



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

October 31, 2024

Chris Skerik
Thorin Resources, LLC
1900 Main St. Unit #1
Ouray, CO 81432

**Re: Revenue Mine - File No. M-2012-032
Thorin Resources, LLC
Surety Increase (SI-1)
Surety Increase based on TR-17 and Periodic Update.**

Dear Chris Skerik:

On October 31, 2024 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$600,973.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$90,913.00.

Surety Increase based on the details contained in TR-17 as well as a Periodic Update for Inflationary costs.

On October 31, 2024, the Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase, within 60 days.

Please make arrangements with Sara M. Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara M. Stevenson-Benn by telephone at (303) 866-3567, or by email at Sara.stevenson-benn@state.co.us.

The Permittee for this site may be scheduled for a Formal Board Hearing for possible revocation of the permit if the amount of any increased Financial Warranty has not been provided by December 30, 2024.

Bond Held:	\$517,219.00
Prior Liability:	\$510,060.00
Change in Liability:	\$90,913.00



Revised Liability:	\$600,973.00
Prior Permit Acreage:	51.69
Change in Permit Acreage:	0.00
Revised Permit Acreage:	51.69
Prior Affected Acreage:	51.69
Change in Affected Acreage:	0.00
Revised Affected Acreage:	51.69

If you have any questions, please contact me by telephone at (303) 919-2997, or by email at Lucas.west@state.co.us.

Sincerely,



Lucas J. West
Environmental Protection Specialist

COST SUMMARY WORK

Task description: 2024Post TR-17 Update

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-000

User: LJW

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001a	Removal of Permanent Structures and Surface Debris	DEMOLISH	1	200.00	\$110,844
001b	Disposal of Chemicals-Per TR-14	DEMOLISH	1	20.00	\$4,705
001c	P & A GW Monitoring Wells	BOREHOLE	1	36.00	\$2,011
002a	Contour portal backfill areas	DOZER	1	21.99	\$10,445
002b	Reinforce gate at Revenue Portal	MINESEAL	1	40.00	\$3,816
003a	Shaft foundation and structure removal	DEMOLISH	1	100.00	\$10,087
003b	Vent Shaft Closure-Cut Casing	BOREHOLE	1	12.00	\$81
003c	Vent Shaft Closure-Place Seal	MINESEAL	1	24.00	\$4,450
003d	Vent Shaft Closure- Excavate & Bury	EXCAVATE	1	2.47	\$1,228
004a	Minor site grading	DOZER	1	8.31	\$3,945
005a	Import Topsoil- Purchase and Delivery	NA	1	0.00	\$209,350
005b	Spread Topsoil on TSF	DOZER	1	8.71	\$4,137
005c	Transport caprock for Atlas TSF	TRUCK1	1	17.02	\$8,992
005d	Spread Caprock on TSF	DOZER	1	15.38	\$7,303
005e	Rip Compacted Areas	RIPPER	1	5.59	\$2,712
006a	Reveg TSF	REVEGE	1	30.00	\$22,146
007a	Initial Mobilization	MOBILIZE	1	11.14	\$19,493
007b	Walk equipment to Govenors Basin	MOBILIZE	1	18.66	\$5,200
007c	Secondary Mobilization	MOBILIZE	1	7.14	\$1,886
TR-17	Removal of Processing Equipment in Train Shed	NA	1	55.90	\$10,304
<u>SUBTOTALS:</u>				634.31	\$443,135

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$8,951

Performance bond: 1.05

Total = \$4,653

Job superintendent: 317.15

Total = \$25,140

Profit: 10.00

Total = \$44,314

TOTAL O & P = \$83,058

CONTRACT AMOUNT (direct + O & P) = \$526,193

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 6.59

Total = \$34,676

Reclamation management and/or administration:	<u>5.00</u>		<u>\$26,310</u>
CONTINGENCY:	3.00	Total =	<u>\$13,294</u>
		TOTAL INDIRECT COST =	<u>\$157,838</u>
		TOTAL BOND AMOUNT (direct + indirect) =	<u>\$600,973</u>

