



## COLORADO

Division of Reclamation,  
Mining and Safety


Department of Natural Resources

### MINERALS PROGRAM INSPECTION REPORT

PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Mica Lode	<b>MINE/PROSPECTING ID#:</b> M-1977-144	<b>MINERAL:</b> Quartz (quartzite/ quartzose sandstone)	<b>COUNTY:</b> Fremont
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Timothy Cazier, P.E.	<b>INSP. DATE:</b> February 13, 2020	<b>INSP. TIME:</b> 13:20
<b>OPERATOR:</b> Colorado Quarries Inc	<b>OPERATOR REPRESENTATIVE:</b> Aaron Tezak	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$38,002.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> December 29, 2020

**The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.**

**INSPECTION TOPIC:** Off-site Damage

**PROBLEM/POSSIBLE VIOLATION:** Problem: The affected area map, mine and reclamation plans need to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c). The operator must provide updated maps and sufficient information to describe or identify how the operator intends to conduct the mining operation and reclamation.

**CORRECTIVE ACTIONS:** The operator shall submit a Technical Revision, with the required \$216 revision fee, to update the affected area boundaries and clarify the current approved mining and reclamation plans to reflect existing and proposed activities by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 3/01/21

### **OBSERVATIONS**

This inspection was conducted as part of the Division's regular monitoring program. The Permittee (Colorado Quarries) was represented during the inspection by Mr. Aaron Tezak. The Mica Lode is accessed from Fremont Co Rd 3a approximately nine miles west of Cañon City off Hwy 50. This is a 112c aggregate mine. It was operating at the time of the inspection. The temperature was 21°F at the time of the inspection with a few inches of snow on the ground, limiting site observations.

**Availability of Records:** Annual fees are paid through November 2020. The previous inspection was on March 6, 2016. The post-mine land use is wildlife habitat. There were no open infractions prior to the inspection.

**Acid And Toxic Materials:** The tanks observed on site were empty (see **Photo 1**).

**Explosives:** Mr. Tezak indicated they blast about twice per year. They have a blasting plan, but do not monitor the blasts with instruments. The nearest paved road is FCR 3A about a third of a mile from the main pit. The nearest building appears to be in Buckskin Joe about 1.25 miles west of the main pit. Records are kept in the company office in Cañon City.

**Financial Warranty:** The \$38,002 bond held by the DRMS was last updated in 1989 as part of the conversion to a 112 permit. The 2016 inspection report indicated a review of the bond would be necessary for the next inspection. As part of the records review required to review the financial warranty, it was found that some reclamation, such as backfill in the IMC-1 quarry was continued; but other areas on site need more clarification on the reclamation plans do to incomplete or illegible documents from the 1989 conversion. The need for clarification of these documents is discussed below. Once the records are clarified, the DRMS will revisit the financial warranty.

**Fish and Wildlife:** No impact to wildlife was observed.

**Gen. Compliance with Mine Plan:** The operation appeared to be in compliance with the discernable portions of the approved mine plan. The maximum allowed disturbed area is 46 acres. Google Earth was used to measure the disturbed area, which was estimated to be approximately 20 acres, based on 2019 imagery. Highwalls in the Ruby pit (see **Photo 2**) were estimated to be between 12 and 20 feet in height and the observed highwall on the south side of the Mica Pit (see **Photo 3**) was estimated to be 20 feet high. All observed highwalls appeared stable.

**Off-site Damage:** The 2016 inspection identified and located four permit boundary corners. Most of the operation appears to be within the permit boundary (yellow boundary on **Figure 1**), with the exception of the PMD-S (or PMD-5) dump and an area south of the Mica Pit ("Area A" on **Figure 1**) that was re-disturbed between 2013 and 2016 (based on Google Earth history review). It is possible the affected area boundaries may include all disturbances, but would require adjustments to the permit boundary, as well as clear delineation of the affected areas. The following is a summary of the various boundaries shown on **Figure 1** and their missing areas:

- **Permit Boundary** (~58 acres, yellow line): Does not include the PMD-5 dump and Area A.
- **CN-01 Affected Area Boundary** (~50 acres, purple line): Does not include the northeast corner of the Ruby Pit area; small portions of Area A, the PMD-5 and MQND dumps, and the western portion of the MQD-1 dump.
- **Affected Area Boundaries** (~20 acres, light green and orange lines): Does not include the majority of the disturbed area (outlined in blue) in the central portion of the permit area, the access road, or the wester

end of the MQD-1 Dump.

