

**STATE OF  
COLORADO****Ebert - DNR, Jared <jared.ebert@state.co.us>**

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**RE: Climax Mine, M-1977-493, Reclamation Cost Estimate - revised cost model**

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**Lazuk, Raymond** <rlazuk@fmi.com>

Wed, Aug 29, 2018 at 1:08 PM

To: "Ebert - DNR, Jared" &lt;jared.ebert@state.co.us&gt;

Cc: Eric Scott &lt;eric.scott@state.co.us&gt;, "Kelts, Diana" &lt;dkelts@fmi.com&gt;

Hi Jared,

Please see attached reclamation cost model update. A hard copy of the package is being mailed out to you tomorrow morning. As indicated in the cover letter the key changes include an updated list of facilities that will undergo closure, demolition of the Mill complex instead of repurposing, and use of a steel salvage credit to offset demolition costs. We included a copy of a check we received from Rocky Mountain Recycling to verify the credit. For privacy/financial identity protection purposes we ask that you do not publish a copy of the check on the DRMS website and keep this information confidential.

Once you have had a chance to review these materials we would be pleased to address any questions you have on the updated model.

Thank you,

- Ray

**From:** Ebert - DNR, Jared <jared.ebert@state.co.us>**Sent:** Thursday, June 21, 2018 4:07 PM**To:** Lazuk, Raymond <rlazuk@fmi.com>**Cc:** Eric Scott <eric.scott@state.co.us>**Subject:** Re: Climax Mine, M-1977-493, Reclamation Cost Estimate

Hello Ray,

DRMS has no problem moving the date for response to September 1st. During the interim, what I will do is assume the structures and facilities in question will need to be bonded for and add them into the DRMS estimate. When Climax and Ajax are able to respond to the letter, we can then easily pull the appropriate costs out of the estimate. What I would like to do is complete the DRMS estimate and provide it to you guys for review. I am about to leave for the day but I will be in tomorrow if you would like to discuss this further.

Thanks,

Jared

On Thu, Jun 21, 2018 at 12:49 PM, Lazuk, Raymond <[rlazuk@fmi.com](mailto:rlazuk@fmi.com)> wrote:

Hi Jared,

We forwarded your letter to Ajax who did the original cost calculations for their input to address the items you identified. Given that we do not have any commitments from outside entities at this time to assume ownership of the repurposed buildings, we will need to do additional calculations for demolition of these facilities. This is going to take some time and so I am therefore requesting we move the resubmittal date to September 1 so that we can get this all done and have time to do QA/QC on the assumptions/calculations. I hope this additional time will be acceptable to DRMS. Let me know if you want to discuss this by phone.

Thanks,

- Ray

Raymond Lazuk

Environmental Manager

Climax Mine

Hwy 91 – Fremont Pass

Climax, CO 80429

Office: 719-486-7584

Cell: 719-201-1282

[rlazuk@fmi.com](mailto:rlazuk@fmi.com)

**From:** Ebert - DNR, Jared <[jared.ebert@state.co.us](mailto:jared.ebert@state.co.us)>

**Sent:** Thursday, June 21, 2018 11:11 AM

**To:** Lazuk, Raymond <[rlazuk@fmi.com](mailto:rlazuk@fmi.com)>

**Cc:** Eric Scott <[eric.scott@state.co.us](mailto:eric.scott@state.co.us)>

**Subject:** Climax Mine, M-1977-493, Reclamation Cost Estimate

Hello Ray,

I have a few questions regarding the cost estimate identified in the attached letter. Please review and let me know if you have questions. A hard copy is in the mail.

Thank you,

Jared

--

Jared Ebert

Environmental Protection Specialist III

[Redacted]

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## 2 attachments



**Climax Cost Update DRMS Ltr 08-29-18.pdf**  
621K



**Climax Mine 2016 Update-Reclamation Cost Estimate\_Updated Aug 2018.pdf**  
6757K



Sent by UPS Legal Express

Climax Mine  
Hwy 91 – Fremont Pass  
Climax, CO 80429  
Phone (719) 486-2150  
Fax (719) 486-2251

August 29, 2018

Mr. Jared Ebert, Environmental Protection Specialist III  
Colorado Division of Reclamation, Mining and Safety  
1313 Sherman St., Rm. 215  
Denver, CO 80203

**RE: Climax Mine Permit No. M-1977-493, Revised Financial Warranty Update**

Dear Mr. Ebert:

This letter and attachments provide a revised update to our reclamation cost model for Climax Molybdenum Company – Climax Mine (Climax) originally sent to Eric Scott with the Division of Reclamation, Mining and Safety on November 21, 2016. Specifically, this revision incorporates additional information and clarifications requested by you in email correspondence and in your letter to Climax dated June 21, 2018.

This revised cost model was prepared by AJAX Mountain Enterprises, LLC. Several important changes to the November 2016 cost model are as follows:

- Structures that have been demolished and facilities missing from your AM-06 list are noted in the attached responses to your June 21, 2018 comment letter
- The Mill complex will be demolished instead of repurposing to an industrial facility
- Experience with past demolition of Climax facilities warrants a scrap steel salvage credit that is now included to partially offset demolition costs

Please let us know if you have any questions on the attached materials and we can arrange for a conference call or meeting with AJAX. I can be contacted at (719) 486-7584 or at [rlazuk@fmi.com](mailto:rlazuk@fmi.com).

Sincerely,

Raymond Lazuk  
Environmental Manager

Attachments: Response to June 21, 2018 DRMS Letter - Climax Mine, M-1977-493, Reclamation Cost Estimate, Follow-up Questions  
Revised Reclamation Cost Estimate Narrative and Figures  
Documentation of Demolition Cost Credit from Rocky Mountain Recycling  
Revised Reclamation Cost Model Spreadsheets

**Response to June 21, 2018 DRMS Letter - Climax Mine, M-1977-493, Reclamation Cost Estimate,  
Follow-up Questions**

- A. The following list you provided for structures which were included in the Amendment No. 6 (AM06) cost estimate is presented below. If a structure listed in AM06 was missing from your list then it has been given a letter designation.
- i. The following structures have been demolished or will be demolished at closure. For each structure, we have indicated whether demolition had previously been completed as stated in AM06, or if demolition has not been completed then its estimated closure cost is stated with an update in 2016 dollars.

**Demolition 1 – Former Mine**

- 3a. 6 Crusher Switch House \$11,400 now \$319
- 4. 2 Crusher Maint. Shop – superstructure demolition complete
- 5. No. 5 Crusher – superstructure demolition complete
- 6. C-1400 Trans. Structure – superstructure demolition complete
- 7. Bulk fuel service building – demolition complete 1990s
- 8. Bulk Fuel Foam House – demolition complete 1990s
- 9. Open Pit Water Station – superstructure demolition complete
- 9a. Mill Lime Silo \$3,840 now \$154
- 10. Domestic Water Plant \$21,870 now \$612
- 11. 2 Mill. Gall. Tank #2 – superstructure demolition complete
- 12. 2 Mill. Gall. Tank #1 – superstructure demolition complete
- 13. New Gas Storage Tank – superstructure demolition complete
- 14. No. 2 Crusher – superstructure demolition complete
- 15. 2 Crusher Switch House – superstructure demolition complete
- 16. PRECON – superstructure demolition complete
- 17. Drying plant – superstructure demolition complete
- 18. Packing plant – superstructure demolition complete
- 19. No. 1 Thickener – superstructure demolition complete
- 20. No. 2 Thickener – superstructure demolition complete
- 21. 3 Mill Building – superstructure \$2,610,000 now \$73,080
- 22. Transport garage – superstructure demolition complete
- 23. Telephone building – superstructure demolition complete
- 24. C-1600 Trans. Structure – superstructure demolition complete
- 25. C-1500 Trans. Structure – superstructure demolition complete
- 26. Regrind building – superstructure demolition complete
- 27. Lime sodium silicate – superstructure demolition complete
- 28. Mill Tank Valve House 1 – superstructure demolition complete
- 29. Mill Tank Valve House 2 – superstructure demolition complete
- 30. Ore bin – superstructure demolition complete
- 31. Reagent Storage Building – superstructure demolition complete
- 32. No. 2 Crusher Ducon – superstructure demolition complete
- 34. C-1300 Trans. Structure – superstructure demolition complete
- 34a. 6 Crusher Secondary \$313,200 now \$12,528
- 34b. 6 Crusher Primary \$118,800 now \$4,752
- 35. 6 Crusher Office – superstructure \$8,640 now \$346

- 36. C-1200 Tans. Structure – superstructure demolition complete
- 37. Moly Warehouse – superstructure demolition complete
- 38. Sample Prep-house – superstructure demolition complete
- 39. No. 3 Thickener – superstructure demolition complete
- 40. Gatehouse – superstructure \$6,400 now \$3,328
- 41. 27-268 Transfer – superstructure demolition complete
- 41a. Covered Storage \$5,250 same
- 42. 2 ~~CR~~Crusher Dust Collector – superstructure demolition complete
- 43. P2S55 Building – superstructure demolition complete
- 44. 45 Drive Building – superstructure demolition complete
- 45. 20 K Bin – superstructure demolition complete
- 46. 29A/30 Trans. Tower – superstructure demolition complete
- 47. No. 28 Rotoclone – superstructure demolition complete
- 48. 48 Rotoclone – superstructure demolition complete
- 49. Phillipson MAPP Gas House – superstructure \$1,800 same
- 50. Open Pit fuel Tanks – superstructure now \$200
- 51. Shovel re-build shop – superstructure demolition complete
- 52. Domestic Water Tank – superstructure \$19,360 now \$774
- 53. OP Pit Fuel Pump House – superstructure demolition complete
- 54. Phillipson Warehouse – superstructure \$75,012 now \$2,100
- 55. Open Pit Phase 1 Shop – superstructure now \$2,976
- 56. Open Pit offices – superstructure now \$10,400
- 57. Open Pit Phase 2 Shop – superstructure now \$17,248
- 58. Open Pit Washbay Bay – superstructure now \$3,969
- 59a. Tenmile Tunnel Shop – superstructure \$3,536 same
- 59b. Tenmile Tunnel Office – superstructure \$3,000 now \$120
- 59c. Tenmile Tunnel Cmp House – superstructure \$972 now \$39
- 59d. Tenmile Tunnel Dmp House – superstructure \$1,200 now \$48
- 59e. Tenmile Barge – superstructure \$3,240 demolition complete
- 59f. Pond Shop – superstructure \$12,000 now \$480
- 59g. Pond Shop Docks – superstructure \$3,000 same
- 59h. Tenmile Coherex Fill Station – superstructure \$2,200 now \$88

### **Demolition 2 – Linear Facilities**

- 60. McNulty Pump Station – superstructure demolition complete
- 63a. Mayflower Holding Tank \$3,528 superstructure demolition complete
- 64a. Chalk Mountain Pump House \$3,125 now \$125
- 65a. Boneyard Demo. \$134,551 demolition complete
- 68. 3 Mill Substation – superstructure \$9,068 superstructure demolition complete 2016
- 68a. Open Pit Shop Substation \$1,219 now \$94
- 69a. various substations
- 70. McNulty Switchyard Substation demolition complete 2017
- 71. McNulty Substation demolition complete 2017

### **Demolition 3 – New Structures**

- 72a. New Structures at Buildout \$3,205,386 now \$80,483
  - 73. Grinding building
  - 74. Flotation building

- 75. Administration building
- 76. Warehouse building
- 76a. Laboratory Building
- 76b. Reagents Building
- 76c. Explosives Shed \$208 now \$6
- 80. 3-Dam pump station \$14,175 now \$397
- 81. Small Out-building at 3-Dam Pump Station \$378 now \$0
- 82. Train Shack at Ten Mile North Portal \$10,500 now \$0

ii. The following structures have been demolished since AM06:

**Demolition 1 – Former Mine**

- 27a. Tailing Distribution House \$8,540 superstructure demolition complete 2017
- 42a. Scale House – superstructure \$5,120 superstructure demolition complete
- 59. CAVR Asbestos Flt House – superstructure \$2,700 superstructure demolition complete
- 77. Explosive Storage (Old Box Cars – 3) \$3,075 superstructure demolition complete

iii. The following structures will remain in place post closure as part of the site’s long-term water management needs:

**Demolition 1 – Former Mine**

- 1. Arkansas Pump House – superstructure
- 2. 5 Shaft Head Frame
- 3. Storke Waste Water Treatment Plant

**Demolition 2 – Linear Facilities**

- 61. 4 Dam Seep Building – superstructure
- 62. Robinson Pump station – superstructure
- 63. Mayflower Pump station – superstructure
- 64. Property Line Flumes – superstructure
- 65. All Asphalt Roads & Lots (see AM06 estimate, Demolition No. 2 task) \$473,388 now \$0
- 66. Mayflower Pump Substation – superstructure
- 67. Mayflower Switchyard Substation – superstructure
- 69. Robinson Pump Substation – superstructure \$1,219
- 72. Warren Pump Station Substation

**Demolition 3 – New Structures**

- 78. Warren’s pump station \$2,625 now \$0
- 78a. Sludge Densification Plant \$203,550 now \$0
- 79. Clarifier Cone \$96,500 now \$0

iv. The following structures have been constructed since AM06 and will be demolished:

**Demolition 3 – New Structures**

- 83. Mayflower Coherex Station \$3,980
- 84. Supply Canal No. 2 Pipeline \$31,329
- 85. Mill Return Pipeline \$1,888
- 86. Coarse Ore Dome \$175,000
- 87. New Scale House \$143

- 88. Mayflower Flood Bypass Tunnel \$530,000
- 89. 5-Dam Powerline \$1,948
- 90. Raw Water Tank \$10,732
- 91. Mill Water Tank \$10,732
- 92. Mayflower Cyclone Station \$1,224

- B. The Asphalt Road and Lot Demolition cost estimate (\$473,388) under Demolition 2-Linear Facilities has been deleted since it is included in the reclamation cost for the Mine Mill Complex.
- C. The Mine Mill Complex cost estimate has been revised to include general regrading of 370,000 CY followed by placement of a 1-foot thick soil cover over 229 acres of disturbance. Demolition of associated structures and revegetation are included elsewhere in the cost estimate.

**Climax Molybdenum Company**  
**Permit M-1977-493**  
**2016 Reclamation Cost Estimate Update**  
**(revised August 2018)**

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## 1 General Reclamation Update

There are many areas of the Climax property that have been disturbed during the past approximately 100 years of mining activities. This reclamation plan outlines specific strategies for all existing and anticipated new disturbances. Upon the permanent cessation of production operations Climax will reclaim all remaining affected areas not required for the following post-mining land use:

- Continued water management and monitoring.

To accommodate these key assumptions, this cost update has therefore resulted in the following changes:

- Refinements to cycle times and haul distances have been checked based on current and planned locations for soil stockpiles.
- Addition of both dust control and haul road grading activities to most reclamation projects.
- Comprehensive updates to the Caterpillar correction factors in the equipment production tables.
- Consistent use of a swell factor of 21.5% for the loading and hauling of topsoil and biosolids.
- Replacement of the fleets of large mine equipment (for example, 988 Wheel Loaders, 773 Mine Haul Trucks, 14M Motor Graders) with more realistic fleets of construction equipment (for example, 938 Wheel Loaders, 740 Articulated Haul Trucks, 12M Motor Graders) which have been proven to successfully complete previous reclamation projects at Climax.
- No allocation for heavy equipment assembly and disassembly (consistent with the approved Henderson closure cost estimate).
- Changed allocations for some Indirect Costs (consistent with the approved Henderson closure cost estimate).
- Standard unit rate updates have been incorporated, including but not limited to:
  - o Labor rate increases (according to the 12/31/15 Consumer Price Index (CPI)).
  - o Equipment rate increases (using 1/1/16 Colorado Caterpillar rental rate sheets).
  - o Material and demolition rate increases (using previous Climax unit rates, historic Climax project costs, and the 2016 RS Means Heavy Construction Cost database).

## **2 Site Specific Reclamation Planning**

As specified in the permit amendment AM-06, specific reclamation strategies have been outlined for all areas of the mine. This narrative describes reclamation plans for all areas including the Open Pit, the 4 tailing dams, the 2 Overburden Storage Facilities (OSFs), and the 3 Tailing Storage Facilities (TSFs). It also refers to the long-term strategy for site-wide water management and demolition of structures upon cessation of mining. Attached Figures 1 and 2 have been utilized as the basis for the proposed final reclamation design and illustrate the final facility layout with respect to post-mine land use. Since the approval of AM-06, four key Technical Revisions (TRs) have been approved, TR-21, -22, -24 and -25 for which closure components have been included herein as part of this reclamation cost update.

### **2.1 Storke Complex**

Most of the Storke Complex has already been reclaimed. Thus, the only remaining work includes hauling and spreading approximately 5,000 cy of biosolids from the Robinson Staging Area to cover 10 acres of remaining disturbance at about 4-inches thick.

The AM-06 cost for this project area included reclamation of a potential OSF on Ceresco Ridge. This OSF is no longer planned (per TR-22) so the cost for its reclamation including the construction of a seepage collection system at its toe has been eliminated.

### **2.2 Open Pit**

The open pit will not be revegetated due to accessibility and safety concerns. The final slopes will likely remain at an angle of repose (approximately 1.5H:1V). Weathering, raveling, and ice action will cause natural reshaping of the benches and highwalls over time which will soften visual impacts. Administrative controls will be maintained to control public access via approximately 40 “No Trespassing” signs which will be installed approximately every 300 feet around the perimeter, where access is reasonable.

On the margins of the pit, where slopes are less steep, some revegetation may be possible (per DRMS requirement). In these cases, up to an estimated 27,000 cy of topsoil will be hauled from the McNulty OSF topsoil stockpiles to the open pit periphery and revegetated with the upland seed mixture.

The AM-06 cost for this project area included the installation of a 2,800 lf pipeline as part of a pit dewatering system. Climax will construct a pit dewatering system as part of production operations and it will remain in place after mining ceases (per TR-24), therefore the post mining cost for this item has been eliminated.

### **2.3 Mine Mill Complex**

The Mine Mill Complex area will be regraded and reclaimed. As such, approximately 229 acres will be regraded for a total of 370,000 cy. This area will then be covered with a minimum of 12 inches of biosolids or topsoil and revegetated with the upland seed mixture. Biosolids will be hauled from the Robinson biosolids staging area or topsoil will be hauled from the McNulty OSF topsoil stockpiles.

The AM-06 cost for this project area included an incorrect cost basis for the cover thickness which was not consistent with the reclamation plan described in Exhibit E. This update reflects the corrected cost basis and calculation.

### **2.4 North 40 OSF**

The lower portions of the North 40 OSF may be reclaimed concurrently with production, but final reclamation will not be completed until the OSF is no longer required for production or reclamation operations. Final regrading of the OSF will be no steeper than 2H:1V interbench (per TR-22) with some areas considerably less steep, for a total of approximately 520,000 cy.

Subsoil and topsoil to be salvaged from the ultimate footprint of the McNulty OSF will be stockpiled to the immediate north of the North 40 OSF. In accordance with Exhibit E of AM-06 an estimated 260,000 cy of topsoil and/or biosolids will be hauled and placed over the regraded surface for a total of 12 inches of growth medium to be revegetated with the upland standard seed mixture.

## **2.5 McNulty OSF**

Subsoil and topsoil to be salvaged from the ultimate footprint of the McNulty OSF will be stockpiled around its perimeter. In accordance with Exhibit E of AM-06 an estimated 921,000 cy of topsoil and/or biosolids will be hauled and placed over the regraded surface for a total of 12 inches of growth medium. After topsoil placement, the lower portion of the OSF (below 11,800 feet) will be seeded with the upland standard seed mixture and higher areas will be seeded with the alpine seed mixture. TR-25 illustrates the final configuration for the stormwater controls on the OSF to be constructed during the reclamation project. These include down drains, perimeter diversion channels, and runoff channels on the reclaimed slope benches.