DEMOLITION WORK

Task description: Removal of Permanent Structures and Surface Debris

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 001A

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-001a

User: LJW

Agency or organization name: DRMS

****All User Provided Items have been increased by 6% for inflationary costs****

UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove Diesel Storage Tank	10,000 gal	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
Diesel Filling Station	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$610.56	\$610.56
Administration Bldg-Internal Contents Only	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$4,579.20	\$4,579.20
Air Compressor Bldg-Internal Contents Only	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$2,544.00	\$2,544.00
Propane Storage Bldg A	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$954.00	\$954.00
Propane Storage Bldg C	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$954.00	\$954.00
Vent Fan	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$636.00	\$636.00
Rail Yard Track & Ties	AM-2 Update	USER PROVIDED ITEM	400.00	LF	\$20.67	\$8,268.00
Rail Yard & Battery Charging Bldg-Contents Only	TR-13	USER PROVIDED ITEM	1.00	EA	\$2,544.00	\$2,544.00
Underground Warehouse and Shop	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$636.00	\$636.00
Concentrator & Filter Bldg- Internal Contents Only	DRMS	USER PROVIDED ITEM	1.00	EA	\$16,960.00	\$16,960.00
Waste Storage Pad & Secondary Containment	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$5,300.00	\$5,300.00
Tailings Thickener - Tank Cut Up	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$5,300.00	\$5,300.00
Tailings Thickener-Cement Pad and Piping	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$8,480.00	\$8,480.00
Crusher & Retaining Wall	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$3,180.00	\$3,180.00
Portal Cover Structure	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$4,324.80	\$4,324.80
Half-Culvert	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$8,310.00	\$8,310.00
Water Tanks	AM-2 Update	USER PROVIDED ITEM	4.00	EA	\$477.00	\$1,908.00

Misc Debris-Disposal	AM-2 Update	Dump fees - Building construction materials.	150.00	CY	\$11.10	\$1,665.00
Misc Debris-Transport	TR-11 PAR pg. 25	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	390.00	MI	\$10.14	\$3,955.15
2x Equipment Storage Shed-Building Demo	TR-16	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	114,000.00	CF	\$0.24	\$26,926.80
2x Equipment Storage Shed-Footers	TR-16	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	68.00	LF	\$7.13	\$484.85
Security Building-Load and transport	TR-16	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	53.00	MI	\$10.14	\$537.49
Equipment Wash Area-Slab	TR-16	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	490.00	SF	\$1.19	\$582.32
Equipment Wash Area-curbing	TR-16	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 50 ft. push	120.00	LF	\$4.53	\$543.71
Remove Diesel Storage Tank-Generator	TR-16	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Tailings Thickener Buidling Demo	42' x 42' x 8'	USER PROVIDED ITEM	1.00	EA	\$13,780.00	\$13,780.00

Job Hours: 200.00Subtotal
(unadjusted): \$126,533.88Total Cost
(adjusted for location): \$110,843.68

DEMOLITION WORK

Task description: Disposal of Chemicals-Per TR-14

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 001B

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-001b

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Lime	2x 1800 lb Super Sacks	Dump fees - Reclamation station, usual charge	2.00	CY	\$11.10	\$22.20
Xanthate (Nax, Flottec SIPX Collector)	4x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.10	TON	\$1,671.09	\$167.11
MIBC (OrePrep F-549, Polyfroth W20)	2x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	2.00	DRUM	\$492.56	\$985.13
Aerophine 3418A	1x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	1.00	DRUM	\$492.56	\$492.56
Sodium Metabisulfate	10x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.25	TON	\$1,671.09	\$417.77
Copper Sulfate	1 x 2200lbs super sack	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	1.00	TON	\$1,671.09	\$1,671.09
AeroFloat 242 (DanaFloat 067)	1x 55 gal drum	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	1.00	DRUM	\$492.56	\$492.56
Zinc Sulfate	10x 50 lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.25	TON	\$1,671.09	\$417.77
Hyperfloc AF-309	4x 50lb bags	Hazardous waste removal - Bulk solids, small quantities (up to 1.5 tons)	0.10	TON	\$1,671.09	\$167.11
Transportation-Lime	2 CY	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	53.00	MI	\$10.14	\$537.49

Job Hours: 20.00

Subtotal
(unadjusted): \$5,370.79

Total Cost
(adjusted for
location): \$4,704.81

BOREHOLE SEALING WORK

Task description: P & A GW Monitoring Wells

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 001C

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-001c

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Cut Casing	Exposed casing removal - Calculate Circumference in Linear Feet	4	1	9.00	LF	\$3.23	\$29.07
P & A GW Monitoring Wells	Portland cement grout - 4 in. (labor, equip, materials)	4	30	227.50	LF	\$8.71	\$1,982.25

Job Hours: 36.00

Total Cost: \$2,011.00

BULLDOZER WORKTask description: **Contour portal backfill areas**Site: **Revenue Mine**Permit Action: **2024 Update**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**Task #: **002A**State: **Colorado**Abbreviation: **None**Date: **10/29/2024**County: **Ouray**Filename: **M032-002a**User: **LJW**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: **\$474.89**Total Fleet Cost/Hour: **\$474.89****MATERIAL QUANTITIES**Initial Volume: **3,328**Swell factor: **1.165**Loose volume: **3,877 LCY**Source of estimated volume: **TR-11 inputs**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **235 feet**Unadjusted hourly
production: **588.4 LCY/hr**Materials consistency description: **Rock, well ripped or blasted 0.8**Average push
gradient: **5 %**Average site altitude: **10,650 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**Operator Skill: **0.900**Source
(AB.AVG.)

Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2996

Adjusted unit
production: 176.28 LCY/hr

Adjusted fleet
production: **176.28** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$2.694/LCY

Total job time: **21.99** Hours

Total job cost: **\$10,445**

SAFEGUARDING UNDERGROUND OPENINGS

Task description: **Reinforce gate at Revenue Portal**

Site: **Revenue Mine** Permit Action: 2024 Update Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 002B State: Colorado Abbreviation: None
Date: 10/29/2024 County: Ouray Filename: M032-002b
User: LJW

Agency or organization name: DRMS

****All User Provided costs have been increased by 6% for inflationary costs****

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Revenue Gate	AM-2 Update	USER PROVIDED ITEM	1.00	EA	\$3,816.00	\$3,816.00

Job Hours: 40.00

Total Cost: \$3,816.00

DEMOLITION WORK

Task description: Shaft foundation and structure removal

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 003A

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-003a

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 87.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Monongahela Shaft/Hoist Foundation	TR-11 PAR	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 50 ft. push	216.00	SF	\$2.27	\$489.35
Monongahela Shaft/Hoist-Superstructure	TR-11 PAR	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	2,304.00	CF	\$0.45	\$1,029.66
Monongahela- Lift house	TR-11 PAR	Plant (1S) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	4,000.00	CF	\$0.47	\$1,870.00
Monongahela- Refuge Chamber	DRMS	Demo. only, small or single buildings (single story) - Steel structures	8,000.00	CF	\$0.20	\$1,632.00
Monongahela- CMP Walkway	DRMS	Pipe, corrugated metal (CMP) - 96 in. diameter pipe	100.00	LF	\$64.93	\$6,493.46

Job Hours: 100.00

Subtotal
(unadjusted): \$11,514.47

Total Cost
(adjusted for
location): \$10,086.68

BOREHOLE SEALING WORK

Task description: Vent Shaft Closure-Cut Casing

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 003B

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-003b

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Monogahela Shaft (escape)- Cut Casing	Exposed casing removal - Calculate Circumference in Linear Feet	96	25.1	25.10	LF	\$3.23	\$81.07

Job Hours: 12.00

Total Cost: \$81.00

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Vent Shaft Closure-Place Seal

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 003C

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-003c

User: LJW

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Monongahela Shaft (escape)- Plate	8' x 8'	USER PROVIDED ITEM	1.00	EA	\$3,697.28	\$3,697.28
Monongahela Shaft (escape)- Cement Cap	8' x 8' x 6"	USER PROVIDED ITEM	32.00	CF	\$23.53	\$752.96

Job Hours: 24.00

Total Cost: \$4,450.24

HYDRAULIC EXCAVATOR WORK

Task description: Vent Shaft Closure- Excavate & Bury

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 003D

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-003d

User: LJW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick
Attachment 1: ROPS Cab

Horsepower: 268
Weight (MT): 29.30
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$244.29	NA
Operating Cost/Hour:	\$218.49	100
Operator Cost/Hour:	\$33.87	NA
Total Unit Cost/Hour:	\$496.65	
Total Fleet Cost/Hour:	\$496.65	

MATERIAL QUANTITIES

Initial volume: 353 CCY Swell factor: 1.330
Loose volume: 469 LCY

Source of estimated volume: DRMS

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: BELOW AVERAGE
Secondary Job Condition within Basic Description: SEVERE
Cycle Time Value: 0.390 minutes

Load Bucket Capacity

Rated Capacity: 1.56 LCY (heaped)
Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025
Adjusted Capacity: 1.60 LCY

Bucket Size Class: Small

Job Condition Correction Factors

Site Altitude: 10650 feet

Altitude Adj:	<u>0.93</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.77</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 246.00 LCY/Hour
Adjusted Hourly Unit Production: 189.89 LCY/Hour
Adjusted Hourly Fleet Production: 189.89 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 2.47 Hours
Unit cost: \$2.616 /LCY Total job cost: \$1,228

