



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

July 1, 2015

Mr. Jerald Schnabel  
Continental Materials Corporation  
444 East Costilla  
Colorado Springs, CO 80903

**Re: Cañon Dolomite Quarry, File No. M-1977-376,  
Preliminary Adequacy Review for Technical Revision No. 2 (TR-02) - REVISED**

Dear Mr. Schnabel:

On June 4, 2015 the Division of Reclamation, Mining and Safety (Division) received a request for a Technical Revision. The submittal was labeled Technical Revision #1. However, the Division approved TR-01 in 1988. As such, for the purpose of the Division's records, this is Technical Revision 2 (TR-02) and it addresses the following:

- *Clarification on Mining and Reclamation Plans*

The submittal was called complete for the purpose of filing on June 4, 2015. The decision deadline for TR-02 is **July 31, 2015**. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, **it will be your responsibility to request an extension of the review period**. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division will deny this technical revision.

The following comments are based on the Division's review of the Request for Technical Revision TR-02:

### **6.4 SPECIFIC EXHIBIT REQUIREMENTS – REGULAR 112 OPERATIONS**

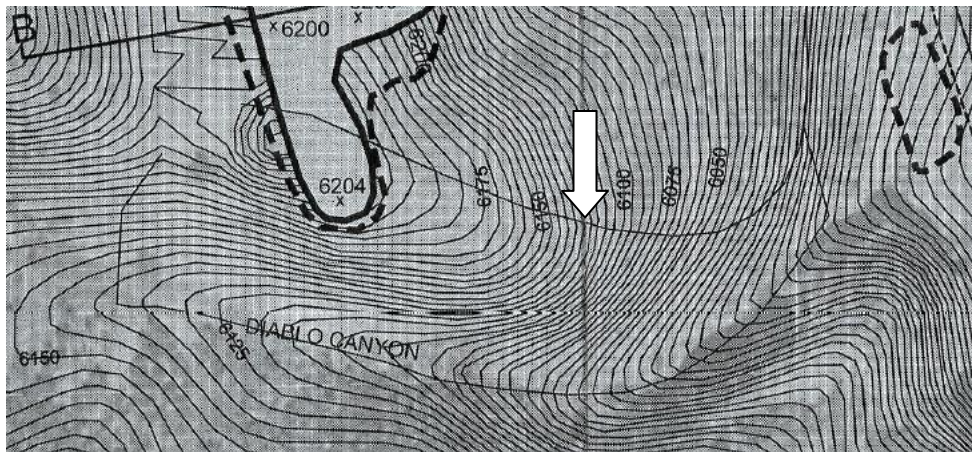
#### **6.4.3 EXHIBIT C - Pre-mining and Mining Plan Map(s) of Affected Lands**

1. Exhibit C-1, Pre-Mining Plan:

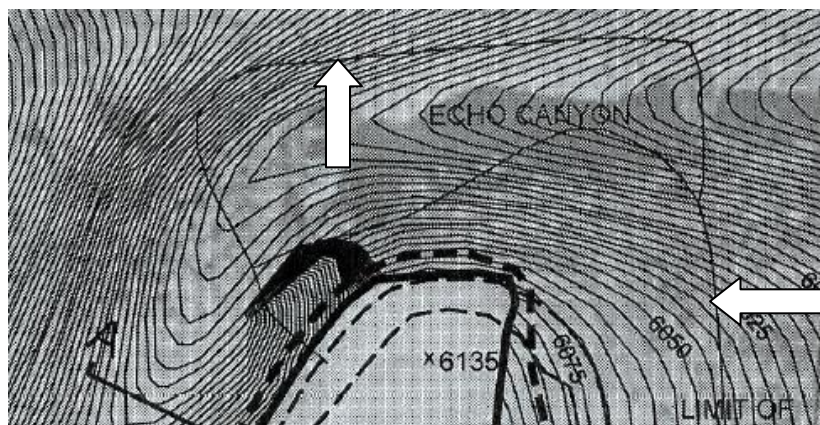
- a. The bar scales are not plotting correctly on the Key Map and Details 1, 2, and 3. The key map scale bar is roughly 1" = 2,100 ft, and the detail scale bars are approximately 1" = 210 ft. This is also the case for Exhibits C-2 and F. Please correct the scale bars.
- b. Note 2 indicates all disturbed areas outside the "Reclamation Liability Dashed Line Are Pre-Law Disturbances and Do Not Required Reclamation". Upon comparing Exhibit C-1 with Exhibits C-2 and F, there are areas east of the present mine disturbance in Detail 2, Mine Area; and Detail 3, Old Quarry Fines Disposal Area that are not included within a "Limit of Reclamation Liability" dashed line. Please reconcile or explain this apparent discrepancy.



