



COLORADO
**Division of Reclamation,
Mining and Safety**
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, CO 80203

March 5, 2021

Julie Mikulas
Martin Marietta Materials, Inc.
1800 N. Taft Hill Road
Fort Collins, CO 80521

Re: Iverson Mine, Permit No. M-2011-001, Notice of Required Final Augmentation Decree

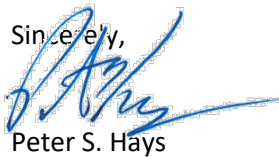
Ms. Mikulas:

On February 11, 2021, the Division of Reclamation, Mining and Safety (Division/DRMS) denied the final financial warranty release request (SL-02) for the Iverson Mine, Permit M-2011-001, based on the comment letter from the Division of Water Resources (DWR) dated February 9, 2021. The DWR letter stated the exposed groundwater pond at the Iverson Mine was not included in any valid substitute water supply plan or decreed augmentation plan.

Please submit proof of filing an augmentation plan decree for the site within sixty (60) days from the date of this letter. Failure to provide the proof of filing an augmentation plan decree will result in the Division issuing a notice of surety increase and may result in a possible violation pursuant to C.R.S. 34-32.5-116(4)(h) for failure to minimize disturbances to the hydrologic balance and/or C.R.S. 34-32.5-124 for failure to comply with the conditions of the permit. The enforcement process could result in civil penalties of not less than \$100 per day nor more than \$1,000 per day for each day during which such a violation occurs.

The Division calculated the cost to backfill the exposed groundwater at the site at \$4,665,600.00. The Division's will issue the surety increase notice at the end of the sixty (60) days period if proof of filing an augmentation plan decree is not received by the Division. A copy of the bond estimate is attached.

If you have any questions, please contact me at peter.hays@state.co.us or (303) 866-3567 Ext. 8124.

Sincerely,


Peter S. Hays
Environmental Protection Specialist

Enclosure: Reclamation cost estimate

Ec: Jared Ebert; Division of Reclamation, Mining & Safety



COST SUMMARY WORK

Task description: SI-02 Cost Summary Estimate

Site: Iverson Mine

Permit Action: SI-02 Estimate

Permit/Job#: M2011001

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 2/28/2021

County: Weld

Filename: M001-001

User: PSH

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
002	Import Backfill Material	SITEMAINT ENANCE	1	0.00	\$3,163,744
003	Revegetate 28 Acres	REVEGE	1	40.00	\$62,043
004	Mob/Demob	MOBILIZE	1	5.33	\$5,307
005	Compact Imported Fill	COMPACT	1	475.23	\$125,986
006	Backfill Imported Material	DOZER	1	1,457.70	\$358,622
<u>SUBTOTALS:</u>				1978.26	\$3,715,702

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$75,057

Performance bond: 1.05

Total = \$39,015

Job superintendent: 989.13

Total = \$68,794

Profit: 10.00

Total = \$371,570

TOTAL O & P = \$554,436

CONTRACT AMOUNT (direct + O & P) = \$4,270,138

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$181,481

Reclamation management and/or administration: 5.00

\$213,507

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$949,924

TOTAL BOND AMOUNT (direct + indirect) = \$4,665,600 (Rounded)

SITE MAINTENANCE

Task description: **Import Backfill Material**

Site: **Iverson Mine**

Permit Action: SI-02 Estimate

Permit/Job#: M2011001

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 2/28/2021

County: Weld

Filename: M001-002

User: PSH

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Import Backfill Material - 26.5 Acres at 18.5 Avg. Depth	1.00	USER PROVIDED ITEM	790,936.00	1	\$4.00	\$3,163,744.00

Job Hours: 0.00

Total Cost: \$3,163,744.00

REVEGETATION WORKTask description: Revegetate 28 AcresSite: Iverson MinePermit Action: SI-02 EstimatePermit/Job#: M2011001**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 2/28/2021County: WeldFilename: M001-003User: PSHAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	29.10	pound	\$0.21	\$5.97
			Total Fertilizer Materials Cost/Acre	\$5.97

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$37.03
Total Fertilizer Application Cost/Acre	\$37.03

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
Total Tilling Cost/Acre	\$300.76

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.15	5.85	\$4.27
Switchgrass - Pathfinder	1.05	9.38	\$13.39
Mountain Brome - Bromar	2.55	4.10	\$9.69
Sideoats Grama - Butte	2.63	8.63	\$23.67
Western Wheatgrass - Arriba	2.55	6.44	\$16.58
Sweetvetch, Utah or Northern	1.50	0.68	\$112.50
Needle and Thread	1.95	5.15	\$81.61
Rose, Wood's	1.28	0.00	\$26.24
Prairie Sandreed - Goshen	0.15	0.94	\$1.55
Globemallow, Scarlet (or copper)	0.45	5.10	\$60.98

