



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources
1313 Sherman Street, Room 215
Denver, Colorado 80203

August 08, 2016

Andre LaRoche
Transit Mix Concrete Co.
444 E. Costilla St.
Colorado Springs, CO 80903

RE: Hitch Rack Ranch Quarry, File No. M-2016-010, 112 Construction Materials Reclamation Permit Application, Adequacy Review No. 3

Mr. LaRoche:

The Division of Reclamation, Mining and Safety (Division) has completed its third adequacy review of the above referenced permit application. Pursuant to Rule 1.4.1(9), the Division's recommendation deadline for the application has been extended to October 04, 2016. Please be advised that on October 04, 2016, the application may be deemed inadequate and consequentially denied unless the following adequacy items are addressed to the Division's satisfaction. Subsequent to receipt and review of your response to these items, the Division may identify additional items.

Application Form:

1. A revised page 8 of the application form was submitted with the July 14, 2016 response, effectively replacing the previous page received on March 07, 2016. On the newly submitted page 8, the Applicant/Operator or Company Name is now identified as "Jerry Schnabel/Transit Mix", which is in error. According to the Secretary of State, the correct name of the Applicant/Operator or Company Name is "Transit Mix Concrete Co.". A second error is introduced in the portion of page 8 completed by the notary, where the company name is written as "Transit Mix Concrete". Please correct both of these errors to reflect the exact name of the company as registered with the Secretary of State, "Transit Mix Concrete Co.".

Exhibit B – Index Map (Rule 6.4.2):

2. The index map submitted shows the affected land and proposed access road to the area. Please submit a revised map which also shows the location of the affected land in relation to nearby Colorado Springs. Please label Hwy 115 for reference.

Exhibit C - Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3):

3. Figure C-2 was revised to show the locations of existing roads, culverts, gates, fences, and distribution lines. However, the structure owner names were not shown as required. Pursuant to Rule 6.4.3(g), please ensure Figure C-2 shows the structure owner's name for all permanent or



man-made structures contained within the area of affected land and within 200 feet of the affected land boundary. If several owners are associated with a structure, you may indicate “various owners” on the figure, and refer to a list of owners provided in the text of this Exhibit.

4. Starting with Figure C-4, the revised mining plan figures, submitted on July 21, 2016, show a portion of Little Turkey Creek Road (west crossing) labeled as “updated existing road”. The Division could not find any text in Exhibit D discussing a realignment of this road. The Division did find text in the engineering evaluation of Little Turkey Creek Road (Exhibit S, submitted July 28, 2016) which states, “Establishing the intersection requires realigning Little Turkey Creek Road for approximately 400 feet to remove unnecessary curves. This road segment will be engineered and constructed following the Federal Highway Association guidelines.”
 - a) Please expand the discussion regarding the operation’s justification for realigning this portion of the road and provide additional details regarding the construction.
 - b) Please demonstrate how access for the easement holders will be maintained throughout the period of construction.
 - c) According to Figures F-1 and F-2, the realigned portion of Little Turkey Creek Road will be reclaimed to riparian area and the road will be re-established to its pre-mining configuration. Please clarify the final configuration of Little Turkey Creek Road.
5. According to the text supporting Figure C-5, responding to adequacy item #14, Figure C-11 has been added to Exhibit C to present highwall reclamation details. However, Figure C-11 shows a typical highwall cross-section during the mining phase, and this figure does not appear to be an addition to the original submittal. Reclamation details do appear on Figure F-2 – Reclamation Topography and Cross Section Map, submitted on July 21, 2016. Please clarify.
6. On Figure C-7a, there is no ramp/haul road shown on the northeast highwall of the North Pit showing how the operation will travel in and out of this pit to access the North Pit Extension.
 - a) Please describe in the text and illustrate on the maps the access route from the North Pit to the North Pit Extension during this mining phase.
 - b) If this information is not known at this time, please commit to submitting such plans for Division review and approval through the technical revision or amendment process, to occur subsequent to permit issuance.
7. On Figure C-8a, there is no ramp/haul road shown which would provide access across the F3 backfill area in the North Pit to access the North Pit Extension during this mining phase.
 - a) Please describe in the text and illustrate on the maps the access route for the North Pit Extension during this mining phase.



