

George L. Quist

April 18, 2023

1849 Trail Creek Rd.

Lake George, CO. 80827

Colorado DRMS

1313 Sherman St. Room 215

Denver, CO. 80203

Response to: Adequacy Review, 110(1) Hardrock Application, Quist Mining, File No. M-2023-002

Extension granted April 10, 2023) on 110(1) Hardrock Application, Quist Mining, File No. M-2023-002

Extension Copy is enclosed with this Application as well as copy of the original adequacy application.

General Application Procedures:

1. Proof of publication: Completed
2. Proof of notice to all surface owners: Completed
3. Comment letters from U.S. Army Corps of Engineers, the Division of Water Resources, and the Office of Archaeology, Historical Preservation and Parks and Wildlife: (All Letters are attached).

The USDA FOREST SERVICE - Completed - MPO, NEPA (Mitigation) was sent to DRMS and George L. Quist on Jan.23,2023. The signed Design Criteria was received by the Forest Service on 2/27/ 2023. The proof of mailing was sent to DRMS on 3/2/2023. Most of the measurements in this document have already been addressed and approved in the current (2023) Design Criteria and the past criteria done in 2015 and ones prior.

1.A. U.S army Corps of Engineers: N/A No dredging or filling of wetland will occur. An interdisciplinary process, (NEPA), has been conducted by the USDA Forest Service.

2.A. Division of Water Resources: Conditions for Approval:

1. No groundwater will be exposed during this operation. There will be no dredging or filling of wetlands. An interdisciplinary investigation, (NEPA), was conducted by the USDA Forest Service.
2. 5 gallons maximum of water for drinking and hand washing and examining rock specimens will be brought in a container from our house or purchased from a store.
3. No stormwater will be diverted or captured, all will be infiltrated into the ground within 72 hours.

3.A. Office of Archeology and Historical Preservation: N/A. As stated in the letter from (History Colorado) nothing of historical significance has been found in our permit boundaries. However as stated in the CRS 24-80 part 13 if any human remains are discovered we will notify the USDA Forest Archeological team and proper authorities immediately. We will also notify the Office of Archeology and Historical Preservation, Colorado DRMS, and USDA Forest Service if anything of Historical or Cultural significance is discovered. The USDA forest service has done an interdisciplinary (NEPA) on this subject.

4. Parks and Wildlife: All measures in the Forest Service Design Criteria concerning anything to do with Parks and Wildlife will be followed. In the letter 4/6/2023 from Colorado Parks and Wildlife: Teller – Quist

Mine Permit No. 2023-002. (All measures are addressed in our 2023 Plan of Operation and Design Criteria (NEPA) with the forest service). The Letter from Colorado Parks and Wildlife states the site falls into the “winter concentration area for mule deer” and other wildlife. Our mining season is from May to November (Generally only June – October) weather permitting, of each year. We commit to not disturb the area during the winter months as to not disturb the wildlife to help protect the species. Orange fencing will be put around the perimeter of the excavation to protect wildlife. Bear boxes will be used for food storage if there ever is any. Water for drinking only is brought in from home. A chemical toilet will be put in place and all trash will be removed from the site. As for mining, we will maintain the same plan as with the DRMS and Forest Service. We bench the excavation site and limit the size to prevent erosion. We reclaim the excavation site by the end of each mining season to limit impact. And we use an approved native seed mixture that is put in place at the end of the season in the fall and again in early spring. All areas are contoured to match the existing slope. All excavated material (topsoil, subsoil, regolith, and rock are put back in place with the soil being last.) The only thing that is removed are a few boxes of crystals, if they are found. All noxious weeds are monitored and removed by hand from the areas during revegetation, which generally will be three seasons. A plan is already in place with the Forest Service on the control of noxious weeds, vegetation, other plants, wildlife and all other control measures and will be followed. We are committed to protecting the environment and returning the site to wildlife habitat prudently and rapidly in this area we love, and we are committed to being good stewards.

Exhibit A- Legal Description and Location Map (Rule 6.3.1):

4. 1. The new map with all of the requirements has been attached.
2. The mine entrance coordinates have been included.