## **2.6 Tenmile TSF**

Tenmile TSF will be reclaimed when it is no longer required for production operations. As approved for Robinson TSF in TR-13, Tenmile TSF will be reclaimed with a combination of dry and wet covers. The majority of the surface will be capped, but a pond is expected to remain over approximately 25% of the top surface (or just over 113 acres).

The dry cover area will be capped with a minimum of 12 inches of cover material (likely 6 inches of biosolids or topsoil over 6 inches of subsoil) over 340.5 acres for a total of approximately 550,000 cy. The wet cover area will be capped with a multi-layer system likely to include a geogrid layer similar to that used on the Robinson TSF wet cover area followed by a minimum of 36 inches of cover material (6 inches of biosolids or topsoil over 30 inches of subsoil) over 113.5 acres for a total of approximately 550,000 cy. The area will be seeded with the hydric seed mixture.

## **2.7 Tenmile Tunnel**

The Tenmile Tunnel will be sealed upon cessation of mining with concrete bulkheads and slurry backfill since it will no longer be required as part of the site's water management and treatment system. The costs have not changed since the AM-06 update other than an increase for a computational error in the previous cost model.

## **2.8 3 Dam**

3 Dam was reclaimed in its current configuration during the mid-1990s. However, a slight increase in the height of 3 Dam is continuing as a part of production operations which resumed in 2012. This final dam raise will require reclamation at the completion of dam construction with a nominal 12 inches of growth medium (6 inches of biosolids or topsoil over 6 inches of subsoil) resulting in an import of approximately 15,000 cy of material which will be applied to approximately 9 acres of the dam face. The upland standard seed mixture will be applied to the cover material.

The AM-06 cost for this project area included an incorrect cost basis for the cover thickness which was not consistent with the reclamation plan described in Exhibit E. This update reflects the corrected cost basis and calculation.

## **2.9 Pond Shop**

The Pond Shop itself will be demolished under a different task. However, some basic soil reclamation will still be required at the Pond Shop site. This will include a minor amount of regrading and import of just over 500 cy of topsoil. The upland standard seed mixture will be applied to the cover material.

## **2.10 Mayflower TSF**

A portion (244 acres) of Mayflower TSF will be reclaimed when it is no longer needed for production and reclamation operations. However, the southwest portion of Mayflower TSF will be used for water treatment as long as it is necessary to provide detention storage for the water treatment system. A detention storage area and several sludge cells will likely remain on the surface of Mayflower.

The eastern portion of the Mayflower TSF will be reclaimed with a dry cover similar to that constructed on the Tenmile TSF. The dry cover area will be capped with a minimum of 12 inches of cover material (likely 6 inches of biosolids or topsoil over 6 inches of subsoil) resulting in an import of approximately 400,000 cy

of material. Topsoil and subsoil will come from the nearby soil stockpile located just below the Pond Shop. The dry cover will be seeded with the hydric seed mixture.

The AM-06 cost for this project area did not include a general grading task for the dry tailing surface prior to cover placement. This update includes a cost for this line item.

### **2.11 East Side Channel**

The East Side Channel system diverts un-impacted stormwater run-on along the east side of the affected areas from Camp (Mine Mill Complex) to Tenmile Creek below the Mayflower Acid Building. The work involves the construction of approximately 13,100 linear feet of lined diversion channel using both a nonwoven geotextile and sized riprap. AM-06 provided a detailed estimate for this channel which has been updated in this version with 2016 unit rates from RS Means. However, the previous concept in AM-06 for installing pipelines has been eliminated from this reclamation element as submitted in TR-21 and TR-22.

### **2.12 Mayflower Acid**

The Mayflower Acid building itself will remain so no reclamation costs have been included.

### **2.13 Robinson TSF**

Robinson TSF reclamation began in the 1980s and is ongoing. The majority of the surface has been capped with overburden rock, and covered with biosolids or suitable soil material and most of that area has been revegetated. The biosolids production area is on the Robinson TSF and will not be reclaimed until the biosolids program is no longer needed for reclamation on Climax disturbed sites. In addition there are several roads on the surface of the Robinson TSF that are still required for production and reclamation activities. These roads will remain until they are no longer considered necessary. It is currently estimated that approximately 68 acres will need biosolids or topsoil at 4 inches thick (or 36,000 cy). However, portions of that 68 acres will require additional soils cover to eliminate low spots and a thicker cover, so this cost update accounts for a total of 100,000 cy of material.

### **2.14 1 Dam**

Reclamation on 1 Dam is also close to completion. The dam face requires a minimal amount of extra biosolids application (4 inches) over a 65-acre area (35,000 cy) to supplement existing revegetation success.

### **2.15 Roads**

Roads not to be retained for post-mining land use will be reclaimed after they are no longer needed for mining and reclamation purposes. Roads which are not permanent will be regraded as necessary to blend with the adjacent terrain and to meet natural drainage patterns. Following regrading, topsoil will be applied and seed will be spread. The seed mixture used will be appropriate to the elevation of the road. The entrances to reclaimed roads will be blocked by barriers of native rock or earthen berms to prevent vehicular access but allow wildlife access. The following roads are most likely to be reclaimed: switchbacks on Little Bartlett Mountain; access roads at the toes of 1 Dam and 4 Dam; various roads between 3 Dam and Mayflower TSF; various roads northeast and southeast of 5 Dam; and, various roads northwest of Mayflower TSF. Approximately 26,000 cy of subsoil and topsoil will be hauled to some of the road locations for reclamation purposes.

The AM-06 cost for this project area included an incorrect cost basis for the cover thickness which was not consistent with the reclamation plan described in Exhibit E. This update reflects the corrected cost basis and calculation.

### **2.16 Robinson Lake**

Robinson Lake is currently used for process water storage, but it will be reclaimed after it is no longer needed for production operations and converted to a fresh water reservoir. Final reclamation will follow the methods utilized during 2008-2011 by various contractors, including removal of an estimated final

300,000 cy of sediment and sludge to expose a native footprint around the margins of the lake to encourage development of hydric vegetation communities. These areas will also be seeded with the hydric seed mixture.

The AM-06 cost for this project area included some general work items such as mobilization and demobilization, and sediment and erosion control. This update includes these general costs grouped for all areas (see Sections 2.20 and 2.27).

### **2.17 5 Dam**

5 Dam has been reclaimed in its current configuration. However, an increase in the height of 5 Dam during the course of the current production operations will create up to 59 acres of tailing which will require reclamation at the completion of dam construction. A nominal 12 inches of growth medium (6 inches of biosolids or topsoil over 6 inches of subsoil) will be applied to these 59 acres of the dam face for a total of approximately 95,000 cy. The upland standard seed mixture will be applied to the cover material.

The AM-06 cost for this project area included an incorrect cost basis for the cover thickness which was not consistent with the reclamation plan described in Exhibit E. This update reflects the corrected cost basis and calculation.

### **2.18 Revegetation**

Revegetation activities which follow the proven guidelines provided in AM-06 will be followed. Overall acreages of impacted footprints have increased slightly. However, several successful reseeding projects have been conducted by Climax since the submittal of AM-06 for which more cost effective techniques have been successfully utilized. These have resulted in lower unit rates which are reflected in the updated reclamation cost estimate for the seeding of all regraded slopes. This cost will include seeding, mulching, and crimping site wide, an area of approximately 2,500 acres or almost 4 square miles.

### **2.19 Seal Underground Mine Openings**

No. 3 Gallery is currently blocked off to prevent access. Upon cessation of mining operations, it would require further work to prevent long-term access. A 2-feet thick concrete bulkhead is proposed for the No. 3 Gallery closure. Storke Portal currently has ventilation access to the 600 level of the underground workings. Similarly, upon cessation of mining operations, it would require further work to prevent long-term access. A 2-feet thick concrete bulkhead is proposed for the Storke Portal closure. Unit rates for the concrete bulkheads have been updated using RS Means 2016 references.

The Phillipson Portal will be closed at cessation of mining but since it will be sealed easily with minor use of a bulldozer its cost is considered insignificant.

### **2.20 Mobilize and Demobilize**

Prior reclamation cost estimates included a minimal total cost for total project equipment mobilization and demobilization. For this cost estimate update, we have assumed annual mobilization and demobilization lump sum costs based on historic Climax reclamation projects for a period of four years.

### **2.21 Buffer Zone**

The Buffer Zone reclamation is a DRMS-required reclamation cost and remains fixed from the AM-06 value.

### **2.22 Hydrologic Protection**

Water management and site-wide water treatment will continue at Climax long after the cessation of production operations. The AM-06 reclamation cost estimate for hydrologic protection has been updated using current values for 2013-2016, which are now reflective of a successfully operating downstream water treatment facility, the PDWTP. All previous unit rates have been updated using current data from the 2013-2016 YTD operating period (8/31/16) with lime costs perhaps increasing the most over the AM-06 estimate. An additional line item has been added for Outside Services and the number of Water

Technicians, Mechanics, Maintenance, and Electrical staff has been increased from 4 to 8 full-time equivalents. The baseline costs assume a treatment footprint of approximately 10,000 acre-ft. Similar to the base assumption for the AM-06 approved cost, we have factored the first 5 years of water treatment to an estimated 8,100 acre-ft footprint (this equates to about 5,000 gpm which is an average of how much water is currently treated over a given year) and a subsequent 3 years of water treatment (post facility reclamations) to an estimated 3,570 acre-ft footprint (this equates to about 2,000 gpm which is the amount of water on average Climax would have to treat from the various seeps after the other facilities are reclaimed in the previous 5 years) for an equivalent net present value.

The Mill Water Barge and its associated local infrastructure (surge tank and building, dual pipelines, etc.) will likely be demolished at the cessation of production operations. The SDP will be utilized long-term for stage 1 water treatment and will no longer be demolished.

### **2.23 Demolition – Former Mine**

Buildings, utilities, processing equipment, and other above-ground structures and materials no longer required during the post-reclamation period will be demolished. To the extent possible, the salvageable and recyclable materials obtained from these structures and facilities will be retrieved and sold, or recycled; the corresponding direct cost credit has been included as referenced. Material that is not retrievable or practicably recycled will be disposed of by burial. Buried pipe, wire, etc. will be left in place during reclamation if it does not interfere with regrading activities and is non-toxic or not hazardous. Foundations deeper than 3 feet from the reclaimed surface that will not interfere with regrading activities will also be left in place. Concrete floors, walls, equipment pedestals, and foundations that will be within 3 feet of the reclaimed surface will be demolished and buried prior to site regrading. Asphalt will only be left in place if it will be useful for long-term roads.

AM-06 included demolition costs for the structures which have since been demolished (e.g. old Scale House, Tailing Distribution House) or will no longer need to be demolished due to their intended use post cessation of mining (e.g. SDP and Clarifier, Warren's Pump Station).

### **2.24 Demolition – Linear Facilities**

Several linear facilities at Climax will not be needed following cessation of production operations. These include substations and powerlines, pipelines, and similar historic structures. Again, and to the extent possible, the salvageable and recyclable materials obtained from these structures and facilities will be retrieved and sold, or recycled; the corresponding direct cost credit has been included as referenced. Material that is not retrievable or practicably recycled will be disposed of by burial. Buried pipe, wire, etc. will be left in place during reclamation if it does not interfere with regrading activities and is non-toxic or not hazardous. Foundations deeper than 3 feet from the reclaimed surface that will not interfere with regrading activities will also be left in place. Concrete floors, walls, equipment pedestals, and foundations that will be within 3 feet of the reclaimed surface will be demolished and buried prior to site regrading.

AM-06 included demolition costs for asphalt removal in the Camp area (Mine Mill Complex). These demolition costs remain in this update under the Mine Mill Complex.

### **2.25 Demolition – New Structures**

Several new structures constructed since the restart of production in 2012 will no longer be required during the post-reclamation period and will be demolished. These structures include the Mayflower Coherex Station constructed in 2014, the Supply Canal No. 2 Pipelines constructed in 2012, the Mayflower Flood Bypass Tunnel constructed in 2012-14 (see TR-21), and a portion of the Mill Return Pipeline in Searle Gulch constructed in 2013. Again, and to the extent possible, the salvageable and recyclable materials obtained from these structures and facilities will be retrieved and sold, or recycled; the corresponding direct cost credit has been included as referenced. Material that is not retrievable or practicably recycled will be disposed of by burial. Buried pipe, wire, etc. will be left in place during reclamation if it does not interfere with regrading activities and is non-toxic or not hazardous. Foundations deeper than 3 feet from the reclaimed surface that will not interfere with regrading activities will also be left in place. Concrete floors, walls, equipment pedestals, and foundations that will be within 3 feet of the reclaimed surface will be demolished and buried prior to site regrading.

The 4 Dam Seep Pump Station, Robinson Seep Pump Station, Storke Wastewater Treatment Plant, 5 Shaft Pumping System, and Warren's Pump Station, amongst others, will remain post closure for either continuation of water management. 3 Dam Pump Station is scheduled for demolition on or before 2026 as Mayflower TSF rises.

### ***2.26 Disposal of Reagents***

TR-24 Section T-3.5 describes that all chemicals not to be used in the long-term water treatment operations "would be used or removed from the site. Mixed chemicals such as Nokes Reagent and NaCN in solution would be used in the milling process until depletion of the supplies. The distributor [will] be contacted to assume possession of unmixed and uncontaminated chemicals, and the material [will] be transported off-site in the same manner that it was received at the site." Further, TR-28 presents a current list of reagents being used at the mine. Table T-A-1 provides chemical types, specific product names, storage container types and volumes. For the purposes of this cost estimate update, we have generally assumed that 75% of the chemical will be used up, resulting in 25% of the volumes in Table T-A-1 requiring disposal.

### ***2.27 Maintenance and Environmental Control***

AM-06 provided for a significant amount of general maintenance and environmental control activity site-wide during the post production 4-year reclamation process. This cost item remains unchanged even though some activities are included on a facility-specific basis for some of the other site reclamation projects.

### **3 Reclamation Costs**

The estimated costs for the reclamation activities include the Direct Costs associated with each of the sites described above and the Indirect Costs as discussed below, most of which are a percentage of Direct Costs as required by DRMS.

#### **3.1 Indirect Costs**

The Indirect Cost allocations for Insurances, Bonds, and Contractor Profits are fixed DRMS Direct Cost percentages at 2.02%, 1.05%, and 10%, respectively. The cost for a Job Superintendent was calculated using the labor rates for a period of 4½ years. The Financial Warranty Fee of \$500 was a rate fixed by DRMS. The final two Indirect Cost categories for Engineering, Bidding, Contracts and Management, Administration have been set to 2% and 3%, respectively, of the total of Direct Costs, Overhead, and Profit, to be consistent with the DRMS-approved reclamation cost estimate for the Henderson site.

#### **3.2 Salvage Credits**

As it has been mentioned in Sections 2.23, 2.24 and 2.25, this cost update takes into account a cost credit for the salvage (scrap value) of ferrous demolition materials. It does not take into account salvage and/or sale of significant other closure items such as chemical reagents, fixed and mobile equipment, and other facility systems. In terms of structure demolition, a significant scrap steel credit is highly likely (similar to that received for the Storke demolition projects of the 1990s and the No. 2 Crusher and No. 5 Crusher demolition projects of 2005-7). Freeport McMoRan and its predecessors have historically paid for the demolition of steel structures via the scrap steel credit received from recyclers for the salvage of materials. This was the case for the demolition of significant structures like the Nos. 2 and 5 Crushers in 2005-7 and for the demolition of the Tailing Distribution House (TDH) in 2017. As proof of the stated steel credit received by Climax for the TDH demolition, the invoice and check according to Settlement # 1021146 dated 9/29/17 received from Rocky Mountain Recycling is attached (scrap value = \$0.04/lb = \$19.60/CF). Similarly, online resources indicate that August 2018 scrap value for Colorado is on the order of \$0.025/lb = \$12.25/CF. However, rather than presenting a profit for the stated demolition projects, we have therefore shown a nominal \$0.01/CF for a steel demolition unit rate.

## 4 Cost Model Instructions

This section describes the system of inputs required by this update to the Climax Mine reclamation cost model.

### 4.1 General Inputs

The first six worksheets require direct input of the model's operating assumptions. The majority of the cells which require modification have been shaded in green or yellow. Items which change include, but is not limited to:

- Indirect Cost percentage allocations for Insurances, Bonds, and Contractor Profits which are fixed DRMS Direct Cost percentages at 2.02%, 1.05%, and 10%, respectively.
- The cost for a Job Superintendent has been calculated using the labor rates and assuming an onsite presence of 4½ years.
- The Consumer Price Index factor is a published value.
- The Financial Warranty Fee of \$500 is a rate fixed by DRMS.
- The final two Indirect Cost categories for Engineering, Bidding, Contracts and Management, Administration have been set to 2% and 3%, respectively, of the total of Direct Costs, Overhead, and Profit, to be consistent with the DRMS-approved reclamation cost estimate for the Henderson site.
- Equipment unit rates are obtained from Colorado Front Range rental companies (generally Caterpillar models) which are compared with current contractor rate sheets obtained from the Climax Mine GSC Department.
- The sources of the update to the Materials List are referenced in the table.
- Demolition unit rates are largely provided from the latest RS Means' *Heavy Construction Cost Data* book, in this case published in 2016.

### 4.2 Project Inputs

On the Summary tab, the buttons at the top will automatically create new tabs or outputs, as follows:

- Add a GENERAL worksheet: adds a new worksheet for reclamation of a facility or area.
- Add a DEMOLITION worksheet: adds a new worksheet for demolition of a facility or building.
- GO TO Last Active SHEET: returns the user to the previous active worksheet.
- Create PDF copy: allows the user to select which tabs to print to an Adobe Acrobat file.

On the individual project tabs, the buttons at the top of each sheet will automatically create activities and line items, as follows:

- GO TO "SUMMARY" SHEET: returns the user to the Summary worksheet described above.
- Insert a new task HAUL/LOAD: adds new cost line items for a loader-haul truck fleet combination.
- Insert a new task SPREAD (CUYDS): adds a new cost line item for a motor grader (spreading of cover material).
- Insert a new task GRADING (ACRES): adds a new cost line item for a motor grader (grading of haul routes).
- Insert a new task WATER: adds a new cost line item for a water truck (dust control of haul routes).
- Insert a new task MATERIALS: adds a new line item for materials only.
- Add new equipment to look up: takes the user to the Equipment List tab to add a new piece of equipment.
- Add new material to look up: takes the user to the Materials List tab to add a new material.