- Claim Boundaries (~80 acres, not shown on Figure 1): This is the outside perimeter of claims Suzana No. 1 Lode, Suzana No. 2 Lode, Feldspar No. 1 and Feldspar No.2 from the GR Hall & Associates Drawing No. "C:\2002\107, dated 4-29-2002", provided to the DRMS on March 9, 2020. This boundary includes all but the west end of the MQD-1 Dump. It was dismissed after Mr. Bill Tezak described it as the boundary of the aforementioned four claims and not a meaningful affected area or permit boundary.

**The lack of clearly defined affected area boundaries is cited as a Problem on page 1 of this report.** A technical revision is required to clearly delineate the boundaries for the 46 acres of approved affected area. The revised map must include the area outlined in blue on **Figure 1** (~20 acres), as well as the currently delineated affected areas outlined in light green and orange on **Figure 1**. Updated mine and reclamation plans are required to accompany the updated map in order to clarify the missing items in **Attachment A** and provide the DRMS with a basis to update the financial warranty. The updated map should show locations of stockpiled topsoil and backfill material.

Right of Entry: Both the surface and minerals are privately owned. A DRMS records review found unpatented mining claims Mica Lode, Suzana No. 1 Lode, Suzana No. 2 Lode, Feldspar No. 1 and Feldspar No.2 were transferred to Bill Tezak around the time of the transfer of the permit from Colonna & Company of Colorado to Colorado Quarries in 1981. A search of Fremont County Assessor's records indicates the northern portion of the site is owned by Melodi Tezak and the southern portion is owned by Royal Gorge Buckaroos LLC. Mr. Tezak indicated the required leases were current at the time of the inspection.

Reclamation Success: Mr. Aaron Tezak indicated some limited reclamation was initiated several years ago.

Support Facilities On-site: A drill (see **Photo 4**), trackhoe and loader were observed on site.

Signs and Markers: A new permit sign was properly posted (see **Photo 5**) as recommended in the 2016 inspection report. Four permit boundary corner markers were located during the 2016 inspection. However, Rule 3.1.12(2) requires boundaries for affected areas be marked. As there is some uncertainty related to map boundaries for the 46 acres of affected areas, the lack of affected area boundary markers is not cited as a problem; but the DRMS will require these boundaries be marked after the required Technical Revision addressing these map boundaries and clarification to the mining and reclamation plans is approved.

Permit Stipulations: There are no permit stipulations.

Structures: No structures were observed within 200 feet of the affected area.

Off-site Meeting: After the site visit, I met with Bill Tezak in their Cañon City office to discuss the discrepancies in the affected area boundaries. He pulled maps he could find quickly, which did not help much to clarify the issues. Mr. Bill Tezak committed to reviewing his files to see if he could find appropriate mapping. We agreed to have a follow-up meeting in late March or early April. Unfortunately, COVID-19 protocols implemented in mid-March has prevented our intended follow-up meeting to date. The maps Mr. Tezak found were sent to the DRMS and received on March 9, 2020. These maps and related documents were helpful in putting together the summary in **Attachment 1**.

Please contact Tim Cazier (303)328-5229 or at [tim.cazier@state.co.us](mailto:tim.cazier@state.co.us) if you have any questions regarding this report.



## **PHOTOGRAPHS**



Photo 1. Empty tanks (staging area).



Photo 2. Ruby Pit highwall (looking north).



**PHOTOGRAPHS (cont.)**



Photo 3. Mica Pit highwalls (south side, looking north).



Photo 4. Drill in Ruby Pit (looking east).