- b) If this information is not known at this time, please commit to submitting such plans for Division review and approval through the technical revision or amendment process, to occur subsequent to permit issuance.
- 8. On Figure C-9b, on cross-section A-A', there is text stating that a notch cut will connect F3 to Deadman Creek. Please indicate on cross-section A-A' and B-B' where this notch will be cut into the granite, showing the approximate slope of the notch toward Deadman Creek.

Exhibit D - Mining Plan (Rule 6.4.4):

- 9. In Tables D-3 and D-4, is the scale house footprint included in the Roads acreage? Please clarify where this acreage is assigned.

Exhibit E - Reclamation Plan (Rule 6.4.5):

- 10. On page E-5, the text refers to Figures C-11 and F-1 to show highwalls will have a 63-degree angle between benches, with an overall slope of 1H:1V. Please revise Figure F-1 to show this information or correct the reference to indicate Figure F-2, which shows a cross-section of a reclaimed highwall.
- 11. On Table E-2, the temporary seed mixture proposed for topsoil stabilization includes Crested Wheatgrass. Although this grass species can be helpful for quick stabilization, it is not compatible with native grasses. If used for topsoil stabilization, this species would become part of the topsoil seedbase and potentially interfere with the growth of desired native grasses when the topsoil is used for reclamation. Please either remove this species from the temporary seed mixture, or replace it with a species that is more compatible with native grasses.

Exhibit G - Water Information (Rule 6.4.7):

- 12. In the Applicant's response to item #174, the stability evaluation of the stockpiles included in Exhibit 6.5 demonstrates that a toe berm is required to maintain stockpile stability at a factor of safety of 1.5. However, there appears potentially contradictory language indicating site specific strength parameters of the stockpiled topsoil and surficial geology may result in decreasing or removing the toe berm. Please remove the potentially contradictory language.

Please be advised that, if the permit is approved, all requirements proposed for the stability evaluation results given in Exhibit 6.5 will become enforceable permit conditions. The Permittee is not authorized to alter conditions of the permit without approval from the Division. Any proposed changes to the requirements (e.g., eliminating the toe berm and/or constructing the toe berm at less than the approved configuration) would require Division review and approval through the technical revision or amendment process.

- 13. The proposed groundwater monitoring plan, submitted on July 14, 2016, includes the installation of four groundwater monitoring wells targeting the alluvium and shallow bedrock formations.



- a) Please specify the type of monitoring wells proposed (e.g., individual, clustered) to monitor both the alluvium system and the fractured shallow bedrock system at each of the four monitoring locations.
 - b) Please describe the proposed well completion method.
 - c) Please commit to providing the Division with proof that a well permit has been obtained prior to initiating any well construction.
 - d) Please commit to providing the Division with a copy of all well completion reports.
14. In Table 2.1 – Surface Water Sample Suite, all required parameters from the CDPHE, WQCC – *Regulation No. 32 – Classifications and Numeric Standards for Arkansas River Basin – Appendix 32-1 – Stream Classifications and Water Quality Standards Tables – Effective 06/01/2016, Stream Section 14d (COARUA14D)* are included in the table, except for three parameters: D.O. (mg/L), D.O. (spawning), and Chlorophyll a (per 100 mL).
- a) Please revise the table to include these parameters, or provide a sufficient explanation as to why the parameters were not included in the proposed surface water sample suite.
 - b) Table 2.1 shows units of mg/L for all metals, while the CDPHE standards for metals are listed in units of µg/L. Please clarify the detection limit and reporting limit for all metals.
 - c) Please add a column to Table 2.1, to include the standards to be used for each surface water parameter listed.
15. In Table 2.2 – Groundwater Sample Suite, all required parameters from the CDPHE, WQCD – *Regulation No. 41 – The Basic Standards of Groundwater – Tables 1-4* (table value standards) are included in the table except for (in alphabetical order): Asbestos (Table 1), Beta and Photon Emitters (Table 1), Chlorophenol (Table 2), Color (Table 2), Corrosivity (Table 2), Foaming Agents (Table 2), Gross Alpha Particle Activity (Table 1), Odor (Table 2), Phenol (Table 2), and Total Coliforms (Table 1). However, on page 3-1 the application states that groundwater quality results will be compared to the table value standards.
- a) Please revise the table to include these parameters, or provide a sufficient explanation as to why the parameters were not included in the proposed groundwater sample suite.
 - b) Please add a column to Table 2.2, to include the standards to be used for each groundwater parameter listed.
16. On page 1 of the memorandum from BBA Water Consultants, submitted July 14, 2016, the text states the mining operation will not intercept or impound groundwater.
- a) Please commit to notifying DRMS and DWR immediately if groundwater is intercepted by the operation.