BULLDOZER WORKTask description: Minor site gradingSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 004AState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-004aUser: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: \$474.89Total Fleet Cost/Hour: \$474.89**MATERIAL QUANTITIES**Initial Volume: 3,045Swell factor: 1.165Loose volume: 3,547 LCYSource of estimated volume: TR-13Source of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 90 feetUnadjusted hourly
production: 1,351.7 LCY/hrMaterials consistency description: Rock, well ripped or blasted 0.8Average push
gradient: 0 %Average site altitude: 10,650 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% EarthJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3159

Adjusted unit
production: 427.00 LCY/hr
Adjusted fleet
production: 427 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.112/LCY

Total job time: 8.31 Hours
Total job cost: \$3,945

BULLDOZER WORKTask description: Spread Topsoil on TSFSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 005BState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-005bUser: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: \$474.89Total Fleet Cost/Hour: **\$474.89****MATERIAL QUANTITIES**Initial Volume: 4,757Swell factor: 1.125Loose volume: **5,352 LCY**Source of estimated volume: TR-11 PARSource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly
production: 1,243.2 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push
gradient: 0 %Average site altitude: 10,650 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4941

Adjusted unit
production: 614.27 LCY/hr
Adjusted fleet
production: **614.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.773/LCY

Total job time: **8.71** Hours
Total job cost: **\$4,137**

TRUCK/LOADER TEAM WORKTask description: Transport caprock for Atlas TSFSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032PROJECT IDENTIFICATIONTask #: 005CState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-005cUser: LJWAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 15-18 cy, 6x4
-Loader:	CAT 966H
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$32.93	\$57.78	NA	NA	NA	NA
Operating cost/hour:	\$70.98	\$46.25	NA	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	NA	NA	NA	NA
Unit Subtotals:	\$129.15	\$140.88	NA	NA	NA	NA
Number of Units:	3	1	0	0	0	0
Group Subtotals:	Work: \$528.33		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: \$528.33MATERIAL QUANTITIESInitial volume: 6,389

CCY

Swell factor: 1.000Loose volume: 6,389

LCY

Source of estimated volume: 3.96 ac @ 1 ft thickSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00HOURLY PRODUCTIONTruck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,950

Pounds/LCY

Description: Traprock - brokenRated Payload: 63,980

Pounds

Payload Capacity: 21.69 LCY

Truck Bed (volume) Basis:

Struck Volume: 15.00 LCY
 Heaped Volume: 18.00 LCY
 Average Volume: 16.50 LCY
 Adjusted Volume: 18.00 LCY

Final Truck Volume Based on Number of Loader Passes: 16.50 LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity: 5.000 LCY (heaped)
 Bucket Fill Factor: 0.825 Blasted rock - avg. blasted (75 - 90%) 0.825
 Adjusted Capacity: 4.125 LCY

Job Condition Corrections:

Site Altitude (ft.): 10650 feet

	Truck	Loader	Source
Altitude Adj:	0.890	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.739	0.830	

Loading Tool Cycle Time:

Number of Loading Tool Passes Required to Fill
 Truck: 4 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA

Track Loaders – Material Description: _____

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 3/4" to 6" diameter 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.080	minutes
Adjusted Loader Cycle Time:		0.420	minutes
Net Load Time per Truck:		1.360	minutes

Truck Cycle Time:

Truck Exchange Time: 0.50 Minutes Adjusted for site altitude: 0.562 Minutes
 Truck Load Time: 1.360 Minutes Adjusted for site altitude: 1.360 Minutes
 Truck Maneuver and Dump Time: 0.90 Minutes Adjusted for site altitude: 1.011 Minutes

Truck Travel (Haul & Return) Time:
penetration 4.0

Road Condition: Rutted dirt, little maintenance, no water, 1" tire

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3500.00	2.00	4.00	6.00	1477	2.417

Haul Time: 2.417 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3500.00	-2.00	4.00	2.00	2960	1.217

Return Time: 1.217 minutesTotal Truck Cycle Time: 6.567 minutes

Loading Tool unit

Production 515.14 LCY/Hour Adjusted for job efficiency: 427.57 LCY/Hour
 Truck Unit Production 150.75 LCY/Hour Adjusted for job efficiency: 125.12 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 375.37 LCY/Hour
 Adjusted single truck/loader team production: 375.37 LCY/Hour
 Adjusted multiple truck/loader team production: 375.37 LCY/Hour

JOB TIME AND COSTFleet size: 1 Team(s) Total job time: 17.02 HoursUnit cost: \$1.407 /LCY Total job cost: \$8,992

BULLDOZER WORKTask description: Spread Caprock on TSFSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 005DState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-005dUser: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper own. Cost/Hour:	\$18.79	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.59	NA

