



February 3, 2022

Stephanie Fancher-English  
Loveland Ready-Mix Concrete, Inc.  
P.O. Box 299  
Loveland, CO 80539-0229

**Re: Loveland Ready-Mix Concrete, Inc., Green/Croissant Property Sand and Gravel Mine, File No. M-2001-022, Cell 4 Reclamation Slope Evaluation Review**

Ms. Fancher-English:

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the contents of the Loveland Ready-Mix Concrete, Inc. (LRM) Cell 4 Reclamation Slope Evaluation by Telesto Solutions Inc. dated July 28, 2021 for the Green/Croissant Property Sand and Gravel Mine, File No. M-2001-022, and submits the following comments. LRM was required to submit the report to comply with a problem cited by the Division following the May 20, 2021 inspection.

On June 25, 2021, the Division notified LRM that based on the King Survey results provided by Jamie and Dustin Christensen on June 14, 2021, the slopes in Zones 9, 20, 25, 26 and the south end of 27 would require regrading to comply with Rule 3.1.5(7). The Telesto report evaluated these zones for compliance with the Rule.

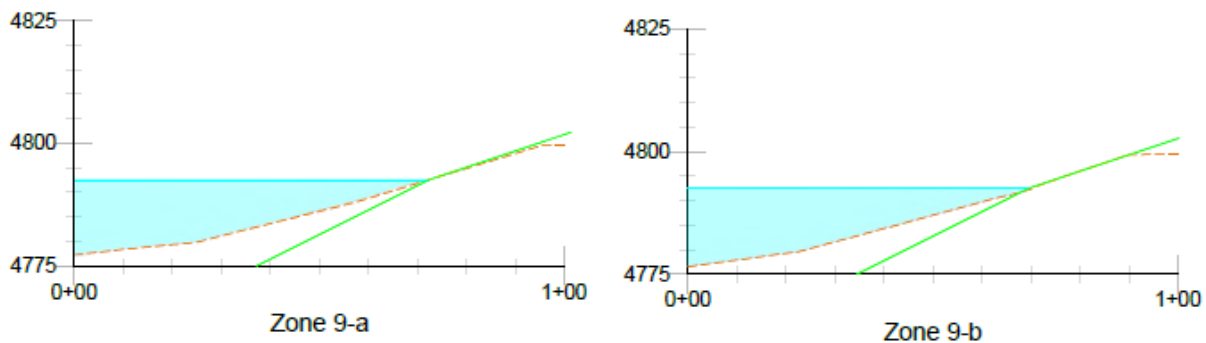
Rule 3.1.5(7) states, "In all cases where a lake or pond is produced as a portion of the Reclamation Plan, all slopes, unless otherwise approved by the Board or Office, shall be no steeper than a ratio of 2:1 (horizontal to vertical ratio), except from 5 feet above to 10 feet below the expected water line where slopes shall be not steeper than 3:1."

The approved Reclamation Plan for the Green/Croissant Property Sand and Gravel Mine requires LMR to grade the Cell 4 slopes to a 3H:1V from the top of the bank to the pit floor as indicated on the Exhibit F-1 - Reclamation Plan Map dated August 24, 2016.

1. On page 3 of the report, the report states, Sheet 1 shows the results of the 38 cross sections evaluated and all show compliance with Rule 3.1.5(7). The Telesto evaluation presents the slopes below the waterline are acceptable at a 2H:1V grade. The Telesto evaluation is incorrect since the Rule requires slopes of 3H:1V ten (10) feet below the expected waterline, not at the waterline. Additionally, the 2H:1V slopes below the waterline are not in compliance with the approved Reclamation Plan, which requires slopes of 3H:1V from the top of the bank to the pit floor.