Exhibit C- Mining Plan (Rule 6.3.3)

5. 5 gallons of water for drinking, hand washing and examining specimens will be brought in a container from our home or purchased in a store.
6. 1. The supplemental notes have been adjusted to reflect the same 4 to 6 inches of soil depth throughout the plan.
2. The Cross Section Reclamation Plan Map has been corrected to reflect the 4-6 inches of topsoil and 8 inches of subsoil to be replaced and is attached to this application.
3. Exhibit D- Reclamation Plan #4 has been changed to a combined maximum depth of 14” inches (topsoil plus subsoil) to be put back in place. Correct Exhibit D- #4 has been attached.
4. The combined top soil and subsoil being 12” (a maximum of 14”) all to be put back into place.
7. The 2,963 Cubic Yards that you have stated is different from our 2,250 final cut. That is because of our mining uphill with approximately 2/3rds going into the pit and approximately 1/3 going into the stock pile as we are moving forward. We are using 2,250 cu yds as our limit to the maximum amount of topsoil and overburden that we will have outside of the excavation at any one time during the season. If we are unable to do reclamation at the end of the season, as this plan proposes, then the maximum amount of material that someone would need to return to the excavation is 2,250 cubic yards on a 20,000 square foot disturbance.
8. We have calculated an estimate of 20,000 sq. ft. disturbance per year. (The excavations will be reclaimed at the end of each season).

5-year estimate

1. 2023-2024 – 20,000 sq. ft.
2. 2024-2025 – 40,000 sq. ft.
3. 2025-2026 – 60,000 sq. ft.
4. 2026-2027 – 80,000 sq. ft. (60,000 sq feet in various stages of reclamation and 20,000 sq feet newly disturbed, including storage piles and topsoil.)
5. 2027-2028-80,000 sq. ft. because 20,000 sq. feet will be considered reclaimed. (This totals the 100,000 sq ft of disturbance for the initial 5-year plan.) (We will not request release of bond, however, until entire site is reclaimed and recovered.)

However, as we previously stated, if no pegmatite has been found after 3 years, we may submit a revision to the plan. By year four we will be revising our plan. By that time 20,000 sq feet from year 1 should be recovered, which is why only 60,000 sq ft will be in reclamation. The total sq ft. for 5 years is 100,000 sq. ft.

9. Seeding will be broadcast at a rate of 25 PLS/acre, per Forest Service recommendation.
10. Seeding will occur in the spring (May) and fall (October) of each year (mining season).
11. We will be using a broadcast seeding method onto recently raked ground, followed by additional raking.
12. We Acknowledge the cash bond held by the Division in the amount of \$2,510 and the one for \$900 in place by the USDA Forest Service. The total amount of \$3,410 for P-2015-008 will remain on file until a determination of release is made by the Colorado DRMS and USDA Forest Service. Please let us know what the amount of the new bond for the 110(1) Permit M2023002 will be. We consider all previous prospects (not including present operations site) to be reclaimed. The current bond can be returned and transferred in part to the new dig.

EXHIBIT F – List of Other Permits and Licenses Required (Rule 6.3.6)

13. USDA Forest Service -All changes made to the POO will be submitted immediately to The USDA Forest Service (South Park Ranger District). All measures in the Design Criteria set by the USDA Forest Service will be followed. After completion of this adequacy review, the bond to be determined by the USDA Forest Service and CO DRMS will be put in place.

Other Permits:

1. The Colorado State Historical Preservation Office: **N/A** Letter was received from the Division on March 15th 2023, and was commented on by Quist Mining in this Application. The Forest Service through NEPA has determined there are no antiquities.
2. Colorado Division of Water Resources (administration of water rights) : **N/A**
3. Colorado Department of Public Health and Environment , Water Quality Control Division, (Water Discharge). : A water Discharge Permit was applied for by George L. Quist on 3/31/2023. It was submitted to the Colorado DRMS on the March 24, 2023. The responses to that letter are in this application.
4. Colorado Department of Public Health and Environment (Air Pollution, dust permit). **N/A**

Letter already sent to Division – Phone call to Jonathan Brickey (Air Quality Division), according to Air Quality #C Part A Section 2D1A we are in compliance and exempt from requirement because we are under the 2,000 ton and 1,000 ton thresholds.

5.1. BLM- We are current on all locations. 2. USDA Forest Service Permit: waiting for final review and bond assessment.

6. U.S. Army Corps of Engineers (regarding dredge and fill (404) permit): **N/A**

Letter received by the Division March 15, 2023. Response to this letter Re; (Non-DoD Source Notice of Application Consideration for Permit: M2023002. See response in this application.