Total unit Cost/Hour: \$474.89Total Fleet Cost/Hour: **\$474.89****MATERIAL QUANTITIES**Initial Volume: 4,370Swell factor: 1.215Loose volume: **5,310 LCY**Source of estimated volume: TR-11 PARSource of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly
production: 1,243.2 LCY/hrMaterials consistency description: Rock, well ripped or blasted 0.8Average push
gradient: 0 %Average site altitude: 10,650 feetMaterial weight: 3,300 lbs/LCYWeight description: Decomposed rock - 75% Rock, 25% EarthJob Condition Correction FactorSource

Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2777

Adjusted unit
production: 345.24 LCY/hr
Adjusted fleet
production: **345.24** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$1.376/LCY

Total job time: **15.38** Hours
Total job cost: **\$7,303**

BULLDOZER RIPPING WORK

Task description: Rip Compacted Areas

Site: Revenue Mine

Permit Action: 2024 Update

Permit/Job#: M2012032

PROJECT IDENTIFICATION

Task #: 005E

State: Colorado

Abbreviation: None

Date: 10/29/2024

County: Ouray

Filename: M032-005e

User: LJW

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Horsepower: 405

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$253.16	NA
Operating Cost/Hour:	\$164.35	100
Ripper Ownership Cost/Hour:	\$18.79	NA
Ripper Operating Cost/Hour:	\$9.48	100
Operator Cost/Hour:	\$38.59	NA
Total Unit Cost/Hour:	\$484.37	
Total Fleet Cost/Hour:	\$484.37	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 3.00 acres

Rip Depth (ft): 1.00

Volume: 4,840

BCY or CCY

Source of estimated quantity: AM-2

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.63</u>	feet/pass
Average Ripping Width:	<u>7.67</u>	feet/pass
Average Ripping Length:	<u>50.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.646</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.646 Acres/hr

Site Altitude: 10,500 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.54 Acres/hr

Adjusted Hourly Fleet Production: 0.54 Acres/hr

JOB TIME AND COST

Fleet size: 1

Grader(s)

Total job time: 5.60 Hours

Unit cost: \$903.900

Per acre

Total job cost: \$2,712

REVEGETATION WORKTask description: Reveg TSFSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032PROJECT IDENTIFICATIONTask #: 006AState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-006aUser: LJWAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	2.96	9.58	\$60.78
Mountain Brome - Bromar	8.00	12.86	\$48.14
Sandberg Bluegrass - VNS	1.00	21.24	\$14.45
Rye, Winter - VNS	19.20	7.93	\$12.15
Sheep Fescue - Covar	2.88	44.96	\$17.75
Slender Wheatgrass - Native	5.60	20.44	\$39.56
Milk Vetch, Cicer - Monarch	1.92	6.39	\$18.35
Thickspike Wheatgrass - Critana	6.76	23.90	\$55.08
Flax, Lewis Blue	0.50	3.32	\$21.15

Yarrow, Western	0.12	7.30	\$5.79
Totals Seed Mix	48.94	157.91	\$293.19

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56
Total Seed Application Cost/Acre	\$272.56

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$4.13	\$4.13
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,463.39

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$1,355.20
Weed spray, hand, non-aquatic area, nox. [DMG]	\$209.61
Total Mulch Application Cost/Acre	\$1,564.81

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres: 4.74 Cost /Acre: \$3,593.95
 Estimated Failure Rate: 30% Cost /Acre*: \$3,593.95
 *Selected Replanting Work Items: SEEDING,MULCHING
 Initial Job Cost: \$17,035.32
 Reseeding Job Cost: \$5,110.60
 Total Job Cost: \$22,146
 Job Hours: 30.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Revenue Mine**Permit Action: **2024 Update**Permit/Job#: **M2012032****PROJECT IDENTIFICATION**Task #: **007A**State: **Colorado**Abbreviation: **None**Date: **10/29/2024**County: **Ouray**Filename: **M032-007a**User: **LJW**Agency or organization name: **DRMS****EQUIPMENT TRANSPORT RIG COST**Shift basis: **1 per day**Cost Data Source: **CRG Data**Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	66.13	\$271.95	\$125.64	1	\$397.59	\$125.64	\$250.00
Hydroseeder with Tractor	28.00	\$45.21	\$122.78	1	\$167.99	\$122.78	\$250.00
Cat 336D L 10'-6" Stick	32.23	\$244.29	\$122.78	1	\$367.07	\$122.78	\$250.00
Cat 725	24.54	\$119.08	\$59.44	3	\$535.56	\$178.32	\$1,000.00
CAT 966H	25.80	\$57.78	\$59.44	1	\$117.22	\$59.44	\$250.00