- b) Please affirmatively state the Permittee will comply with any and all requirements of DWR and DRMS, including revising the permit through the appropriate technical revision or amendment process to address the interception and/or exposure of groundwater.
17. On page 6 of the memorandum from BBA Water Consultants, submitted July 14, 2016, the consultant recommends installing an additional groundwater monitoring well(s) at the southwest portion of the mine area where data is lacking at this time to definitively state that groundwater will not be intercepted.
- a) Please clarify whether the Applicant intends to fully satisfy the recommendations of the consultant and establish groundwater monitoring well(s) at the southwest portion of the mine area. If not, please explain why.
 - b) If the Applicant intends to fulfill the consultant's recommendation and establish groundwater monitoring well(s) at the southwest portion of the mine area, please revise the monitoring plan accordingly, and commit to providing the information requested under item #13 of this adequacy letter.
18. On page 7 of the memorandum from BBA Water Consultants, submitted July 14, 2016, the consultant recommends that if groundwater is encountered during the excavation of the North Pit areas, the Applicant will either terminate mining at the groundwater elevation or install a drain system discharging back to Deadman Creek to allow for mining to continue below the groundwater elevation.
- a) Please commit to notifying DRMS and DWR immediately if groundwater is intercepted by the operation.
 - b) Please affirmatively state that the Permittee will comply with any and all requirements of DWR and DRMS, including revising the permit through the appropriate technical revision or amendment process to address the interception and/or exposure of groundwater.
 - c) Please affirmatively state that the Permittee will not install any structures not reviewed and approved through the permit application process (i.e., the unapproved drain system recommended by the consultant), until such plans are fully reviewed and approved by the Division.

Exhibit L - Reclamation Costs (Rule 6.4.12):

19. The text states the total reclamation area at the end of Phase III is 175.82 acres. However, in Table L-1 – Phase III Reclamation Areas by Disturbance Type, the total area is listed as 176.53 acres. Please clarify and correct the error of 0.71 acre between these two values, and ensure acreage figures are accurate throughout the permit application.



20. The text states “with the exception of requested slope variances, all slopes will be regraded to achieve slope angle of 1H:1V or less steep”. However, according to the proposed reclamation plan, all disturbed slopes other than the pit highwalls (e.g., pit floors, stockpile areas, backfill areas, roads) will be graded to slopes of 3H:1V. Please clarify and correct this discrepancy.

Exhibit M - Other Permits and Licenses (Rule 6.4.13):

21. In the proposed groundwater monitoring plan submitted in Exhibit G, the text states that well permits will be required from DWR prior to drilling the monitoring wells. Please include the required well permits in the list provided in this exhibit.

Exhibit N - Source of Legal Right to Enter (Rule 6.4.14):

22. Please provide a description of the basis for legal right of entry to the site and to conduct mining and reclamation, for all owners of record of surface and minerals rights of the affected land. This may be a copy of access lease, deed, abstract of title, or a current tax receipt. A signed statement by the landowner and acknowledged by a Notary Public stating that the Operator/Applicant has legal right to enter and mine is also acceptable.
23. The Division is reviewing the legal assessment prepared by Cory M. Rutz, of Otten, Johnson, Robinson, Neff and Ragonetti, dated June 30, 2016, regarding the easement for Little Turkey Creek Road, and has forwarded the document to the Attorney General’s Office (AGO). The Division will respond more fully on this matter if so advised by the AGO.

