

July 8, 2021

J.C. York, P.E. J&T Consulting, Inc. 305 Denver Avenue, Suite D Fort Lupton, CO 80621

## Re: J-2 Contracting Co.; DPG Pit; File No. M-2019-028; Technical Revision No. 1 (TR-01); Adequacy Review

Mr. York,

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the contents of the technical revision no. 1 (TR-01) for the DPG Pit submitted on April 28, 2021 and submits the following comments. The Division is required to make an approval or denial decision no later than July 28, 2021 therefore; a response to the following adequacy review concerns should be submitted to the Division as soon as possible.

## Exhibit A – Legal Description

 The Operator requested a revision to the permit boundary to remove/replace an area with another area but keep the total acreage the same as the existing permit in the technical revision request. The Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials (Rules) does not allow for increasing the affected acreage through the technical revision process or for swapping permitted acreage for lands not included in the approved permit boundary.

Rule 1.1(6) states an "Amendment" means a change in the permit or an application which increases the acreage of the affected land, or which has a significant effect upon the approved or proposed Mining Plan or Reclamation Plan.

As discussed during the site inspection on May 26, 2021, the Division will require the Operator to submit an amendment application pursuant to Rule 1.10 to add the 0.9 acres for the lateral ditch located in the southwest corner of the proposed Phase 4 to the permit boundary or revise the technical revision to remove the request for the acreage swap in the technical revision request.

On June 4, 2021, the Operator submitted an update letter for TR-01 stating J-2 Contracting Co. has decided to not pursue the revision to the permit boundary to remove/replace an



area with another area but keep the total acreage the same as the existing permit. The letter indicated revised maps were attached with the letter, however the Division did not receive the maps.

Please provide updated Exhibit C, Exhibit F and Exhibit L maps indicating the approved permit boundary, not the permit boundary proposed in the original submittal for TR-01.

Exhibit C – Mining Plan Maps, Exhibit D – Mining Plan, Exhibit E – Reclamation Plan and Exhibit F – Reclamation Maps

2. The Operator proposes revised acreage values for the five (5) phases of the Mining and Reclamation Plans in the technical revision cover letter. The acreage values differ between the Mining and Reclamation Plans as indicated in the chart below. Please explain why the proposed acreages are not the same for the Mining and Reclamation Plans for each phase and revise the cover letter and/or the proposed Exhibits accordingly.

	Proposed Mining Plan Acreage	Proposed Reclamation Plan
		Acreage
Phase 1	10.44	12.99
Phase 2	54.21	63.81
Phase 3	10.29	15.13
Phase 4	93.03	101.96
Phase 5	19.39	22.26

- 3. The revised Reclamation Plan Maps (Exhibits F-1 and F-2) indicate Reservoir 1, which is a combination of Phases 2 and 5 will be 69.69 acres. In Exhibit F Reclamation Plan, the Operator states Phase 2 is 63.81 acres and Phase 5 is 22.26 acres for a total acreage of 86.07 acres, not 69.69 acres. Please explain this discrepancy and revised the proposed Exhibits accordingly.
- The revised Reclamation Plan Maps (Exhibits F-1 and F-2) indicate Reservoir 2, which is Phase 4 will be 88.24 acres. In Exhibit F – Reclamation Plan, the Operator states Phase 4 is 101.96 acres, not 88.24 acres. Please explain this discrepancy and revised the proposed Exhibits accordingly.
- 5. The proposed Exhibit F-1 Reclamation Plan map appears to indicate the DCP Midstream 30' Pipeline ROW (Rec. No. 2428088) and a Noble gas line will be mined through and backfilled during Phase 3. Please confirm the Operator has obtained agreements with both companies to mine through or relocate the easement and gas line. Please provide copies of the agreements for the Division's file.

- 6. On the revised Exhibit C-4 Mining Plan Map the map indicates a recharge pond, a secondary recharge pond and an overflow pond. The description for the purpose and function of these features could not be found in the approved permit application documents by the Division. Please indicate where in the approved permit application the function of the features are described or provide a description for the purpose and function of these features.
- 7. The currently approved Exhibit F Reclamation Plan Maps (F-1 and F-2) indicate the locations of the inlet and outlet structures. The proposed Reclamation Plan Maps (F-1 and F-2) do not show the location of the structures. Please update the revised Reclamation Plan Maps to indicate the inlet/outlet structure locations. Additional, please confirm the design for the structures remains the same as in the approved permit application. Please update the construction sequence and timing for the structures for the revised Mining and Reclamation Plans phasing.