Subtotals: **\$1,585.43** **\$608.96** **\$2,000.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$103.84	1	\$103.84	\$103.84
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	2	\$27.54	\$27.54

Subtotals: **\$131.38** **\$131.38**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>MONTROSE</u>	
Total one-way travel distance:	<u>45.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$19,155.30</u>
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 ** two round trips with haul rig:

Total Roadable Mob/Demob Cost **	<u>\$337.83</u>
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 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.29</u>	<u>1.29</u>
Return Time (Hours):	<u>1.29</u>	<u>1.29</u>
Loading Time (Hours):	<u>1.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.50</u>	<u>NA</u>
Subtotals:	<u>5.57</u>	<u>2.57</u>

JOB TIME AND COST

Total job time:	<u>11.14</u>	Hours
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Total job cost:	<u>\$19,493</u>
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EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Walk equipment to Govenors Basin**Site: **Revenue Mine**Permit Action: 2024 UpdatePermit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 007BState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-007bUser: LJWAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat 336D L 10'-6" Stick	32.23	\$244.29	\$122.78	1	\$367.07	\$122.78	\$250.00

Subtotals: **\$367.07** **\$122.78** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	1	\$13.77	\$13.77

Subtotals: **\$13.77** **\$13.77**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	REVENUE-GOV BASIN	
Total one-way travel distance:	3.50	miles
Average Travel Speed:	0.75	mph
Total Non-Roadable Mob/Demob Cost *	\$5,071.93	
** two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	\$128.52	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	4.67	4.67
Return Time (Hours):	4.67	4.67
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	9.33	9.33

JOB TIME AND COST

Total job time:	18.67	Hours
Total job cost:	\$5,200	

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Secondary MobilizationSite: Revenue MinePermit Action: 2024 UpdatePermit/Job#: M2012032**PROJECT IDENTIFICATION**Task #: 007CState: ColoradoAbbreviation: NoneDate: 10/29/2024County: OurayFilename: M032-007cUser: LJWAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Hydroseeder with Tractor	28.00	\$45.21	\$122.78	1	\$167.99	\$122.78	\$250.00

Subtotals: **\$167.99** **\$122.78** **\$250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$103.84	1	\$103.84	\$103.84
Light Duty Pickup, 4x4, 3/4 T.	\$13.77	1	\$13.77	\$13.77

Subtotals: **\$117.61** **\$117.61**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>MONTROSE</u>	
Total one-way travel distance:	<u>45.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,583.67</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$302.43</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.29</u>	<u>1.29</u>
Return Time (Hours):	<u>1.29</u>	<u>1.29</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.57</u>	<u>2.57</u>

JOB TIME AND COST

Total job time:	<u>7.14</u>	Hours
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Total job cost:	<u>\$1,886</u>
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Attachment E – Bonding Calculations: Additional Detail & Data

Table 6: Labor & Equipment Cost Assumptions – Sourced RS Means

Label	Description - RS Means	unit	cost	Hrly Rate
Laborer	Field Personnel, general Purpose Laborer, Average	\$/week	\$ 1,600.00	\$ 40.00
Front-End Loader	Rent front end loader, 4WD, art. Frame, diesel, 4-4.5 CY 185 HP	\$/day	\$ 787.60	\$ 98.45
Skid Steer	Rent Loader, skid steer, wheeled 1 CY 78 HP, diesel	\$/day	\$ 511.80	\$ 63.98
Equipment Operator	Deconstruction process support equipment, as needed, daily use, backhoe, includes operator	\$/day	\$ 410.00	\$ 51.25

Table 7: Additional Detail for Reclamation Bond Line Items – Total Cost & Work Description