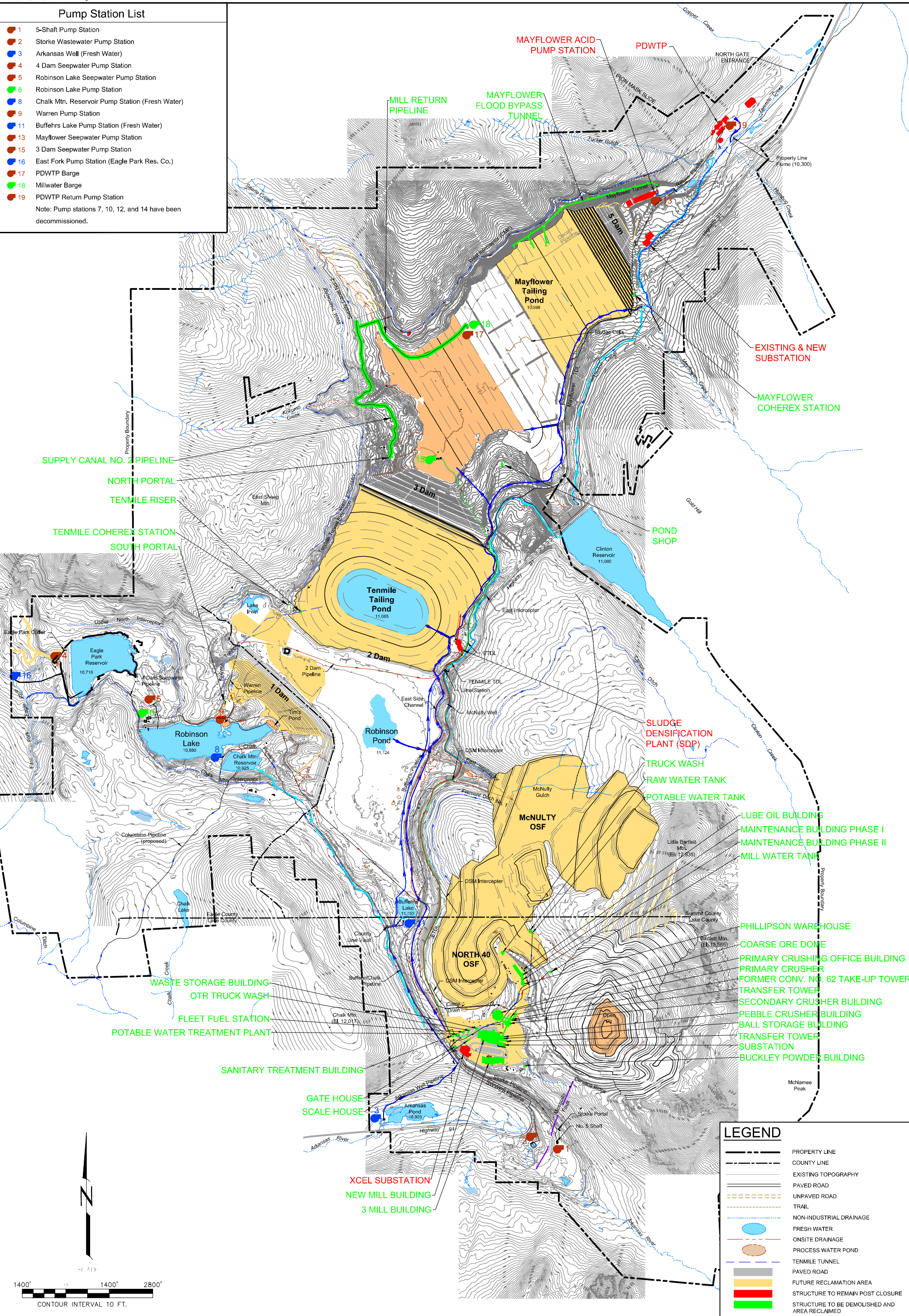
At each of these prompts, green shaded cells typically indicate where user input is required. In some cases, a Production Table will automatically be created below the Calculations Table from which calculated data will be pulled back into the reclamation cost line item. However, the Production Table must be modified by the user with consideration for two production categories. First, Figure 1 should be consulted (in AutoCAD format) in order to calculate haulage distances and average road grades, if required. This data should then be taken into consideration for the calculation of haul times between the

proposed borrow areas and the reclamation sites. Second, the Caterpillar Handbook, in this case Edition 45 dated January 2015, should be consulted to determine actual production factors for each fleet of equipment generated, including estimates for material swell factors, altitude deration factors (critical at the Climax Mine), average dozer pushes, time trial study methods, equipment operator efficiency ratings, blade correction factors, to name but a few. The green-shaded cells generally require research using the Caterpillar Handbook and sound engineering judgment for reclamation construction projects. Most unshaded cells are either calculated automatically or have been provided with direct input by the user in the Equipment List tab. Finally, the Production Table will indicate an appropriate number of haul units (articulated haul trucks) to be balanced against one loading unit (default for the Climax Mine model is a wheeler loader). This number of haul units should be considered carefully based on reclamation project experience and common sense given the haul distance, road configuration, mine elevation, seasonal impacts, and reasonableness given other site-specific constraints. This haul unit “gut check” should then be modified in the Calculations Table accordingly.

Pump Station List

- 1 5-Shaft Pump Station
- 2 Storke Wastewater Pump Station
- 3 Arkansas Well (Fresh Water)
- 4 4 Dam Seepwater Pump Station
- 5 Robinson Lake Seepwater Pump Station
- 6 Robinson Lake Pump Station
- 8 Chalk Mtn. Reservoir Pump Station (Fresh Water)
- 9 Warren Pump Station
- 11 Buffehrs Lake Pump Station (Fresh Water)
- 13 Mayflower Seepwater Pump Station
- 15 3 Dam Seepwater Pump Station
- 16 East Fork Pump Station (Eagle Park Res. Co.)
- 17 PDWTP Barge
- 18 Millwater Barge
- 19 PDWTP Return Pump Station

Note: Pump stations 7, 10, 12, and 14 have been decommissioned.



|     |                         |     |       |      |
|-----|-------------------------|-----|-------|------|
| △   |                         |     |       |      |
| △   |                         |     |       |      |
| △   |                         |     |       |      |
| △   | FINAL DRAFT             | RLM | 8/18  |      |
| △   | DRAFT                   | RLM | 11/16 |      |
| REV | DESCRIPTION OF REVISION |     | BY    | DATE |

PROJECT & CONSTRUCTION MANAGEMENT  
ENGINEERING, GEOLOGY, SURVEYING

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

|          |         |
|----------|---------|
| DESIGNED | VARIOUS |
| DRAWN    | RLM     |
| CHECKED  | AJH     |
| REVIEWED | DK      |
| CLIENT   | RL      |
| DATE     | 8/3/18  |

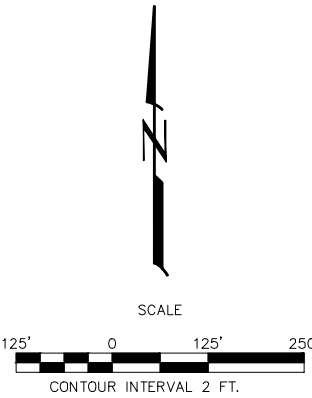
A Freeport-McMoRan Company

CLIMAX SITE  
RECLAMATION PLAN

|             |        |
|-------------|--------|
| REVISION    | 1      |
| PROJECT NO. | 12026  |
| FIGURE      | 1      |
| SHEET       | 1 OF 1 |

LEGEND

- EXISTING TOPOGRAPHY
- PAVED ROADS
- EXISTING DIRT ROADS
- NORTH 40 OSF BOUNDARY
- McNULTY OSF BOUNDARY
- PAVED ROAD TO BE RECLAIMED
- PLANT SITE WASTE AREA TO BE RECLAIMED
- STRUCTURE TO REMAIN POST CLOSURE
- STRUCTURE TO BE DEMOLISHED AND AREA RECLAIMED



NOTES:  
1. BASE TOPOGRAPHY (DATE: 7-20-2016) PROVIDED BY CLIMAX.

|      |             |            |        |          |                        |
|------|-------------|------------|--------|----------|------------------------|
| 1    | FINAL DRAFT | 8/3/2018   | RL     | RLM      | DK                     |
| 0    | DRAFT       | 11/18/2016 | RL     | RLM      | AJH                    |
| REV. | REVISIONS   | DATE       | CLIENT | DRAWN BY | REVIEWED AND SIGNED BY |



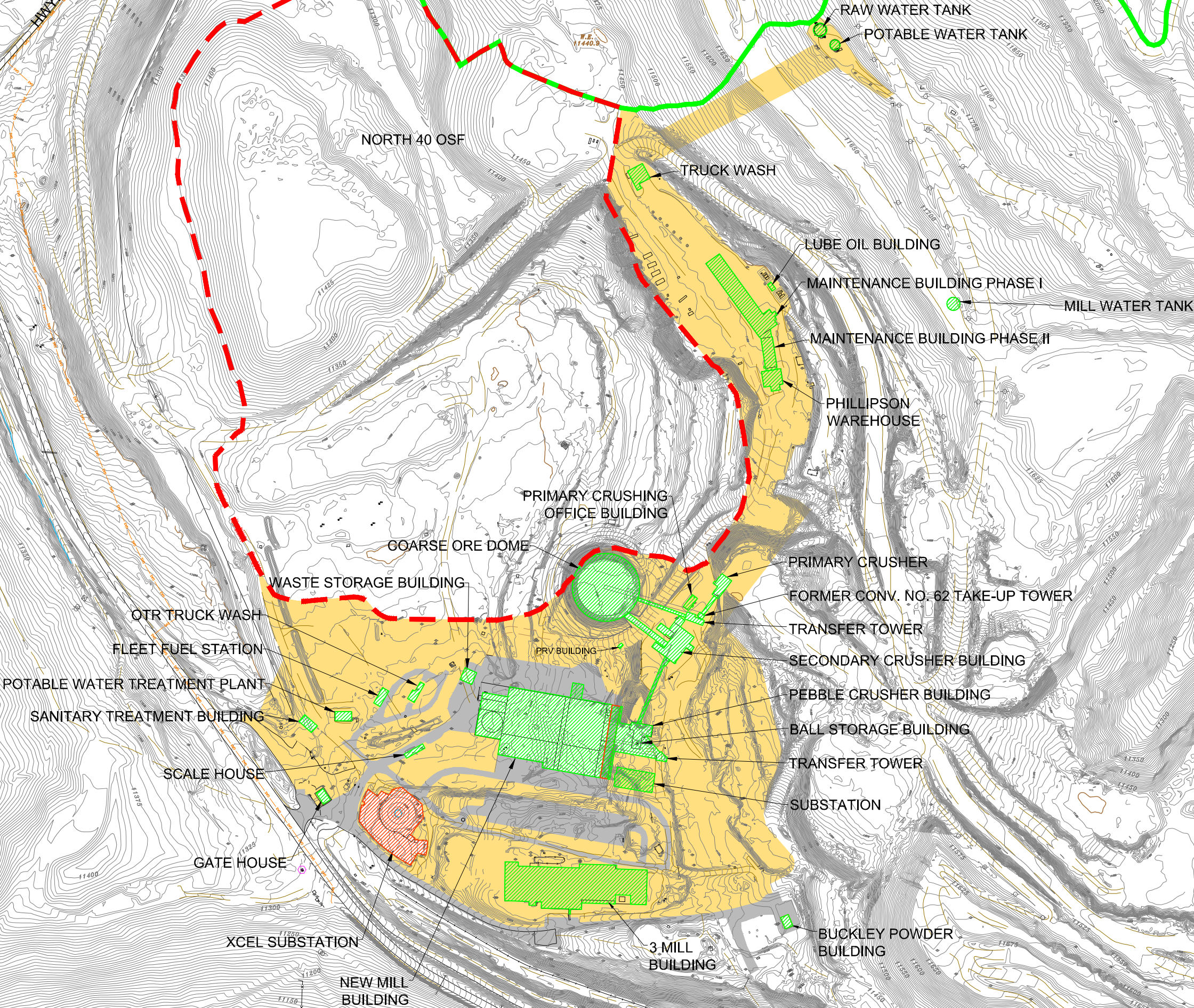
PROJECT: MINE & MILL COMPLEX

DRAWING TITLE: RECLAMATION PLAN

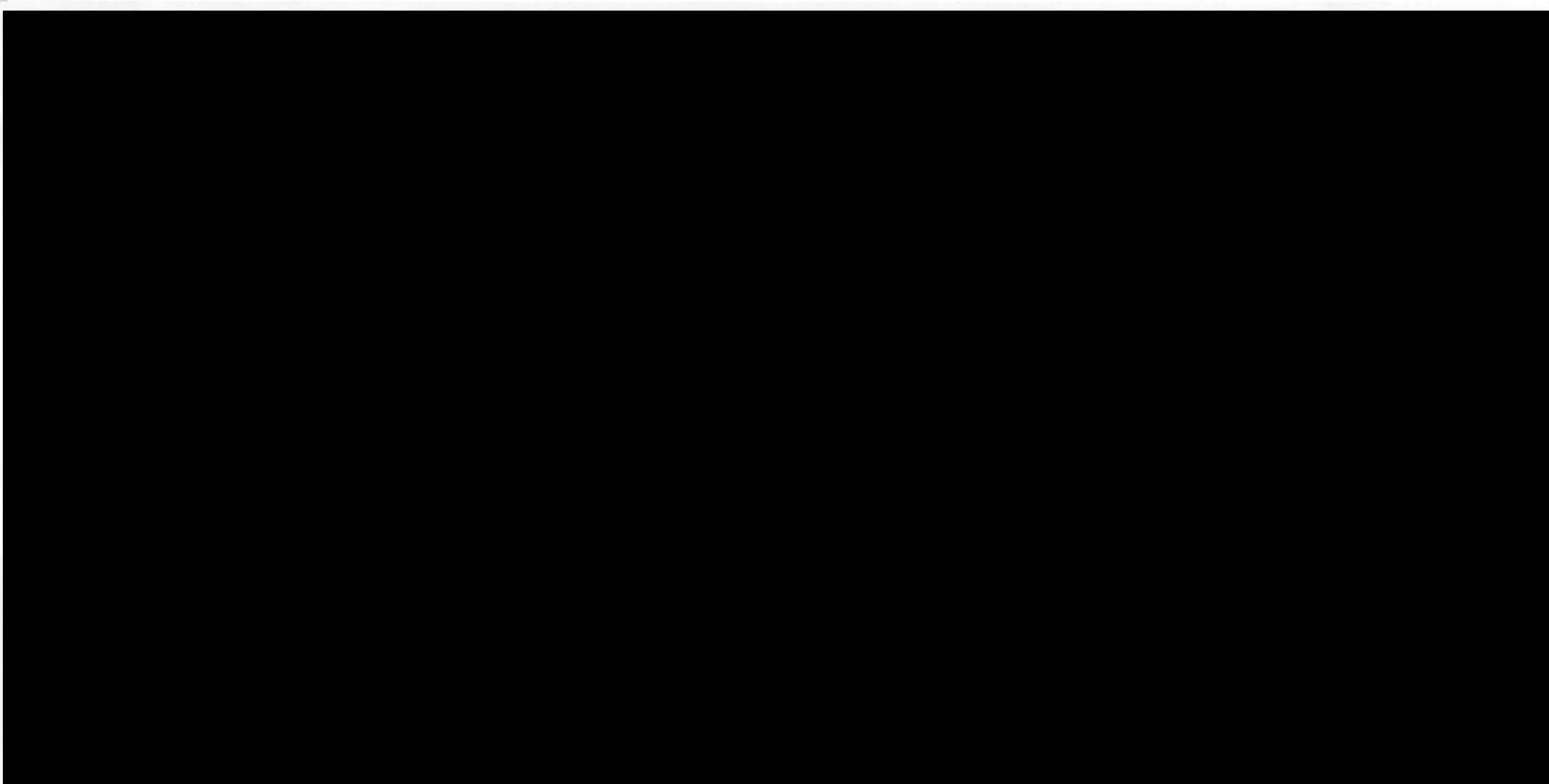


PROJECT & CONSTRUCTION MANAGEMENT  
ENGINEERING, GEOLOGY, SURVEYING

PROJ. NO. 12026  
SCALE: 1" = 800'  
FIGURE: 2









# Rocky Mountain Recycling, Inc.

6510 Brighton Blvd.  
Commerce City, CO 80022

Phone: 303 288-6868  
Fax: 303 288-0250

1

Print Date 09/29/17  
Settlement# 1021146  
Total Settlement \$619.41

CLIMAX MINE  
MINE IN LEADVILLE  
LEADVILLE, CO

ATTN: JAMES HAAG

## \*\*\* CHARGES \*\*\*

| Date           | Tkt# | Description | Net | Unit Price | Price |
|----------------|------|-------------|-----|------------|-------|
| Total Charges: |      |             |     |            |       |

## \*\*\* CREDITS \*\*\*

| Ticket Date                           | Ticket# | BL#    | Gross  | Tare   | Tare2  | Contam | Net     | Unit Price | Ext. Price |
|---------------------------------------|---------|--------|--------|--------|--------|--------|---------|------------|------------|
| <b>Iron #2 HMS Unprepared</b>         |         |        |        |        |        |        |         |            |            |
| 08/29/17                              | 5086365 | CL2433 | 62,200 | 50,900 | 600    | OM     | 10,700  | 2.0000     | 10.70      |
| 09/01/17                              | 5086543 | CL2436 | 72,560 | 53,580 | 600    | OM     | 18,380  | 35.0000    | 321.65     |
| 09/12/17                              | 5087331 | CL2441 | 57,500 | 51,300 | 300    | OM     | 5,900   | 2.0000     | 5.90       |
| 09/18/17                              | 5088023 | CL2444 | 56,860 | 49,640 |        |        | 7,220   | 2.0000     | 7.22       |
| 09/19/17                              | 5088340 | CL2445 | 45,420 | 35,500 |        |        | 9,920   | 2.0000     | 9.92       |
| 09/19/17                              | 5088359 | CL2446 | 55,420 | 39,620 | 900    | OM     | 14,900  | 2.0000     | 14.90      |
| 09/20/17                              | 5088488 | CL2448 | 49,340 | 38,120 | 500    | OM     | 10,720  | 2.0000     | 10.72      |
| 09/21/17                              | 5088582 | CL2449 | 54,600 | 43,480 | 900    | OM     | 10,220  | 2.0000     | 10.22      |
| 09/21/17                              | 5088624 | CL2451 | 58,840 | 41,900 | 800    | OM     | 16,140  | 2.0000     | 16.14      |
| 09/21/17                              | 5088414 | CL2452 | 56,920 | 46,500 | 1,500  | OM     | 8,920   | 2.0000     | 8.92       |
| Sum Commodity:                        |         |        |        |        |        |        | 113,020 |            | 416.29     |
| <b>Iron #2 Lite Unprepared</b>        |         |        |        |        |        |        |         |            |            |
| 09/01/17                              | 5086366 | CL2434 | 77,000 | 49,980 | 13,500 | OM     | 13,520  | 2.0000     | 13.52      |
| Sum Commodity:                        |         |        |        |        |        |        | 13,520  |            | 13.52      |
| <b>Iron Heavy Unprepared Torching</b> |         |        |        |        |        |        |         |            |            |
| 09/14/17                              | 5087333 | CL2443 | 71,960 | 52,800 | 200    | OM     | 18,960  | 20.0000    | 189.60     |
| Sum Commodity:                        |         |        |        |        |        |        | 18,960  |            | 189.60     |
| <b>Weight of Dirt</b>                 |         |        |        |        |        |        |         |            |            |
| 08/29/17                              | 5086365 | CL2433 | 600    |        |        |        | 600     | 0.0000     | 0.00       |
| 09/12/17                              | 5087331 | CL2441 | 300    |        |        |        | 300     | 0.0000     | 0.00       |
| 09/21/17                              | 5088414 | CL2452 | 1,500  |        |        |        | 1,500   | 0.0000     | 0.00       |
| Sum Commodity:                        |         |        |        |        |        |        | 2,400   |            | 0.00       |
| <b>Weight of Dirt ROCK CEMENT</b>     |         |        |        |        |        |        |         |            |            |
| 09/01/17                              | 5086366 | CL2434 | 13,500 |        |        |        | 13,500  | 0.0000     | 0.00       |
| Sum Commodity:                        |         |        |        |        |        |        | 13,500  |            | 0.00       |
| <b>Weight of Trash</b>                |         |        |        |        |        |        |         |            |            |
| 09/01/17                              | 5086543 | CL2436 | 600    |        |        |        | 600     | 0.0000     | 0.00       |
| 09/14/17                              | 5087333 | CL2443 | 200    |        |        |        | 200     | 0.0000     | 0.00       |
| 09/19/17                              | 5088359 | CL2446 | 900    |        |        |        | 900     | 0.0000     | 0.00       |
| 09/20/17                              | 5088488 | CL2448 | 500    |        |        |        | 500     | 0.0000     | 0.00       |