7. The County Planning Department (Michael Crepeau) was contacted on March 23, 2023 and responded back on April 4, 2023. Letter sent to Colorado DMRS on April 12, 2023. The Board of County Commissioners has been sent all correspondence so far. Proof of mailing sent to DRMS. They will be updated upon approval of this application.

8. Colorado Parks and Wildlife - Letter was received by the Division on April 6, 2023. All requirements from the Parks and Wildlife and the Forest Service will be maintained. See prior comments in this Application.

EXHIBIT I – Proof of Filing with County Clerk (Rule 6.3.9)

All updates to this adequacy review will be mailed to the Teller County Clerk and Records Office for Public Review, upon the Divisions acceptance of this mailing. Proof of mailing will be sent immediately to the Division.

EXHIBIT A - QUIST MINING
INDEX MAP OVERLAY OF USGS
WACKETT MOUNTAIN QUADRANGLE
WITH LAKE GEORGE, COLORADO TELLER CO.
SHOWING ROAD ACCESS FOR 3 & 4 POINT



EXHIBIT D - Reclamation Plan
Rule 6.3.4 (Starts on Page 139 of the Rules)

The purpose of the Reclamation Plan is to describe the timing, procedures, criteria and materials that will be used to reclaim the affected land to the proposed post-mining land use. Reclamation is required for all affected lands. This plan must be correlated to Exhibit E - Map.

1) Primary future (Post-mining) land use (check one):

- | | | |
|---|---|---|
| <input type="checkbox"/> Cropland (CR) | <input type="checkbox"/> Pastureland (PL) | <input type="checkbox"/> General Agriculture (GA) |
| <input type="checkbox"/> Rangeland (RL) | <input type="checkbox"/> Forestry (FR) | <input checked="" type="checkbox"/> Wildlife Habitat (WL) |
| <input type="checkbox"/> Residential (RS) | <input type="checkbox"/> Recreation (RC) | <input type="checkbox"/> Industrial/Commercial (IC) |

2) Please provide a general description of how the mined area will be Reclaimed:

All excavations will be filled with existing overburden and then contoured.
Topsoil will be spread and the area will be reseeded. Any timber
will be laid crossslope. Berms will remain on any possible outflow areas.
The excavator tracks will be removed

3) What will the final grade of the reclaimed slopes (Horizontal:Vertical): 4.3 H: 1 V

(Note: If the Applicant proposes slopes steeper than 3H: 1V (example 1H:1V, 2H: 1V, etc.), please include a justification:

1H 4.31 4.33 H 1V

Final grades will be same as original slope which is
650' run to 150' rise 23° (Run=650' Rise=150')