Structure or Item Description	Dimensions	Reclamation Description	Personnel & Equipment Required						Unit Cost (\$/hr)			Job Duration (hrs)	Total Cost
			Personnel 1	Num	Personnel 2	Num	Equipment	Num	Personnel 1	Personnel 2	Equipment		
Remove Ball Mill Feed Hopper	12'x6'x6' Steel Bin	Demo Steel Bin	Laborer	1					\$ 40.00	\$ -	\$ -	3.2	\$ 129.6
Remove Ball Mill Feed Hopper	12'x6'x6' Steel Bin	Dispose of in Mill Portal	Equipment Operator	1			Front-End Loader	1	\$ 51.25	\$ -	\$ 98.45	1.1	\$ 163.4
Remove Ball Mill - Trailer Mounted	8'x24' Trailer	Haul to Certified Salvage Dump	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	4.0	\$ 760.0
Remove Ball Mill Collection Tank	3'x3'x3' Steel Box	Dispose of in Mill Portal	Equipment Operator	1			Skid Steer	1	\$ 51.25	\$ -	\$ 63.98	0.5	\$ 55.1
Remove Conditioning Tank 01 - Table Feed	5' Diameter x 6' High Steel Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	1.3	\$ 240.7
Remove Deister Table 01 & Steel Frame	17'x7' Wood Table & 12'x6' Steel Frame	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	5.3	\$ 1,213.8
Remove Deister Table 01 Heavy Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 01 Mids Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 01 Lows Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Deister Table 01 Tails Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Deister Table 02 & Steel Frame	17'x7' Wood Table & 12'x6' Steel Frame	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	5.3	\$ 1,213.8
Remove Deister Table 02 Heavy Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 02 Mids Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 02 Lows Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Deister Table 02 Tails Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Deister Table 03 & Steel Frame	17'x7' Wood Table & 12'x6' Steel Frame	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	5.3	\$ 1,213.8
Remove Deister Table 03 Heavy Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 03 Mids Collection Box	1.5'x1.5'x1.5' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.2	\$ 6.9
Remove Deister Table 03 Lows Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Deister Table 03 Tails Collection Box	2'x2'x2' Steel Box	Dispose of in Mill Portal	Laborer	1					\$ 40.00	\$ -	\$ -	0.4	\$ 16.3
Remove Conditioning Tank 02 - Concentrate Conditioning	5' Diameter x 6' High Steel Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1			Front-End Loader	1	\$ 51.25	\$ -	\$ 98.45	1.6	\$ 240.7
Remove Concentrate Dewatering Press	14'x3.5' Steel Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	3.5	\$ 799.7
Remove Conditioning Tank 03 - Tailings Conditioning	8' Diameter x 8' High Steel Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	4.3	\$ 820.1
Remove Tailings Dewatering Press	14'x3.5' Steel Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	3.5	\$ 799.7
Remove Process Water Tank	8' Diameter x 8' High HDPE Structure on Steel Beams	Dispose of in Mill Portal	Equipment Operator	1			Front-End Loader	1	\$ 51.25	\$ -	\$ 98.45	5.5	\$ 820.1
Remove Ball Mill Containment	33'x18' x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	1.2	\$ 229.5
Remove Deister Table 01 Containment	24'x17' x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	0.7	\$ 138.7
Remove Deister Table 02 Containment	24'x15' x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	0.6	\$ 122.4
Remove Deister Table 03 Containment	24'x15 x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	0.6	\$ 122.4
Remove Concentrate Conditioning/Press Containment	20'x8' x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	1	Front-End Loader	1	\$ 51.25	\$ 40.00	\$ 98.45	0.9	\$ 163.2
Remove Process Water & Tailings Conditioning/Press Containment	18'x40' x 5 mil HDPE Containment	Dispose of in Mill Portal	Equipment Operator	1	Laborer	2	Front-End Loader	1	\$ 51.25	\$ 80.00	\$ 98.45	4.0	\$ 918.0
										Total		55.9	\$ 10,304

Table 8: Additional Detail for Reclamation Bond – Labor & Equipment Hours & Cost Break-Out