**PHOTOGRAPHS (cont.)**



Photo 5. Permit sign at site entrance.

### GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>Y</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(ST) STIPULATIONS----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>PB</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / **PB = Problem cited** / PV = Possible violation cited

#### Inspection Contact Address

Bill Tezak  
Colorado Quarries Inc  
270 S 15th St  
Canon City, CO 81212

Enclosures

ec: DRMS file  
Bill Tezak, Colorado Quarries  
Nicole Martin, Colorado Quarries

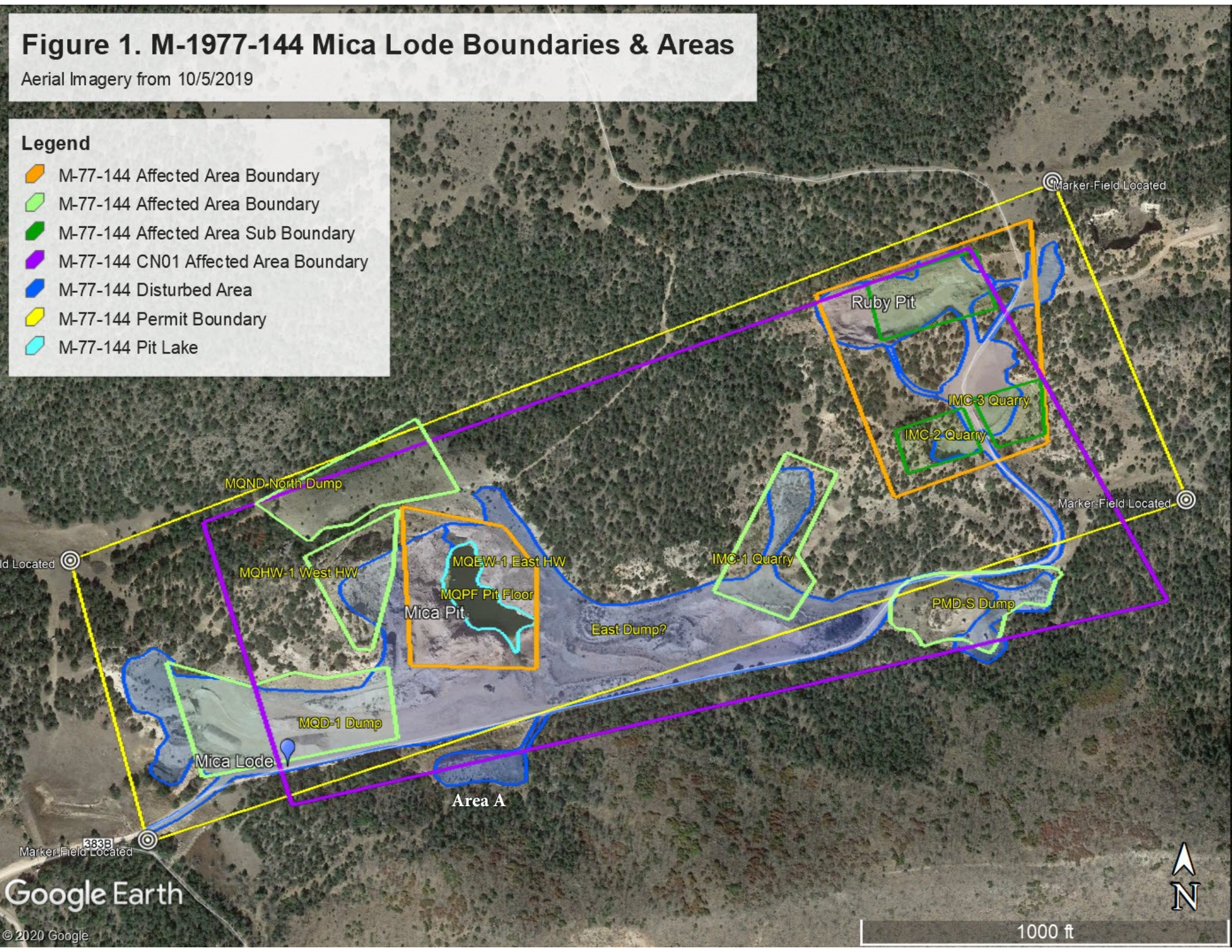


# Figure 1. M-1977-144 Mica Lode Boundaries & Areas

Aerial Imagery from 10/5/2019

## Legend

- M-77-144 Affected Area Boundary
- M-77-144 Affected Area Boundary
- M-77-144 Affected Area Sub Boundary
- M-77-144 CN01 Affected Area Boundary
- M-77-144 Disturbed Area
- M-77-144 Permit Boundary
- M-77-144 Pit Lake





## ATTACHMENT 1 - MINE AND RECLAMATION PLAN SUMMARY

PERMIT NUMBER: **M-1977-144**  
 SITE: **Mica Lode**

SPECIALIST:  
 DATE:

TC1  
 12/28/20

Mine Area / Sub-Area	Description	Exh D Area (Ac)	Survey Area (Ac)	Google Earth Area (Ac)	Mine Plan Summary	Reclamation Plan Summary	1989 Reclamation Costs	Sources / Comments
East Site	7.22 acres in NE mine site		7.22	7.16				Source: GR Hall & Associates drawing # C:\2002\107, dated 4-29-2002
Ruby Pit	Active North quarry in East Site Boundary	4.5		1.18	All work as described in mine plan requires removing saleable product. Intend to finish lowering west wall, then extract from north & south walls. All mining is done in such a manner as to flatten highwalls	Final grading 2 days with D-8 (16 hours) Pit