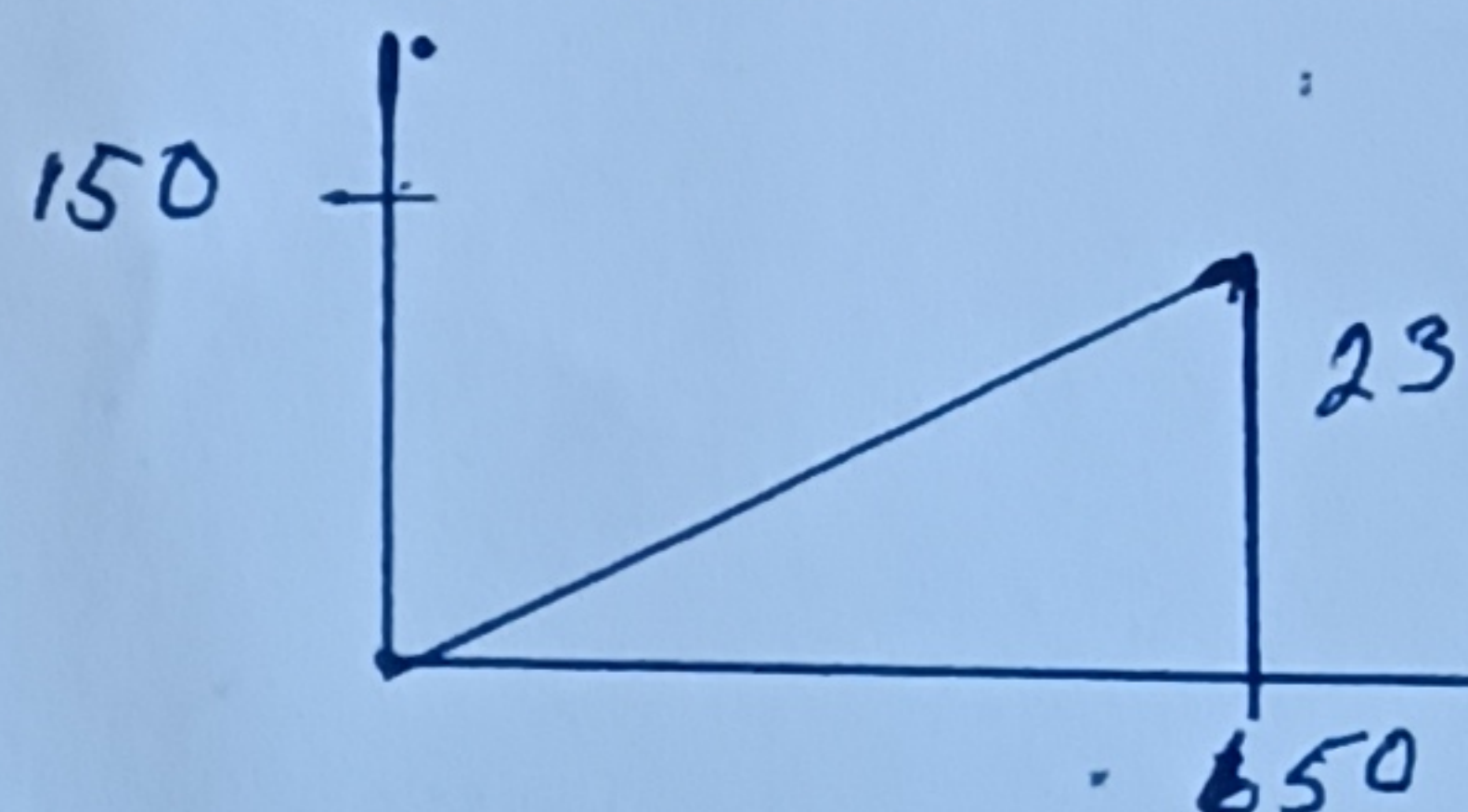
* See Four-Three point crosssection example

a. Please provide a general description of the backfilling and grading:

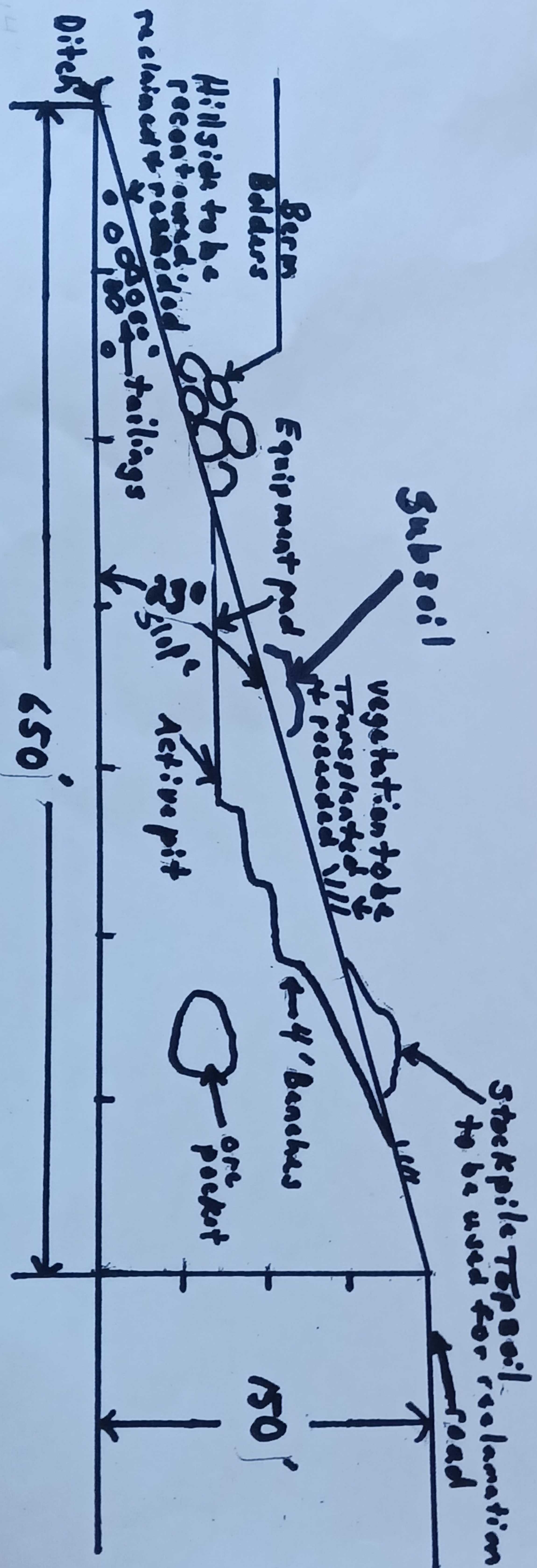
Backfilling and grading will be accomplished with an excavator
and done to blend the area with surrounding topography