For reference in the adequacy response letter for the original application dated August 26, 2019, Item #22, the Operator stated:

The operator is proposing to install the inlet/outlet spillways during mining of each phase. The spillways for the Phase 1 and 2 areas will be installed as mining progresses down. Once the mining has progressed down 15 to 20 feet in Phase 1 the riverside spillways will be installed. The riverside spillway for Phase 1 will be installed first, then the riverside spillway for Phase 2 will be installed (once mining occurs in Phase 2), then the pitside spillway in Phase 3 will be installed to convey floodwaters if encountered from Reservoir 1 to Reservoir 2. The pitside spillway from Reservoir 2 to Reservoir 3 will be installed once mining occurs in Phase 4. The pitside spillway from Reservoir 3 to Reservoir 4 will be installed once mining occurs in Phase 5; and the riverside spillway in Reservoir 4 will also be installed once mining occurs in Phase 5. These riverside and pit side spillways are designed per the Urban Drainage and Flood Control District's Technical Review Guidelines for Gravel Mining and Water Storage Activities Within or Adjacent to 100-Year Floodplains.

Exhibit L – Reclamation Costs

8. The Division reviewed and will accept the revised Exhibit L - Reclamation Costs estimate provided be the Operator. During a site inspection on May 26, 2021, the Operator stated mining activities in Phase 1 would commence soon and the Phase 2 and 5 slurry wall was observed being installed during the inspection. Please commit to providing the proposed revised Reclamation Costs for Phase 1 and 2 for a cumulative financial warranty of \$5,344,459.00. This is an increase of \$4,359,893.00 from the currently held financial warranty in the amount of \$984,566.00.

- Please confirm the Operator commits to submitting a technical revision to increase the maximum disturbed area and revise the bond estimate prior to creating additional disturbance outside of Phases 1 and 2 if the proposed technical revision is approved by the Division.
- 10. Please confirm the Operator is requesting to reduce the maximum disturbed area from the currently approved 92.55 acres to 84.98 acres.

## Hydraulic Analysis Report

11. The Delta Reservoir West Cell Preliminary and East Cell Conceptual Design report by Galloway & Company, Inc. dated April 16, 2021 is under review by the Division. An additional adequacy letter for the report will be issued by the Division under separate cover, if required.

# **Geotech Review**

The Division of Reclamation, Mining and Safety (Division/DRMS) staff reviewed the geotechnical stability analysis included with the technical revision by Civil Resources, LLC dated February 2, 2021.

The following list describes the information used by the Division as presented in the technical revision to evaluate slope stability for the site.

- The stability analysis addresses the stability of the reclaimed 3H:1V reservoir slopes and the temporary 2H:1V silt pond slopes.
- The stability analysis does not address the stability of the man-made structures within 200 feet of the affected land boundary.
- The reservoirs will be dry mined with the installation of slurry walls and dewatering.
- The silt ponds will be dry mined by dewatering.
- A maximum horizontal acceleration of 0.07g was utilized for the seismic loading.
- The slurry wall was modeled 25 feet from the mining limit.
- The strength properties for overburden (sandy clay), sand and gravel, claystone bedrock and the slurry wall were based on field testing data and/or engineering judgment.
- The Applicant used the following soil parameters for the anticipated soil types;
  - Overburden 114 pcf, 28° friction angle, 50 psf cohesion
  - Alluvial Material 129 pcf, 35° friction angle, 0 psf cohesion
  - Claystone Bedrock (Residual) 110 pcf, 18° friction angle, 50 psf cohesion
  - Claystone Bedrock (Peak) 126 pcf, 26° friction angle, 100 psf cohesion
  - Soil-Bentonite Slurry Wall 112 pcf, 0° friction angle, 0 psf cohesion
- No laboratory strength tests were performed on soils.
- No borehole data was submitted by the Operator with the technical revision.

In accordance with Table 1 - Recommended Factors of Safety for Slope Stability Analysis for Operations and Reclamation within Section 30.4 of the Policies of the Mined Land Reclamation Board effective May 16, 2018, the Division will require the Applicant to comply with the a factor of safety of 1.5 (static and rapid drawdown) and 1.3 (seismic) for critical structures and a factor of safety (FOS) of 1.3 (static and rapid drawdown) and 1.15 (seismic) for non-critical structures since the Applicant utilized generalized strength measurements in the analysis. The following information is required by the Division to complete the stability analysis review.