configuration is shown on map. If any top soil is encountered in this quarry it will be stockpiled to place on final slopes. This quarry has no overburden or waste materials. Mining is done so as to flatten existing quarry walls. This quarry will be sloped to 3H:1V or flatter depending on amount of material mined. Oversize material will be placed in quarry and buried with fine materials. Quarry floor will be a pond area	Haul and Place oversize 150 CY @ \$2/CY = \$300 Final grading pit slopes 8 hours D-8 Cat @ \$75.00/hr = \$600 Grading pit floor & seed bed prep. 7½ hours D-6 Cat @ \$45/hr = \$337.50	Source: CN-01 application, Exhibits D & L - 4/15/89 Source: CN-01 adequacy response #9 - 9/12/89 Source: CN-01 Bond Calculation - 9/16/89  <b>NOTE: Ruby Pit has extended beyond 1.18 acres, but is still within the 7.22 acre East Site</b>
IMC-2 Quarry	SW quarry in East Site Boundary	0.0		0.58	<u>Areas in DRMS Exhibit D file copy quality too poor to read</u>	N/A	N/A	Source: CN-01 adequacy responses #7 & 8 - 9/12/89 IMC-3 Area appears to have overburden material placed after 2013. <b>This area will need to be included in an updated mining and reclamation plan.</b>
IMC-3 Quarry	SE quarry in East Site Boundary	0.0		0.55	Pre-law. No plan to "re-disturb"			
MQD-1 Dump	West Dump			2.96	Exhibit D discusses Dump 1 and Dump 2		Oversize and waste material Load and Haul 1,000 CY @ \$2/CY=\$2,000. Seed bed preparation and final grading = \$1,000	Source: CN-01 Bond Calculation - 9/16/89 Grading/material placement appears to have occurred on the west end outside the delineated MQD-1 area since 2004. <b>This area will need to be included in an updated mining and reclamation plan.</b>