Penstemon, Rocky Mountain	0.75	11.76	\$22.13
Totals Seed Mix	15.01	58.02	\$372.59

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$301.00	\$602.00
Herbicide - Tordon 22K @ 1.0 pt/ac	1.00	ACRE	\$12.88	\$12.88
Total Mulch Materials Cost/Acre				\$614.88

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$70.17
Total Mulch Application Cost/Acre	\$70.17

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:	28	Cost /Acre:	\$1,633.40
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,289.64
*Selected Replanting Work Items:	SEEDING,MULCHING		
Initial Job Cost:	\$45,735.20		
Reseeding Job Cost:	\$9,027.48		
Total Job Cost:	\$54,763		
Job Hours:	40.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Iverson Mine**Permit Action: SI-02 EstimatePermit/Job#: M2011001**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 2/28/2021County: WeldFilename: M001-004User: PSHAgency 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:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

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 D8T - 8SU	47.71	\$116.22	\$123.81	1	\$240.03	\$123.81	\$250.00
CAT 825H	36.08	\$135.67	\$123.81	1	\$259.48	\$123.81	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$11.19	\$67.39	1	\$78.58	\$67.39	\$250.00

Subtotals: **\$652.20** **\$382.40** **\$1,000.00****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.	\$13.23	1	\$13.23	\$13.23

Subtotals: **\$13.23** **\$13.23**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: GREELEY, CO
 Total one-way travel distance: 10.00 miles
 Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost * \$5,298.53
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$8.82
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.67	0.67

JOB TIME AND COST

Total job time: 5.33 Hours

Total job cost: \$5,307

COMPACTION WORK

Task description: Compact Imported Fill

Site: Iverson Mine

Permit Action: SI-02 Estimate

Permit/Job#: M2011001

PROJECT IDENTIFICATION

Task #: 005

State: Colorado

Abbreviation: None

Date: 2/28/2021

County: Weld

Filename: M001-005

User: PSH

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 825H

Horsepower: 354

Compactor Type: Soil - tamping foot

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

Ownership Cost/Hour:	\$135.67	Utilization %	NA
Operating Cost/Hour:	\$97.93		100
Operator Cost/Hour:	\$31.50		NA
Total Unit Cost/Hour:	\$265.10		
Total Fleet Cost/Hour:	\$265.10		

MATERIAL QUANTITIES

Loose volume: 790,936

LCY

Shrinkage factor: 0.895

Compacted volume: **707,888**

CCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated shrinkage factor: Cat Handbook

HOURLY PRODUCTION

Unadjusted hourly production = $(W \times S \times L \times C) / P$

Compacted width per pass (W):	<u>7.34</u>	feet
Average Compactor Speed (S):	<u>5.00</u>	mph
Compacted thickness of each lift (L):	<u>6.00</u>	inches
Conversion Constant (C):	<u>16.3</u>	(5,280ft./12in./27cu.ft.)
Required number of machine passes (P):	<u>2</u>	passes
Unadjusted Hourly Unit Production:	<u>1,794.63</u>	CCY/hour

Job Condition Correction Factors

Site Altitude: 4,690 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.8300</u>	multiplier

Adjusted Hourly Unit Production: 1,489.54 CCY/Hour

Adjusted Hourly Fleet Production: **1,489.54** CCY/Hour

JOB TIME AND COST

Fleet size: 1 Compactor(s)

Total job time: **475.24** Hours

Unit cost: \$0.178 per CCY

Total job cost: **\$125,986**

BULLDOZER WORKTask description: **Backfill Imported Material**Site: **Iverson Mine**Permit Action: **SI-02 Estimate**Permit/Job#: **M2011001****PROJECT IDENTIFICATION**Task #: **006**State: **Colorado**Abbreviation: **None**Date: **2/28/2021**County: **Weld**Filename: **M001-006**User: **PSH**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$116.22	NA
Operating Cost/Hour:	\$89.77	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	100
Operator Cost/Hour:	\$40.04	NA

Total unit Cost/Hour: **\$246.02**Total Fleet Cost/Hour: **\$246.02****MATERIAL QUANTITIES**Initial Volume: **790,936**Swell factor: **1.000**Loose volume: **790,936 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **852.6 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **0 %**Average site altitude: **4,690 feet**Material weight: **2,700 lbs/LCY**Weight description: **Sand and clay - Loose****Job Condition Correction Factor**Operator Skill: **0.750**Source
(AVG.)

Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6364

Adjusted unit
production: 542.59 LCY/hr

Adjusted fleet
production: **542.59** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.453/LCY

Total job time: **1,457.70** Hours

Total job cost: **\$358,622**