# Rocky Mountain Recycling, Inc.

6510 Brighton Blvd.  
Commerce City, CO 80022

Phone: 303 288-6868  
Fax: 303 288-0250

Print Date 09/29/17  
Settlement# 1021146  
Total Settlement \$619.41

| Ticket Date    | Ticket# | BL#    |     | Net     | Unit Price | Ext. Price |
|----------------|---------|--------|-----|---------|------------|------------|
| 09/21/17       | 5088582 | CL2449 | 900 | 900     | 0.0000     | 0.00       |
| 09/21/17       | 5088624 | CL2451 | 800 | 800     | 0.0000     | 0.00       |
| Sum Commodity: |         |        |     | 3,900   |            | 0.00       |
| Total Credits: |         |        |     | 165,300 |            | \$619.41   |

## \*\*\* SETTLEMENT TRANSACTIONS \*\*\*

Total Charges:

Total Credits: 619.41

**Total Settlement 619.41**

## SETTLEMENT NOTES

## Detail Vendor Activity By Ticket

For Rocky Mountain Recycling, Inc.  
For Date Range - MON-  
08/29/17 To 09/30/17  
For All Ticket Types  
For Customer - CLIMAX MINE  
For All Statuses

1

10/09/17  
03:38 PM

**VID#36779**

**CLIMAX MINE**

**MINE IN LEADVILLE  
LEADVILLE, CO**

| <u>Ticket# / Date</u> | <u>Status</u> | <u>Code</u> | <u>Commodity</u>               | <u>Net Lbs</u> | <u>CTW / Unit</u> | <u>GT/ NT Prices</u> | <u>Ext. Price</u> |
|-----------------------|---------------|-------------|--------------------------------|----------------|-------------------|----------------------|-------------------|
| 5088414<br>09/21/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 8,920          | .1000<br>.0010    | 2.2400<br>2.0000     | 8.92              |
| 5088414<br>09/21/17   | PD            | 1310        | Weight of Dirt                 | 1,500          | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5088624<br>09/21/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 16,140         | .1000<br>.0010    | 2.2400<br>2.0000     | 16.14             |
| 5088624<br>09/21/17   | PD            | 1312        | Weight of Trash                | 800            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5088582<br>09/21/17   | PD            | 1312        | Weight of Trash                | 900            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5088582<br>09/21/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 10,220         | .1000<br>.0010    | 2.2400<br>2.0000     | 10.22             |
| 5088488<br>09/20/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 10,720         | .1000<br>.0010    | 2.2400<br>2.0000     | 10.72             |
| 5088488<br>09/20/17   | PD            | 1312        | Weight of Trash                | 500            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5088359<br>09/19/17   | PD            | 1312        | Weight of Trash                | 900            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5088359<br>09/19/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 14,900         | .1000<br>.0010    | 2.2400<br>2.0000     | 14.90             |
| 5088340<br>09/19/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 9,920          | .1000<br>.0010    | 2.2400<br>2.0000     | 9.92              |
| 5088023<br>09/18/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 7,220          | .1000<br>.0010    | 2.2400<br>2.0000     | 7.22              |
| 5087333<br>09/14/17   | PD            | 1312        | Weight of Trash                | 200            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5087333<br>09/14/17   | PD            | 1225        | Iron Heavy Unprepared Torching | 18,960         | 1.0000<br>.0100   | 22.4000<br>20.0000   | 189.60            |
| 5087331<br>09/12/17   | PD            | 1310        | Weight of Dirt                 | 300            | .0000<br>.0000    | .0000<br>.0000       | 0.00              |
| 5087331<br>09/12/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 5,900          | .1000<br>.0010    | 2.2400<br>2.0000     | 5.90              |
| 5086543<br>09/01/17   | PD            | 1210        | Iron #2 HMS Unprepared         | 18,380         | 1.7500<br>.0175   | 39.2000<br>35.0000   | 321.65            |

## Detail Vendor Activity By Ticket

2

For Rocky Mountain Recycling, Inc.  
For Date Range - MON-  
08/29/17 To 09/30/17  
For All Ticket Types  
For Customer - CLIMAX MINE  
For All Statuses

10/09/17  
03:38 PM

**VID#36779**

**CLIMAX MINE**

**MINE IN LEADVILLE  
LEADVILLE, CO**

| <u>Ticket# / Date</u> | <u>Status</u> | <u>Code</u> | <u>Commodity</u>           | <u>Net Lbs</u> | <u>CTW / Unit</u> | <u>GT/ NT Prices</u> | <u>Ext. Price</u> |
|-----------------------|---------------|-------------|----------------------------|----------------|-------------------|----------------------|-------------------|
| 5086543               | PD            | 1312        | Weight of Trash            | 600            | .0000             | .0000                | 0.00              |
| 09/01/17              |               |             |                            |                | .0000             | .0000                |                   |
| 5086366               | PD            | 1211        | Iron #2 Lite Unprepared    | 13,520         | .1000             | 2.2400               | 13.52             |
| 09/01/17              |               |             |                            |                | .0010             | 2.0000               |                   |
| 5086366               | PD            | 1310        | Weight of Dirt ROCK CEMENT | 13,500         | .0000             | .0000                | 0.00              |
| 09/01/17              |               |             |                            |                | .0000             | .0000                |                   |
| 5086365               | PD            | 1210        | Iron #2 HMS Unprepared     | 10,700         | .1000             | 2.2400               | 10.70             |
| 08/29/17              |               |             |                            |                | .0010             | 2.0000               |                   |
| 5086365               | PD            | 1310        | Weight of Dirt             | 600            | .0000             | .0000                | 0.00              |
| 08/29/17              |               |             |                            |                | .0000             | .0000                |                   |

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|                   |                |
|-------------------|----------------|
| <b>Total Lbs:</b> | <b>165,300</b> |
|-------------------|----------------|

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|                  |               |
|------------------|---------------|
| <b>Total \$:</b> | <b>619.41</b> |
|------------------|---------------|

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|                            |                |
|----------------------------|----------------|
| <b>Total Lbs - Report:</b> | <b>165,300</b> |
|----------------------------|----------------|

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|                              |               |
|------------------------------|---------------|
| <b>Total Price - Report:</b> | <b>619.41</b> |
|------------------------------|---------------|

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# Climax Molybdenum Company, Climax Mine, CO

| SUMMARY          |                                                    | 2016 (rev.2018)      | AM06                 |                                                                                                                                        |
|------------------|----------------------------------------------------|----------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|                  |                                                    | (under)/over         |                      |                                                                                                                                        |
| <b>Directs</b>   | Storke Complex                                     | \$ 27,426            | \$ 281,085           | \$ (253,659) -90% deleted Ceresco OSF per TR-22                                                                                        |
|                  | Open Pit                                           | \$ 144,850           | \$ 630,249           | \$ (485,399) -77% pipeline will be constructed during mining                                                                           |
|                  | Mine Mill Complex                                  | \$ 1,906,837         | \$ 1,617,529         | \$ 289,308 18% cover thickness consistent at 1', area increased due to complete area demo. (no repurposing)                            |
|                  | North 40 OSF                                       | \$ 1,429,084         | \$ 1,306,005         | \$ 123,079 9% area decreased 104 ac., area consistent with TR-22 drawing                                                               |
|                  | McNulty OSF                                        | \$ 6,289,995         | \$ 2,439,518         | \$ 3,850,477 158% area increased 76 ac., area consistent with TR-22 drawing, added diversion channels per TR-22                        |
|                  | Tenmile TSF                                        | \$ 4,790,046         | \$ 4,890,186         | \$ (100,140) -2% updated unit rates per change in equipment fleet                                                                      |
|                  | Tenmile Tunnel                                     | \$ 906,028           | \$ 789,264           | \$ 116,764 15% AM-06 computational error                                                                                               |
|                  | 3 Dam                                              | \$ 52,005            | \$ 149,174           | \$ (97,169) -65% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                   |
|                  | Pond Shop                                          | \$ 4,430             | \$ 2,956             | \$ 1,474 50% updated unit rates per change in equipment fleet                                                                          |
|                  | Mayflower TSF                                      | \$ 1,773,964         | \$ 1,325,517         | \$ 448,447 34% updated unit rates per change in equipment fleet; added finish grading prior to cover placement                         |
|                  | East Side Channel                                  | \$ 6,003,782         | \$ 11,967,396        | \$ (5,963,614) -50% per TR-21 and TR-22                                                                                                |
|                  | Mayflower Acid                                     | \$ 37,888            | \$ 40,632            | \$ (2,744) -7% updated unit rates per change in equipment fleet                                                                        |
|                  | Robinson TSF                                       | \$ 215,360           | \$ 228,131           | \$ (12,771) -6% updated unit rates per change in equipment fleet                                                                       |
|                  | 1 Dam                                              | \$ 83,801            | \$ 69,894            | \$ 13,907 20% added dust control and road grading activities                                                                           |
|                  | Roads                                              | \$ 115,056           | \$ 174,490           | \$ (59,434) -34% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                   |
|                  | Robinson Lake                                      | \$ 2,333,570         | \$ 2,637,570         | \$ (304,000) -12% general work items now covered elsewhere                                                                             |
|                  | 5 Dam                                              | \$ 386,027           | \$ 961,543           | \$ (575,516) -60% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                  |
|                  | Revegetation                                       | \$ 1,889,709         | \$ 2,481,035         | \$ (591,326) -24% updated unit rate                                                                                                    |
|                  | Seal Underground Mine Openings                     | \$ 24,850            | \$ 8,732             | \$ 16,118 185% updated unit rate                                                                                                       |
|                  | Mobilize-Demobilize                                | \$ 800,000           | \$ 374,636           | \$ 425,364 114% increased using annual costs over 4 years                                                                              |
|                  | Buffer Zone                                        | \$ 1,434,840         | \$ 1,434,840         | \$ - 0% no change- DRMS number                                                                                                         |
|                  | Hydrologic Protection                              | \$ 20,944,890        | \$ 19,746,576        | \$ 1,198,314 6% updated all values since PDWTP commenced normal operation 1/1/15; added Outside Svcs; increased techs from 4 to 8 FTEs |
|                  | Mtnce & Environmental Control                      | \$ 521,178           | \$ 521,178           | \$ 0 0% no change                                                                                                                      |
|                  | Demolition 1 - former mine                         | \$ 147,147           | \$ 3,243,603         | \$ (3,096,456) -95% deleted old Scale House, TDH, CAVR, etc.; steel scrap value taken                                                  |
|                  | Demolition 2-linear facilities                     | \$ 10,312            | \$ 644,113           | \$ (633,801) -98% deleted OH91 and Camp area asphalt removal; steel scrap value taken                                                  |
|                  | Demolition 3-new structures                        | \$ 824,791           | \$ 3,205,386         | \$ (2,380,595) -74% added MF Coherex Sta., Mill Return, Supply Canal No. 2, Mayflower FC Tunnel; steel scrap value taken               |
|                  | Disposal of Reagents                               | \$ 144,848           | \$ 174,603           | \$ (29,755) -17% per TR-28                                                                                                             |
| <b>Subtotal</b>  |                                                    | <b>\$ 53,242,715</b> | <b>\$ 62,323,998</b> | <b>\$ (9,081,283) -15% plus CAVR \$13,841, Equip Ass/Disass \$964,316</b>                                                              |
| <b>Indirects</b> | Public Liab. Ins. (2.02% of Direct)                | \$ 1,075,503         | \$ 1,258,945         | \$ (183,442) -15% no change- DRMS percentage allocation                                                                                |
|                  | Bond (1.05% of Direct)                             | \$ 559,049           | \$ 654,402           | \$ (95,353) -15% no change- DRMS percentage allocation                                                                                 |
|                  | Profit (10% of Direct)                             | \$ 5,324,271         | \$ 6,232,400         | \$ (908,128) -15% no change- DRMS percentage allocation                                                                                |
|                  | Job Superintendent (DRMS factor)                   | \$ 696,195           | \$ 662,606           | \$ 33,589 5% based on a 4.5 year construction schedule                                                                                 |
|                  | <b>Subtotal OH &amp; Profit</b>                    | <b>\$ 7,655,018</b>  | <b>\$ 8,808,353</b>  | <b>\$ (1,153,334) -13%</b>                                                                                                             |
|                  | Financial Warranty Fee                             | \$ 500               | \$ 500               | \$ - 0% no change- DRMS number                                                                                                         |
|                  | Engineering/Bidding/Contracts (2% of Direct, OH&P) | \$ 1,217,955         | \$ 3,556,618         | \$ (2,338,663) -66% consistent w/ Henderson CCM                                                                                        |
|                  | Management/Administration (3% of Direct, OH&P)     | \$ 1,826,932         | \$ 3,556,618         | \$ (1,729,686) -49% consistent w/ Henderson CCM                                                                                        |
| <b>Subtotal</b>  |                                                    | <b>\$ 10,700,405</b> | <b>\$ 15,922,088</b> | <b>\$ (5,221,683) -33%</b>                                                                                                             |
| <b>TOTAL</b>     |                                                    | <b>\$ 63,943,119</b> | <b>\$ 78,246,086</b> | <b>\$ (14,302,966) -18%</b>                                                                                                            |

## **Model Inputs for Reclamation Cost Model**

|                                                    |           |                            |
|----------------------------------------------------|-----------|----------------------------|
| Year of Cost Data                                  | 2015      | Year of Cost Data (Dec-31) |
| Public Liability Insurance                         | 2.02%     | % of Direct                |
| Bond                                               | 1.05%     | % of Direct                |
| Profit (10% of Direct)                             | 10.00%    | % of Direct                |
| Financial Warranty Fee                             | \$ 500.00 | Flat Fee in dollars        |
| Engineering/Bidding/Contracts (2% of Direct, OH&P) | 2.00%     | % of Direct, OH&P          |
| Management/Administration (3% of Direct, OH&P)     | 3.00%     | % of Direct, OH&P          |
| Sitewide Efficiency Correction Factor              | 0.83      | 0 to 1                     |

## Labor Inputs for Reclamation Cost Model

|                                |                                                                                                                          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| FICA, % of Base Rate =         | 7.65% Source: <a href="http://www.ssa.gov/OACT/ProgData/TasRates.html">www.ssa.gov/OACT/ProgData/TasRates.html</a>       |
| SIIS, % of Base Rate =         | 6.33% Source: [Avg of Colorado Contractor's Assn. 1999 & 2001 Surveys + Previous Climax Cost Model Updates]              |
| Unemployment, % of Base Rate = | 3.80% Source: <a href="http://www.coworkforce.com">www.coworkforce.com</a> - Colorado Department of Labor and Employment |
| Workers Comp, % of Base Rate = | 16.00% Source: [Avg of Colorado Contractor's Assn. 1999 & 2001 Surveys + Previous Climax Cost Model Updates]             |
| CPI Inflation Factor           | 1.12627613 Inflation Factor based on Consumer Price Index, assuming straight line increase, from inputs below:           |
| Annual CPI as of 12/31/2015    | 231.675 Source: InflationData.com website; historical Consumer Price Index values from the Bureau of Labor Statistics.   |
| Annual CPI for 2006 =          | 205.7 Base CPI = 100 in 1982. Therefore, a CPI of 205.7 indicates a 105.7% increase since 1982.                          |
| FICA, % of Base Rate           | 7.65%                                                                                                                    |
| SIIS, % of Base Rate           | 6.33%                                                                                                                    |
| Unemployment, % of Base Rate   | 3.80%                                                                                                                    |
| Workers Comp, % of Base Rate   | 16.00%                                                                                                                   |

| Worker Classification            | Base Hourly<br>Rate | Fringe % |                                              |
|----------------------------------|---------------------|----------|----------------------------------------------|
| CHOOSE OPERATOR                  |                     |          |                                              |
| Dozer Operator                   | \$ 22.73            | 22%      |                                              |
| Loader Operator                  | \$ 20.44            | 22%      |                                              |
| Scraper Operator                 | \$ 22.84            | 19%      |                                              |
| Grader Operator                  | \$ 21.91            | 21%      |                                              |
| Backhoe Operator                 | \$ 20.44            | 21%      |                                              |
| Water Truck Driver               | \$ 20.18            | 19%      |                                              |
| Truck Driver                     | \$ 20.18            | 22%      |                                              |
| Laborer                          | \$ 14.53            | 22%      |                                              |
| Mechanic/Welder                  | \$ 22.87            | 22%      |                                              |
| Foreman                          | \$ 27.66            | 34%      |                                              |
| Crane Operator                   | \$ 25.90            | 34%      |                                              |
| Job Superintendent (DRMS factor) | \$ 74.38            | 0%       | 4.50 years to include Superintendent expense |
| Worker Classification 3          |                     |          |                                              |
| Worker Classification 4          |                     |          |                                              |
| Worker Classification 5          |                     |          |                                              |
| Worker Classification 6          |                     |          |                                              |

## Equipment List for Reclamation Cost Model

| Equipment                   | Operator Class     | Cost/Unit |                 | Units of Measure | Units    | OPERATED        | Effective Load Capacity (cu yds) | Average Push (LF) |
|-----------------------------|--------------------|-----------|-----------------|------------------|----------|-----------------|----------------------------------|-------------------|
|                             |                    | Equip     | Cost/Unit Labor |                  |          | Cost/Unit Equip |                                  |                   |
| D6N LGP Dozer               | Dozer Operator     | \$ 69.32  | \$ 39.88        | cuyd             | cuyd/hr  | \$ 109.20       | 235                              | 150               |
| D7E Dozer                   | Dozer Operator     | \$ 101.93 | \$ 39.88        | cuyd             | cuyd/hr  | \$ 141.81       | 320                              | 200               |
| D8T Dozer                   | Dozer Operator     | \$ 112.39 | \$ 39.88        | cuyd             | cuyd/hr  | \$ 152.26       | 320                              | 250               |
| D9T Dozer                   | Dozer Operator     | \$ 167.61 | \$ 39.88        | cuyd             | cuyd/hr  | \$ 207.49       | 500                              | 250               |
| 938K Loader                 | Loader Operator    | \$ 41.93  | \$ 35.87        | cuyd             | cuyd/hr  | \$ 77.80        | 3.25                             |                   |
| 740B Artic. Haul Truck      | Truck Driver       | \$ 104.83 | \$ 35.41        | cuyd             | cuyd/hr  | \$ 140.24       | 25.8                             |                   |
| 336 EL/FL 88K lb Excavator  | Backhoe Operator   | \$ 64.09  | \$ 35.64        | cuyd             | cuyd/hr  | \$ 99.73        | 100                              |                   |
| 4000G Water Truck, 4000 gal | Water Truck Driver | \$ 38.47  | \$ 34.73        | gallons          | gal/hr   | \$ 73.20        | 4000                             |                   |
| 621G Water Wagon, 8000 gal  | Truck Driver       | \$ 90.91  | \$ 35.41        | gallons          | gal/hr   | \$ 126.32       | 8000                             |                   |
| 12M Grader AWD              | Grader Operator    | \$ 59.09  | \$ 38.19        | acres            | acres/hr | \$ 97.28        |                                  |                   |