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West Site	Mica Pit, MQPF <u>pit floor</u> , may include some East Highwall (MQEW-1)	2.9	3.12	3.14	Pit floor is an extension of the west highwall. Ore body is dipping to the East. Thru years of following ore body, a series of slopes & benches have been created as shown on photo. These areas need minor work to clean up, however final clean up can not be completed until the West highwall is brought down, benching and sloping for final grading will be completed.	Minor item as it will either be created by bringing down West highwall or ore extractions due to dipping vein to the East <u>Pit Floor</u> - This area shall be used to place oversize material from dump area reclamation. Final grading will construct a pond area with slopes of 4:1 or flatter and bench widths of 40' plus	Placing oversize & contouring = \$300 Haul & final grading crusher fines 450 CY @ \$2/CY = \$900	Source: GR Hall & Associates drawing # C:\2002\107, dated 4-29-2002 <u>Includes pit lake</u> Source: CN-01 application, Exhibit D - 4/15/89 Source: CN-01 adequacy response #3 - 9/12/89 <b>Blasting may be required to achieve 4:1 slopes</b>
MQHW-1 West Highwall	west side of Mica Pit	8.5		1.21	This wall is nearly vertical on North & NW faces. SW face is ~ ½:1 slope. High point on wall exceeds 250' in height. Blackslope of mountain is 1 ¼ to 1 ½ : 1. Most of this material can be sold over a period of 20 years.	Material could be blasted into main pit sale or left in pit for backfill & sloping highwall. Highwall would be benched approximately every 40' to meet MSHA stds. <u>Final sloping and Benching will be achieved by drilling and blasting.</u> This area is shown to remove the top 80' of high point and construct 2:1 slopes with 25' bench widths to transition into pit floor. Back filling in these areas can be done at toe of slopes with waste rock and fines to flatten slopes and construct gentle sloping bench areas on West highwall and pit floor. Topsoil will be placed on upper benches on West highwall area.	Grading & Sloping - Dozer push 1,250CY @ \$1/CY = \$1,250 Crusher fines haul & place 300 CY @ \$2/CY = \$600 200 CY Topsoil @ \$2/CY = \$400 Grading Topsoil - 8 hrs @ \$45/hr = \$360	Source: CN-01 application, Exhibits D & L - 4/15/89 Source: CN-01 adequacy response Nos. 3, 5 (note) & 12 - 9/12/89 <b>Blasting may be required to achieve 2:1 benched slopes</b>



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MQEW-1 East Highwall	name only - no boundary	6			Intent is to carry this wall & benches down ~ 100' from top of ore body. All material below this point is saleable product, have been removing it on demand. The ore body is ~100' deep at this point dipping about 20° to East	Remaining material consists of all saleable product. As we have already absorbed the cost of overburden removal there should be no further cost to final grading. <b>1.5H:1V slopes with 20' bench widths. Back filling in these areas can be done at toe of slopes with waste rock and fines to flatten slopes and construct gentle sloping bench areas on pit floor. Topsoil will be placed on upper benches East highwall areas</b>	Grading Benches = \$750.00 Crusher fines haul 400 CY. @\$2/CY = \$800. Grading crusher fines 8 hours D-6 Cat = \$360 Topsoil Haul and Placement 400 CY @ \$2/CY = \$800 Seed bed preparation 9 hours D-6 Cat = \$405	Source: CN-01 application, Exh L - 4/15/89 Source: CN-01 adequacy response #5 (note) & #12 - 9/12/89 Source: CN-01 Bond Calculation - 9/16/89
IMC-1 Quarry	Pre-law? Quarry between Mica and Ruby Pits			1.73	no mining? <u>DRMS file copy quality too poor to read</u>	Dozing fill material to final grade. This would require 2 ½ days with D-6D (20 hours)	Grading: 20 hrs @\$45/hr = \$900	Source: CN-01 application, Exhibits D & L - 4/15/89 <b>Some backfill occurred in 2013 per annual report</b>
PMD-S Dump a.k.a. PMD-5?	Dump in SE area of site	2.6		1.54	No saleable material Small dump containg black schist. West & north sides only have fill slopes. East & south slopes are daylighted into surrounding terrain. Used for equipment storage and powder magazines.	This dump could be finsih graded by sloping North and west faces. North could be sloped to 3:1 or faltter West could slope to 2 ½:1 & still keep access road open. Sloping: 12 hours with a D-8 dozer	Slope and gradtng 900 CY. @ \$1.00/CY = \$900	Source: CN-01 application, Exhibits D & L - 4/15/89 Source: CN-01 Bond Calculation - 9/16/89 <b>Dump needs to be in delineated Affected Area boundary and relcamtion plan needs more detail</b>
MQND North Dump	a.k.a. MQND-3 Mica Pit	4.1		1.85	may remove part or all of this Dump for road fill; Exh D states 4.1 acres	If not removed, flatten to final grade w/ D-8 (16 hours) <b>2H:1V slope</b>	Dozer push - flatten slope 1,050 CY @ \$1.10/CY = \$1,155	Source: CN-01 application, Exh L - 4/15/89 Source: CN-01 adequacy response #2 - 9/12/89 Source: CN-01 Bond Calculation - 9/16/89