Structure or Item Description	Personnel & Equipment Required							Personnel & Equipment - Hours				Personnel & Equipment - Cost				Total Cost Sum Check	
	Personnel 1	Num	Personnel 2	Num	Equipment	Num	Job Duration (hrs)	Total Cost	Laborer	Equipment Operator	Front-End Loader	Skid Steer	Laborer	Equipment Operator	Front-End Loader		Skid Steer
Remove Ball Mill Feed Hopper	Laborer	1					3.2	\$ 129.6	3.2	-	-	-	\$ 129.6	\$ -	\$ -	\$ -	TRUE
Remove Ball Mill Feed Hopper	Equipment Operator	1			Front-End Loader	1	1.1	\$ 163.4	-	1.1	1.1	-	\$ -	\$ 55.9	\$ 107.4	\$ -	TRUE
Remove Ball Mill - Trailer Mounted	Equipment Operator	1	Laborer	1	Front-End Loader	1	4.0	\$ 760.0	4.0	4.0	4.0	-	\$ 160.3	\$ 205.3	\$ 394.4	\$ -	TRUE
Remove Ball Mill Collection Tank	Equipment Operator	1			Skid Steer	1	0.5	\$ 55.1	-	0.5	-	0.5	\$ -	\$ 24.5	\$ -	\$ 30.6	TRUE
Remove Conditioning Tank 01 - Table Feed	Equipment Operator	1	Laborer	1	Front-End Loader	1	1.3	\$ 240.7	1.3	1.3	1.3	-	\$ 50.8	\$ 65.0	\$ 124.9	\$ -	TRUE
Remove Deister Table 01 & Steel Frame	Equipment Operator	1	Laborer	2	Front-End Loader	1	5.3	\$ 1,213.8	10.6	5.3	5.3	-	\$ 422.7	\$ 270.8	\$ 520.2	\$ -	TRUE
Remove Deister Table 01 Heavy Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 01 Mids Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 01 Lows Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 01 Tails Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 02 & Steel Frame	Equipment Operator	1	Laborer	2	Front-End Loader	1	5.3	\$ 1,213.8	10.6	5.3	5.3	-	\$ 422.7	\$ 270.8	\$ 520.2	\$ -	TRUE
Remove Deister Table 02 Heavy Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 02 Mids Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 02 Lows Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 02 Tails Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 03 & Steel Frame	Equipment Operator	1	Laborer	2	Front-End Loader	1	5.3	\$ 1,213.8	10.6	5.3	5.3	-	\$ 422.7	\$ 270.8	\$ 520.2	\$ -	TRUE
Remove Deister Table 03 Heavy Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 03 Mids Collection Box	Laborer	1					0.2	\$ 6.9	0.2	-	-	-	\$ 6.9	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 03 Lows Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Deister Table 03 Tails Collection Box	Laborer	1					0.4	\$ 16.3	0.4	-	-	-	\$ 16.3	\$ -	\$ -	\$ -	TRUE
Remove Conditioning Tank 02 - Concentrate Conditioning	Equipment Operator	1			Front-End Loader	1	1.6	\$ 240.7	-	1.6	1.6	-	\$ -	\$ 82.4	\$ 158.3	\$ -	TRUE
Remove Concentrate Dewatering Press	Equipment Operator	1	Laborer	2	Front-End Loader	1	3.5	\$ 799.7	7.0	3.5	3.5	-	\$ 278.5	\$ 178.4	\$ 342.7	\$ -	TRUE
Remove Conditioning Tank 03 - Tailings Conditioning	Equipment Operator	1	Laborer	1	Front-End Loader	1	4.3	\$ 820.1	4.3	4.3	4.3	-	\$ 172.9	\$ 221.6	\$ 425.6	\$ -	TRUE
Remove Tailings Dewatering Press	Equipment Operator	1	Laborer	2	Front-End Loader	1	3.5	\$ 799.7	7.0	3.5	3.5	-	\$ 278.5	\$ 178.4	\$ 342.7	\$ -	TRUE
Remove Process Water Tank	Equipment Operator	1			Front-End Loader	1	5.5	\$ 820.1	-	5.5	5.5	-	\$ -	\$ 280.8	\$ 539.3	\$ -	TRUE
Remove Ball Mill Containment	Equipment Operator	1	Laborer	1	Front-End Loader	1	1.2	\$ 229.5	1.2	1.2	1.2	-	\$ 48.4	\$ 62.0	\$ 119.1	\$ -	TRUE
Remove Deister Table 01 Containment	Equipment Operator	1	Laborer	1	Front-End Loader	1	0.7	\$ 138.7	0.7	0.7	0.7	-	\$ 29.3	\$ 37.5	\$ 72.0	\$ -	TRUE
Remove Deister Table 02 Containment	Equipment Operator	1	Laborer	1	Front-End Loader	1	0.6	\$ 122.4	0.6	0.6	0.6	-	\$ 25.8	\$ 33.1	\$ 63.5	\$ -	TRUE
Remove Deister Table 03 Containment	Equipment Operator	1	Laborer	1	Front-End Loader	1	0.6	\$ 122.4	0.6	0.6	0.6	-	\$ 25.8	\$ 33.1	\$ 63.5	\$ -	TRUE
Remove Concentrate Conditioning/Press Containment	Equipment Operator	1	Laborer	1	Front-End Loader	1	0.9	\$ 163.2	0.9	0.9	0.9	-	\$ 34.4	\$ 44.1	\$ 84.7	\$ -	TRUE
Remove Process Water & Tailings Conditioning/Press Containment	Equipment Operator	1	Laborer	2	Front-End Loader	1	4.0	\$ 918.0	8.0	4.0	4.0	-	\$ 319.7	\$ 204.8	\$ 393.5	\$ -	TRUE
							55.9	\$ 10,304	74	49	49	0	\$ 2,961	\$ 2,519	\$ 4,793	\$ 31	TRUE