|                                                 |                                        |                            |                         |                                                    |
|-------------------------------------------------|----------------------------------------|----------------------------|-------------------------|----------------------------------------------------|
|                                                 |                                        |                            |                         |                                                    |
| <b>Material List for Reclamation Cost Model</b> |                                        |                            |                         |                                                    |
|                                                 |                                        |                            |                         |                                                    |
|                                                 | <b>Material</b>                        | <b>Cost/Unit Materials</b> | <b>Units of Measure</b> | <b>Source</b>                                      |
|                                                 | Excavate rock                          | \$ 4.52                    | cuyd                    | RSMeans 2016 / 31 23 16.13 6110                    |
|                                                 | Drain rock                             | \$ 32.00                   | cuyd                    | RSMeans 2016 / 33 46 26.10 0300                    |
|                                                 | Perforated pipe                        | \$ 4.80                    | LF                      | RSMeans 2016 / 33 46 16.35 0080                    |
|                                                 | Geotextile                             | \$ 2.40                    | sqyd                    | RSMeans 2016 / 33 46 26.10 0110                    |
|                                                 | Signs                                  | \$ 133.00                  | each                    | RSMeans 2016 / 10 14 53.20 0600, 1500              |
|                                                 | 30" corrugated HDPE                    | \$ 33.00                   | LF                      | RSMeans 2016 / 33 41 13.50 1080                    |
|                                                 | Rip Rap Armoring                       | \$ 64.50                   | cuyd                    | RSMeans 2016 / 31 37 13.10 0100                    |
|                                                 | Rip Rap Armoring                       | \$ 30.75                   | cuyd                    | previous estimate                                  |
|                                                 | 42-48" HDPE pipe and bedding INSTALLED | \$ 177.12                  | LF                      | previous estimate incl. bedding                    |
|                                                 | concrete-bulkhead                      | \$ 1,446.00                | cuyd                    | previous estimate, Tenmile Tunnel rehab            |
|                                                 | Monuments                              | \$ 1,112.00                | each                    | previous estimate                                  |
|                                                 | Seeding-Standard                       | \$ 500.00                  | acre                    | previous estimate, flat surfaces                   |
|                                                 | Seeding-Standard Steep (>2.5:1)        | \$ 1,403.00                | acre                    | Julius Equipment Inc., Jones Pit reclamation, 2016 |
|                                                 | Seeding-Alpine                         | \$ 460.00                  | acre                    | previous estimate, flat surfaces                   |
|                                                 | Seeding-Alpine Steep (>2.5:1)          | \$ 1,403.00                | acre                    | Julius Equipment Inc., Jones Pit reclamation, 2016 |
|                                                 | Seeding-Wetland                        | \$ 675.00                  | acre                    | previous estimate, flat surfaces                   |
|                                                 | Geogrid                                | \$ 1.87                    | sqyd                    | previous estimate                                  |
|                                                 | Channel Extension                      | \$ 63.45                   | LF                      | previous estimate                                  |

|                                                            |                  |                            |              |                   |                                                                        |  |  |  |
|------------------------------------------------------------|------------------|----------------------------|--------------|-------------------|------------------------------------------------------------------------|--|--|--|
|                                                            |                  |                            |              |                   |                                                                        |  |  |  |
| <b>DEMOLITION Material List for Reclamation Cost Model</b> |                  |                            |              |                   |                                                                        |  |  |  |
|                                                            |                  |                            |              |                   |                                                                        |  |  |  |
|                                                            | <b>Material</b>  | <b>Cost/Unit Materials</b> | <b>Units</b> | <b>Source</b>     | <b>Section</b>                                                         |  |  |  |
|                                                            | steel            | \$ 0.01                    | cuft         | see below         |                                                                        |  |  |  |
|                                                            | concrete floor   | \$ 0.98                    | sqft         | RSMeans 2016      | 02 41 16.17 0440                                                       |  |  |  |
|                                                            | concrete footing | \$ 14.05                   | LF           | RSMeans 2016      | 02 41 16.17 1140                                                       |  |  |  |
|                                                            | asphalt          | \$ 5.85                    | sqyd         | RSMeans 2016      | 02 41 13.17 5010                                                       |  |  |  |
|                                                            | Tin              | \$ 0.25                    | cuft         | previous estimate |                                                                        |  |  |  |
|                                                            | Wood             | \$ 0.25                    | cuft         | previous estimate |                                                                        |  |  |  |
|                                                            | COMBINATION      | \$ 0.13                    | cuft         | previous estimate |                                                                        |  |  |  |
|                                                            | WOOD/WIRE        | \$ 0.78                    | LF           | previous estimate |                                                                        |  |  |  |
|                                                            | pipe grouting    | \$ 34.00                   | cuft         | RSMeans 2016      | 31 73 13.10 0800                                                       |  |  |  |
|                                                            |                  |                            |              |                   |                                                                        |  |  |  |
|                                                            |                  |                            |              |                   |                                                                        |  |  |  |
|                                                            | steel demo       | \$ 0.37                    | cuft         | RSMeans 2016      | 02 41 16.13 0020                                                       |  |  |  |
|                                                            | steel salvage    | \$ 19.60                   | cuft         | Climax TDH 2017   | RMC S# 1021146                                                         |  |  |  |
|                                                            | steel salvage    | \$ 12.25                   | cuft         | Online 8/2018 CO  | Atwood Metals, Andersen Sales & Salvage, Colorado Industrial Recycling |  |  |  |

## Financial Reporting Unit Rates

### 12/31/2015 Climax Reclamation Labor Rates

**Table 1.0 - Financial Reporting Labor Unit Rates**

Source of Base Rates: Colorado Labor Market Information for Occupational Wages for 2006 (Statewide)  
(<http://www.coworkforce.com>) Inflated to 12/31/2015 dollars by CPI ratio

| Worker Classification            | Base<br>Hourly<br>Rate | Fringe % | FICA <sup>2</sup> | SIIS <sup>3</sup> | Unemploy <sup>4</sup> | Workers<br>Comp <sup>5</sup> | Total-2015<br>Dollars | Inflation<br>Factor <sup>2</sup> | Labor<br>12/31/2015<br>Dollars |
|----------------------------------|------------------------|----------|-------------------|-------------------|-----------------------|------------------------------|-----------------------|----------------------------------|--------------------------------|
| Dozer Operator                   | \$22.73                | \$5.00   | \$1.74            | \$1.44            | \$0.86                | \$3.64                       | \$35.41               | 1.1263                           | <b>\$39.88</b>                 |
| Loader Operator                  | \$20.44                | \$4.50   | \$1.56            | \$1.29            | \$0.78                | \$3.27                       | \$31.84               | 1.1263                           | <b>\$35.87</b>                 |
| Scraper Operator                 | \$22.84                | \$4.34   | \$1.75            | \$1.45            | \$0.87                | \$3.65                       | \$34.90               | 1.1263                           | <b>\$39.30</b>                 |
| Grader Operator                  | \$21.91                | \$4.60   | \$1.68            | \$1.39            | \$0.83                | \$3.50                       | \$33.91               | 1.1263                           | <b>\$38.19</b>                 |
| Backhoe Operator                 | \$20.44                | \$4.29   | \$1.56            | \$1.29            | \$0.78                | \$3.27                       | \$31.64               | 1.1263                           | <b>\$35.64</b>                 |
| Water Truck Driver               | \$20.18                | \$3.83   | \$1.54            | \$1.28            | \$0.77                | \$3.23                       | \$30.84               | 1.1263                           | <b>\$34.73</b>                 |
| Truck Driver                     | \$20.18                | \$4.44   | \$1.54            | \$1.28            | \$0.77                | \$3.23                       | \$31.44               | 1.1263                           | <b>\$35.41</b>                 |
| Laborer                          | \$14.53                | \$3.20   | \$1.11            | \$0.92            | \$0.55                | \$2.32                       | \$22.63               | 1.1263                           | <b>\$25.49</b>                 |
| Mechanic/Welder                  | \$22.87                | \$5.03   | \$1.75            | \$1.45            | \$0.87                | \$3.66                       | \$35.63               | 1.1263                           | <b>\$40.13</b>                 |
| Foreman                          | \$27.66                | \$9.40   | \$2.12            | \$1.75            | \$1.05                | \$4.43                       | \$46.41               | 1.1263                           | <b>\$52.27</b>                 |
| Crane Operator                   | \$25.90                | \$8.81   | \$1.98            | \$1.64            | \$0.98                | \$4.14                       | \$43.46               | 1.1263                           | <b>\$48.95</b>                 |
| Job Superintendent (DRMS factor) | \$49.37                | \$0.00   | \$3.78            | \$3.12            | \$1.88                | \$7.90                       | \$66.04               | 1.1263                           | <b>\$74.38</b>                 |

<sup>1</sup>Fringes, % of Base Rate = Varies--> Davis Bacon Wage Rate Decision for Colorado SUC D2001-016 12/20/2001]

<sup>2</sup>FICA, % of Base Rate = 7.65% Source: [www.ssa.gov/OACT/ProgData/TasRates.html](http://www.ssa.gov/OACT/ProgData/TasRates.html)

<sup>3</sup>SIIS, % of Base Rate = 6.33% Source: [Avg of Colorado Contractor's Assn. 1999 & 2001 Surveys + Previous Climax Cost Model Updates]

<sup>4</sup>Unemployment, % of Base Rate = 3.80% Source: [www.coworkforce.com](http://www.coworkforce.com) - Colorado Department of Labor and Employment

<sup>5</sup>Workers Comp, % of Base Rate = 16.00% Source: [Avg of Colorado Contractor's Assn. 1999 & 2001 Surveys + Previous Climax Cost Model Updates]

1.1263 Inflation Factor based on Consumer Price Index, assuming straight line increase.

# Climax Molybdenum Company, Climax Mine, CO

| SUMMARY          |                                                    | 2016 (rev.2018)      | AM06                 |                                                                                                                                        |
|------------------|----------------------------------------------------|----------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|                  |                                                    | (under)/over         |                      |                                                                                                                                        |
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|                  | Open Pit                                           | \$ 144,850           | \$ 630,249           | \$ (485,399) -77% pipeline will be constructed during mining                                                                           |
|                  | Mine Mill Complex                                  | \$ 1,906,837         | \$ 1,617,529         | \$ 289,308 18% cover thickness consistent at 1', area increased due to complete area demo. (no repurposing)                            |
|                  | North 40 OSF                                       | \$ 1,429,084         | \$ 1,306,005         | \$ 123,079 9% area decreased 104 ac., area consistent with TR-22 drawing                                                               |
|                  | McNulty OSF                                        | \$ 6,289,995         | \$ 2,439,518         | \$ 3,850,477 158% area increased 76 ac., area consistent with TR-22 drawing, added diversion channels per TR-22                        |
|                  | Tenmile TSF                                        | \$ 4,790,046         | \$ 4,890,186         | \$ (100,140) -2% updated unit rates per change in equipment fleet                                                                      |
|                  | Tenmile Tunnel                                     | \$ 906,028           | \$ 789,264           | \$ 116,764 15% AM-06 computational error                                                                                               |
|                  | 3 Dam                                              | \$ 52,005            | \$ 149,174           | \$ (97,169) -65% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                   |
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|                  | Mayflower Acid                                     | \$ 37,888            | \$ 40,632            | \$ (2,744) -7% updated unit rates per change in equipment fleet                                                                        |
|                  | Robinson TSF                                       | \$ 215,360           | \$ 228,131           | \$ (12,771) -6% updated unit rates per change in equipment fleet                                                                       |
|                  | 1 Dam                                              | \$ 83,801            | \$ 69,894            | \$ 13,907 20% added dust control and road grading activities                                                                           |
|                  | Roads                                              | \$ 115,056           | \$ 174,490           | \$ (59,434) -34% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                   |
|                  | Robinson Lake                                      | \$ 2,333,570         | \$ 2,637,570         | \$ (304,000) -12% general work items now covered elsewhere                                                                             |
|                  | 5 Dam                                              | \$ 386,027           | \$ 961,543           | \$ (575,516) -60% cover thickness consistent at 1' in accordance with AM-06 Exhibit E                                                  |
|                  | Revegetation                                       | \$ 1,889,709         | \$ 2,481,035         | \$ (591,326) -24% updated unit rate                                                                                                    |
|                  | Seal Underground Mine Openings                     | \$ 24,850            | \$ 8,732             | \$ 16,118 185% updated unit rate                                                                                                       |
|                  | Mobilize-Demobilize                                | \$ 800,000           | \$ 374,636           | \$ 425,364 114% increased using annual costs over 4 years                                                                              |
|                  | Buffer Zone                                        | \$ 1,434,840         | \$ 1,434,840         | \$ - 0% no change- DRMS number                                                                                                         |
|                  | Hydrologic Protection                              | \$ 20,944,890        | \$ 19,746,576        | \$ 1,198,314 6% updated all values since PDWTP commenced normal operation 1/1/15; added Outside Svcs; increased techs from 4 to 8 FTEs |
|                  | Mtnce & Environmental Control                      | \$ 521,178           | \$ 521,178           | \$ 0 0% no change                                                                                                                      |
|                  | Demolition 1 - former mine                         | \$ 147,147           | \$ 3,243,603         | \$ (3,096,456) -95% deleted old Scale House, TDH, CAVR, etc.; steel scrap value taken                                                  |
|                  | Demolition 2-linear facilities                     | \$ 10,312            | \$ 644,113           | \$ (633,801) -98% deleted OH91 and Camp area asphalt removal; steel scrap value taken                                                  |
|                  | Demolition 3-new structures                        | \$ 824,791           | \$ 3,205,386         | \$ (2,380,595) -74% added MF Coherex Sta., Mill Return, Supply Canal No. 2, Mayflower FC Tunnel; steel scrap value taken               |
|                  | Disposal of Reagents                               | \$ 144,848           | \$ 174,603           | \$ (29,755) -17% per TR-28                                                                                                             |
| <b>Subtotal</b>  |                                                    | <b>\$ 53,242,715</b> | <b>\$ 62,323,998</b> | <b>\$ (9,081,283) -15% plus CAVR \$13,841, Equip Ass/Disass \$964,316</b>                                                              |
| <b>Indirects</b> | Public Liab. Ins. (2.02% of Direct)                | \$ 1,075,503         | \$ 1,258,945         | \$ (183,442) -15% no change- DRMS percentage allocation                                                                                |
|                  | Bond (1.05% of Direct)                             | \$ 559,049           | \$ 654,402           | \$ (95,353) -15% no change- DRMS percentage allocation                                                                                 |
|                  | Profit (10% of Direct)                             | \$ 5,324,271         | \$ 6,232,400         | \$ (908,128) -15% no change- DRMS percentage allocation                                                                                |
|                  | Job Superintendent (DRMS factor)                   | \$ 696,195           | \$ 662,606           | \$ 33,589 5% based on a 4.5 year construction schedule                                                                                 |
|                  | <b>Subtotal OH &amp; Profit</b>                    | <b>\$ 7,655,018</b>  | <b>\$ 8,808,353</b>  | <b>\$ (1,153,334) -13%</b>                                                                                                             |
|                  | Financial Warranty Fee                             | \$ 500               | \$ 500               | \$ - 0% no change- DRMS number                                                                                                         |
|                  | Engineering/Bidding/Contracts (2% of Direct, OH&P) | \$ 1,217,955         | \$ 3,556,618         | \$ (2,338,663) -66% consistent w/ Henderson CCM                                                                                        |
|                  | Management/Administration (3% of Direct, OH&P)     | \$ 1,826,932         | \$ 3,556,618         | \$ (1,729,686) -49% consistent w/ Henderson CCM                                                                                        |
| <b>Subtotal</b>  |                                                    | <b>\$ 10,700,405</b> | <b>\$ 15,922,088</b> | <b>\$ (5,221,683) -33%</b>                                                                                                             |
| <b>TOTAL</b>     |                                                    | <b>\$ 63,943,119</b> | <b>\$ 78,246,086</b> | <b>\$ (14,302,966) -18%</b>                                                                                                            |

Financial Reporting Unit Rates

Storke Complex

Assumptions

Tasks

- (1) Minor grading of areas remaining from previous work in 2004 and 2005 - assume 12M Grader work on 10 acres @ 2 hrs/ac
- (2) Haul biosolids from Robinson Staging Area and replacement on 10 acres at 4 inches thick = 5323 cy @ Haul Distance = 2.6 miles

Timing

LOM

Total Costs  
\$27,426

Calculations

| Specific Tasks                    | Work Type | Area      | Equipment/Material          | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost | Comment |
|-----------------------------------|-----------|-----------|-----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|------------|---------|
| Haul biosolids from Robinson      | HAUL_LOAD | Robinson  | 740B Artic. Haul Truck      | 3          | 5,323          | 6,467        | cuyd             | 74.16      | cuyd/hr  | 87        | \$ 105          | \$ 9,142         | \$ 35           | \$ 3,088         | \$ -                | \$ -                | \$ 12,230  |         |
| Load biosolids at Robinson        | HAUL_LOAD | Robinson  | 938K Loader                 | 1          |                | -            | cuyd             |            | cuyd/hr  | 29        | \$ 42           | \$ 1,219         | \$ 36           | \$ 1,043         | \$ -                | \$ -                | \$ 2,262   |         |
| Grading at Storke disturbed areas | GRADING   | Storke    | 12M Grader AWD              | 1          | 10             | 10           | acres            | 0.50       | acres/hr | 20        | \$ 59           | \$ 1,182         | \$ 38           | \$ 764           | \$ -                | \$ -                | \$ 1,946   |         |
| Spread biosolids at Storke        | SPREAD    | Storke    | D6N LGP Dozer               | 1          | 5,323          | 5,323        | cuyd             | 72.85      | cuyd/hr  | 73        | \$ 69           | \$ 5,065         | \$ 40           | \$ 2,914         | \$ -                | \$ -                | \$ 7,979   |         |
| Full time dust control            | WATER     | Haul road | 4000G Water Truck, 4000 gal | 1          |                |              |                  |            |          | 29        | \$ 38           | \$ 1,118         | \$ 35           | \$ 1,010         | \$ -                | \$ -                | \$ 2,128   |         |
| Full time road grading            | GRADING   | Haul road | 12M Grader AWD              | 1          |                | -            | acres            | 3.00       | acres/hr | 9         | \$ 59           | \$ 536           | \$ 38           | \$ 346           | \$ -                | \$ -                | \$ 882     |         |
| TOTAL COSTS                       |           |           |                             |            |                |              |                  |            |          |           |                 | \$ 18,262        |                 | \$ 9,164         |                     | \$ -                | \$ 27,426  |         |

Notes:

Financial Reporting Unit Rates

Open Pit

Assumptions

Tasks

- (1) Grade west open pit periphery (DRMS estimate)
- (2) Haul and spread toosoli/biosolids at west open pit perimeter (DRMS estimate)
- (3) Install No-Trespassing signs approx. every 300-ft

Timing

LOM  
Total Costs  
\$144,850

Calculations

| Specific Tasks                | Work Type | Area          | Equipment/Material          | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost               | Comment                                                     |
|-------------------------------|-----------|---------------|-----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------------------|-------------------------------------------------------------|
| Haul biosolids from Robinson  | HAUL_LOAD | West Open Pit | 740B Artic. Haul Truck      | 5          | 26,560         | 32,270       | cuyd             | 107.21     | cuyd/hr  | 301       | \$ 105          | \$ 31,554        | \$ 35           | \$ 10,659        | \$ -                | \$ -                | \$ 42,213                |                                                             |
| Load biosolids at Robinson    | HAUL_LOAD | West Open Pit | 938K Loader                 | 1          |                | -            | cuyd             |            | cuyd/hr  | 60        | \$ 42           | \$ 2,524         | \$ 36           | \$ 2,159         | \$ -                | \$ -                | \$ 4,683                 |                                                             |
| Spread biosolids at Open Pit  | SPREAD    | West Open Pit | D6N LGP Dozer               | 1          |                | 26,560       | cuyd             | 72.85      | cuyd/hr  | 365       | \$ 69           | \$ 25,272        | \$ 40           | \$ 14,539        | \$ -                | \$ -                | \$ 39,811                |                                                             |
| Full time road grading        | GRADING   | West Open Pit | 12M Grader AWD              | 1          |                |              | acres            | 0.50       | acres/hr | 60        | \$ 59           | \$ 3,557         | \$ 38           | \$ 2,299         | \$ -                | \$ -                | \$ 5,856                 |                                                             |
| Full time dust control        | WATER     | West Open Pit | 4000G Water Truck, 4000 gal | 1          |                |              |                  |            |          | 60        | \$ 38           | \$ 2,316         | \$ 35           | \$ 2,091         | \$ -                | \$ -                | \$ 4,406                 |                                                             |
| Grade west open pit periphery | SPREAD    | West Open Pit | D8T Dozer                   | 2          | 26,560         | 26,560       | cuyd             | 99.20      | cuyd/hr  | 268       | \$ 112          | \$ 30,091        | \$ 40           | \$ 10,677        | \$ -                | \$ -                | \$ 40,767                |                                                             |
| Install signs                 | MATERIALS | West Open Pit | Signs                       | 1          | 41             | 41           | each             |            |          | 41        | \$ 15           | \$ 615           | \$ 25           | \$ 1,045         | \$ 133              | \$ 5,453            | \$ 7,113                 | 1 hour/sign+post; incl. laborer and pickup truck at \$15/hr |
| TOTAL COSTS                   |           |               |                             |            |                |              |                  |            |          |           |                 | \$ 95,929        | \$43,468        |                  | \$ 5,453            |                     | Total Cost<br>\$ 144,850 |                                                             |