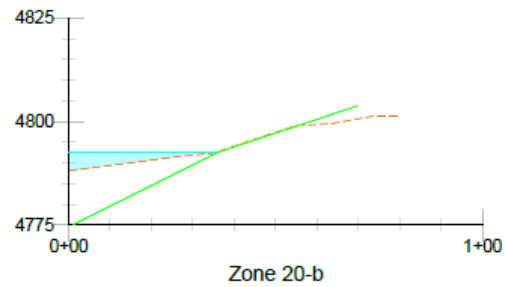
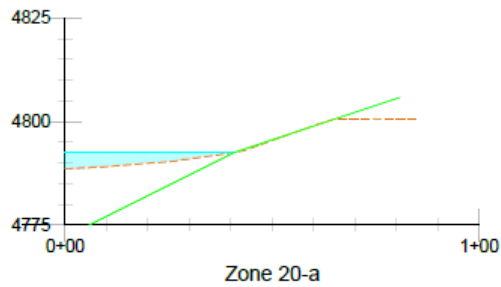


2. The Sheet No. 1 map submitted with the report is labeled as “draft”. The Division does not review draft copies of maps. Please provide a final copy of the map for Division review.
3. The Sheet No. 1 map submitted with the report shows the required slopes to be 2H:1V below the waterline and 3H:1V above the waterline. As stated above, the 2H:1V slopes below the waterline are not in compliance with the approved Reclamation Plan or Rule 3.1.5(7). Please explain this discrepancy and revise the map accordingly.
4. The Sheet No. 2 map submitted with the report is labeled as “draft”. The Division does not review draft copies of maps. Please provide a final copy of the map for Division review.
5. The Sheet No. 2 map submitted with the report shows the required slopes to be 2H:1V below the waterline and 3H:1V above the waterline. As stated above, the 2H:1V slopes below the water line are not in compliance with the approved Reclamation Plan or Rule 3.1.5(7). Please explain this discrepancy and revise the map accordingly.
6. For Zones 9, 20, 25, 26 and part of 27 the report states the following:
  - a. Zone 9: Both sections (Zone 9a and Zone 9b) show slopes at or shallower than 3H:1V for 15 feet horizontally from water’s edge, and flatter below the water surface.



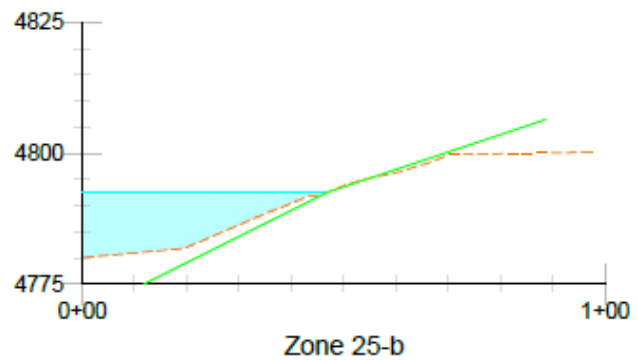
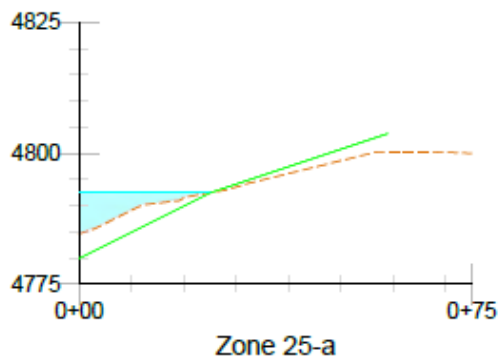
The Division agrees the slope appears to be 3H:1V and in compliance above the waterline. The Division does not agree the slope below the waterline complies with the requirements of the approved Reclamation Plan. Please explain the comment that the slopes below the waterline are flatter.

- b. Zone 20: Both sections (Zone 20a and 20b) show slope compliance because the average slopes 15 feet and 20 feet horizontally from water’s edge (above and below water level, respectively) are shallower than Rule 3.1.5(7) requirements.