- 12. On page 2 of the report, the Operator states two (2) sections were evaluated at the tallest highwall in each mine cell based on the section provided by AI (Aggregate Industries). The 3H:1V analysis utilized 90 feet as the maximum depth of the reservoirs. The maximum depth for the reservoirs in the approved permit application is 114 feet. See Item #16 in the adequacy response letter for the original application dated August 26, 2019. Please explain this discrepancy and provide a map indicating the location of the two sections.
- On page 2 of the report the Operator states, the slope of the silt pond was also modeled at 3H:1V. On page 2 of the technical revision request the Operator states the silt ponds (Phases 1 and 3) will be mined at a 2H:1V slope. Please explain this discrepancy and update the stability analysis accordingly.
- 14. The Operator supplied the XSTABL slope stability analysis data electronically on May 26, 2021. However, the Division was unable to open the files. Please provide the XSTABL slope stability analysis data from the Civil Resources, LLC report in a spreadsheet format to allow the Division to duplicate the analysis with Clover Technology's Galena software for verification purposes.

## Permit Commitments

- 15. During the original permit application review the Operator committed to submitting a technical revision with the design information prior to construction for the slurry wall liner for Phase 1 (proposed Phase 2). See Item #25 in the adequacy response letter for the original application dated August 26, 2019. The Division has not received the technical revision for the slurry wall design. Please submit the technical revision for slurry wall design for the proposed Phase 2, 4 and 5 slurry walls.
- 16. During the original permit application review the Operator committed to submitting a stormwater management plan (SWMP) from CDPHE. See Item #35 in the adequacy response letter for the original application dated August 26, 2019. The Division has not received a copy of the approved SWMP issued by CDPHE from the Operator. Please provide a copy of the approved SWMP from CDPHE for the Division's file.
- 17. During the original permit application review the Operator committed to providing data from the groundwater monitoring walls for one year prior to the slurry wall construction.

See Item #41 in the adequacy response letter for the original application dated August 26, 2019. The Division has not received the groundwater monitoring data. Please submit a copy of the first year of monthly groundwater monitoring data for the site at minimum.

- 18. During the original permit application review the Operator committed to incorporating the recommendations from ERC's Screening Report for Federal and State Listed Threatened and Endangered Species into the mining plan and committed to performing the recommended surveys within the specified timeframes, maintaining the recommended buffer zones during the specified timeframes and coordinating with CPW and USPWS as necessary. See Item #43 in the adequacy response letter for the original application dated August 26, 2019. Please confirm the Operator is following the ERC's recommendations and state if the proposed revised Mining and Reclamation Plans alter the previous recommendations from ERC.
- 19. During the original permit application review the Operator committed to not commencing with dewatering activities until ERC's report has been accepted, a determination has been completed by the Army Corps of Engineers and a copy has been provided to the DRMS. See Item #44 in the adequacy response letter for the original application dated August 26, 2019. The Operator submitted a copy of the USACE Wetland Determination letter to the Division on December 19, 2019. No additional response is required from the Operator.
- 20. During the original permit application review the Operator committed to not mining within 200 feet of the structures not owned by DPG Farms, LLC that are in the mining phases until the structure owner abandons and removes them from the mining phases. See Item #54a in the adequacy response letter for the original application dated August 26, 2019. Please provide an update on the status of structures abandonment and removal for the structures within 200 feet of the mining phases and update the Mining and Reclamation Plan maps accordingly.
- 21. During the original permit application review the Operator committed to not mining within 200 feet of the structures not owned by DPG Farms, LLC that are in the mining phases until the structure owner abandons and removes them from the mining phases or an agreement is in place. See Item #54b in the adequacy response letter for the original application dated August 26, 2019. Please provide an update on the status of structures agreements for the structures within 200 feet of the mining phases, update the Mining and Reclamation Plan maps accordingly and provide copies of any structure agreements not already on file with the Division.
- 22. During the original permit application review the Operator committed to providing copies of the approved well permit and Substitute Water Supply Plan (SWSP) from the Division of

Water Resources (DWR). See Item #57 in the adequacy response letter for the original application dated August 26, 2019. The Division received a copy of the approved SWSP from DWR on June 14, 2021. Please provide a copy of the approved well permit from DWR for the Division's file.

Please be advised the technical revision for the DPG Pit may be deemed inadequate and the revision may be denied on July 28, 2021, unless the above mentioned adequacy review item is addressed to the satisfaction of the Division.

If you have any questions, please contact me at <u>peter.hays@state.co.us</u> or (303) 866-3567 Ext. 8124.

Sincerely

Peter S. Hays Environmental Protection Specialist

Ec: Jared Ebert; Division of Reclamation, Mining & Safety Chris Leone; J-2 Contracting Co.