must approve the seed mix and any modifications prior to application.

- 49. Page 6-33, 11.7 Seeding Methods. RMR must specify the sterile or benign extenders that are proposed to be used as necessary.
- 50. Page 6-36, 12. Weed Management Plan. The Plan states: "RMR will implement an Integrated Weed Management Plan", but then does not include this plan within the proposal. If Section 12 is to be considered the Integrated Weed Management Plan, then RMR must describe any proposed measures for noxious weed control within the reclaimed area. The proposed goals and objectives are unclear. RMR must specify the proposed goals for success, objectives, proposal to meet those objectives, and an adaptive strategy if the plan does not achieve the proposed objectives.
- 51. Page 6-47, 13. Vegetation Monitoring. The three types of vegetation monitoring plans (germination & establishment, interim, and liability release) are deficient. According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results.
- 52. Page 6-49, 13.4 Vegetation Liability Release Standards & Monitoring Methods. The first bullet states that RMR will "Demonstrate that wildlife habitat uses have been restored." Please clarify if RMR is planning monitor wildlife. If this is the case, indicate the species or groups of species that will be monitored. If this refers to monitoring particular habitat components, be more specific.
- 53. Page 6-51, 14. Reclamation Cost Estimate. This reclamation cost estimate is deficient. RMR's reclamation cost estimate must include all costs as outlined in 43 CFR §3809.552 and §3809.554.
  - Per 43 CFR §3809.401(d): "At a time specified by BLM, you must submit an estimate of the cost to fully reclaim your operations as required by §3809.552. BLM will review your reclamation cost estimate and notify you of any deficiencies or additional information that must be submitted in order to determine a final reclamation cost. BLM will notify you when we have determined the final amount for which you must provide financial assurance."

The reclamation cost estimate cannot be determined until the Plan review and approval process has progressed to the point where the BLM and the operator can anticipate what the approved Plan might look like. BLM may not request the RCE until after a NEPA document is published identifying a preferred alternative and including all mitigating measures that will likely be required as conditions of approval. BLM may require all proposed operations and reclamation to be organized into phases and reclamation cost estimates will need to be calculated for each phase. Refer to BLM Handbook H-3809-1, Section 6.2, Reclamation Cost Estimates.

- 54. Page 7-1, Occupancy. Please address the duration of time that the project area will be fenced and the location of the fencing. The proposed fencing must also be depicted on a map.
- 55. Page 8-3, 8. Closure Schedule and Reporting. Since the Mid-Continent Quarry is not located on lands under wilderness review for inclusion in the wilderness system, 43 CFR §3802.4-7 does not apply to this operation. RMR must comply with the interim management plan content requirements in 43 CFR §3809.401(b)(5).
- 56. Page 9-1, Wildlife Information. RMR provided an incomplete proposal for on-site wildlife habitat rehabilitation. When a habitat is proposed to be restored or created, the plan must address how the proposed landform and vegetation will provide adequate shelter, habitat, and forage. RMR must primarily focus on on-site mitigation. If RMR wants to work with CPW to improve habitat outside of the project area, provide specific information about this plan.
- 57. Page 9-1, Exhibit 9. Wildlife Information. Clarify who would conduct the visual survey for presence of raptors and raptor nesting prior to the removal of topsoil and native vegetation. Specify if a qualified biologist would complete this survey.

- 58. Page 13-17, 9. Surface and Groundwater Monitoring. The Plan does not adequately describe the management or monitoring of surface water management at the lowest elevation of the project area. The proposed surface water management plan must include the sampling of stormwater at the southern terminus of the proposed permit and improved Transfer Trail.
- 59. Page 14-14, 7. Monitoring. The air quality monitoring plan requires additional information. According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results.
- 60. Map C-6. The diagram does not depict all items that the plan proposes to locate on the quarry bench. Depict how all operations will fit with the addition of the topsoil and overburden stockpiles.
- 61. Exhibit 18, Access Use and Maintenance Plan. On 9/14/2017 and 5/11/2018, BLM required RMR to propose a plan to accommodate existing snowmobile use and winter recreation on Transfer Trail as part of the Plan of Operations Modification. RMR must provide this required information within the Access Use and Maintenance Plan.
- 62. Exhibit 18, Access Use and Maintenance Plan. The access use and maintenance plan contains insufficient detail to meet the amount of traffic, type of traffic, and intermixed public use that is expected on Transfer Trail. RMR must provide additional detail.
- 63. Exhibit 18, Access Use and Maintenance Plan. RMR must specify the number of haul truck round trips per day for this proposed operation. Include truck trips to the load out facility, truck trips to the mill bench, and truck trips to the active quarry bench.
- 64. Appendix 3, Transfer Trail Improvements. Add details about the proposed culverts in the narrative; include diameter and length of each culvert and calculations to justify the designs for each.
- 65. Appendix 3, Transfer Trail Improvements. RMR must provide a more detailed grading plan with retaining wall details.
- 66. Appendix 4, SPCC Plan. The spill contingency plan must include who, when, and how RMR will notify the BLM when a release or spill occurs on or that may affect BLM-managed lands. RMR must also add additional detail about how spills will be prevented during mobile fueling.
- 67. Appendix 4, SPCC Plan. Describe the measures that RMR will take to reduce impacts from mining activities and transportation to the drainage directly flowing into the Colorado River.
- 68. Appendix 4, SPCC Plan. RMR must describe how secondary containment will be inspected and pumped out after rain events to maintain capacity.
- 69. Appendix 4, Stormwater Management Plan. The surface water quality monitoring plan within the Stormwater Management Plan requires additional information. Provide additional detail about surface water monitoring for Process Water Discharge at the NPDES outfalls. On May 11, 2018, BLM required a water quality monitoring plan that specifically addresses water running along Transfer Trail. According to 43 CFR §3809.401(b), monitoring plans must include details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. RMR must describe the sampling procedures and the QA/QC to be followed.
- 70. Appendix 4, Stormwater Management Plan. RMR must provide additional details about the proposed sumps. Describe the size of the sumps and specify if they are adequate to capture runoff from the surrounding slopes.

- 71. Appendix 4, Stormwater Management Plan. Specify the capacities of the secondary containment livestock water tanks and verify that are the tanks will provide adequate secondary containment for the largest container within them.
- 72. Appendix 4, Stormwater Management Plan. According to the mining plan maps, the topography will allow water to drain onto and down the proposed roads. RMR must describe how runoff onto access roads will be managed.
- 73. Appendix 7, Reclamation Map F-1. This map depicts the improved segment and the re-aligned segments of Transfer Trail as green, indicating that these areas will be reclaimed. In addition, the road design plans state that the existing alignment of Transfer Trail will be reclaimed upon the construction of the re-alignment. Describe how RMR will maintain public access along Transfer Trail in perpetuity.

In addition to the above deficiencies, BLM requires RMR to provide the information requested in the enclosed tables, which include new comments and unresolved comments originally provided on May 11, 2018. These two tables include information required to initiate the NEPA process and assist in determining the level of NEPA required.

Please provide a response to the above information requests in the form of replacement pages or a revised submittal at your earliest convenience. This Plan would benefit from concise language and logical organization. Upon receipt of the required information, the BLM will determine whether or not the Plan of Operations Modification is complete.

Once the Plan is determined complete, the BLM will solicit public comment on the Plan under 43 CFR §3809.411(c). Soliciting public comment must occur before making a decision on the Plan of Operations according to 43 CFR §3809.411(d).

If you have any questions about these information requests, please contact Jessica Lopez Pearce, Geologist, at (970) 876-9000 or jlopezpearce@blm.gov.