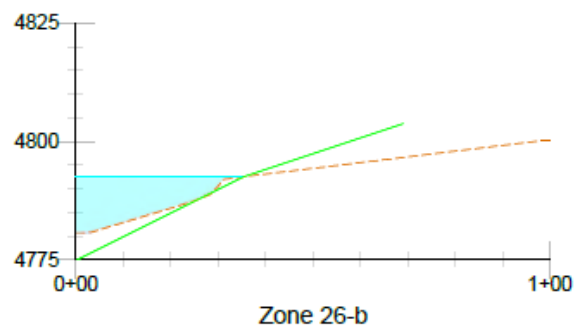
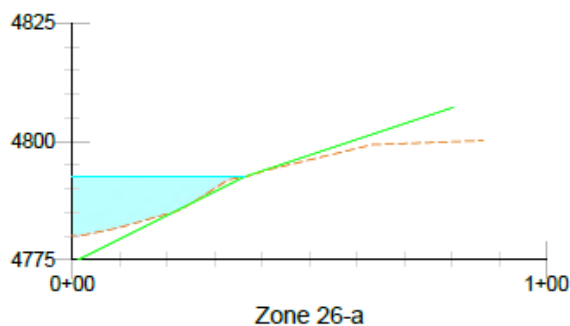
The Division agrees the slope appears to be 3H:1V and in compliance above the waterline. The Division does not agree the slope below the waterline complies with the requirements of the approved Reclamation Plan.

- c. Zone 25: Section Zone 25a is shallower than the Rule requirement. Section Zone 25b averages 3H:1V for 15 feet from the water's edge



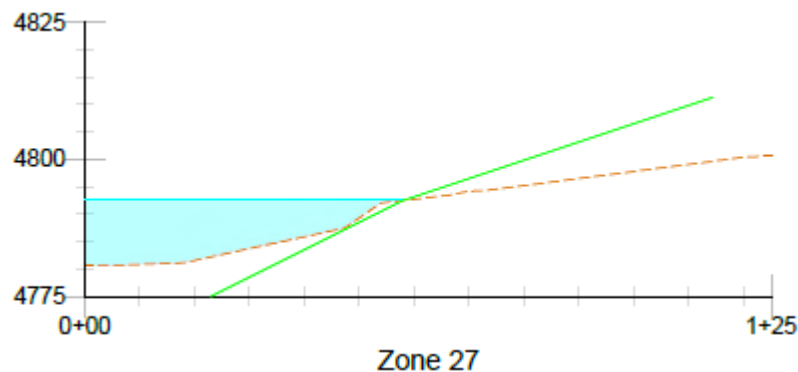
The Division agrees the slope appears to be 3H:1V and in compliance above the waterline. The Division does not agree the slope below the waterline complies with the requirements of the approved Reclamation Plan.

- d. Zone 26: Above the water level, both sections show the slopes are gentler than Rule requirements. Below the water level, the average slopes are at the requirement.



The Division agrees the slope appears to be 3H:1V and in compliance above the waterline with the exception of the typical shoreline erosion area. The Division does not agree the slope below the waterline complies with the requirements of the approved Reclamation Plan.

e. Part of Zone 27: Meets average reclamation slopes

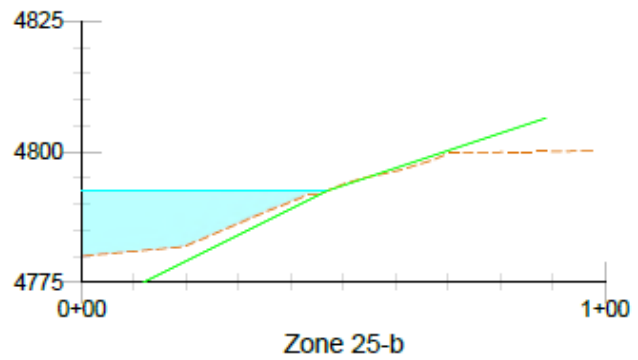
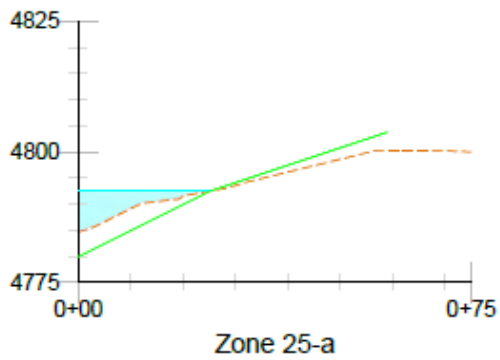