Exhibit S - Permanent Man-Made Structures (Rule 6.4.19):

24. Please submit damage compensation agreements with RMBC Group, LLC for the existing Little Turkey Creek Road, Hitch Rack Ranch Road, and any other permanent man-made structures located within the boundary of affected land and within 200 feet of the affected land (e.g., property fencing, gates) which are owned by RMBC Group, LLC. Pursuant to Rule 6.4.19(b), the Division is not authorized to accept an engineering evaluation for any structures until the application demonstrates such agreements have been attempted, but not obtained. Proof of service of the compensation agreements may be in the form of Certified Mail receipts or proof of personal service. Alternatively, if these structures are covered in the lease agreement with RMBC Group, LLC, please provide a copy of the executed lease agreement.
25. The engineering evaluations submitted on July 28, 2016, do not satisfy the requirements of Rule 6.4.19(b), which require the engineering evaluations demonstrate that *such structure shall not be damaged* by activities occurring at the mining operation. The engineering evaluations submitted discuss potential impacts to the structures and proposed mitigation.

Please provide properly executed structure agreements for any/all permanent man-made structures located within the boundary of affected lands and within 200 feet of the affected lands. Where such agreement has been attempted but not obtained, please demonstrate how these agreements were attempted. For any/all structures for which the Applicant can demonstrate such agreement has been attempted, but not obtained, provide an appropriate engineering evaluation



which demonstrates such structures shall not be damaged by activities occurring during the mining and reclamation operation, as required under C.R.S. 34-32.5-115(4)(e).

Additional Adequacy Items:

26. Please address the adequacy items provided by Division staff member, Peter Hays, regarding issues related to blasting and the geotechnical assessment, in the two memos enclosed with this document.
27. Pursuant to Rules 1.6.2(1)(c) and (2), your response to this adequacy review must be placed with the County Clerk and Recorder and thereby made available for public review. Please provide proof that this was done with your response.

Please ensure the Division sufficient time to complete its review process by responding to these adequacy items two weeks prior to the decision/recommendation date, by September 20, 2016. If additional time is needed, please request an extension to the recommendation deadline, currently set at October 04, 2016. The Division reserves the right to further supplement this document with additional adequacy items and details as necessary.

If you have any questions, please contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

Enclosure(s): 1) DRMS 2nd Review of Blasting Plan, From Peter Hays, Dated July 29, 2016
2) DRMS 2nd Review of Exhibit 6.5 - Geotechnical, From Peter Hays, Dated August 5, 2016

cc w/enclosure(s): Paul Kos, Norwest Corporation
Wally Erickson, DRMS
Tony Waldron, DRMS
Peter Hays, DRMS
Tim Cazier, DRMS





COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

Date: July 29, 2016

To: Amy Eschberger; Division of Reclamation, Mining & Safety

From: Peter Hays; Division of Reclamation, Mining & Safety

**Re: Second Review of Blasting Plan; Transit Mix Concrete Co.; Hitch Rack Ranch Quarry;
File No. M-2016-010**

The Division of Reclamation, Mining and Safety (Division/DRMS) has reviewed the Blasting Plan included within Exhibit D - Mining Plan for the Hitch Rack Ranch Quarry adequacy letter response dated July 14, 2016 and submits the following comments. The Division is required to make an approval or denial decision no later than October 4, 2016. Therefore, a response to the following Blasting Plan adequacy review concerns should be submitted to the Division as soon as possible.

1. The Applicant states the groundwater parameter list in the Pre-Blast survey is based on Domestic Water Supply numeric standards established by the Colorado Department of Public Health and Environment and public comments. Please update the Water Quality Monitoring Parameters of the Blasting Plan table (Table 1) to include all applicable parameters from Tables 1 through 4 for domestic water supply from the Colorado Water Quality Control Commission - Regulation No. 41. The parameter and table values in the Pre-Blasting Plan shall correspond to the parameters and values in the groundwater monitoring plan in Exhibit G of the permit application.
2. The Applicant's flyrock control plan is acceptable. The Applicant must understand any flyrock cast from the blasting site beyond the permit boundary will be considered a violation of the permit if approved and issued by the Division.
3. The Applicant states the proposed maximum decibel (dB) level for air over pressure will be 130 dB measured at the seismic instrument set up nearest to the closest structure. The proposed maximum decibel levels is acceptable depending on the lower frequency limit of the measuring equipment. However, attempts to keep air blast levels under 110 dB in order to reduce noise annoyance from the blasts is recommended by the Division.



4. The Applicant states the pre-blast survey will be used to compare any suspected changes that are reported to the original condition of the property. Please provide a Mitigation Plan for the potential complaints from the blasting activities from surrounding structure and groundwater well owners. The Applicant must explain all mitigation measures with timeframes to be implemented and the triggers which would put mitigation measures into effect.

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

Cc: Wally Erickson; Division of Reclamation, Mining & Safety
Tim Cazier; Division of Reclamation, Mining & Safety



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

Date: August 5, 2016

To: Amy Eschberger; Division of Reclamation, Mining & Safety

From: Peter Hays; Division of Reclamation, Mining & Safety

Re: Second Review of Exhibit 6.5 - Geotechnical; Transit Mix Concrete Co.; Hitch Rack Ranch Quarry; File No. M-2016-010

The Division of Reclamation, Mining and Safety (Division/DRMS) has reviewed the Geotechnical Assessment included within Exhibit 6.5 of the Hitch Rack Ranch Quarry adequacy letter response dated July 14, 2016 and submits the following comments. The Division is required to make an approval or denial decision no later than October 4, 2016. Therefore, a response to the following Geotechnical Exhibit adequacy review concerns should be submitted to the Division as soon as possible.

1. In response to Items 6 and 7 in the Division's Geotechnical Adequacy Memo dated May 11, 2016, the Applicant submitted modelling inputs and AutoCAD files on a CD. The Division was unable to convert the files provided to a format compatible with Clover Technology's Galena software. Please provide the SLOPE/W slope stability analysis data for all models from the Norwest analysis to allow the Division to duplicate the analysis with Clover Technology's Galena software for verification purposes.
2. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to performing a site specific investigation at the footprint of TS1 and F1 to confirm overburden thickness, material characteristics and groundwater conditions and submit the investigation report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
3. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to collecting and testing the overburden and topsoil materials to determine their actual strength parameters and submit the material parameters report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.



4. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to collecting and testing the fines material to determine their actual strength parameters and submit the material parameters report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
5. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to reviewing and revising the engineering designs using the site specific data as needed prior to construction and submit the engineering designs report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
6. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to managing the upstream surface water above the stockpiles to limit infiltration and erosion and submit all changes to the water management plan for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
7. As recommended in Section 7 of the Norwest Corporation Hitch Rack Ranch Quarry Waste Stockpile Stability Analyses, dated June 30, 2016, please commit to reviewing and updating the stability analysis to evaluate the difference in parameters and determine any adjustments to the analysis once the final site conditions, construction design, placement method and monitoring plans are in place and submit the updated stability analysis report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
8. The Applicant's response to Items 10 and 13 from the Division's May 11, 2016 Geotechnical Review Memo states Transit Mix will evaluate the initial development area for adversely dipping low angle faults. Please commit to submitting the report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
9. The Applicant's response to Items 16 and 18 from the Division's May 11, 2016 Geotechnical Review Memo states Transit Mix will install a robotic prism monitoring system. Please commit to submitting the monitoring system design for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.
10. The Applicant's response to Item 19 from the Division's May 11, 2016 Geotechnical Review Memo states Transit Mix will develop a supplemental geotechnical investigation for the

South Pit. Please commit to submitting the report for Division review and approval through either the technical revision or amendment process, to occur subsequent to the issuance of the permit.

11. In the above items 2 through 10, the Applicant must commit to timely resolving the specified geotechnical issues through the technical revision or amendment process, to occur subsequent to the issuance of the permit. The Applicant cannot collect the site specific data necessary to resolve these adequacy issues until after the permit is issued because the data collection will result in affected lands and the Applicant is not authorized to affect lands until after the permit is issued.

The technical revision process is defined under Rules 1.1(49) and 1.9. The amendment process is defined under Rules 1.1(6) and 1.10. The Division will determine whether a submittal constitutes an amendment or a technical revision.

The Permittee shall not request the Division to review multiple technical revisions simultaneously. If the Permittee desires to address multiple conditions simultaneously, the Permittee shall submit the request for review as an amendment and such review shall occur through the amendment process.

Please affirm the Applicant and Permittee will comply with these commitments and conditions to the permit.

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

Ec: Wally Erickson; Division of Reclamation, Mining & Safety
Tim Cazier; Division of Reclamation, Mining & Safety