



TRAPPER MINING INC.

P.O. Box 187

Craig, Colorado 81626

(970) 824-4401

January 26, 2023

Ms. Robin Reilley
Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

Re: Trapper Mining Inc., Permit No. C-1981-010

Permit Revision PR-11, Draft CIRCES Review Comments

Dear Ms. Reilley:

Enclosed is our response to your CIRCES Bond calculation of December 2022 for Trapper's Permit Revision PR-11 application.

After an extensive review of the bond calculation prepared by your office, Trapper has identified several items of concern that should be addressed. Some items include errors or omissions. Other items include inconsistencies and variances in the estimate. These comments only serve to revise the estimate to be the most accurate in relation to the bond as calculated and engineered by Trapper Mine.

Attachment 1 to this correspondence is a revised RNYBR calculation taking into effect the actual acres on the site that are not in some form of bond release status. The CIRCES estimate contains retained surety for the acres of Phase I and Phase II bond release present on the site at this time. The RNYBR calculation is intended to preserve additional surety for areas of the site that are not reclaimed fully, or in various stages of reclamation, but not within these Phase I and Phase II bond release acreages. The other remaining acreage of the site is contained within the WCB scenario calculations and surety is held for the regrade, topsoil and seeding of these acreages. In this case, PR-11 calculates WCB for approximately 2,307 acres, 885 acres exist on the site that are reclaimed, but not Phase III bond released. Of these 885 acres, approximately 295 are Phase I released and 433 are Phase II released. Trapper has calculated extra surety should only be held on approximately 120 of the remaining acres of reclamation on the site, not the full 885 as inferred in the adequacy comments letter of January 20th.

Overall the Divisions CIRCES estimate is well prepared and thought out, the greatest discrepancies are presented below. A detailed list of revisions by task follows that.

The greatest cost differences appeared to be in "Backfill & Grading" (Trapper: \$22,851,653) vs CIRCES (\$24,516,768), with the CIRCES Cost estimate being **\$1,665,115** greater than Trapper's.

With respect to the Backfill & Grading, the following observations were made:

- In L Pit, two cross-section quantities were removed from the truck/excavator volumes late in the PR11 Bond Estimate process.
 - Cross-Section 402,200 (463,296 cy) plus Cross-Section 402,700 (399,981 cy); a total of 863,277 cy were removed from the T/E volume for L Pit.
 - Although the volumes were removed from Table A-4.6A, the costs inadvertently remained, which resulted in \$604,211.32 that should not have been present.
 - This reduced the Truck/Excavator costs in L Pit from the reported \$1,748,356.16 amount to \$1,144,144.84 that should have been reported for this task (L15).
 - The reported volume of 1,647,275 cy was correct, but the costs were in error in the submitted App. A.
- Also, the L Pit and N Pit Truck/Excavator costs, in the CIRCES estimate, were based on CAT 385/777 fleets, whereas in the Trapper estimate they were based on CAT 6090/Komatsu 830E productivity and unit costs.
- The three largest differences in Truck/Excavator Backfill & Grading costs are seen in the C Pit (-\$1,538,685), L Pit (-\$1,458,159), and N Pit (-\$2,343,561) estimates. In these cases, the higher values are from the CIRCES Estimate.
- In regards to C pit, since the fleets were the same in the estimate (both Trapper & CIRCES), the question of the difference in haul simulation arises, in that, 693 more hours (than Trapper's est.) were required to complete the task in the CIRCES estimate.
- With respect to L and N Pits, the difference in productivities and hours may possibly be (more, or less), attributable to the differences in equipment fleets (i.e. CAT 6090/ Komatsu 830E vs CAT 385/777).
- A better understanding of how CIRCES' haul simulation estimates productivities and project completion hours may shed light on why there appears to be differences with Trapper's haulage simulation program "TalPac".

The next greatest cost difference was in Topsoil placement where Trapper's estimate was (\$7,333,420), and the CIRCES estimate (\$8,141,844), resulting in the CIRCES estimate being 808,424 greater than Trapper's.

Below are some of the discoveries and observations:

With respect to Truck/Excavator Topsoil placement:

- CIRCES Task # N16 (J Pit Truck/Excavator Topsoil Placement):
 - Discrepancy of topsoil volume (Trapper = 94,623 cy vs CIRCES 105,833; a difference of 11,210 cy).
 - Trapper used CAT385/CAT 777 equipment productivities & unit costs vs CIRCES use of CAT 6090/Komatsu 830E's. This resulted in a lower CIRCES Cost (\$114,491) vs Trapper (\$195,311); a difference of \$80,820.
 - Despite the higher volume, and higher unit cost, the higher productivity of the CAT 6090/Komatsu 830E fleet resulted in fewer project hours, thus lower overall project costs
 - Because Trapper used the CAT 385/777 fleet, Trapper's productivity was lower, resulting in more hours to complete the project and greater total cost for the project.
- CIRCES Task # N17 (I/J Pit Spoil Stockpile Truck/Excavator Topsoil Placement):
 - The discrepancy with this task is very similar to task N16 above, in that the CAT6090/Komatsu 830E fleet was used in the CIRCES estimate and the CAT 385/777 fleet was used by Trapper.
 - This resulted in the Trapper estimate being \$62,889 greater than the CIRCES estimate.
- CIRCES Task # L19 (L Pit Truck/Excavator Topsoil Placement):

- An \$812,836 bust in Trapper's estimate was discovered, whereas the "Total Cost" cell equation (Excel spreadsheet) (App. A, Table A-10.7A) did not tabulate the entirety of the L Pit topsoil placement tasks.
- Upon correcting this, the task fell in line with the CIRCES task estimate within \$5400, at \$1,727,086 instead of the \$914,250 originally reported.
- CIRCES Task #097 (East Panel Ponds & A Road Truck/Excavator Topsoil Placement):
 - The CIRCES volume combined both the scraper (114,647 cy) and truck/excavator (244,270 cy) volumes (total 358,917) into one singular scraper task; and then swelled it (436,084 cy) which resulted in a CIRCES cost of \$997,685.
 - This cost was \$551,902 greater than the Trapper cost of \$445,782.
 - Apparently, CIRCES estimated this task utilizing a scraper fleet at a unit cost of \$5835.02/cy vs Trapper's \$2318.14/cy.

Trapper asks these discrepancies be reviewed and checked for any errors or issues that may represent the differences in cost. It is understood the estimates will never perfectly align, but large differences may represent an issue within the estimate.

Trapper also disagrees with the use of a swell factor that is represented on nearly all of the topsoil scraper tasks. This material has already been stripped, and in every case is being removed from a stockpile for placement. The swell of the material would have already occurred during the initial stripping process. Trapper does not swell this material in storage, or after pickup and laydown. Our estimate for yards needed for reclamation is based on known and established quantities stored in the topsoil piles on the site. The use of a swell factor in the CIRCES run unnecessarily inflates the yards and estimated cost of movement above Trappers estimate. Furthermore, the swell factor was not universally applied to all topsoil tasks. All materials on the site, whether it is topsoil or overburden movement has already been swelled from its initial movement and would not need to be expanded again for final placement. Trapper requests no swell factor be applied to any materials in the bond estimate.

As noted above, Trapper also found inconsistencies in the application of equipment type and fleet size in relation to our estimate. In some cases, equipment types were not consistent within like categories of bonding tasks. Trapper would prefer fleet type and sizing be applied in a similar fashion to the App. A bond estimate to make comparisons of the two estimates easier. In this case Trapper would prefer the CAT D11T-11U be used for dozer backfill tasks; the Komatsu 830E/CAT 6090 fleet for backfill; the CAT 777F/CAT 385C L fleet for topsoil haulage; the CAT 637G/CAT D10 fleet for scraper work; smaller dozers are acceptable for other miscellaneous tasks.

Trapper also noted on all seeding/revegetation tasks that a chisel plowing cost is associated with these activities. This is not a common practice on the site and it would most likely not be conducted. Trapper asks if this costs could be removed from all seeding tasks as it seems unnecessary.

Specific Task Edits:

Task 043, Regrade Explosive Storage Access Road; This is an erroneous task, there is no such feature located on the mine site at this time. This task may have applied to a prior feature of this description, it should be removed.

Task 055, Regrade Middle Flume Access Roads (1, 2, and 3); Middle Flume #2 was never constructed, and is not planned to be in the future. Trapper did not calculate reclamation tasks for this part of the road in App A, Table A-6.2. This task could be edited to reduce total yards from 19,830 to 10,539.

Task 059, Jeffway Access Road; An “access road” was not constructed into the Jeffway Pond, only a pre-existing light use road exists. This task could be removed to reflect actual site conditions. Regrade of a developed road will not be required.

Task 076, Rip K Pit Haul Roads; The road segments this task must refer to no longer exist and would not require any associated costs. Please remove this task.

Task 091A, B; Scraper fleet selection is using older 627 scrapers, please revise for consistency.

Task 097, Replace Topsoil at East Panel Ponds, A road; This task needs edited and expanded. As noted above, the scraper and truck/excavator yards have been combined into one combined scraper task. This erroneously miscalculates the yards associated with truck/excavator operations. The task has also used a multi-leg haul route simulation, this creates one long haul distance, not three separate hauls and inflates job task hours. This task should be separated into two tasks utilizing yards and haulage information from App A. tables A-10.10 and A-10.10A. Please revise this task(s).

Task 100A, Seed D Pit Range A-B; Within this task, under the “Application” section the drill costs are listed at \$484. This must be in error, as the other seeding cost tasks all list drilling costs at \$232. Please revise this task.

Task 120, 121, 122, 123, 124, 125, 126 and 127 are associated with sealing and abandonment of bore holes. As previously discussed with DRMS these tasks include the costing option of sealing; “Portland cement grout-? In. (labor, equip, materials)” and this costing selection includes the equipment cost for applying the grout for abandonment. All of these task include a line for “Drill Rig” and associated costs. The “Drill Rig” costs should be removed from these tasks, as it is a duplicative cost. These task also need revised, edited and/or removed to be accurate to current feature existence on the mine site as follows:

T120 – Match to App. A table A-13.5.

T121 – Match to App. A table A-13.4.

T122 – Match to App. A table A-13.3, there are multiple erroneous wells in this task, they have been reclaimed, please update list.

T123 – Remove task, these wells no longer exist, outdated task.

T124 – Remove task, please add these wells to task 122 as reflected in table A-13.3.

T125 – Remove task, please add these wells to task 122 as reflected in table A-13.3, also revise these costs to show sealing for one diameter of 4.5 inches for the entire depth of each hole. The 6.625 diameter sealing costs are superfluous, as this is the surface casing which is already grouted and sealed, it would not be sealed again during abandonment.

T126 – Remove task, please add these wells to task 122 as reflected in table A-13.3.

T127 – This task is listed in the summary, but not included in the copy of tasks. This task needs removed, the wells associated with it should be added to task 122 as reflected in table A-13.3.

Task 130, Demolish structures, remove materials and debris; One revision, please remove the “Seed Trailer” cost, this feature was disposed of several years ago.

Task 131, Culvert Removal and Disposal; Please revise this task to match App A. table A-12.2.

Add culvert A-13

Check diameters of culverts AE-4,7,12; BC-1; D-16,17; SA-1

Remove culverts AE-14,15; AX-1; BH-1; SA-2,3,4,4A

Task N19, N20, N21, N22, Seeding J, I and C Pits; These tasks all include a “Weed control spraying” cost under “Tilling” at \$290.40. This is inconsistent with the other seeding tasks, please remove this cost from these tasks.

Please get back to us with any questions, comments or concerns.

Sincerely,

A handwritten signature in cursive script, appearing to read "Graham Roberts", with a long horizontal flourish extending to the right.

Graham Roberts
Environmental Supervisor
Trapper Mining Inc.

c PR-11 binder
File 109.2.3.4

Proposed PR-11 RNYBR Calculation, Revised			
Net Increase in Affected Land with PR11 (Acres)	578.5		
Surface Disturbance acres	295		
Sub-Surface HWM acres	283.5		
Trapper's Open Acreage Table 1.4-1 (Acres)	2307.8		
Reclamation Not Yet Bond Released (RNYBR)			
	885.8	(2022 ARR Reclaimed acres)	
Phase I	298.3		
Phase II	467.6		
Reclamation Not Yet Bond Released acres	119.9	(2022 ARR Reclaimed acres)	
Trapper's PR11 Costs Table 1.4-1		\$/Acre	
Topsoil	\$ 7,333,420.00	\$ 3,177.67	
Revegetation	\$ 2,067,465.00	\$ 895.86	
Site Maintenance	\$ 208,108.93	\$ 90.18	
2022 ARR Acreage (Proposed)			
Acres Disturbed	6902.3		
Acres Topsoiled	4692.9		
Acres Revegetated	4692.9		
Untopsoiled acres	2209.7		
Un-revegetated Acres	2209.7		
%Un-topsoiled of RNYBR Affected Acres Proposed	25%		
% Un-revegetated of RNYBR Affected Acres Proposed	25%		
Proposed New Direct Cost for RNYBR Area	Acres	\$/Acre	Total Cost
Topsoil Acres	30.0	\$ 3,177.67	\$ 95,250.57
Revegetation of RNYBR affected land	30.0	\$ 895.86	\$ 26,853.39
Re-seed RNYBR revegetated area (Assume 17.5% Failure Rate)*	89.9	\$ 156.78	\$ 14,098.03
Site Maintenance	119.9	\$ 90.18	\$ 10,812.14
Cost summary item RNYBR		Total Direct	\$ 147,014.14
*17.5% of revegetation cost per acre			