The Division agrees the slope appears to be 3H:1V and in compliance above the waterline with the exception of the typical shoreline erosion area. The Division does not agree the slope below the waterline complies with the requirements of the approved Reclamation Plan.

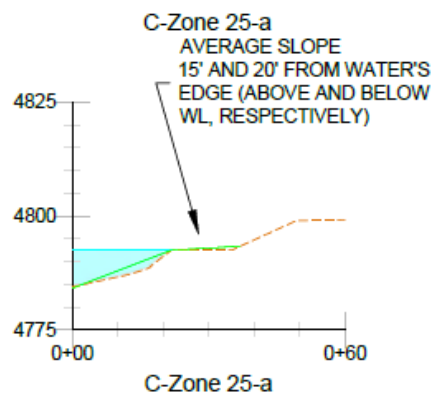
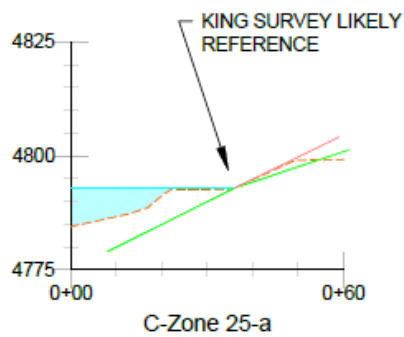
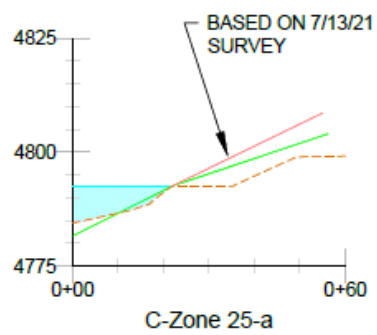
King Survey Comparison

7. On Page 4 of the report, the report states the strict interpretation of Rule 3.1.5(7) leads one to look at slopes from the point where water meets the bank (i.e. water's edge). The approved Reclamation Plan requires slopes of 3H:1V from the top of the bank to the pit floor. The Division does not agree with the reports interpretation of Rule 3.1.5(7).
8. On Page 4 of the report, the report states the slopes were evaluated at 3V:1H and 2V:1H. The slope evaluation is inverse of the required sloping of horizontal to vertical. Please explain why the slopes were evaluated inverse of the typical grading standard. Additionally, the approved Reclamation Plan requires slopes of 3H:1V from the top of the bank to the pit floor, so evaluating the slopes below the waterline at 2H:1V is not valid.
9. The cross sections for Zone 25 on Sheet 1 and Sheet 2 are different. Please explain this discrepancy and revise the maps accordingly.

## Sheet 1



## Sheet 2



## Conclusions

The Division will require the Operator to validate the results of the Telesto report or resurvey the Cell 4 slopes to determine if the reclaimed slopes are in compliance with the 3H:1V grading requirement of the approved Reclamation Plan. The Division will require the Operator to regrade the slope above and below the waterline to the required grading, not just the slope above the waterline.

Please response to the comments contained in this letter within 60 days of the date of the letter.

If you have any other questions, please contact me at [peter.hays@state.co.us](mailto:peter.hays@state.co.us) or (303) 866-3567 Ext. 8124.

Sincerely,



Peter S. Hays  
Environmental Protection Specialist

Ec: Jared Ebert; DRMS