4) Depth of topsoil to be salvaged (only for surface disturbances) (check one):

- | | |
|--|---------------------------------------|
| <input checked="" type="checkbox"/> 4-6 inches | <input type="checkbox"/> 6-8 inches |
| <input type="checkbox"/> 8-10 inches | <input type="checkbox"/> 10-12 inches |
| <input checked="" type="checkbox"/> Other: <u>all Topsoil & subsoil 12-14" to be saved</u> | |
| <input checked="" type="checkbox"/> N/A, explain: <u>Some Rock exp. w/o Topsoil < 2%</u> | |



Four & THREE POINT Cross section Example



4-6"
and
8" Subsoil
(12-14" Total)
Total 4-6"

Topsoil will be used to contour the site
Reclamation will return to existing slope & be needed

Wyle & Quinn
Signature

4/15/2023
Date

SUPPLEMENTAL NOTES TO QUIST APPLICATION FOR 110(1) HARDROCK MINING

EXHIBIT C: MINING PLAN

6) All Topsoil and overburden remains on the disturbance site. The nature of “ore” recovered is pegmatite, which is integral to the decomposed granite that underlies thin topsoil and regolith. Pegmatites can breach the surface and or be discovered at any point (or not) within the permit boundaries. As such, there is no overburden. When discovered, the pegmatite crystals will be removed. These crystals may be a few pounds to a few hundred pounds during any given mining season. (Approximate estimate 1 cubic yard of crystals per season). Therefore, all material except these crystals remains on site.

Annual excavations under this plan are limited to a single excavation of a maximum 200 feet by 100 feet to a maximum depth of 12 feet. After the topsoil (approximate depth is four to six inches and includes some subsoil) is removed and stockpiled uphill of the proposed dig (approximately 245 cubic yards) the excavation is begun at the downhill extremity of the seasonal dig site. A working pad is developed and the working face is begun. Maximum depth may be 12 feet. Some overburden is shifted from one side of the excavation to the other in a leapfrog manner and therefore is never stockpiled outside of the excavation. The excavation at any given time is approximately two thirds filled, with approximately one third left behind as we move along up to 2,963 cubic yards. The final cut will be completed to leave less than a third, approximately 2,250 cubic yards (and most likely much less) in a pile to the uphill side of the working face. (This is why we use excavators. They can swing the overburden uphill, which assists us in more efficient reclamation.) At season close, all material will be returned to the excavation, including topsoil on the lower four fifths of the site. The one fifth not reclaimed will be the starting place for the following season excavation.

The next 200 foot swath by 100 foot swath will continue the excavation in the following season. Since this is less than half an acre, this plan will be in effect for ten years in order to completely mine the five acres.

16) This mining plan limits each season to a maximum excavation of 200 feet by 100 feet by 12 feet. As explained, only a few pounds to a few hundred pounds of material is removed. The final stockpile of overburden will be about 2,250 cubic yards and likely far less. Reclamation is completed on each seasonal dig with an estimated three-year recovery for reclaimed sites. Therefore, reclamation costs in the event of abandonment or incapacitation of the operator will be a maximum of 80,000 square feet in various states of recovery (60,000 square feet in various stages of recovery and 20,000 square feet of newly disturbed ground). There will be only 2,250 cubic yards of overburden and about 245 cubic yards of soil to be returned to reclaim any open site. Estimates based on Glacier Peak operations and numerous prospects dug and reclaimed under Prospect Permit P-2015-008, show that this reclamation will take a maximum of two work days with one medium-size track hoe to complete reclamation. Seed will be required for one-half an acre since previous digs are in various stages of recovery and will have already been reseeded. Direct costs for this size of excavation and nature of excavation would be \$125 an hour for 16 hours.

Based on the DRMS note that reclamation costs average \$2,500 per acre, then actual costs would be \$1,250. However, this does not allow for delivery of an average-size excavator to and from site, which will be about \$1,000.

There is currently a \$3,000 bond held for the prospecting permit. Previously there were two prospect sites, for a maximum area of 3,200 square feet disturbance covered under the prospecting permit. All prospects except the conversion prospects in question have recovered at the 80 percent level and can be released from bond. The unrecovered prospects are now being converted to a 5-acre mining permit. This

bond should be based on the judgement of the U.S. Forest Service as to the amount of recovery that is completed. Previous prospects that are completely recovered, should be released.

EXHIBIT D – RECLAMATION PLAN

5) The approved seed mix for this area as approved by the South Park Ranger District is:
Based on 25 pounds of live seed per acre for broadcast seeding is at the following rate..

<i>Elymus lanceolatus</i> (thickspike wheatgrass var. Critana)	23%	5.75 lbs.
<i>Bromus marginatus</i> (mountain brome var. Bromar)	20%	5.0 lbs.
<i>Festuca ovina</i> (sheep fescue var. Covar)	15%	3.75 lbs.
<i>Koeleria cristata</i> (prairie junegrass)	15%	3.75 lbs.
<i>Leymus cinereus</i> (great basin wildrye)	10%	2.5 lbs.
<i>Bouteloua gracilis</i> (blue gramma var. Hachita)	10%	2.5 lbs.
<i>Poa canbyi</i> (canby bluegrass var. Canbar)	5%	1.25 lbs.
<i>Trifolium fragiferum</i> (strawberry clover)	2%	0.5 lbs.

At a rate of 20,000 square feet open in any one season, this calls for seed for 0.44 acre or eleven pounds of seed per season for the ten years. However, we will reseed in spring and fall to ensure adequate growth and therefore use approximately 22 pounds except where seeding has been shown to be successful.

EXHIBIT E. MAPS

1. i. There is no surface water nor any ground water on this site, which is 8,700 to 8,850 feet elevation. Open water is Crystal Creek and downslope 1.3 miles.

ii. There are no known aquifers. Homes about 1.5 miles distant have wells at over 500 feet.

iii. There is no runoff nor discharge of any amount. Torrential rain is quickly absorbed into decomposed granite in this area. Occasional runoff can occur off of road surfaces; however, there are no roads on this site, except an access road which is decommissioned. All sites are bermed during operations downslope.



Adequacy Review, 110(1) Response Quist Mining

George Quist <Gquist@hotmail.com>

Tue, Apr 18, 2023 at 2:00 PM

To: "Russell - DNR, Elliott" <elliott.russell@state.co.us>

To Colorado, DRMS:

Elliott Russell.

Elliott, hello! This is our response to the Adequacy review letter, dated April 10th 2023. We're enclosing our response the supplemental notes to the application. The corrected Zoom map, the correction to Exhibit D #4. And the corrected Cross section map. I did not include the comment letters since you have them already. All of the examples your initial letter, our response and supplemental letter will be taken to the Teller County recorder upon your approval of the information we are sending. If anything else is required please let us know.

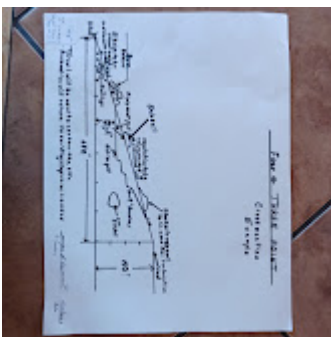
Thank you! Sincerely George and Jennifer Quist

Sent from [Mail](#) for Windows

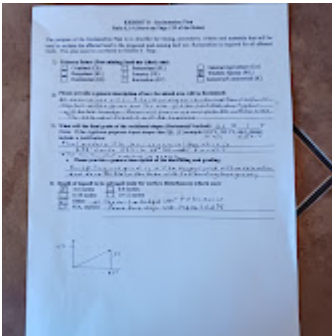
5 attachments



20230416_111210 Zoom out map.jpg
1896K



20230416_111146 corrected cross section map.jpg
2212K



20230416_111127 corrected Exhibit D.jpg
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 **SUPPLEMENTAL NOTES TO QUIST 18 Apr 23.docx**
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