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MQED-4 East Dump	name only - no boundary				Saleable material <u>DRMS file copy quality too poor to read</u>	Final grading w/ D-6 (16 hours) + west end D-8 dozing (12 hours)	Oversize and waste material Load antl Haul 1,000 CY @\$2/CY = \$2,000. Slope grading 850 CY @ \$1.00/CY = \$850. Final grading 815 CY @ \$1.00/CY = \$815	Source: CN-01 application, Exhibits D & L - 4/15/89 Source: CN-01 Bond Calculation - 9/16/89 <b>Need mining and reclamation plans &amp; area delineated</b>
MQD-1 Lower Dump Area - main No 1 & 2 quarry	name only - no boundary	8		2.96	Exhibit D discusses <b>Dump 1</b> (~5 Ac) & <b>Dump 2</b> (~3 Ac), but DRMS file copy quality too poor to read	Oversize from this area shall be hauled to the pit floor area. Crusher fines shall be utilized in covering coarse materials on benches and slopes for reclamation/ abandoned quarries are within permit areas	Removal of nonsaleable & oversize material (\$2,000 -1989 cost); Final grading (\$1,000 - 1989 cost)	Source: CN-01 application, Exh L - 4/15/89 Source: CN-01 adequacy response #6 - 9/12/89 <b>Need mining and reclamation plans updated &amp; area delineated</b>
Access Roads					Access road serves property beyond these claims	Upon completion of mining, road will be left in place for access to property. Water bars will be constructed as needed to prevent erosion in this area.	4 hours final grading @ \$45/Hr = \$180 6 hours constructing water bars @ \$45/Hr = \$270 6 hours scarifying @ \$45/Hr = \$270	Source: CN-01 application, Exh D - 4/15/89 Source: CN-01 adequacy response #14 - 9/12/89 Source: CN-01 Bond Calculation - 9/16/89
Pit Lake (Mica Pit)				-0.66	none found	N/A	N/A	June 6, 2010 letter from DWR confirms pit lake existed prior to 1981, no augmentation required (note - no surface area was stated)



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Stockpile Pad	referenced in 9/16/89 Cost Est.	7.5			This pad is ~90' wide by 250' long. Backslopes are ~3:1 now. Fill slope is 1 ½:1 slope 12 - 15' high. Soil is placed on this pad for reclamation.	Stock pile pad which was omitted in original reclamation Cost. The cut slopes on this pad are suitable soil for seeding as well as being 2:1 or flatter slopes Pad area is suitable material as well, Pad will be sloped to the North for drainage. Fill slope is approximately 15' vertical height on a 1 ½:1 slope. This slope will be graded to 3:1 slope for reclamation, Soil is good In this fill.	Rough Grading Pad 6 hours D-6 @ \$45/hr = \$270 Rough Grading Fill slope 10 hours D-6 @ \$45/hr = \$450 Final Grading & Seed bed prep. 8 hours D-6 @ \$45/hr = \$360	Source: CN-01 application, Exhibit D - 4/15/89 Source: CN-01 Bond Calculation - 9/16/89 <b>Need mining and reclamation plans &amp; area delineated</b>
Staging Area	South of Mica Pit, east of MQD-1 Dump				none found	none found	none found	<b>Need mining and reclamation plans &amp; area delineated</b>

**TOTAL:** 44.1