Notes:

Financial Reporting Unit Rates

Mine Mill Complex

Assumptions

- Tasks
- (1) Regrade average 1' cut/fill across 229 ac
  - (2) Finish grade Mine/Mill Complex
  - (3) Haul and spread 1' topsoil/biosolids

Timing

LOM

Total Costs  
\$1,906,837

Calculations

| Specific Tasks                    | Work Type | Area              | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials        | Total Material Cost | Total Cost | Comment |
|-----------------------------------|-----------|-------------------|----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|----------------------------|---------------------|------------|---------|
| Haul soil from McNulty stockpile  | HAUL_LOAD | Mine/Mill Complex | 740B Artic. Haul Truck     | 5          | 369,453        | 448,886      | cuyd             | 107.21     | cuyd/hr  | 4187      | \$ 105          | \$ 438,919       | \$ 35           | \$ 148,265       | \$ -                       | \$ -                | \$ 587,184 |         |
| Load soil at McNulty stockpile    | HAUL_LOAD | Mine/Mill Complex | 938K Loader                | 1          | -              | -            | cuyd             |            | cuyd/hr  | 837       | \$ 42           | \$ 35,114        | \$ 36           | \$ 30,034        | \$ -                       | \$ -                | \$ 65,147  |         |
| Spread subsoil/topsoil            | SPREAD    | Mine/Mill Complex | D7E Dozer                  | 5          | 369,453        | 369,453      | cuyd             | 99.20      | cuyd/hr  | 3724      | \$ 102          | \$ 379,628       | \$ 40           | \$ 148,515       | \$ -                       | \$ -                | \$ 528,143 |         |
| Full time road grading            | GRADING   | Mine/Mill Complex | 12M Grader AWD             | 1          | -              | -            | acres            | 0.50       | acres/hr | 837       | \$ 59           | \$ 49,482        | \$ 38           | \$ 31,978        | \$ -                       | \$ -                | \$ 81,461  |         |
| Full time dust control            | WATER     | Mine/Mill Complex | 621G Water Wagon, 8000 gal | 1          | -              | -            |                  |            |          | 837       | \$ 91           | \$ 76,127        | \$ 35           | \$ 29,653        | \$ -                       | \$ -                | \$ 105,780 |         |
| Regrade 1' cut/fill across 229 ac | SPREAD    | Mine/Mill Complex | D9T Dozer                  | 3          | 369,453        | 369,453      | cuyd             | 155.00     | cuyd/hr  | 2384      | \$ 168          | \$ 399,519       | \$ 40           | \$ 95,050        | \$ -                       | \$ -                | \$ 494,568 |         |
| Finish grade Mine/Mill Complex    | GRADING   | Mine/Mill Complex | 12M Grader AWD             | 1          | 229            | 229          | acres            | 0.50       | acres/hr | 458       | \$ 59           | \$ 27,064        | \$ 38           | \$ 17,490        | \$ -                       | \$ -                | \$ 44,554  |         |
| TOTAL COSTS                       |           |                   |                            |            |                |              |                  |            |          |           |                 | \$ 1,405,852     | \$ 500,985      | \$ -             | Total Cost<br>\$ 1,906,837 |                     |            |         |

Notes:

Financial Reporting Unit Rates

North 40 OSF

Assumptions

Tasks

- (1) Regrade top surface to drain, slopes to 2:1 interbench - assume 2' cut/fill across 162 ac
- (2) Finish grade North 40 OSF
- (3) Haul and spread 12" topsoil/biosolids
  - Assume no cost for converting operations channels to closure channels (TR-22, Fig. 4, green), outslope channels not required per 3Dam/5Dam successful bench reclamation history (red), and perimeter berm construction part of overall regrade (blue)

Timing

LOM

Total Costs

\$1,429,084

Calculations

| Specific Tasks                              | Work Type | Area     | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units   | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Total Cost   | Comment    |
|---------------------------------------------|-----------|----------|----------------------------|------------|----------------|--------------|------------------|------------|---------|-----------|-----------------|------------------|-----------------|------------------|--------------|------------|
| Haul soil from McNulty stockpile            | HAUL_LOAD | North 40 | 740B Artic. Haul Truck     | 5          | 261,360        | 317,552      | cuyd             | 107.21     | cuyd/hr | 2962      | \$ 105          | \$ 310,502       | \$ 35           | \$ 104,886       | \$ 415,388   |            |
| Load soil at McNulty stockpile              | HAUL_LOAD | North 40 | 938K Loader                | 1          |                | -            | cuyd             |            | cuyd/hr | 592       | \$ 42           | \$ 24,840        | \$ 36           | \$ 21,247        | \$ 46,087    |            |
| Regrade top to drain, slopes to 2:1 i/bench | SPREAD    | North 40 | D9T Dozer                  | 3.8        | 522,720        | 522,720      | cuyd             | 235.00     | cuyd/hr | 2224      | \$ 168          | \$ 372,830       | \$ 40           | \$ 88,700        | \$ 461,530   |            |
| Spread subsoil/topsoil                      | SPREAD    | North 40 | D7E Dozer                  | 4.4        | 261,360        | 261,360      | cuyd             | 99.20      | cuyd/hr | 2635      | \$ 102          | \$ 268,557       | \$ 40           | \$ 105,063       | \$ 373,621   |            |
| Full time dust control                      | HAUL_LOAD | North 40 | 621G Water Wagon, 8000 gal | 1          |                |              |                  |            |         | 592       | \$ 91           | \$ 53,854        | \$ 35           | \$ 20,977        | \$ 74,831    |            |
| Full time road grading                      | HAUL_LOAD | North 40 | 12M Grader AWD             | 1          |                |              |                  |            |         | 592       | \$ 59           | \$ 35,005        | \$ 38           | \$ 22,622        | \$ 57,627    |            |
| TOTAL COSTS                                 |           |          |                            |            |                |              |                  |            |         |           |                 | \$ 1,065,588     |                 | \$ 363,496       | \$ 1,429,084 | Total Cost |

Notes:

Financial Reporting Unit Rates

McNulty OSF

Assumptions

Tasks

- (1) Regrade top surface to drain, slopes to 2:1 interbench, 20' benches - assume 2" cut/fill across 571 ac
- (2) Finish grade McNulty OSF
- (3) Haul and spread 12" topsoil/biosolids
- (4) Construct runoff downdrains on side slopes (TR-22)
  - Assume no cost for converting operations channels to closure channels (Fig. 4, green), outslope channels not required per 3Dam/5Dam successful bench reclamation history (red), and perimeter berm construction part of overall regrade (blue)

Timing

LOM  
Total Costs  
\$6,289,995

Calculations

| Specific Tasks                          | Work Type | Area    | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units   | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost   | Comment |
|-----------------------------------------|-----------|---------|----------------------------|------------|----------------|--------------|------------------|------------|---------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------|---------|
| Regrade top to drain, slopes to 2:1 i/b | SPREAD    | McNulty | D9T Dozer                  | 3          | 1,842,427      | 1,842,427    | cuyd             | 280        | cuyd/hr | 6580      | \$ 168          | \$ 1,102,914     | \$ 40           | \$ 262,395       | \$ -                | \$ -                | \$ 1,365,308 |         |
| Haul soil from McNulty stockpile        | HAUL_LOAD | McNulty | 740B Artic. Haul Truck     | 4          | 921,213        | 1,119,274    | cuyd             | 91.88      | cuyd/hr | 12182     | \$ 105          | \$ 1,277,024     | \$ 35           | \$ 431,375       | \$ -                | \$ -                | \$ 1,708,399 |         |
| Load soil at McNulty stockpile          | HAUL_LOAD | McNulty | 938K Loader                | 1          |                | 1,119,274    | cuyd             |            | cuyd/hr | 3045      | \$ 42           | \$ 127,702       | \$ 36           | \$ 109,228       | \$ -                | \$ -                | \$ 236,930   |         |
| Spread subsoil/topsoil                  | SPREAD    | McNulty | D7E Dozer                  | 2          | 921,213        | 921,213      | cuyd             | 179.20     | cuyd/hr | 5141      | \$ 102          | \$ 524,001       | \$ 40           | \$ 204,996       | \$ -                | \$ -                | \$ 728,997   |         |
| Full time dust control                  | HAUL_LOAD | McNulty | 621G Water Wagon, 8000 gal | 1          |                |              | cuyd             |            | cuyd/hr | 3045      | \$ 91           | \$ 276,862       | \$ 35           | \$ 107,844       | \$ -                | \$ -                | \$ 384,705   |         |
| Full time road grading                  | HAUL_LOAD | McNulty | 12M Grader AWD             | 1          |                |              | cuyd             | 0.50       | cuyd/hr | 3045      | \$ 59           | \$ 179,960       | \$ 38           | \$ 116,300       | \$ -                | \$ -                | \$ 296,260   |         |
| Construct runoff downdrains             | GENERAL   | McNulty |                            |            |                |              |                  | 9550.00    | ft      |           | \$63.45         | \$ 454,429       |                 | \$ 151,476       |                     |                     | \$ 605,906   |         |
| Geotextiles (furnish & install)         | MATERIALS | McNulty | Geotextile                 |            | 21,222         | 21,222       | sqyd             |            |         |           |                 |                  |                 |                  | \$ 2.40             | \$ 50,933           | \$ 50,933    |         |
| Rip Rap Armoring along Channel Route    | MATERIALS | McNulty | Rip Rap Armoring           |            | 14,148         | 14,148       | cuyd             |            |         |           |                 |                  |                 |                  | \$ 64.50            | \$ 912,556          | \$ 912,556   |         |
| TOTAL COSTS                             |           |         |                            |            |                |              |                  |            |         |           |                 | \$ 2,839,979     | \$ 1,121,219    |                  | \$ 963,489          | \$ 6,289,995        |              |         |

Notes:

Financial Reporting Unit Rates

Tennile TSE

Assumptions

Tasks

- (1) Place geogrid on approx. 25% of wet cover area = 0.25\*454 ac. = 113.5 acres
- (2) Hauling and placement of 6" biosolids/topsoil over 30" subsoil cap for 25% of impoundment representing the "wet" cover (113.5 ac)
- (3) Hauling and placement of 6" biosolids/topsoil over 6" subsoil for 75% of impoundment representing the "dry" cover (340.5 ac)

Timing

LOM  
Total Costs  
\$4,790,046

Calculations

| Specific Tasks                                          | Work Type | Area         | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost   | Comment      |
|---------------------------------------------------------|-----------|--------------|----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------|--------------|
| Geogrid Placement on soft tailing (113.5 ac)            | MATERIALS | Soft Tailing | Geogrid                    |            | 549,340        | 549,340      | sqyd             |            |          |           |                 |                  |                 |                  |                     |                     |              |              |
| Haul soil from Pond Shop Stockpile                      | HAUL_LOAD | Wet Cover    | 740B Artic. Haul Truck     | 3          | 549,340        | 667,448      | cuyd             | 71.44      | cuyd/hr  | 9343      | \$ 105          | \$ 979,399       | \$ 35           | \$ 330,838       | \$ -                | \$ -                | \$ 1,027,266 | \$ 1,027,266 |
| Load soil at Pond Shop Stockpile                        | HAUL_LOAD | Wet Cover    | 938K Loader                | 1          |                | -            | cuyd             |            | cuyd/hr  | 3114      | \$ 42           | \$ 130,587       | \$ 36           | \$ 111,695       | \$ -                | \$ -                | \$ -         | \$ 242,281   |
| Spread 6" topsoil/biosolids over 30" subsoil (113.5 ac) | SPREAD    | Wet Cover    | D8T Dozer                  | 1          | 549,340        | 549,340      | cuyd             | 99.20      | cuyd/hr  | 3114      | \$ 112          | \$ 350,000       | \$ 40           | \$ 124,187       | \$ -                | \$ -                | \$ -         | \$ 474,188   |
| Haul soil from Pond Shop Stockpile                      | HAUL_LOAD | Dry Cover    | 740B Artic. Haul Truck     | 4          | 549,340        | 667,448      | cuyd             | 97.52      | cuyd/hr  | 6844      | \$ 105          | \$ 717,476       | \$ 35           | \$ 242,361       | \$ -                | \$ -                | \$ -         | \$ 959,838   |
| Load soil at Pond Shop Stockpile                        | HAUL_LOAD | Dry Cover    | 938K Loader                | 1          |                | -            | cuyd             |            | cuyd/hr  | 1711      | \$ 42           | \$ 71,748        | \$ 36           | \$ 61,368        | \$ -                | \$ -                | \$ -         | \$ 133,116   |
| Spread 6" topsoil/biosolids over 6" subsoil (340.5 ac)  | SPREAD    | Dry Cover    | D8T Dozer                  | 1          | 549,340        | 549,340      | cuyd             | 99.20      | cuyd/hr  | 1711      | \$ 112          | \$ 192,299       | \$ 40           | \$ 68,232        | \$ -                | \$ -                | \$ -         | \$ 260,531   |
| Full time road grading                                  | GRADING   | Dry Cover    | 12M Grader AWD             | 1          |                | -            | acres            | 0.50       | acres/hr | 1711      | \$ 59           | \$ 101,108       | \$ 38           | \$ 65,341        | \$ -                | \$ -                | \$ -         | \$ 166,449   |
| Full time dust control                                  | WATER     | Dry Cover    | 621G Water Wagon, 8000 gal | 1          |                |              |                  |            |          | 1711      | \$ 91           | \$ 155,550       | \$ 35           | \$ 60,590        | \$ -                | \$ -                | \$ -         | \$ 216,141   |
| TOTAL COSTS                                             |           |              |                            |            |                |              |                  |            |          |           |                 |                  |                 |                  |                     |                     | Total Cost   |              |
|                                                         |           |              |                            |            |                |              |                  |            |          |           |                 |                  |                 |                  |                     |                     | \$ 2,698,167 | \$ 1,064,613 |
|                                                         |           |              |                            |            |                |              |                  |            |          |           |                 |                  |                 |                  |                     |                     | \$ 1,027,266 | \$ 4,790,046 |

Notes:

Financial Reporting Unit Rates

Tenmile Tunnel

Assumptions

Tasks  
Tenmile Tunnel sealing and bulkhead construction

Timing  
LOM  
Total Costs  
\$906,028

Calculations

| Specific Tasks                   | Work Type | Area           | Equipment/Material | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost               | Comment |
|----------------------------------|-----------|----------------|--------------------|------------|----------------|--------------|------------------|------------|-------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------------------|---------|
| Bulkhead Closure                 | GENERAL   | Tenmile Tunnel |                    |            |                |              |                  |            |       |           |                 | \$ 293,981       |                 | \$ 146,991       |                     | \$ 146,991          | \$ 587,963               |         |
| Dredge and pump sludge to tunnel | GENERAL   | Tenmile Tunnel |                    |            |                |              |                  |            |       |           |                 | \$154,632        |                 | \$77,316         |                     | \$77,316            | \$ 309,264               |         |
| Construction of check dams       | GENERAL   | Tenmile Tunnel |                    |            |                |              |                  |            |       |           |                 | \$4,401          |                 | \$2,200          |                     | \$2,200             | \$ 8,801                 |         |
| TOTAL COSTS                      |           |                |                    |            |                |              |                  |            |       |           |                 | \$ 453,014       |                 | \$ 226,507       |                     | \$ 226,507          | Total Cost<br>\$ 906,028 |         |

Notes:

Financial Reporting Unit Rates

3 Dam

Assumptions

Tasks  
Cover future raise with 6" topsoil/biosolids over 6" subsoil across 9 acres

Timing  
LOM  
Total Costs  
\$52,005

Calculations

| Specific Tasks                     | Work Type | Area          | Equipment/Material          | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost           | Comment |
|------------------------------------|-----------|---------------|-----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|----------------------|---------|
| Haul soil from Pond Shop Stockpile | HAUL_LOAD | Topsoil Cover | 740B Artic. Haul Truck      | 5          | 14,520         | 17,642       | cuyd             | 107.21     | cuyd/hr  | 165       | \$ 105          | \$17,250.09      | \$ 35           | \$ 5,827         | \$ -                | \$ -                | \$ 23,077            |         |
| Load soil at Pond Shop Stockpile   | HAUL_LOAD | Topsoil Cover | 938K Loader                 | 1          |                | -            | cuyd             |            | cuyd/hr  | 33        | \$ 42           | \$ 1,380         | \$ 36           | \$ 1,180         | \$ -                | \$ -                | \$ 2,560             |         |
| Spread subsoil/topsoil             | SPREAD    | Topsoil Cover | D7E Dozer                   | 1          | 14,520         | 14,520       | cuyd             | 99.20      | cuyd/hr  | 146       | \$ 102          | \$ 14,920        | \$ 40           | \$ 5,837         | \$ -                | \$ -                | \$ 20,757            |         |
| Full time dust control             | WATER     | Topsoil Cover | 4000G Water Truck, 4000 gal | 1          |                |              |                  |            |          | 33        | \$ 38           | \$ 1,266         | \$ 35           | \$ 1,143         | \$ -                | \$ -                | \$ 2,409             |         |
| Full time road grading             | GRADING   | Topsoil Cover | 12M Grader AWD              | 1          |                | -            | acres            | 0.50       | acres/hr | 33        | \$ 59           | \$ 1,945         | \$ 38           | \$ 1,257         | \$ -                | \$ -                | \$ 3,202             |         |
| TOTAL COSTS                        |           |               |                             |            |                |              |                  |            |          |           |                 | \$ 36,761        |                 | \$ 15,244        | \$ -                |                     | Total Cost \$ 52,005 |         |

Notes:

Financial Reporting Unit Rates

Pond Shop

Assumptions

Tasks  
Reclaim Pond Shop area

Timing  
LOM  
Total Costs  
\$4,430

Calculations

| Specific Tasks                        | Work Type | Area              | Equipment/Material     | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units   | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost          | Comment |
|---------------------------------------|-----------|-------------------|------------------------|------------|----------------|--------------|------------------|------------|---------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|---------------------|---------|
| Haul topsoil from Pond Shop Stockpile | HAUL_LOAD | Pond Shop topsoil | 740B Artic. Haul Truck | 4          | 538            | 654          | cuyd             | 97.52      | cuyd/hr | 7         | \$ 105          | \$ 703           | \$ 35           | \$ 237           | \$ -                | \$ -                | \$ 940              |         |
| Load topsoil at Pond Shop Stockpile   | HAUL_LOAD | Pond Shop topsoil | 938K Loader            | 1          |                | -            | cuyd             |            | cuyd/hr | 2         | \$ 42           | \$ 70            | \$ 36           | \$ 60            | \$ -                | \$ -                | \$ 130              |         |
| Spread topsoil                        | SPREAD    | Pond Shop topsoil | D7E Dozer              | 1          | 538            | 538          | cuyd             | 86.40      | cuyd/hr | 6         | \$ 102          | \$ 635           | \$ 40           | \$ 248           | \$ -                | \$ -                | \$ 883              |         |
| Rough grading before capping          | SPREAD    | Pond Shop grading | D8T Dozer              | 1          | 1,613          | 1,613        | cuyd             | 99.20      | cuyd/hr | 16        | \$ 112          | \$ 1,827         | \$ 40           | \$ 648           | \$ -                | \$ -                | \$ 2,476            |         |
| TOTAL COSTS                           |           |                   |                        |            |                |              |                  |            |         |           |                 | \$ 3,235         |                 | \$ 1,194         |                     | \$ -                | Total Cost \$ 4,430 |         |