Sincerely,

Robert Berger

Acting Field Manager

#### Enclosures:

5/11/2018 Comment Resolution Review, Colorado River Valley Field Office, RMR Aggregates Mid-Continent Quarry – Plan of Operations Modification, December 2018

New Comments, Colorado River Valley Field Office Review, RMR Aggregates Mid-Continent Quarry – Plan of Operations Modification, December 2018

### CC:

Amy Yeldell, Colorado Division of Reclamation, Mining and Safety

# 5/11/2018 Comment Resolution Review Colorado River Valley Field Office RMR Aggregates Mid-Continent Quarry – Plan of Operations Modification December 2018

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
10	Map C-2	Мар	There are land use conflicts with this proposed permit boundary: C18884 – Qwest Communication Site (1975) COC 22255 – Public Service Co transmission line (1975) COC 59505 – Community Pit (1996) RMR must contact the land use authorization holder and ensure that the proposed operation will not conflict with the existing authorization. Refer to Serial Register pages for contact info. Any conflicts must be resolved before the proposed operations may be authorized.	Ĭ
17	Map C-2	Map	Identify which stockpile is topsoil and which is overburden.	NA
18	Map C-2	Map	The map must reflect any proposed sediment control structures associated with the access/haul road.	I
24	Map C-2	Map	There is no existing or proposed road access depicted on the map between the mill level and the bench above.	NA
28	Map C-2	Map	This map must depict the Public Land Survey System. Per H-3809-1 – SURFACE MANAGEMENT HANDBOOK 4.3.3.2.1 Map Requirements: Maps submitted to the BLM must be tied to the public land survey system so activities can be located on the ground and potentially affected public lands depicted with respect to the proposed exploration disturbance or mine facilities.	I
36	Map F-1	Map	The reclaimed quarry topo looks just like the mining plan topo but colored green.  BLM needs to see conceptual maps that reflect both the highwall and bench design and the subsequent recontoured slopes.	I
39	Map F-1	Map	What do the thin blue lines and arrows represent?	NA

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
41	Map F-1	Map	Will any BMPs remain post-reclamation?	NA
42	Map F-1	Map	This map must depict the Public Land Survey System. Per H-3809-1 – SURFACE MANAGEMENT HANDBOOK 4.3.3.2.1 Map Requirements: Maps submitted to the BLM must be tied to the public land survey system so activities can be located on the ground and potentially affected public lands depicted with respect to the proposed exploration disturbance or mine facilities.	NA
45	1-1	Line 11	This is proposal requires a federal authorization; federal regulatory history should be included.	I
47	1-2	Line 8	Describe the existing mill facility	I
49	1-2	Line 23	Can RMR verify that each mining claim in the proposed permit area contains chemical grade limestone? Please provide this analytical data and discovery verification.	TBD in a separate mineral report.
50	1-2	Line 25	Per 43 CFR §3602.13(a): BLM will not sell mineral materials at less than fair market value. BLM determines fair market value by appraisal.  RMR must specify all construction material product streams so that fair market value can be determined for each commodity.	I
51	1-2	Line 26	As requested in the 9/14/2017 meeting between RMR and BLM, include products/end use of Leadville Limestone in Plan of Operations a. §3830.12 (d): Limestone of chemical or metallurgical grade, or that is suitable for making cement, is subject to location under the mining laws. b. §3809.101, Special provisions apply to minerals that may be common variety minerals.	NA
52	1-2	Line 27	Provide analytical data to support the claim that the limestone is locatable.  RMR must specify how much material is requested in the initial mineral material contract and the requested contract term. Per 43 CFR §3602.46, BLM will not issue a competitive contract for the sale of mineral materials for a term exceeding 10 years	NA
55	1-2	Line 12	BLM Surface Management Handbook H-3809-1: 4.3.3.2.7 Schedule of Operations:	Ι

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
			Where Plans propose a mine life longer than 10 years, the BLM will include provisions in the approval decision for periodic reviews. Section §3809.431(c) can then be used to evaluate whether there are any changes in circumstances or conditions that may warrant requiring the operator to submit a Plan modification.	
56	1-2	Line 18	4.3.3.2.3 Water Management Plans: Water management plans should integrate requirements from state or Federal agency permits for discharge under the National Pollutant Discharge Elimination System (NPDES) or dredge and fill permits under the U.S. Army Corps of Engineers' 404 permit program, and be prepared in coordination with the Regional Water Control Board and other state regulations or standards. This will help to ensure consistency between the construction of water management structures and the location of mine facilities.	I
57	1-2	Line 19	As stated in the 1/30/17 inspection report and requested in the 9/14/2017 meeting between RMR and BLM, Per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  1. Provide consistency with DRMS Permit #1982-121  a. The content of the following DRMS Permit Amendment has not been approved by BLM:  i. AM-2 (1992): 11.4 acre increase in permit area (total permit area 34.3, include crusher fines washout area  1. BLM-CRVFO has currently authorized a 15.7 acre permit boundary area, per 1982 Plan of Operations and 1989 modification/amendment.  b. The content of the following Technical Revisions have not been approved by BLM:  i. TR-1 (1992)  1. Diversion of upland flow  ii. TR-2 (2008)  1. Revise weed management plan to include Russian Olive and "Tamgrisl"	I
58	2-1	Line 7	Per 43 CFR §3830.12(d), limestone of chemical or metallurgical grade, or that is suitable for making cement, is subject to the mining laws.	I

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
			RMR is submitting a Plan of Operations Modification for locatable minerals under the authority of the General Mining Act of 1872, as amended, and 43 CFR §3809.	
			However, limestone that does not meet chemical grade, non-locatable limestone byproducts (including low-grade crusher fines with high silica content), and non-locatable dolomite products will be sold under the authority of the Materials Act of 1947 and 43 CFR §3600.	
60	3-1	Line 5	Per §3809.401(b)(1): RMR must include the phone number of the operator(s). If the operator is a corporation, you must identify one individual as the point of contact.	NA
68	5-1	Line 11	Will the "natural wall" have any benches? To what slope angle will this wall be designed?	NA
71	5-2	Line 1	As requested in the 9/14/2017 meeting between RMR and BLM, Per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  12. In order for BLM to conduct NEPA analysis, any processing or transportation facilities on private land must be summarized. BLM considers these activities connected actions and must be accounted for in NEPA analysis. Because BLM will not be authorizing activities on private land, this information does not have to be provided within the Plan of Operations modification.  This information may be included under separate cover.	I
73	5-2	Line 8	There are slope stability concerns with this proposal. A geotechnical stability monitoring plan should be included in this Plan of Operations Modification.	I
75	5-3	Line 1	RMR must include a quality assurance plan for all facilities within this proposal.  §3809.401 (b)(2)(v) and BLM Handbook H-3809-1, 4.3.3.2.5 Quality Assurance Plans:  Quality assurance plans describe the programs, plans, and procedures for how the operators intend to ensure their mine facilities are constructed as designed. These plans include procedures and protocols for items such as compaction testing of foundation materials or seam testing of leach pad or pond liners. Even the best	I

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
			environmental engineering system designs will fail to function if not properly constructed and thus result in UUD. Therefore, the operator must incorporate thorough quality assurance and control procedures in the Plan of Operations to ensure the environmental compliance of mine facilities constructed on BLM lands.	
81	5-4	Line 1	There are groundwater resource concerns with the proposal and hydrologic baseline environmental information is required. There is a lack of evidence to show that the existing hydrologic system will not be disrupted by the mining operations and proposed underground conveyors/raises.  RMR must either provide data that proves a lack of hydrologic connectivity between the project area and local springs or provide hydrologic baseline data, including a potentiometric surface map.  Per 43 CFR §3809.401(b)(1): "Operational and baseline environmental information for BLM to analyze potential environmental impacts as required by the National Environmental Policy Act and to determine if your plan of operations will prevent unnecessary or undue degradation. This could include information on public and non-public lands needed to characterize the geology, paleontological resources, cave resources, hydrology, soils, vegetation, wildlife, air quality, cultural resources, and socioeconomic conditions in and around the project area, as well as information that may require you to conduct static and kinetic testing to characterize the potential for your operations to produce acid drainage or other leachate. BLM is available to advise you on the exact type of information and level of detail needed to meet these requirements"	TBD in a separate proposal and review. Must be discussed in plan of operations modification as well.
98	5-6	Line 16	Will any adjacent landowners or agencies be notified prior to blasting?	Ι
1051 05	5-7	Line 20	As requested in the 9/14/2017 meeting between RMR and BLM, Per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  8. Request any additional utilities, including natural gas line a. §3809.401 (b) (2)	I
107	5-9	Table 5-2	Describe type of drill rig. Is this for blasting operations?	I