- c. Notes 3, 4 and 6 tally reclamation liability areas in the mine area (16.1 acres), “fill” area (2.2 acres) which do not match the mined area (36 acres) and affected area (55 acres) stated in Note 6. Further, the mine is permitted for 481 acres of disturbance.
  - i. Please explain the apparent discrepancy and provide a detailed tally for the purpose of estimating an appropriate financial warranty estimate
  - ii. Please clarify if “fill” in Note 4 should be “fines”.
- d. Note 8, Legal says Section 39, please correct the Section number.
- e. There are some fine lines on the drawing enclosing portions of Diablo Canyon and Echo Canyon, and a similar weight line connecting those enclosed areas running along the east side of the mine area (see below). Please identify these lines.



Diablo Canyon line



Echo Canyon and Connecting lines

2. Exhibit C-2, Mining Plan:

- a. The bar scales are not plotting correctly on the Key Map and Details 1, 2, and 3. The key map scale bar is roughly 1" = 2,100 ft, and the detail scale bars are approximately 1" = 210 ft. This is also the case for Exhibits C-1 and F. Please correct the scale bars.
- b. Based on information presented I Exhibits E and F, unmarketable fines will be used bench backfill growth media. Further, half of these fines will be hauled to the Old Quarry site for disposal. Please show on Exhibit C-2 where the other half of unmarketable fines will be stockpiled for reclamation. This is necessary to estimate liability costs for moving and placing the material for reclamation.

**6.4.4 EXHIBIT D – Mining Plan**

3. Third Page, Section (c), Timetable:

- a. The second paragraph mentions “perils” of inactivity exceeding 180 days and a substitute for a Notice of Temporary Cessation” (TC). Taken in context and assuming “perils” should have been “periods”, the Division believes that Intermittent Status (IS) is what is meant to be requested pursuant to Rule 6.4.4(e). A request for TC is required if the Operator will or has not operated for more than 180 days, and will not likely operate for as long as five years (*Note a TC request must be requested under separate cover and there is a \$144 fee required*). IS is the appropriate request for sites that plan to operate at least 180 days per year on an annual basis. Please clarify whether you desire IS or TC.
- b. The inclusion of the timetable with seven benches listed implies phased bonding is desired. If so, please:
  - i. Confirm the desire to phase the bonding based on the mine bench elevation (or other milestone, if preferred),
  - ii. Either modify the timetable to reflect Benches 6190 and 6140 shown on Exhibits C-2 and F, or label Benches 6200 and 6153 on Exhibits C-2 and F.

**6.4.5 EXHIBIT E – Reclamation Plan**

4. Second Page, Section (9), Inert backfill – This section states “Inert backfill from sources outside of the permit area may be hauled in for reclamation filling”. Please be aware that pursuant to Rule 3.1.5(9) a signed affidavit certifying that the material is clean and inert, as defined in Rule 1.1(20). If you cannot provide the required by the notice described in 3.1.5(9) subparagraphs (a) through (f) as a response at this time, a Technical Revision addressing subparagraphs (a) through (f) will be required prior to importing offsite material for reclamation. Please acknowledge this requirement.
5. Third Page, Section (e), Reclamation Schedule, Mine Area:
  - a. The second paragraph references “The small piece of disturbance below the mine area”. Please confirm this is the dashed area about 200 feet south of B’ (of Section B-B’ on Exhibits C-1, C-2, and F.

- b. The third paragraph discusses the placement of unmarketable fines in the Old Quarry, beginning with the eastern “finger”. Please describe how stormwater will be managed in this area such that erosion of the placed material will be minimized until the final grading and channel construction is completed.