Notes:

Financial Reporting Unit Rates

Mayflower TSF

Assumptions

- Soil cover is not required over area covered by High Process Pool (376 ac)
- Sludge Cells remain for material deposition post-closure; no reclamation required

Tasks

- (1) Finish grade top surface of impoundment outside sludge cells (244 ac)
- (2) Load, haul, and spread 6" topsoil/biosolids over 6" subsoil (244 ac) from future Kokomo soil stockpile

Timing

LOM

Total Costs

\$1,773,964

Calculations

| Specific Tasks                  | Work Type | Area          | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost   | Comment |
|---------------------------------|-----------|---------------|----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------|---------|
| Haul soil from Kokomo Stockpile | HAUL_LOAD | Mayflower TSF | 740B Artic. Haul Truck     | 4          | 393,653        | 478,288      | cuyd             | 91.88      | cuyd/hr  | 5,206     | \$ 105          | \$ 545,698       | \$ 35           | \$ 184,335       | \$ -                | \$ -                | \$ 730,033   |         |
| Load soil at Kokomo Stockpile   | HAUL_LOAD | Mayflower TSF | 938K Loader                | 1          |                | -            | cuyd             |            | cuyd/hr  | 1,301     | \$ 42           | \$ 54,570        | \$ 36           | \$ 46,675        | \$ -                | \$ -                | \$ 101,245   |         |
| Spread topsoil                  | SPREAD    | Mayflower TSF | D8T Dozer                  | 2          | 393,653        | 393,653      | cuyd             | 99.20      | cuyd/hr  | 3,968     | \$ 112          | \$ 445,980       | \$ 40           | \$ 158,243       | \$ -                | \$ -                | \$ 604,223   |         |
| Full time road grading          | GRADING   | Mayflower TSF | 12M Grader AWD             | 1          |                | -            | acres            | 0.50       | acres/hr | 1,301     | \$ 59           | \$ 76,901        | \$ 38           | \$ 49,697        | \$ -                | \$ -                | \$ 126,598   |         |
| Full time dust control          | WATER     | Mayflower TSF | 621G Water Wagon, 8000 gal | 1          |                |              |                  |            |          | 1,301     | \$ 91           | \$ 118,309       | \$ 35           | \$ 46,084        | \$ -                | \$ -                | \$ 164,392   |         |
| Finish grade the top surface    | GRADING   | Mayflower TSF | 12M Grader AWD             | 1          |                | 244          | acres            | 0.50       | acres/hr | 488       | \$ 59           | \$ 28,836        | \$ 38           | \$ 18,636        | \$ -                | \$ -                | \$ 47,472    |         |
| Total Cost                      |           |               |                            |            |                |              |                  |            |          |           |                 |                  |                 |                  |                     |                     |              |         |
| TOTAL COSTS                     |           |               |                            |            |                |              |                  |            |          |           |                 | \$ 1,270,294     | \$ 503,670      |                  | \$ -                |                     | \$ 1,773,964 |         |

Notes:



Financial Reporting Unit Rates

Mayflower Acid

Assumptions  
Quantities from previous state based estimate

Tasks  
(1) Finish grade general area before capping (approx. 3/4 ac); fill clear ponds via dozer push of local cut material etc.  
(2) Load, haul, and spread 6" topsoil/biosolids over 6" subsoil from existing soil stockpile at toe of 5-Dam

Timing  
LOM  
Total Costs  
\$37,888

Calculations

| Specific Tasks                    | Work Type | Area                 | Equipment/Material     | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units   | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost           | Comment |
|-----------------------------------|-----------|----------------------|------------------------|------------|----------------|--------------|------------------|------------|---------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|----------------------|---------|
| Haul topsoil from 5-Dam Stockpile | HAUL_LOAD | Mayflower Acid Plant | 740B Artic. Haul Truck | 3          | 2,690          | 3,268        | cuyd             | 217.97     | cuyd/hr | 15        | \$ 105          | \$ 1,572         | \$ 35           | \$ 531           | \$ -                | \$ -                | \$ 2,103             |         |
| Load topsoil at 5-Dam Stockpile   | HAUL_LOAD | Mayflower Acid Plant | 938K Loader            | 1          |                | -            | cuyd             |            | cuyd/hr | 5         | \$ 42           | \$ 210           | \$ 36           | \$ 179           | \$ -                | \$ -                | \$ 389               |         |
| Grade site                        | SPREAD    | Mayflower Acid Plant | D8T Dozer              | 1          | 33,873         | 33,873       | cuyd             | 155.00     | cuyd/hr | 219       | \$ 112          | \$ 24,560        | \$ 40           | \$ 8,715         | \$ -                | \$ -                | \$ 33,275            |         |
| Spread soil at site               | SPREAD    | Mayflower Acid Plant | D7E Dozer              | 1          | 2,690          | 2,690        | cuyd             | 179.80     | cuyd/hr | 15        | \$ 102          | \$ 1,525         | \$ 40           | \$ 597           | \$ -                | \$ -                | \$ 2,122             |         |
| TOTAL COSTS                       |           |                      |                        |            |                |              |                  |            |         |           |                 | \$ 27,867        |                 | \$ 10,021        |                     | \$ -                | Total Cost \$ 37,888 |         |

Notes:

Financial Reporting Unit Rates

Robinson TSF

Assumptions  
There are four reclamation treatments for the areas left on Robinson TSF to be reclaimed

Tasks  
(1) Load, haul, and spread 4" topsoil/biosolids across 68 ac (36,000 cy) plus a token 64,000 cy to fill low spots and repair poor cover areas for 100,000 cy total

Timing  
LOM  
Total Costs  
\$215,360

Calculations

| Specific Tasks                   | Work Type | Area         | Equipment/Material         | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials      | Total Material Cost | Total Cost | Comment |
|----------------------------------|-----------|--------------|----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|--------------------------|---------------------|------------|---------|
| Haul biosolids to Robinson TSF   | HAUL_LOAD | Robinson TSF | 740B Artic. Haul Truck     | 4          | 100,000        | 121,500      | cuyd             | 169.40     | cuyd/hr  | 717       | \$ 105          | \$ 75,188        | \$ 35           | \$ 25,398        | \$ -                     | \$ -                | \$ 100,586 |         |
| Load biosolids for Robinson TSF  | HAUL_LOAD | Robinson TSF | 938K Loader                | 1          |                | -            | cuyd             |            | cuyd/hr  | 179       | \$ 42           | \$ 7,519         | \$ 36           | \$ 6,431         | \$ -                     | \$ -                | \$ 13,950  |         |
| Spread biosolids at Robinson TSF | SPREAD    | Robinson TSF | D6N LGP Dozer              | 2          | 100,000        | 100,000      | cuyd             | 179.80     | cuyd/hr  | 556       | \$ 69           | \$ 38,553        | \$ 40           | \$ 22,179        | \$ -                     | \$ -                | \$ 60,731  |         |
| Full time dust control           | WATER     | Robinson TSF | 621G Water Wagon, 8000 gal | 1          |                |              |                  |            |          | 179       | \$ 91           | \$ 16,301        | \$ 35           | \$ 6,350         | \$ -                     | \$ -                | \$ 22,650  |         |
| Full time road grading           | GRADING   | Robinson TSF | 12M Grader AWD             | 1          |                | -            | acres            | 0.50       | acres/hr | 179       | \$ 59           | \$ 10,596        | \$ 38           | \$ 6,847         | \$ -                     | \$ -                | \$ 17,443  |         |
| TOTAL COSTS                      |           |              |                            |            |                |              |                  |            |          |           |                 | \$ 148,156       | \$ 67,205       | \$ -             | Total Cost<br>\$ 215,360 |                     |            |         |

Notes:

Financial Reporting Unit Rates

1 Dam

Assumptions

Bond release not yet obtained

Tasks

Cover with 4" topsoil/biosolids across approx. 65 acres

Timing

LOM

Total Costs

\$83,801

Calculations

| Specific Tasks                   | Work Type | Area  | Equipment/Material          | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost          | Comment |
|----------------------------------|-----------|-------|-----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|---------------------|---------|
| Haul Biosolids to 1 Dam          | HAUL_LOAD | 1 Dam | 740B Artic. Haul Truck      | 4          | 34,936         | 42,447       | cuyd             | 189.38     | cuyd/hr  | 224       | \$ 105          | \$ 23,496        | \$ 35           | \$ 7,937         | \$ -                | \$ -                | \$ 31,433           |         |
| Load Biosolids at Robinson       | HAUL_LOAD | 1 Dam | 938K Loader                 |            |                | -            | cuyd             |            | cuyd/hr  | 56        | \$ 42           | \$ 2,350         | \$ 36           | \$ 2,010         | \$ -                | \$ -                | \$ 4,359            |         |
| Spread Biosolids at Robinson TSF | SPREAD    | 1 Dam | D6N LGP Dozer               |            | 34,936         | 34,936       | cuyd             | 99.20      | cuyd/hr  | 352       | \$ 69           | \$ 24,412        | \$ 40           | \$ 14,044        | \$ -                | \$ -                | \$ 38,456           |         |
| Full time dust control           | WATER     | 1 Dam | 4000G Water Truck, 4000 gal |            |                |              |                  |            |          | 56        | \$ 38           | \$ 2,155         | \$ 35           | \$ 1,946         | \$ -                | \$ -                | \$ 4,101            |         |
| Full time road grading           | GRADING   | 1 Dam | 12M Grader AWD              |            |                | -            | acres            | 0.50       | acres/hr | 56        | \$ 59           | \$ 3,311         | \$ 38           | \$ 2,140         | \$ -                | \$ -                | \$ 5,451            |         |
| TOTAL COSTS                      |           |       |                             |            |                |              |                  |            |          |           |                 | \$ 55,725        | \$ 28,076       |                  | \$ -                |                     | Total Cost \$83,801 |         |

Notes:

Financial Reporting Unit Rates

Roads

Assumptions

- Tasks
- (1) Cover switchback access roads from McNulty OSF to Little Bartlett Mountain (approx 4540 ft upper road and 4900 ft lower road)
  - (2) Cover access roads at the base of 1 Dam and 4 Dam - approx 1.38 ac at 1 Dam and 2.07 ac at 4 Dam
  - (3) Cover various roads between 3 Dam and Mayflower (Mar 1994 letter to DMG by Stoller for description of segments) - approx 6 acres
  - (4) Cover various roads NE and SE of 5 Dam (Mar 1994 letter to DMG by Stoller for description of segments) - approx 4 acres
  - (5) Cover various roads NW of Mayflower TSF (Mar 1994 letter to DMG by Stoller for description of segments) - approx 2 acres
  - Assume 6" cover only used; larger dozer for subsoil vs topsoil

Timing  
LOM  
Total Costs  
\$115,056

Calculations

| Specific Tasks                      | Work Type | Area  | Equipment/Material     | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units   | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost   | Total Cost | Comment |
|-------------------------------------|-----------|-------|------------------------|------------|----------------|--------------|------------------|------------|---------|-----------|-----------------|------------------|-----------------|------------------|---------------------|-----------------------|------------|---------|
| Haul subsoil from local stockpiles  | HAUL_LOAD | Roads | 740B Artic. Haul Truck | 4          | 13,205         | 13,205       | cuyd             | 97.52      | cuyd/hr | 135       | \$ 105          | \$ 14,195        | \$ 35           | \$ 4,795         | \$ -                | \$ -                  | \$ 18,990  |         |
| Load subsoil at local stockpiles    | HAUL_LOAD | Roads | 938K Loader            | 1          |                | -            | cuyd             |            | cuyd/hr | 34        | \$ 42           | \$ 1,419         | \$ 36           | \$ 1,214         | \$ -                | \$ -                  | \$ 2,634   |         |
| Tram subsoil to replacement areas   | SPREAD    | Roads | 938K Loader            | 1          | 13,205         | 13,205       | cuyd             | 62.00      | cuyd/hr | 213       | \$ 42           | \$ 8,931         | \$ 36           | \$ 7,639         | \$ -                | \$ -                  | \$ 16,570  |         |
| Spread subsoil at replacement areas | SPREAD    | Roads | D7E Dozer              | 1          | 13,205         | 13,205       | cuyd             | 99.20      | cuyd/hr | 133       | \$ 102          | \$ 13,569        | \$ 40           | \$ 5,308         | \$ -                | \$ -                  | \$ 18,877  |         |
| Haul topsoil from local stockpiles  | HAUL_LOAD | Roads | 740B Artic. Haul Truck | 4          | 13,205         | 13,205       | cuyd             | 97.52      | cuyd/hr | 135       | \$ 105          | \$ 14,195        | \$ 35           | \$ 4,795         | \$ -                | \$ -                  | \$ 18,990  |         |
| Load topsoil at local stockpiles    | HAUL_LOAD | Roads | 938K Loader            | 1          |                | -            | cuyd             |            | cuyd/hr | 34        | \$ 42           | \$ 1,419         | \$ 36           | \$ 1,214         | \$ -                | \$ -                  | \$ 2,634   |         |
| Tram topsoil to replacement areas   | SPREAD    | Roads | 938K Loader            | 1          | 13,205         | 13,205       | cuyd             | 62.00      | cuyd/hr | 213       | \$ 42           | \$ 8,931         | \$ 36           | \$ 7,639         | \$ -                | \$ -                  | \$ 16,570  |         |
| Spread topsoil at replacement areas | SPREAD    | Roads | D6N LGP Dozer          | 1          | 13,205         | 13,205       | cuyd             | 72.85      | cuyd/hr | 181       | \$ 69           | \$ 12,565        | \$ 40           | \$ 7,228         | \$ -                | \$ -                  | \$ 19,793  |         |
| TOTAL COSTS                         |           |       |                        |            |                |              |                  |            |         |           |                 | \$ 75,224        | \$ 39,832       |                  | \$ -                | Total Cost \$ 115,056 |            |         |

Notes:

Financial Reporting Unit Rates

Robinson Lake

Assumptions

Tasks  
300,000 cy of sediment and sludge removal from Robinson Lake

Timing  
LOM  
Total Costs  
\$2,333,570

Calculations

| Specific Tasks                           | Work Type | Area          | Equipment/Material | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost                 | Comment |
|------------------------------------------|-----------|---------------|--------------------|------------|----------------|--------------|------------------|------------|-------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|----------------------------|---------|
| Pre-Excavation Work and Water Management | General   | Robinson Lake |                    |            |                |              |                  |            |       |           |                 |                  |                 |                  |                     |                     | \$ 419,070                 |         |
| Sediment and Subsoil Removal             | General   | Robinson Lake |                    |            |                |              |                  |            |       |           |                 |                  |                 |                  |                     |                     | \$ 1,807,000               |         |
| Finish Work                              | General   | Robinson Lake |                    |            |                |              |                  |            |       |           |                 |                  |                 |                  |                     |                     | \$ 107,500                 |         |
| TOTAL COSTS                              |           |               |                    |            |                |              |                  |            |       |           |                 | \$ -             | \$ -            | \$ -             |                     |                     | Total Cost<br>\$ 2,333,570 |         |

Notes:

Lower Robinson Lake Cleanout actual costs from 2010 (Skanska)  
Do not use numbers for Habitat since their numbers are skewed

Financial Reporting Unit Rates

5 Dam

Assumptions

Tasks  
Cover future raise with 6" topsoil/biosolids over 6" subsoil across 59 acres

Timing  
LOM  
Total Costs  
\$386,027

Calculations

| Specific Tasks                     | Work Type | Area  | Equipment/Material          | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units    | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost               | Comment |
|------------------------------------|-----------|-------|-----------------------------|------------|----------------|--------------|------------------|------------|----------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------------------|---------|
| Haul topsoil from Kokomo Stockpile | HAUL_LOAD | 5 Dam | 740B Artic. Haul Truck      | 4          | 95,187         | 115,652      | cuyd             | 97.52      | cuyd/hr  | 1186      | \$ 105          | \$ 124,320       | \$ 35           | \$ 41,995        | \$ -                | \$ -                | \$ 166,315               |         |
| Load topsoil at Kokomo Stockpile   | HAUL_LOAD | 5 Dam | 938K Loader                 | 1          |                | -            | cuyd             |            | cuyd/hr  | 296       | \$ 42           | \$ 12,432        | \$ 36           | \$ 10,634        | \$ -                | \$ -                | \$ 23,066                |         |
| Spread topsoil                     | SPREAD    | 5 Dam | D8T Dozer                   | 1          | 95,187         | 95,187       | cuyd             | 99.20      | cuyd/hr  | 960       | \$ 112          | \$ 107,840       | \$ 40           | \$ 38,264        | \$ -                | \$ -                | \$ 146,103               |         |
| Full time road grading             | GRADING   | 5 Dam | 12M Grader AWD              | 1          |                | -            | acres            | 0.50       | acres/hr | 296       | \$ 59           | \$ 17,519        | \$ 38           | \$ 11,322        | \$ -                | \$ -                | \$ 28,841                |         |
| Full time dust control             | WATER     | 5 Dam | 4000G Water Truck, 4000 gal | 1          |                |              |                  |            |          | 296       | \$ 38           | \$ 11,404        | \$ 35           | \$ 10,297        | \$ -                | \$ -                | \$ 21,701                |         |
| TOTAL COSTS                        |           |       |                             |            |                |              |                  |            |          |           |                 | \$ 273,516       |                 | \$ 112,511       |                     | \$ -                | Total Cost<br>\$ 386,027 |         |

Notes:

Financial Reporting Unit Rates

Revegetation

Assumptions

Tasks  
Seeding, mulching, and crimping site wide

Timing  
LOM

Total Costs  
\$1,889,709

Calculations

| Specific Tasks           | Work Type | Area | Equipment/Material              | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost   | Comment |
|--------------------------|-----------|------|---------------------------------|------------|----------------|--------------|------------------|------------|-------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------|---------|
| Reseeding & Revegetation | MATERIALS | Site | Seeding-Standard                |            | 1466           | 1466         | acre             |            |       |           |                 | \$ -             |                 | \$ -             | \$ 500              | \$ 733,000          | \$ 733,000   |         |
| Reseeding & Revegetation | MATERIALS | Site | Seeding-Standard Steep (>2.5:1) |            | 263            | 263          | acre             |            |       |           |                 |                  |                 |                  | \$ 1,403            | \$ 368,989          | \$ 368,989   |         |
| Reseeding & Revegetation | MATERIALS | Site | Seeding-Alpine                  |            | 227            | 227          | acre             |            |       |           |                 |                  |                 |                  | \$ 460              | \$ 104,420          | \$ 104,420   |         |
| Reseeding & Revegetation | MATERIALS | Site | Seeding-Alpine Steep (>2.5:1)   |            | 475            | 475          | acre             |            |       |           |                 |                  |                 |                  | \$ 1,403            | \$ 666,425          | \$ 666,425   |         |
| Reseeding & Revegetation | MATERIALS | Site | Seeding-Wetland                 |            | 25             | 25           | acre             |            |       |           |                 |                  |                 |                  | \$ 675              | \$ 16,875           | \$ 16,875    |         |
| TOTAL COSTS              |           |      |                                 |            |                |              |                  |            |       |           |                 | \$ -             |                 | \$ -             |                     | \$ 1,889,709        | \$ 1,889,709 |         |