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116	5-10	22	Per BLM Inspection reports from 1/30/2017, 9/6/2017, and 3/7/2018, how will RMR address the existing topsoil stockpile that requires attention on the mill bench?  As requested in the 9/14/2017 meeting between RMR and BLM, Per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  9. Reclamation Plan updates a. RMR must include updated topsoil storage plan. i. §3809.401 (3) (vi): As noted in multiple inspection reports, the mill bench topsoil storage pile is not graded to the authorized slope.  1. The stipulations included in BLM's approval of Amendment 1, dated July 21, 1989: "The stored topsoil will be graded to a slope of approximately 4:1 to prevent erosion and to facilitate seeding and establishment of grasses."  2. The topsoil stockpile is currently at 2:1 slope.	NA
117	5-10	25	When will this initial quantity be used in reclamation activities? At the beginning (to reclaim the first highwall/bench) or the end (to reclaim the mill bench)?	NA
122	5-11	Line 5	Is this an existing utility authorization or a new proposal? Per 43 CFR §3809.401 (b)(2)(viii): RMR must include "Plans for all access roads, water supply pipelines, and power or utility services" in the Plan Mod.	I
123	5-11	Line 10	Per 43 CFR §3809.401(b)(2)(vi): RMR must provide spill contingency plans within this Plan Mod.  4.3.3.2.6 Spill Contingency Plan A spill contingency plan is required for every Plan of Operations that involves chemical processing or the use or storage of hazardous substances. These plans must describe what measures an operator will take to avoid spills of chemicals or hazardous substances including transport, storage, handling, and disposal as well as how an operator will respond to a spill, including containment and clean-up procedures, enhanced monitoring measures, and notification procedures to the appropriate regulatory agencies.	Ĭ

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			A copy of the spill contingency plan required by a state or other Federal agency will generally meet the BLM requirement for a spill contingency plan. However, the Plan must include who, when, and how the operator will notify the BLM when a release or spill occurs on or that may affect BLM-managed lands. Review of the proposed spill contingency plan must be coordinated with the State Office or District/Field Office Hazardous Materials Coordinator.	
124	5-11	Line 12	According to 2015 CRVFO RMP Appendix K, BMPs: "MIN-51: All tanks with a capacity of ten (10) barrels or greater shall be labeled or posted with the following information: A. Name of operator; B. Operator's emergency contact telephone number; C. Tank capacity; D. Tank contents; and E. National Fire Protection Association (NFPA) Label. Smaller chemical storage shall be labeled with contents and NFPA label."	NA
131	5-12	Line 3	2015 CRVFO RMP Appendix K, BMP MIN-23: "All routes shall be built and maintained to BLM Manual Section 9113 standards for road shape and drainage features (BLM 2012) or where appropriate BLM Manual Section 9115 standards for primitive roads (BLM 2012b). For drainage crossings, culverts should be sized for the 50 year storm event with no static head and to pass a 100-year event without failing. Site specific conditions may warrant BLM to require designs for larger events (e.g. 75-100 year storm events). Large culverts and bridges shall be designed and constructed per BLM Manual 9112 (large culverts and bridges) (BLM 2009). Large culverts and bridges shall be designed to pass a 100-year storm event (minimum).	I
132	5-12	Line 5	Is RMR proposing to redesign Transfer Trail?	Ι
133	5-12	Line 6	These BLM roads need to be cited by route number and noted on the map.	I
134	5-12	Line 7	Per 43 CFR §3809.401(b)(viii), this Plan of Operations Modification must include "Plans for all access roads, water supply pipelines, and power or utility services."  Per 43 CFR §3809.401(b)(i): Maps of the project area at an appropriate scale showing the location of exploration activities, drill sites, mining activities, processing facilities, waste rock and tailing disposal areas, support facilities, structures, buildings, and access routes;	I
135	5-12	Line 10	Per 43 CFR §3809.401(b)(viii), this Plan of Operations Modification must include	I

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			"Plans for all access roads, water supply pipelines, and power or utility services." These improvements need to be proposed in detail.  Per 43 CFR §3809.401(b)(2)(ii), preliminary or conceptual designs, cross sections, and operating plans are required for mining areas, mineral processing facilities, waste rock or tailing impoundment locations, haul roads, etc.	
136	5-12	Line 14	As requested in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  2. Access Route Use and Maintenance Plan a. §3809.420 (b) (1): When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance. b. Improvements to Transfer Trail may include widening, adding retaining walls, and adding drainage improvements. c. Include Transfer Trail Winter Maintenance Plan. i. Accommodate existing snowmobile recreation on Transfer Trail	I
137	5-12	Line 15	Provide number of trucks per day on Transfer Trail for the NEPA analysis.	I
139	5-12	Line 24	The pending traffic study must include baseline traffic volume data including recreation traffic volumes from Transfer Trail.	NA
140	5-12	Line 24	BLM requires information about the rest of the truck route and railyard destination for NEPA analysis, include proposed traffic control devices on BLM-managed lands and other lands.	NA
141	5-12	Line 25	As requested in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809): 5. Seismic and Noise Baseline Data and Monitoring Plan(s) are required.  a. §3809.401 (b) (1): Operational and baseline environmental information for BLM to analyze potential environmental impacts as required by the National Environmental Policy Act and to determine if your plan of operations will prevent unnecessary or undue degradation.	I

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143	5-12	Line 27	b. §3809.401 (b) (4): Monitoring Plan. A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality  Per BLM Handbook H-3809-1, 4.3.3.2.8 Support Facility Plans: Plans for access roads, conveyors, water supply pipelines, and power or utility services or any other such support facility to be built and run by the operator for the project are considered as part of the Plan of Operations and not as a separate right-of-way (ROW) permit where such facilities would be constructed to serve exploration or mining activity on BLM lands under a specific Plan of Operations. However, an operator is not precluded from filing for a ROW under 43 CFR Group 2800, if the operator wants long-term protection or exclusive use of the route.  Plans for support facilities must include a basic description of the facility purpose, size, disturbance area, construction procedures, operating capacity, and reclamation procedures.  Third-party local or regional roads, power lines, or other utility services passing through or near the project area do not require approval as part of the Plan of Operations provided they exist independently of the Plan and have a separate au	I

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			If approval of the Plan of Operations would result in upgrades, expansions, or increased maintenance requirements to local or regional roads, powerlines, or other support facilities operated by the third parties, the potential impacts of such support facilities need to be analyzed in the NEPA document prepared for the Plan because the approval of such facilities is connected to the proposed action. Therefore, the potential impacts of these facilities must be analyzed in conjunction with the proposed action for direct, indirect, and cumulative impacts.  Any third-party utility providers would need a ROW for the placement and	
			maintenance of utilities.	
144	5-13	Line 1	Include name of power utility provider.	NA
146	5-13	Line 2	Describe this existing authorization and provide BLM case file serial number.	NA
148	5-13	Line 4	Per 43 CFR §3809.401(b)(viii), this Plan of Operations Modification must include "Plans for all access roads, water supply pipelines, and power or utility services." These services need to be proposed in detail within this Plan Modification.	I
151	5-13	Line 21	As discussed in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  4. Stormwater Management Plan  a. §3809.401 (b) (2) (iii): Where do I file my plan of operations and what information must I include with it? Water management plans;  b. §3809.401 (b) (4): Monitoring Plan. A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other	I

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			Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality c. §3809.411 (a) (3) (ix): What action will BLM take when it receives my plan of operations? BLM completes consultation with the State to ensure your operations will be consistent with State water quality requirements. d. §3809.420(b)(5): "all operators shall comply with applicable Federal and state water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 et seq.)." e. The 2015 Colorado River Valley Field Office Resource Management Plan, Appendix K – Best Management Practices (BMPs) and Conservation Measures states: "MIN-17: Before activities take place, every pad, access road, or facility site will have an approved surface drainage plan (storm water management plan) for establishing positive management of surface water drainage, to reduce erosion and sediment transport. The drainage plan will include adaptive BMPs, monitoring, maintenance and reporting. BMPs may include run-on/run-off controls such as surface pocking or revegetation, ditches or berms, basins, and other control methods to reduce erosion. Pre-construction drainage BMPs will be installed as appropriate."  i. BMP MIN-24: "As detailed in the site plan for surface/storm water management, drainage from disturbed areas will be confined or directed to minimize erosion, particularly within 100 feet of all drainages. No runoff, including that from roads, will be allowed to flow into intermittent or perennial waterways without first passing through sediment-trapping mechanisms such as vegetation, anchored bales or catchments."	
152	5-13	Line 22	All stormwater control devices must be listed in this proposal including sites along the access road and the site at the junction of Transfer Trail and unnamed drainage. These also need to be noted on the map.	I
156	5-16	Line 12	As requested in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  2. Access Route Use and Maintenance Plan	I

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			<ul> <li>a. §3809.420 (b) (1): When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance.</li> <li>b. Improvements to Transfer Trail may include widening, adding retaining walls, and adding drainage improvements.</li> <li>c. Include Transfer Trail Winter Maintenance Plan.</li> <li>i. Accommodate existing snowmobile recreation on Transfer Trail</li> </ul>	
158	6-1	Line 1	As requested in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification:  9. Reclamation Plan updates b. RMR must address visual impacts during reclamation. c. Include information as to how eastern highwall, area of MSHA concern, will be mitigated through life of mine.	NA
159	6-1	Line 5	Per BLM Solid Minerals Reclamation Handbook 3042: "The reclamation plan should address the mitigation of unique impacts such as re-establishing big game migration routes and the development of features which enhance wildlife habitat." (pg XI-4)	I
160	6-1	Line 8	BLM Handbook H-3809-1, 4.3.3.3.2 Regrading and Reshaping Plans "The plans for the regrading and reshaping of disturbed areas must be provided in the Plan of Operations. The plans must include:  • A description of the amount and location of material to be moved.  • Equipment to be used.  • Slope grade.  • Spacing of benches.  • Location and size of run-on/run-off controls.  • Cross-sections.  A post-operation topographic map showing the planned surface configuration is usually the best way to (1) illustrate the regrading plan, (2) allow for verification of the amount of material to be moved at closure, and (3) assess the adequacy of runoff controls needed to manage post-closure sedimentation. For some mine waste units, such as ore heaps, the location of the leach pad liner relative to the regraded spent-ore	I

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			is needed to determine the adequacy of post-closure leachate management.	
			Obtaining information on the overall stability of the reclaimed facility is a critical requirement. Elements needed to determine stability include, but are not limited to, pre- and post-disturbance landform, original site topography, geology, depth to groundwater, regrade slope, construction methods, and type of material."	
162	6-1	Line 15	The conceptual reclaimed project area does not feature the "feathered edges' of	I
			vegetation and cliffs that were discussed at the 12/4/17 meeting.  The proposed western, eastern, and southern cliff faces and inter-quarry cliffs are not in line with Visual Resource Management standards; these features are not in context with the texture and form of the surrounding area.	
172	6-3	Line 23	All of these structures need to be noted on a map and included in the occupancy proposal under 43 CFR §3715.	I
175	6-4	Line 4	Is this a new proposed topsoil berm or the existing topsoil berm that is currently on the west side of the mill bench?	NA
176	6-4	Line 9	Per 43 CFR §3809.401 (b)(3), the reclamation plan must meet the standards of §3809.420. Discuss how the current upper, middle, and lower access roads to the quarry and mill bench will be reclaimed. Refer to BLM Solid Minerals Reclamation Handbook 3042 pages IV-2 through IV-4 for road reclamation guidelines.	NA
177	6-4	Line 10	Specify the route numbers if current BLM-designated routes.	NA
178	6-4	Line 12	Will this road work be done upon reclamation or during mining operations? Provide a conceptual cross-section of these road designs.	NA
179	6-4	Line 13	Per BLM Solid Minerals Reclamation Handbook 3042: "Drainage structures or energy dissipators should be used where appropriate on all roads." (pg IV-2) Describe erosion BMPs to be used on these roads.	I
181	6-4	Line 20	Where will this overburden be stored after stripping but prior to reclamation?	I
183	6-5	Line 10	BLM Handbook H-3809-1, 4.3.3.3.7 Revegetation Plans All reclamation plans must include plans for revegetation of the disturbed area. Revegetation plans must specify:  • Treatment methods such as fertilization or inoculation.	I

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			• Stabilization of the reclamation area during vegetation establishment.  Revegetation plans must also include proposed criteria for what would constitute successful revegetation and describe any measures such as temporary fencing or noxious weed control that would be used on the reclaimed area.	
184	6-6	Line 14	Recreation was not mentioned as a post-mining land use on page 6-1. Consistency is required.	I
187	6-7	Line 20	This needs further detail. Per BLM Solid Minerals Reclamation Handbook 3042: "Reclamation plans should be prepared to include a detailed discussion of the proposed surface water run-off and erosion controls including how surface run-off will be controlled during the ongoing operations, during interim shutdowns, and upon final reclamation.  Reclamation plans should also include a properly designed water monitoring program to ensure operator compliance with the approved plan. The purpose of the monitoring plan is to determine the quantities and qualities of all waters which may be affected by mineral operations." (pgVII-1)  Refer to BLM Solid Minerals Reclamation Handbook 3042, Chapter VII, Drainage and Hydrology for guidance.	NA
188	6-8	Line 25	According to the BLM Surface Management Handbook H-3809-1, 4.3.3.4 Monitoring Plans, 4.3.3.4.1 Purpose: The Plan of Operations must include monitoring plans. The purpose of monitoring is to:  • Demonstrate compliance with the Plan of Operations and other Federal or state laws and regulations.  • Provide early detection of potential noncompliance.  • Supply information to assist in directing corrective actions. For each resource to be monitored the respective monitoring plan must describe the:  • Type and location of the monitoring devices.  • Sampling parameters and frequency.  • Analytical methods.	I

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			<ul><li>Reporting procedures.</li><li>Procedures for responding to adverse monitoring results.</li></ul>	
189	6-9	Line 1	Determining the preferred methods for minimizing erosion and enhancing revegetation needs to be done in the planning stage, not in the final reclamation phase.	I
190	6-9	Line 3	Per 43 CFR §3809.401(b)(4): You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality.	I
191	6-9	Line 8	In past meetings, RMR has discussed phased bonding. In this case, all proposed operations will need to be organized into phases and RCEs will need to be calculated for each phase. Refer to BLM Handbook H-3809-1, Section 6.2.1.2, Cost Estimate for Part of an Operation.	NA
192	6-9	Line 13	Per 43 CFR §3809.401(d): At a time specified by BLM, you must submit an estimate of the cost to fully reclaim your operations as required by §3809.552. BLM will review your reclamation cost estimate and notify you of any deficiencies or additional information that must be submitted in order to determine a final reclamation cost. BLM will notify you when we have determined the final amount for which you must provide financial assurance.	NA
193	7-1	Line 14	There are no exploration activities included in this proposal. If RMR wishes to conduct additional exploration, it either must be included in this proposal or another proposal must be submitted and go through the NEPA process prior to authorization.	I
194	7-1	Line 25	Does this refer to the CDPHE Stormwater Management Plan or the stormwater plan included in this proposal?	I
197	7-2	Line 9	Is this only in case of interim closure? This statement needs to be included in the reclamation plan.	NA
202	8-1	Line 1	At our 12/4/2017 meeting, BLM requested a Wildlife Habitat Rehabilitation Plan. Is this the proposed Wildlife Habitat Rehabilitation Plan? This section/plan requires additional information.	I

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			BLM Handbook H-3809-1, 4.3.3.3.5 Wildlife Habitat Rehabilitation Plans: Wildlife habitat rehabilitation may include plans for re-establishing the same type of wildlife habitat, or plans for a change in habitat more suitable to the altered landform. Plans for rehabilitation of wildlife habitat must be aligned with plans for revegetation. Providing for wildlife forage and cover through revegetation is part of wildlife habitat rehabilitation. The reclamation plans must place special emphasis on wildlife habitat rehabilitation measures to rehabilitate or restore critical value, pre-mine wildlife habitat, such as winter range or calving areas.  When a habitat is proposed to be restored or created, the plan must address how the proposed landform and vegetation will provide adequate shelter, habitat, and forage. To the extent practical, the BLM wildlife biologists are available to assist operators in	
203	8-2	Line 26	development of their wildlife habitat rehabilitation plans.  Is this proposed offsite mitigation? This needs additional detail and a concrete	I
204	8-4	Line 1	proposal.  BLM Handbook H-3809-1, 4.3.3.3.6 Soil Handling Plans: The reclamation plan must describe the salvage, storage, redistribution, and treatment of topsoil (or growth medium) that is to be used in reclamation.72 Soil handling plans must specify:  • How soil will be salvaged in advance of construction.  • Salvage depth.  • Salvage cutoff criteria.  • Segregation of topsoil and subsoil.  • Direct haul feasibility versus storage.  • Soil stockpile location and volumes.  • Measures to protect the stockpile from erosion.  • Measures to preserve soil viability.  • Placement thickness at reclamation.	I
207	12-1	Line 1	There are numerous technical errors within this section that must be addressed.	I
209	12-12	Line 14	This proposal requires water management plans including a stormwater management	I

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			plan and a surface/groundwater quality monitoring plan. The water quality monitoring plan must specifically address water travelling along Transfer Trail.  As requested in the 9/14/2017 meeting between RMR and BLM: 4. Stormwater Management Plan a. §3809.401 (b) (2) (iii): Where do I file my plan of operations and what information must I include with it? Water management plans; b. §3809.401 (b) (4): Monitoring Plan. A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and	
			quantity, air quality, revegetation, stability, noise levels, and wildlife mortality c. §3809.411 (a) (3) (ix): What action will BLM take when it receives my plan of operations? BLM completes consultation with the State to ensure your operations will be consistent with State water quality requirements. d. §3809.420(b)(5): "all operators shall comply with applicable Federal and state water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 et seq.)." e. The 2015 Colorado River Valley Field Office Resource Management Plan, Appendix K – Best Management Practices (BMPs) and Conservation Measures states: "MIN-17: Before activities take place, every pad, access road, or facility site will have an approved surface drainage plan (storm water management plan) for establishing positive management of surface water drainage, to reduce erosion and sediment transport. The drainage plan will include adaptive BMPs, monitoring, maintenance	

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			and reporting. BMPs may include run-on/run-off controls such as surface pocking or revegetation, ditches or berms, basins, and other control methods to reduce erosion. Pre-construction drainage BMPs will be installed as appropriate."  i. BMP MIN-24: "As detailed in the site plan for surface/storm water management, drainage from disturbed areas will be confined or directed to minimize erosion, particularly within 100 feet of all drainages. No runoff, including that from roads, will be allowed to flow into intermittent or perennial waterways without first passing through sediment-trapping mechanisms such as vegetation, anchored bales or catchments."	
211	13-1	Line 1	As requested in the 9/14/2017 meeting between RMR and BLM, per §3809.401 (c) (2), the following information must be included in the Plan of Operations modification to ensure that your operations comply with this subpart (43 CFR §3809):  3. Fugitive Dust Monitoring Plan a. §3809.401 (b) (4): Monitoring Plan. A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality b. Include in the Plan modification a description of when and how often access routes will be treated with dust suppressants. Describe dust suppression activities.	I
215	16-1	Line 1	Per 43 CFR §3809.401(b)(4): A proposed plan for monitoring the effect of your operations. You must design monitoring plans to meet the following objectives: To demonstrate compliance with the approved plan of operations and other Federal or State environmental laws and regulations, to provide early detection of potential	I

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216	71 of 74	Line 1	problems, and to supply information that will assist in directing corrective actions should they become necessary. Where applicable, you must include in monitoring plans details on type and location of monitoring devices, sampling parameters and frequency, analytical methods, reporting procedures, and procedures to respond to adverse monitoring results. Monitoring plans may incorporate existing State or other Federal monitoring requirements to avoid duplication. Examples of monitoring programs which may be necessary include surface- and ground-water quality and quantity, air quality, revegetation, stability, noise levels, and wildlife mortality  This proposal must include a geotechnical stability monitoring plan. Will this impending report include this monitoring plan?  Whereas the selected visual simulation Key Observation Points are acceptable (and subject to the addition of more KOPs), the submitted visual simulations are insufficient. The simulations must be accurate, reliable, valid, and representative of the real world depiction of the completed and/or interim proposed action on the landscape. Simulations must accurately reflect the times of day that the quarry will be operating; including any night operations. Simulations will be prepared to scale depicting any and all parts of the proposed action. This includes all structures and supporting infrastructure (electric, roads, etc.) and resulting disturbances to the surrounding landscape. Analysis and mitigation measures will be based upon these simulations and RMR's end product will be held to the final visual simulation documents. The visual impacts will be addressed within the upcoming NEPA	I
218	5-1	Line 1	document.  There are known caves and karst features adjacent to the project location. The question remains if there are any caves or karst features in the project location. In order to complete the NEPA analysis, a geophysical resistivity survey is required. Since the BLM does not currently have a specialist that can conduct these surveys, it would be more expedient for RMR to collect the data for analysis.	TBD in a separate proposal and review. Must be discussed in plan of operations modification as well.
			Per 43 CFR §3809.401(c)(1): Operational and baseline environmental information for BLM to analyze potential environmental impacts as required by the National	

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
			Environmental Policy Act and to determine if your plan of operations will prevent unnecessary or undue degradation. This could include information on public and non-public lands needed to characterize the geology, paleontological resources, cave resources, hydrology, soils, vegetation, wildlife, air quality, cultural resources, and socioeconomic conditions in and around the project area, as well as information that may require you to conduct static and kinetic testing to characterize the potential for your operations to produce acid drainage or other leachate. BLM is available to advise you on the exact type of information and level of detail needed to meet these requirements;	
			There is a risk in this project that disturbance in hydrology could affect cave environments, cave/feature creation and karst features. Since neighbors rely on these resources, a disturbance that affects their operations or these resources could result in litigation to both the BLM and RMR.	
			For all salable minerals, the following NSO applies from our Resource Management Plan Record of Decision: Stipulation CRVFO-NSO-24: Cave and Karst Resources. Prohibit surface occupancy and surface-disturbing activities to the extent (at a minimum this stipulation extends to 5,000 feet below the surface) of known cave and karst resources to protect the scientific and wildlife values associated with cave openings provided by these caves and to avoid the difficulties inherent in drilling such locations. This NSO would apply as the BLM gains new information and will cover any new cave or karst resources.	
220	5-12	10.1	Provide additional detail about electric trucks.	NA
221	5-16	17	Please provide more specifics. This is a critical road access to the southern flat tops for recreation users and they will care deeply about the details. What will winter access look like? Will there be new parking for winter users? Summer users? Where will this be and what will it look like?	I
223	Plan of Opera		Provide an Access Route Use and Maintenance Plan that addresses how RMR plans to change the current patterns of access in the area and how RMR plans to working with the public to address possible concerns. The plan should include details about winter	NA

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
	tions		use, summer use, and hunting access.	
224	5-2	First Paragraph	RMR proposes a "natural wall" to hide operations. From where will this block visibility of operations? From town? From Adventure Park? From homes?	NA
225	5-10, 6.2	Topsoil Storage	Describe how topsoil will be protected from stormwater erosion.	Ι
226	5-10,	Fuel/ Oil Storage	Will clean up kits be kept on site?	NA
227	5-10, 7	Fuel/ Oil Storage	BLM must be notified of any spills.	NA
231	5-14	15.1.1	Explain the origin of the 72-hour evaporation statement. What data backs this claim up? Cite references.	NA
232	5-14	15.1	How often will sumps be cleaned out? These will fill with sediment and will need to be maintained in order to keep adequate storage.	Ι
236	5-16	15.1.2	Groundwater section should be expanded. There are potential groundwater impacts from mining activities.	Ι
237	12-13	6.1	There is claim that the Leadville Limestone is known as a significant aquifer. The quarry is within the Leadville Limestone, however claims that these are not hydrogeologically connected are unsubstantiated.  RMR must either provide data that proves a lack of hydrologic connectivity between the project area and local springs or hydrologic baseline data, including a potentiometric surface map, is required.	NA
			There are multiple groundwater resources nearby that could be impacted, primarily the Glenwood Hot Springs and Iron Mountain Hot Springs.	
239	13-2		If water from sumps will be used for dust abatement and sumps are anticipated to evaporate within 72hrs, how will dust abatement occur when sumps are dry?	NA
241	5-4, Sec 2.2	Last paragraph	What proportion of the quarry is anticipated to be left as a "cliff-type surface"?  Vertical cliffs will complicate reclamation and stormwater controls.	NA
243	5-10,	Topsoil	The Plan should state that Topsoil and overburden will be stored separately from one	I

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	Sec. 6.1	Stripping	another and clearly marked to avoid mixing and diluting topsoil. Topsoil from oakbrush and aspen soils should be kept separate from topsoil from P-J areas. Topsoil depth will include all suitable growth medium present on the site, as indicated by color or texture.	
245	5-14, Sec 15.1. 1.1	Runoff containmen t	Reclaimed area listed as 268.7 acres, but total disturbance is listed as 313 acres. What accounts for the remaining 44 acres?	I
246	6-1	Reclamatio n Plan	Include all activities that comprise reclamation of each bench. E.g. Topsoil stripping/segregation, storage, topsoil seeding, using overburden or fines to recontour slopes, ripping, re-topsoiling, soil amendments, if any, harrowing, seeding (drill vs broadcast), mulching (hydromulch/tackifier or hay mulch/crimping), monitoring (weed control and revegetation), etc.	I
249	6-4	Sec. 7	Organization of the Reclamation Plan is somewhat confusing. Ripping of Compacted Areas only mentions ripping the mill level before final reclamation, but all compacted areas must be ripped prior to reapplying topsoil. Ripping should be done to a depth of 18 inches (not 6 inches) with a maximum furrow spacing of 18-24 inches. Ripping should be done in two passes in perpendicular directions to break up any soil compaction.	I
250	6-5, Sec. 8 & 9	Topsoil Replaceme nt and Harrowing	Topsoil should be harrowed after placement to remove air pockets and prior to pocking. Harrowing is listed after pocking in the Reclamation Plan. "Topsoil placed on sloped areas will be 'pocked' following placement." These should be small depressions created by a backhoe or mini-excavator and should be constructed in irregularly spaced, irregularly aligned rows oriented perpendicular to the slope.	I
251	6-5, Sec.1	Revegetati on of Disturbed Areas	Time of Year to Seed: Ideally, seeding should occur from late Fall to very early Spring. Shrubs will have best chance of establishment if seeded over snow in pocked areas, separately from grasses.	I
252	6-6	Table 6-2, Seed Mix	Reduce seed rate of Thickspike wheat from 2.5 to 2.0 and Western wheatgrass from 3.6 to 2.8. Change seed rate of Saskatoon serviceberry from 4.4 to 2.0 and Antelope bitterbrush from 13.2 to 4.6. This will reduce competition from grasses and improve	NA

Cmt #	Page #	Row #, Line #, or Table #	5/11/2018 BLM Comment	BLM Comment Resolution:  Comment addressed inadequately (I) or not addressed (NA)
			chance of shrubs getting established. Also, if reclaimed areas are drill seeded, shrubs and forbs should be drilled in separate rows from grasses. If reclamation is by	
			broadcast seeding, shrub establishment may be improved if pocked areas are not seeded with grasses but are seeded only with shrubs over the snow as "islands".	
253	6-7	2nd bullet	Seed tags and test results from a registered seed lab must be provided to BLM for approval BEFORE any seed is mixed. That way if a certain seed lot/species is bad, the entire seed mix won't have to be rejected.	NA
254	6-8	Section 14. Monitoring Reclamatio n Success	Annual reclamation monitoring and weed reports shall be submitted to the BLM and DRMS, including but not limited to, a description of monitoring methods used, vegetation composition and cover within each habitat type, noxious weeds detected, and reclamation actions taken.	I
257	6-9	Section 12. Weed Control	Weed surveys should be conducted and weed control measures should be implemented prior to any surface disturbing activities to avoid spreading weed seeds and weed propagules throughout the quarry site.	NA
258	6-9	Section 12. Weed Control	In areas where desirable forbs are present, herbicide application may be limited to spot spraying of noxious weeds only to avoid adverse impacts to non-target vegetation.	NA
259	6-9	Sec. 13 Revegetati on Success Criteria	Successful revegetation should include representatives of all vegetative life-forms in the seed mix.	I

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261	6-9	Sec. 13 Revegetati on Success Criteria	Monitoring of revegetation will continue until reclamation success criteria are met. Reclamation will be considered successful when: 1. Seeded species or desirable, native perennial volunteer species on the reclaimed areas constitute at least 80% of the cover of the surrounding undisturbed area or reference area (CRVFO BMP MIN-62), 2. Forbs and shrubs should constitute at least 2% of the reclamation cover, 3. No noxious weeds on the State or County A or B list are present in the disturbed area; C list species should be no more abundant than in adjacent undisturbed areas, and 4. no gullying, headcuts, or rill greater than 3 inches are present. If reclamation is not considered successful by the third growing season after seeding, additional reclamation activities may be required, including additional seeding, application of soil amendments, etc.	I
262	6-10	Sec. 14	"If minor changes or modifications are needed" Any revisions to the reclamation plan will need to be submitted to the BLM and DRMS for review and approval.	NA
267	App 2		Visual renderings of the reclaimed areas are misleading, because the Google Earth figure shows the predisturbance veg cover (i.e. mature Pinyon-juniper woodland), but the final reclaimed areas will look very different for several centuries. The reclaimed areas will have a very different vertical structure since they will be dominated by grasses/forbs and hopefully, some shrubs. The reclaimed areas will also look much brighter (greener) than the pre-existing vegetation.	I
271	5-14 to 5- 15	15.1.1	More information about stormwater mitigation is needed. How will RMR ensure that stormwater, sediments, and potential contaminants do not drain into the Oasis Creek or Cascade Creek drainages?	I

### **New Comments**

## Colorado River Valley Field Office Review

## RMR Aggregates Mid-Continent Quarry – Plan of Operations Modification December 2018

Cmt #	Page #	Section	New Comment	Comment Resolution:  Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
1.	Appendix 2		The visual impact renderings require labels.	
2.	Appendix 2		Visual renderings do not match the information in the reclamation plan.	
3.	Appendix 2		Visual renderings do not depict the remaining quarry road switchbacks within the reclaimed area. This road, like the current Transfer Trail, would be visible. Cut and fill structures like roads are often very apparent to observers. Eighteen switchbacks would be very visible.	
4.	Appendix 2		The realignment of the lower portions of Transfer Trail would likely have a large visual and possibly a large sound impact on the residences in Oasis Creek. Visual renderings may need to be included for this new portion of the project.	
5.	Appendix 2		Visual renderings must show disturbance associated with the pipe conveyor.	
6.	Appendix 2		Would topsoil and overburden stockpiles be visible prior to final reclamation?	
7.	5-11 2.6	Exploration Activity	All test holes must have permits in place from the Division of Water Resources.	
8.	15-20	15.2	Cite the noise standards for BLM and Colorado that RMR will meet.	
9.	Soils Section		RMR must analyze the erosion potential from the quarry site and along the access road and describe how this will be mitigated.	
10.	12-2	Climate	The Vail weather station is not the most representative site to compare with. There are other weather stations and/or resources that are more representative of the location.	
11.	13-15	6.1, 2 <sup>nd</sup> paragraph	The claims of groundwater disconnectivity from the quarry area and the hot springs do not negate the BLM requirement for a baseline hydrologic study to understand the groundwater system. Either cite studies or remove this language until there is more data.	
12.	13-16 9.	1 <sup>st</sup> paragraph	Change "proscribed" to "prescribed".	

Cmt #	Page #	Section	New Comment	Comment Resolution:  Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
13.	10		In the runoff calculation section, RMR states that the hillside above the active quarry bench consists reclaimed ground (pinyon-juniper). There will not be pinyon-juniper on the reclaimed ground for years.	
14.	SPCC page 22	3.7.4	Describe the leak detection systems that is referenced.	
15.	SPCC page 24	3.10.1	According to the proposed plan, "all the tanks on site will have secondary containment with a volume of at least 110% the volume of the largest tank within said containment." Cite the volumes of the secondary containment and ensure the secondary containment is appropriate.	
16.	SPCC page 28	4.2.2	Will secondary containment be large enough to hold a spill plus the 25 year 24-hr rainfall event per 40 CFR 267.190? Section 4.2.2 claims there is enough storage, but provide calculations.	
17.	SPCC		Secondary containment should not have "run on" to it, which could lower capacity.	
18.	Map F-1		Explain why areas steeper than 2:1 are not proposed to be revegetated. The proposed plan states all disturbed areas will be top-soiled. Will all top-soiled areas be 2:1 or shallower?	
19.	Road Concept Plan		BLM requires that Transfer Trail and all other roads that are proposed to remain post-reclamation must be constructed to BLM standards.	
20.	Road Concept Plan page 3 of 4		RMR must describe if the proposed new connection to existing roadways meets BLM site distance requirements.	
21.	28	Section 4.2.6, last paragraph	In the description of Table 4-2, reference is made to a discussion in Section 3.1 of this plan regarding "environmentally equivalent measures" in place of a particular inspection/test. However, Section 3.1 of this plan does NOT deal with this but rather deals with the requirement for either double-walled tanks or location of tanks within a storage container. There is no discussion of environmentally equivalent measures in Section 3.1. Is the discussion starting on page 46, Ultrasonic Shell Test Protocol / Tank Thickness Testing Protocol,	

Cmt				Comment Resolution: Comment Addressed
#	Page #	Section	New Comment	Adequately (A), Inadequately (I), or Not Addressed (NA)
			the environmentally equivalent measures? The improper reference should be corrected.	
22.	36	Section 5.2, Major Discharge Response	BLM recommends that somewhere the emergency notification phone numbers be provided in BOLD LETTERING if they are not posted somewhere already. Reality suggests that someone may be looking for these numbers when a spill occurs and may not be completely familiar with this plan.	
23.	37	Section 5.4, Spill Notification Forms and Discharge Notification	I would suggest the National Response Center phone number be in LARGE BOLD LETTERING.	
24.	38	Section 5.5, Cleanup Contractors and Equipment Suppliers	The phone number listed for Veolia ES Special Services is NOT a valid/active phone number and the people with this company said the 1-800-688-4005 is the phone number that should be listed.	
25.	39	Section 5.5	For the Emergency Contacts table, I would suggest adding "National Response Center" behind the EPA heading since that is how they are referenced in Section 5.2.	
26.	40	Spill Notification/ Documentati on Form	Under "Local Health Department" is the note, "unknown location." There is a Garfield County Public Health Dept. office in Glenwood Springs at 2104 Blake Ave, Glenwood Springs, 81601. Their phone number is 970-945-6614.	
27.	43	Part B Notification Checklist	Under Local Fire Dept. and Local Water Dept., the note "unknown" is made. I would suggest these be determined and listed. Under Local Fire Dept., the alternative of calling 911 is noted which would suffice	
28.	9-1	Wildlife Information	Wildlife Mortality Monitoring: BLM would appreciate the reporting of deaths of any raptor species, not just "large raptors." You could state that RMR will report to the BLM any observed deaths of raptors, elk, deer, and bighorn sheep within 72 hours of their discovery.	

				Comment Resolution:
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29.	9-1	Wildlife Information	Raptors: This section states that topsoil would not be stripped March 15-July 15. The primary concern for potential impacts to nesting birds would be the removal of vegetation (the first sentence mentions topsoil stripping and the second sentence mentions the removal of topsoil and native vegetation). ERO found a suspected red-tailed hawk nest and observed a pair of red-tailed hawks on multiple occasions in the vicinity of the project area. During 2017 field surveys, a northern pygmy owl was heard calling in the area. Those observations are documented in ERO's report. The CRVFO Resource Management Plan timing limitation for red-tailed hawks and all owls is from February 15-July 15. This stipulation prohibits surface-disturbing activities to protect use of nesting and fledgling habitat. Extending the period during which vegetation would not be removed to February 15-July 15 would add protections for nesting red-tailed hawks and owls. If field surveys to locate active raptor nests will be conducted by a qualified biologist prior to vegetation removal each year, RMR could use the dates on page 23 of ERO's report based on survey results. In the absence of active raptor nests, at a minimum, vegetation removal can't occur May 15-July to avoid the migratory bird nesting season. BLM agrees with ERO's recommendation that vegetation removal occur in the fall to completely avoid the destruction of active nests.	
30.	5-15	7.1 Topsoil and Overburden Stripping	If all the woody material on site is chipped and incorporated into the topsoil, it may overwhelm the topsoil with carbon material. Consider stockpiling a portion of the large woody material intact (i.e. non-chipped) separately from the topsoil to be redistributed on reclaimed slopes for erosion control and to provide microhabitats for germination.	
31.	5-15	7.1 Topsoil and Overburden Stripping	BLM recommends that topsoil stockpiles be promptly seeded to maintain soil microbial activity.	
32.	5-16	7.2 Topsoil and Overburden Storage	Will the topsoil and overburden piles stored north of the initial quarry cut be in place and visible from town until final quarry reclamation takes place?	

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33.	5-16	7.2 Topsoil and Overburden Storage	When topsoil will be stored for more than one year and when topography allows, BLM recommends that topsoil be wind-rowed to the shallowest practical depth (generally no more than 2 feet deep) to maintain soil microbial activity.	
34.	6-2 and 6-3	Reclamation Timetable	p. 6-2 indicates <i>at least</i> two years of monitoring. Realistically, it will take much longer than two years to achieve final reclamation success.	
35.	6-5	Overburden Replacement	BLM recommends that all compacted portions of the area to be reclaimed be ripped to a depth of 18" prior to topsoil placement unless in solid rock.	
36.	6-5	Post- Reclamation Site Drainage	The plan mentions the "new presence of cliffs". If cliffs are anticipated to remain following mining, BLM recommends they mimic natural topographic features as much as possible (e.g. Oasis Creek cliff angles).	
37.	6-12	9.5.1 Contour Furrowing	Water harvesting measures are a good idea to encourage seedling establishment, especially on south-facing slopes. However, contour furrowing or any other method that would create highly visible horizontal lines across the slope would not create the form, line, and texture that is depicted in the visual simulations.	
38.	6-13	10. Mulching & Cover Crops	BLM recommends that RMR consider using some type of mulch or erosion matting for moisture retention and erosion control rather than a sterile cover crop.	
39.	6-15	11. Revegetation Plan	RMR must describe in detail the proposed permanent reclamation outcomes based on the visual renderings.  See also the "Plan for Reclamation of the Surface – Template NW Colorado District" and "Appendix G, Disturbed Site Reclamation Standards from CRVFO Roan Plateau Planning Area ROD and ARMP" for example reclamation success criteria.	
40.	6-16	11.1 Seed Mixture Species Selection	Seed analysis results must be submitted to BLM for approval prior to applying on the ground to ensure each species meets our weed-free seed requirements and germination and purity requirements. (See IM 2006-073, Weed-Free Seed Use on Lands Administered by the Bureau of Land Management).	
41.	6-26 to 6-30	Seed Mixes	BLM suggests that seeding rates are usually doubled if seed is broadcast as opposed to drilled to account for lower expected seed germination rate	

				Comment Resolution:
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42.	6-27	11.3 Cover Crop	See comment above for page 6-13, Section 10. Mulching and Cover Crops.	
43.	6-28	Table 6-5	Several of these species are not native and BLM recommends that RMR remove them from the mix, such as redtop, red fescue, Kentucky bluegrass, and intermediate bluegrass.	
44.	6-29	Table 6-6 Permanent Reclamation Seed Mix	BLM recommends that RMR replace Symphoricarpos occidentalis with S. rotundifolius. Syro is common in our area and Syoc is seldom, if ever, seen here.	
45.	6-30	Table 6-7 Permanent Reclamation, Alternate Species	Several of the listed species do not naturally occur in this area or are not native and should not be part of the seed mix, e.g. Rocky Mtn fescue, Thurber's fescue, green needlegrass, fowl bluegrass, sainfoin and small burnet).	
46.	6-31	Shrubs	Almost all areas of the site have existing shrubs and/or trees, thus should have the potential to support woody species. Visual simulation shows shrubs in clumps scattered throughout the reclaimed area and this should be the target for permanent reclamation or with scattered trees to blend in with the surrounding area and to provide wildlife forage and cover needs.	
47.	6-31	Shrubs	If available, will antelope bitterbrush be considered for seeding?	
48.	6-32	11.6 Timing of Seeding Operations	BLM suggests optimal timing for seeding is Fall through Winter (Approximately Sept 1 to April 1). Broadcast seeding during the winter can be quite successful because the winter snows provide good moisture for germination early in the spring. After April 1, adequate moisture may not be available to ensure germination and establishment of adequate root systems before the heat of summer dessicates seedlings.	
49.	6-32	11.6 Timing of Seeding Operations	BLM recommends that seeding/planting be evaluated during the 2 <sup>nd</sup> growing season.	
50.	6-33	11.7 Seeding Methods	Suggestion for RMR's consideration: another seeding method that RMR might consider is transplanting, especially for shrubs.	
51.	6-33 to 6-34	11.7.1	A broadcast seed rate of 25 to 50 PLS per square foot seems rather low.	

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		Broadcast Seeding	Application rates for drill seeding on BLM lands is usually in the 40-60 PLS per square foot range and broadcast seeding is double the drill seeding rate. Does RMR have citations to indicate that broadcast seeding at 25-50 PLS achieves desired vegetative cover on reclaimed lands?	
52.	6-36	12.1 Summary	ERO found several noxious weeds were prevalent along the access roads and within the old quarry. BLM recommends that weeds along the access road be treated at the first appropriate time of year to prevent movement/expansion of weed propagules into disturbed areas.	
53.	6-36, 6-39	12.2 Objectives	<ul> <li>Within the plan there is potential to identify more specific objectives and priorities. A few examples are:</li> <li>First treatment priority are weeds along access roads will receive first treatment priority</li> <li>Second treatment priority is single plants and lower density infestations.</li> <li>Third priority will be to treat weeds prior to disturbing soils to prevent transportation of weed propagules to new locations (e.g. topsoil piles).</li> <li>Objectives and priorities will be a factor in the NEPA process.</li> </ul>	
54.	6-39	12.4 Written Records	Please correct the following information for the Pesticide Use Proposal (PUP). The proposal must be submitted and approved by BLM prior to herbicide application. Pesticide Application Records (PARs) must be filled out within 24 hours following herbicide application and submitted to BLM by December 1 <sup>st</sup> each year.	
55.	6-41	12.6 Weed Mgt Methods & Practices	BLM will require that all project materials must be certified weed-free. RMR may add this as a design feature or BLM may add it as mitigation.	
56.	6-46	12.13 Data Collection	Under the requirements for PAR forms, GPS data should be collected to record where weed treatment applications have been performed.	
57.	6-47	13. Vegetation Monitoring	A commitment to provide an annual Reclamation Status Report may be included as a design feature or BLM may include as a mitigation measure. BLM can provide more detail on the Reclamation Status Report Format and Content as requested.	
58.	6-48	13.2 Interim	The Plan mentions inter-seeding or reseeding of substandard areas. Planting of	

				Comment Resolution:
Cmt #	Page #	Section	New Comment	Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
		Monitoring	containerized shrubs or trees should also be considered to meet the final reclamation objectives.	
59.	6-55	Vegetation Monitoring	The table shows only Two Years of Veg Monitoring and One Year of Weed Control. This seems like a substantial underestimate. Account for monitoring of phased reclamation as well as final reclamation, each of which may take a minimum of 5 years. Weed monitoring would occur every year until final bond release.	
60.	6-56	14.1 References	Suggest also including the following as a good resource: Bureau of Land Management, Colorado River Valley Field Office Roan Plateau Planning Area Record of Decision and Approved Resource Management Plan Amendment, 2016, Appendix G: Disturbed Site Reclamation Standards and Implementation, Monitoring and Evaluation	
61.	6-49	13.3 Liability Release Monitoring	<ul> <li>BLM suggests RMR adds additional Final Reclamation Success Criteria. A few examples are:</li> <li>Achieve or exceed the pre-disturbance cover and diversity of native species on the site.</li> <li>Total cover will be at least 80 percent of the reference area and have a similar composition of trees, shrubs, grasses, and forbs.</li> <li>Frequency of the most dominant species will be at least 80 percent of their relative contribution on the reference site.</li> <li>Disturbed areas will be stabilized to reduce erosion and runoff to or below natural background levels.</li> <li>No slumping or subsidence will occur as a result of surface disturbing activities.</li> </ul>	
62.	Table of Contents		The appendices are mis-numbered.	
63.	1-1	1. History	The statement that the quarry did not operate until 1989 is inaccurate. BLM has correspondence records that indicate the quarry was in operation between 1982 and 1989.	
64.	1-6	2.1.12 Summarizati	Provide additional detail about the railyard facilities for NEPA analysis (under separate cover, if desired).	

				Comment Resolution:
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		on of private land activity		
65.	1-7	3. Proposed Expansion and Modernizatio n	Is RMR requesting a common/uncommon variety determination of the entire formation? In the plan, RMR states that there are locatable end-uses for the "dolomitic limestone".  Provide clarification as to whether RMR Aggregates, Inc. is requesting a mineral materials contract for either targeted mineral resource (limestone or dolomite). If a contract is requested, please specify the proposed volume, commodity, and contract duration.	
66.	5-1	Figure 1	Some of the geologic units labelled in this figure are incorrect.	
67.	5.3	2.1 Hours of Operation	Describe the type of light plants. If they are fueled by petroleum products, secondary containment is required.	
68.	5-6	2.4.1 Pipe Conveyor	Describe how the pipe conveyor will be constructed over the natural visual barrier on each proposed quarry bench.	
69.	5-15	6. Ore Stockpile Area	BLM requires additional detail about the proposed sumps and sediment ponds.	
70.	5-18	11. Quarry Access Road	BLM does not recognize "L2008989" and a route identifier. BLM roads must be cited by route number and noted on the map.	
71.	5-19	12. Utilities	If approval of the Plan of Operations would result in upgrades, expansions, or increased maintenance requirements to local or regional roads, powerlines, or other support facilities operated by the third parties, the potential impacts of such support facilities need to be analyzed in the NEPA document prepared for the Plan because the approval of such facilities is connected to the proposed action. Therefore, the potential impacts of these facilities must be analyzed in conjunction with the proposed action for direct, indirect, and cumulative impacts.	
72.	5-19	12. Utilities	Any third-party utility providers would need a ROW for the placement and maintenance of utilities.	
73.	5-19	13. Solid Waste	Used vehicle batteries are considered hazmat. RMR must describe appropriate handling and storage methods.	

Cmt #	Page #	Section	New Comment	Comment Resolution:  Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
		Storage		
74.	5-20	14. Maps and Conceptual designs	All maps must depict the public lands survey system.	
75.	Map C-1		Include all mining claims on map.	
76.	Map C-1		Include all existing ROW and land use authorizations in the map area, including utilities in Transfer Trail.	
77.	6-2	1.3 Mill Bench a)	In two earlier references to this structure, the changing house is referred to as a shower house. Provide consistent language.	
78.	6-2	1.3 Mill Bench b)	Specify the final slope angle of the mill bench.	
79.	6-3	2. Reclamation Timetable	This reclamation timetable is the same as the quarry timetable from above. Add details specific to reclamation.	
80.	6-4	4. Backfill Mill Level	The locations of the stormwater berms described in this section must be depicted on the maps.	
81.	6-4	5. Quarry Slope Access Roads	Clarify if these roads are pre-existing. Will this be the re-establishment of existing BLM designated routes? If so, these roads must be constructed to BLM road standards. Identify by BLM route numbers.	
82.	6-6	Stockpiled Soil Handling	Describe and depict on a map where the stockpiles of topsoil which will undergo growth medium reconstruction will be located.	
83.	6-12	9.5.1 Contour Furrowing	The use of contour furrowing and cleat tracking will not achieve the post-reclamation line, form, and texture that is presented in the visual simulations. Specify how RMR will achieve the line, form, and texture that is depicted in the proposed visual simulations.	
84.	6-15	11. Revegetation Plan	The reclamation plan states: "Plant species may be used singly or in a variety of combinations to establish the vegetation cover type best suited for the intended purpose or needs of a given disturbed site." Is RMR going to determine what mixture is needed on an annual basis? How will the plant species/seed mix determination be made?	
85.	6-15	11.	How will transplants be watered during planting?	

Cmt #	Page #	Section	New Comment	Comment Resolution:  Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
		Revegetation Plan		
86.	6-27	11.4 Stabilization	Locate the "special areas carrying or exposed to concentrated surface water runoff that are prone or more susceptible to erosion include, but are not limited to, diversions, ditches, drainage channels, sediment pond spillways, and culvert inlets and outlets" on the reclamation map.	
87.	6-32	11.6 Timing of Seeding Operations	What steps of final reclamation will be done prior to the required planting season? How far in advance will soil amendments or topsoil be placed on the recontoured overburden?	
88.	6-34	11.7.2 Drill Seeding	Describe how drill seeding along the contour will help RMR achieve the look of the submitted visual simulations.	
89.	6-35	11.8 Supplementa 1 Watering	Describe how stabilization seedlings will be watered.	
90.	6-36	12.1 Summary	448 acres is greater than the proposed project area. Describe the reason for this discrepancy.	
91.	6-48	13.2 Interim Monitoring	The Plans states: "to better characterize developing rangeland plant communities" Is the proposed post-mining land use livestock grazing?	
92.	7-1	c) where you will place	The list of temporary or permanent structures is incomplete. Additional structures are proposed in the Plan. List all structures and facilities. Additionally, reference an equipment list for all equipment that will remain on site.	
93.	1	Exhibit 10 Soil Resources	The document states "The permit and adjacent lease areas" This is not a lease area.	
94.	13-1	Exhibit 13 Geology/Hyd rology	This section contains numerous technical inaccuracies.	
95.	13-15	6. Groundwater	The plan states: "Groundwater information will be gathered at the Mid-Continent Quarry as part of the NEPA process" BLM requires the baseline hydrologic study to be implemented in advance of the NEPA process.	

Cmt #	Page #	Section	New Comment	Comment Resolution:  Comment Addressed Adequately (A), Inadequately (I), or Not Addressed (NA)
96.	5-18	11 Quarry Access Roads	Describe or attach an appendix containing the road safety specifications that are proposed to be implemented according to MSHA safety standards for roadways.	
97.	5-18	11. Quarry Access Roads	Describe how stormwater will be managed on the roadways with the required berms.	
98.	6-4	4. Backfill Mill Level	Add clarification about the amount of topsoil stored in the berms and if it is sufficient to reclaim the mill bench and "nearby areas".	
99.	6-5	6. Overburden Replacement	BLM requests the topsoil, overburden, and processing fines balance calculations to support the adequate backfill volume and topsoil depth for reclamation.	