#### **6.4.6 EXHIBIT F – Reclamation Plan Map**

6. Exhibit C-2, Mining Plan:

- a. The bar scales are not plotting correctly on the Key Map and Details 1, 2, and 3. The key map scale bar is roughly 1” = 2,100 ft, and the detail scale bars are approximately 1” = 210 ft. This is also the case for Exhibits C-1 and C-2. Please correct the scale bars.
- b. Detail 2 – A majority of Benches 6000, 6030, 6060; and portions of Benches 6090 and 6120 are shown outside the “Limit of Reclamation Liability” dashed line. Please reconcile or explain this apparent discrepancy.
- c. Detail 3 – No “Limit of Reclamation Liability” dashed line is shown. Please reconcile or explain this apparent discrepancy.

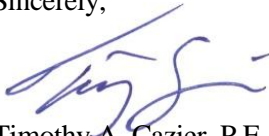
#### **Other Concerns/Comments – Final Drainage Report prepared by EME Solutions**

7. Page 3, Section B, 2<sup>nd</sup> Paragraph – Where is Gilson Gulch with respect to Diablo Canyon?
8. Page A-4 – The basin area appears to be divided between mostly “Landscape Area” and “Pavement Area”, neither of which are self explanatory as this is an essentially undisturbed area. Please provide some rationale for the selected Land Uses.
9. Page A-10:
  - a. Please explain why the same times of concentration are used for the 10- and 100-year peak flow calculations.
  - b. Please provide rationale for the 0.52 runoff coefficient.
10. Page A-11 – The Manning’s coefficient for the approach channel assumes a grass-lined channel. The Division does not believe a grass-lined channel is achievable in this area, especially considering Manning’s coefficients were developed in the eastern US and typically refer to linings where turf grass makes up the lining. The Froude Number is greater than 0.8 for both the 10- and 100- year peak flows. According to the Urban Drainage and Flood Control District Drainage Manual (Volume I, Section 3.1.3.2 Subcritical Flow) a channel should not be designed for subcritical flow if the Froude No. is greater than 0.8. Finally, as this is a closure design, the channel should be designed to safely convey the 100-year peak flow with adequate freeboard (one foot or half the velocity head, whichever is greater). Please provide the following:
  - a. Rationale for using  $n = 0.035$  for grass-lined channels, or select a more appropriate Manning’s roughness value,

- b. Rationale for subcritical flow design with a Froude No greater than 0.8, or modify the design to achieve  $FR < 0.8$  with an appropriate Manning's  $n$  as discussed in the previous comment,
  - c. A more robust channel design for mine closure (i.e., capable of conveying the 100-year peak flow with adequate free board as discussed.
11. Rock Chute Design Data – The transition from 3H:1V sides slopes in the approach channel to 2H:1V side slopes in the rock chute will cause a constriction and consequent head loss, in addition to the mild jump (Note:  $H_p = 2.72$  feet, exceeding the proposed 2-foot approach channel depth). As this is a closure design, please consider using a 3H:1V side slope through the entire designed channel reach for long term stability.
12. Design Drawings – As can be seen by the “Profile and Cross Section” schematic on Page 1 of the Rock Chute Design Data sheet, there are design elements required in a rock chute system that are not typically considered in the construction of steep riprap-lined channels (e.g., the inlet and outlet aprons, mild hydraulic jump upstream of the inlet apron, and the radius at the transition). Does EME intend to produce Issued for Construction (IFC) drawings for the project?

**Please remember that the decision date for this Technical Revision is July 631, 2015.** As previously mentioned if you are unable to provide satisfactory responses to any inadequacies prior to this date, it will be your responsibility to request an extension of time to allow for continued review of this TR. If there are still unresolved issues when the decision date arrives and no extension has been requested, the TR may be denied. If you have any questions, please contact me at (303) 866-3567, ext. 8169.

Sincerely,



Timothy A. Cazier, P.E.  
Environmental Protection Specialist

cc: Wally Erickson, DRMS  
DRMS file  
Gary Tuttle, Tuttle & Associates