Notes:



Financial Reporting Unit Rates

Mobilize-Demobilize

Assumptions

Tasks  
Costs to mobilize and demobilize EACH YEAR

Timing  
LOM  
Total Costs  
\$800,000

Calculations

| Specific Tasks | Work Type | Area | Equipment/Material | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost               | Comment |
|----------------|-----------|------|--------------------|------------|----------------|--------------|------------------|------------|-------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------------------|---------|
|                | Year 1    |      |                    |            |                |              |                  |            |       |           |                 | \$ 200,000       |                 | \$ -             |                     | \$ -                | \$ 200,000               |         |
|                | Year 2    |      |                    |            |                |              |                  |            |       |           |                 | \$ 200,000       |                 | \$ -             |                     | \$ -                | \$ 200,000               |         |
|                | Year 3    |      |                    |            |                |              |                  |            |       |           |                 | \$ 200,000       |                 | \$ -             |                     | \$ -                | \$ 200,000               |         |
|                | Year 4    |      |                    |            |                |              |                  |            |       |           |                 | \$ 200,000       |                 | \$ -             |                     | \$ -                | \$ 200,000               |         |
|                |           |      |                    |            |                |              |                  |            |       |           |                 |                  |                 |                  |                     |                     | \$ -                     |         |
| TOTAL COSTS    |           |      |                    |            |                |              |                  |            |       |           |                 | \$ 800,000       |                 | \$ -             |                     | \$ -                | Total Cost<br>\$ 800,000 |         |

Notes:

Financial Reporting Unit Rates

Buffer Zone

Assumptions

Tasks  
Reclaim the Buffer Zone (DRMS activity)

Timing  
LOM  
Total Costs  
\$1,434,840

Calculations

| Specific Tasks          | Work Type | Area        | Equipment/Material | # of Equip | Initial Volume | Final Volume | Units of Measure | Production | Units | Hrs Req'd | Cost/Unit Equip | Total Equip Cost | Cost/Unit Labor | Total Labor Cost | Cost/Unit Materials | Total Material Cost | Total Cost   | Comment    |
|-------------------------|-----------|-------------|--------------------|------------|----------------|--------------|------------------|------------|-------|-----------|-----------------|------------------|-----------------|------------------|---------------------|---------------------|--------------|------------|
| Reclaim the Buffer Zone |           | Buffer Zone |                    |            |                |              | 550 acres        |            |       |           |                 | \$ -             |                 | \$ -             | \$ 2,609            | \$ 1,434,840        | \$ 1,434,840 |            |
| TOTAL COSTS             |           |             |                    |            |                |              |                  |            |       |           |                 | \$ -             |                 | \$ -             |                     | \$ 1,434,840        | \$ 1,434,840 | Total Cost |

Notes:



**Financial Reporting Unit Rates****Demolition 1 - former mine****Assumptions****Tasks**

Various demolition of former mine structures

**Timing**

LOM

**Total Costs****\$147,147****Calculations**

| Specific Tasks                                    | Area      | Material    | Length | Width | Height | Volume     | Units | Cost/Unit<br>Materials | Total Cost | Comment                                       |
|---------------------------------------------------|-----------|-------------|--------|-------|--------|------------|-------|------------------------|------------|-----------------------------------------------|
| Demolish 6 CRUSHER SWCH HSE - SUPERSTRUCTURE      | Mine Mill | STEEL       | 80     | 38    | 15     | 45,600     | cuft  | \$ 0.01                | \$ 319     | Deduct 30% for no interior walls per RS Means |
| Demolish MILL LIME SILO - SUPERSTRUCTURE          | Mine Mill | STEEL       | 60     | 16    | 16     | 15,360     | cuft  | \$ 0.01                | \$ 154     |                                               |
| Demolish DOMESTIC WATER PLANT - SUPERSTRUCTURE    | Mine Mill | STEEL       | 45     | 81    | 24     | 87,480     | cuft  | \$ 0.01                | \$ 612     | Deduct 30% for no interior walls per RS Means |
| Demolish 3 MILL - SUPERSTRUCTURE                  | Mine Mill | STEEL       | 725    | 180   | 80     | 10,440,000 | cuft  | \$ 0.01                | \$ 73,080  | Deduct 30% for no interior walls per RS Means |
| Demolish 6 CRUSHER SECONDARY - SUPERSTRUCTURE     | Mine Mill | STEEL       | 160    | 90    | 87     | 1,252,800  | cuft  | \$ 0.01                | \$ 12,528  |                                               |
| Demolish 6 CRUSHER PRIMARY - SUPERSTRUCTURE       | Mine Mill | STEEL       | 60     | 110   | 72     | 475,200    | cuft  | \$ 0.01                | \$ 4,752   |                                               |
| Demolish 6 CRUSHER OFFICE - SUPERSTRUCTURE        | Mine Mill | STEEL       | 30     | 72    | 16     | 34,560     | cuft  | \$ 0.01                | \$ 346     |                                               |
| Demolish GATEHOUSE - SUPERSTRUCTURE               | Mine Mill | COMBINATION | 64     | 40    | 10     | 25,600     | cuft  | \$ 0.13                | \$ 3,328   |                                               |
| Demolish COVERED STORAGE - SUPERSTRUCTURE         | Mine Mill | TIN         | 60     | 25    | 14     | 21,000     | cuft  | \$ 0.25                | \$ 5,250   |                                               |
| Demolish PHILLIPSON MAPP GAS HSE - SUPERSTRUCTURE | Mine Mill | TIN         | 20     | 45    | 8      | 7,200      | cuft  | \$ 0.25                | \$ 1,800   |                                               |
| Demolish OPEN PIT FUEL TANKS - SUPERSTRUCTURE     | Mine Mill | STEEL       | 100    | 25    | 8      | 20,000     | cuft  | \$ 0.01                | \$ 200     |                                               |
| Demolish DOMESTIC WATER TANK - SUPERSTRUCTURE     | Mine Mill | STEEL       | 44     | 44    | 40     | 77,440     | cuft  | \$ 0.01                | \$ 774     |                                               |
| Demolish PHILLIPSON WAREHOUSE - SUPERSTRUCTURE    | Mine Mill | STEEL       | 76     | 94    | 42     | 300,048    | cuft  | \$ 0.01                | \$ 2,100   | Deduct 30% for no interior walls per RS Means |
| Demolish OPEN PIT PHASE 1 SHOP - SUPERSTRUCTURE   | Mine Mill | STEEL       | 146    | 56    | 52     | 425,152    | cuft  | \$ 0.01                | \$ 2,976   | Deduct 30% for no interior walls per RS Means |
| Demolish OPEN PIT OFFICES - SUPERSTRUCTURE        | Mine Mill | COMBINATION | 40     | 80    | 25     | 80,000     | cuft  | \$ 0.13                | \$ 10,400  |                                               |
| Demolish OPEN PIT PHASE 2 SHOP - SUPERSTRUCTURE   | Mine Mill | STEEL       | 440    | 80    | 70     | 2,464,000  | cuft  | \$ 0.01                | \$ 17,248  | Deduct 30% for no interior walls per RS Means |
| Demolish OPEN PIT WASH BAY - SUPERSTRUCTURE       | Mine Mill | STEEL       | 90     | 105   | 60     | 567,000    | cuft  | \$ 0.01                | \$ 3,969   | Deduct 30% for no interior walls per RS Means |
| Demolish TENMILE TUNNEL SHOP - SUPERSTRUCTURE     | 1-Dam     | TIN         | 34     | 26    | 16     | 14,144     | cuft  | \$ 0.25                | \$ 3,536   |                                               |
| Demolish TENMILE TUNL OFC - SUPERSTR. (trailer)   | 1-Dam     | STEEL       | 50     | 20    | 12     | 12,000     | cuft  | \$ 0.01                | \$ 120     |                                               |
| Demolish TENMILE TUNL CMP HSE - SUPERSTRUCTURE    | 1-Dam     | STEEL       | 18     | 18    | 12     | 3,888      | cuft  | \$ 0.01                | \$ 39      |                                               |
| Demolish TENMILE TUNL DMP HSE - SUPERSTRUCTURE    | 1-Dam     | STEEL       | 40     | 12    | 10     | 4,800      | cuft  | \$ 0.01                | \$ 48      |                                               |
| Demolish POND SHOP - SUPERSTRUCTURE               | 3-Dam     | STEEL       | 60     | 40    | 20     | 48,000     | cuft  | \$ 0.01                | \$ 480     |                                               |
| Demolish POND SHOP DOCKS - SUPERSTRUCTURE         | 3-Dam     | WOOD        | 200    | 20    | 3      | 12,000     | cuft  | \$ 0.25                | \$ 3,000   |                                               |
| Demolish TENMILE COHEREX STA - SUPERSTRUCTURE     | Tenmile   | STEEL       | 22     | 40    | 10     | 8,800      | cuft  | \$ 0.01                | \$ 88      |                                               |

|                    |                                        |
|--------------------|----------------------------------------|
| <b>TOTAL COSTS</b> | <b>Total Cost</b><br><b>\$ 147,147</b> |
|--------------------|----------------------------------------|

Notes:

Financial Reporting Unit Rates

Demolition 2-linear facilities

Assumptions

Tasks

Various demolition (continued from Demo 1)

Timing

LOM

Total Costs

\$10,312

Calculations

| Specific Tasks                                 | Area                          | Material  | Length | Width | Height | Volume | Units | Cost/Unit<br>Materials | Total Cost | Comment |
|------------------------------------------------|-------------------------------|-----------|--------|-------|--------|--------|-------|------------------------|------------|---------|
| CHALK MTN PUMP HOUSE- SUPERSTRUCTURE           | Water Control Structures      | STEEL     | 25     | 25    | 20     | 12,500 | cuft  | \$ 0.01                | \$ 125     |         |
| OPEN PIT SHOP SUB- SUPERSTRUCTURE              | Substations and Utility Lines | STEEL     | 25     | 25    | 15     | 9,375  | cuft  | \$ 0.01                | \$ 94      |         |
| DOMESTIC WATER SUB- WOOD STRUCTURE             | Substations and Utility Lines | WOOD      | 20     | 20    | 8      | 3,200  | cuft  | \$ 0.25                | \$ 800     |         |
| IRECO PLANT SUB- SUPERSTRUCTURE                | Substations and Utility Lines | WOOD      | 20     | 20    | 8      | 3,200  | cuft  | \$ 0.25                | \$ 800     |         |
| OPEN PIT UTIL LINES- 21 POLES/237'AVG SPACING  | Substations and Utility Lines | WOOD/WIRE | 1      | 1     | 4,977  | 4,977  | LF    | \$ 0.78                | \$ 3,877   |         |
| TAILING UTILITY LINE- 25 POLES/237'AVG SPACING | Substations and Utility Lines | WOOD/WIRE | 1      | 1     | 5,925  | 5,925  | LF    | \$ 0.78                | \$ 4,616   |         |

|             |                         |
|-------------|-------------------------|
| TOTAL COSTS | Total Cost<br>\$ 10,312 |
|-------------|-------------------------|

Notes:

Financial Reporting Unit Rates

Demolition 3-new structures

Assumptions

Tasks

Demolition of newer structures

Timing

LOM

Total Costs

\$824,791

Calculations

| Specific Tasks                   | BLDG          | Area | Material         | Length | Width/Pipe<br>Radius | Height | Volume     | Units | Cost/Unit<br>Materials | Total Cost | Comment                                          |
|----------------------------------|---------------|------|------------------|--------|----------------------|--------|------------|-------|------------------------|------------|--------------------------------------------------|
| New Mill Bldg                    | Mine Mill     |      | STEEL            | 1,105  | 805                  | 320    | 11,497,500 | cuft  | \$ 0.01                | \$ 80,483  | Deduct 30% for no interior walls per RS Means    |
| Explosives Shed (Powder Storage) | Open Pit      |      | STEEL            | 13     | 8                    | 8      | 832        | cuft  | \$ 0.01                | \$ 6       | Deduct 30% for no interior walls per RS Means    |
| 3-Dam Pump Station               | 3-Dam         |      | STEEL            | 63     | 30                   | 30     | 56,700     | cuft  | \$ 0.01                | \$ 397     | Deduct 30% for no interior walls per RS Means    |
| Mayflower Coherex Station        | 5-Dam         |      | STEEL            | 7      | 8                    | 19     | 1,064      | cuft  | \$ 0.01                | \$ 11      |                                                  |
| Mayflower Coherex Station        | 5-Dam         |      | concrete floor   | 36     | 30                   | 2      | 2,160      | sqft  | \$ 0.98                | \$ 2,117   |                                                  |
| Mayflower Coherex Station        | 5-Dam         |      | concrete floor   | 50     | 30                   | 1      | 1,500      | sqft  | \$ 0.98                | \$ 1,470   | Bury remaining slab and footers with local soils |
| Supply Canal No. 2 Pipeline      | 3-Dam         |      | pipe grouting    | 5      | 2.5                  | N/A    | 393        | cuft  | \$ 34.00               | \$ 13,345  | Assume 4 end sections                            |
| Supply Canal No. 2 Pipeline      | 3-Dam         |      | concrete footing | 80     | 2                    | 8      | 1,280      | LF    | \$ 14.05               | \$ 17,984  | Searle Gulch Diversion Structure                 |
| Mill Return Pipeline             | Searle Gulch  |      | pipe grouting    | 5      | 1.3                  | N/A    | 56         | cuft  | \$ 34.00               | \$ 1,888   | Assume 2 end sections (Searle Gulch W slope)     |
| Coarse Ore Dome                  | Mine Mill     |      | STEEL            |        |                      |        | 1          | LS    | \$ 250,000             | \$ 175,000 | Deduct 30% for no interior walls per RS Means    |
| New Scale House                  | Mine Mill     |      | STEEL            | 80.00  | 16.00                | 16.00  | 20,480     | cuft  | \$ 0.01                | \$ 143     | Deduct 30% for no interior walls per RS Means    |
| Mayflower Flood Bypass Tunnel    | Mayflower TSF |      | pipe grouting    |        |                      |        | 1          | LS    | \$ 530,000             | \$ 530,000 | TR-21 response 5/24/12                           |
| 5-Dam Powerline                  | Utility Lines |      | WOOD/WIRE        | 1      | 1                    | 2,500  | 2,500      | LF    | \$ 0.78                | \$ 1,948   |                                                  |
| Raw Water Tank                   | Mine Mill     |      | STEEL            | 64     | 64                   | 66     | 270,336    | cuft  | \$ 0.01                | \$ 2,703   |                                                  |
| Raw Water Tank                   | Mine Mill     |      | concrete floor   | 64     | 64                   | 2      | 8,192      | sqft  | \$ 0.98                | \$ 8,028   |                                                  |
| Mill Water Tank                  | Mine Mill     |      | STEEL            | 64     | 64                   | 66     | 270,336    | cuft  | \$ 0.01                | \$ 2,703   |                                                  |
| Mill Water Tank                  | Mine Mill     |      | concrete floor   | 64     | 64                   | 2      | 8,192      | sqft  | \$ 0.98                | \$ 8,028   |                                                  |
| Mayflower Cyclone Station        | 5-Dam         |      | STEEL            | 22     | 26                   | 18     | 10,296     | cuft  | \$ 0.01                | \$ 103     |                                                  |
| Mayflower Cyclone Station        | 5-Dam         |      | concrete floor   | 22     | 26                   | 2      | 1,144      | sqft  | \$ 0.98                | \$ 1,121   |                                                  |

|             |  |  |  |  |  |  |  |  |            |
|-------------|--|--|--|--|--|--|--|--|------------|
|             |  |  |  |  |  |  |  |  | Total Cost |
| TOTAL COSTS |  |  |  |  |  |  |  |  | \$ 824,791 |

Notes:

**Financial Reporting Unit Rates****Disposal of Reagents****Assumptions****Tasks**

Disposal of reagents

**Timing**

LOM

**Total Costs****\$144,848****Calculations**

| Specific Tasks           | Work Type | Area | Description        | Quantity | Units   | Cost/Unit   | Total Cost | Comment                          |
|--------------------------|-----------|------|--------------------|----------|---------|-------------|------------|----------------------------------|
| POLYCHLORINATED BIPHENYL | Disposal  |      | capacitors         | 156      | each    | \$ 601.25   | \$ 93,795  |                                  |
| RADIATION SOURCES        | Disposal  |      | different sources  | 25       | each    | \$ 1,000.00 | \$ 25,000  |                                  |
| COLLECTOR                | Disposal  |      | one tank and totes | 3,375    | gallons | \$ 1.50     | \$ 5,073   | Table T-A-1, TR-28, 25% not used |
| COLLECTOR DISPERSANT     | Disposal  |      | 55 gal drums       | 41       | gallons | \$ 1.50     | \$ 62      | Table T-A-1, TR-28, 25% not used |
| FROTHER                  | Disposal  |      | one tank and totes | 2,325    | gallons | \$ 1.50     | \$ 3,495   | Table T-A-1, TR-28, 25% not used |
| CLEANER FROTHER          | Disposal  |      | one tank and totes | 150      | gallons | \$ 1.50     | \$ 225     | Table T-A-1, TR-28, 25% not used |
| SAFETY KLEEN SOLVENTS    | Disposal  |      | gallons            | 275      | gallons | \$ 1.50     | \$ 413     |                                  |
| USED ANTIFREEZE          | Disposal  |      | gallons            | 520      | gallons | \$ 0.40     | \$ 208     |                                  |
| OILY WATER               | Disposal  |      | gallons            | 4,855    | gallons | \$ 0.48     | \$ 2,330   |                                  |
| IRON DEPRESSANT          | Disposal  |      | one tank and totes | 2,500    | gallons | \$ 1.50     | \$ 3,758   | Table T-A-1, TR-28, 25% not used |
| MIXED NOKES REAGENT      | Disposal  |      | one tank and totes | 4,500    | gallons | \$ 1.20     | \$ 5,388   | Table T-A-1, TR-28, 25% not used |
| SURFACTANT               | Disposal  |      | totes              | 525      | gallons | \$ 1.50     | \$ 789     | Table T-A-1, TR-28, 25% not used |
| pH ADJUSTMENT            | Disposal  |      | silo               | 56       | tons    | \$ 1.50     | \$ 85      | Table T-A-1, TR-28, 25% not used |
| FLOCCULENT               | Disposal  |      | various            | 2,063    | lbs     | \$ 1.50     | \$ 3,100   | Table T-A-1, TR-28, 25% not used |
| FROTH MODIFIER           | Disposal  |      | totes              | 750      | gallons | \$ 1.50     | \$ 1,127   | Table T-A-1, TR-28, 25% not used |

|                    |                                        |
|--------------------|----------------------------------------|
| <b>TOTAL COSTS</b> | <b>Total Cost</b><br><b>\$ 144,848</b> |
|--------------------|----------------------------------------|

Notes:

## **Financial Reporting Unit Rates**

## **Mtnce & Environmental Control**

### **Assumptions**

#### **Tasks**

General maintenance and environmental control tasks

Interceptor drainage control incl. N and S pit interceptors (AM-06, G.5)

#### **Timing**

When

#### **Total Costs**

**\$521,178**

## **Calculations**

| <b>Specific Tasks</b>                            | <b>Total Cost</b>                | <b>Comment</b> |
|--------------------------------------------------|----------------------------------|----------------|
| Rill and gully maintenance                       | \$ 33,585                        |                |
| Road maintenance (assume imported roadbase only) | \$ 31,687                        |                |
| Dust control (general, not project specific)     | \$ 37,637                        |                |
| Interceptor drainage control                     | \$ 418,268                       |                |
| <b>TOTAL COSTS</b>                               | <b>Total Cost<br/>\$ 521,178</b> |                |

Notes: