

June 11, 2018

Leon Moores
Mores Mining, LLC
32906 Highway 141
Gateway, CO 81522



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

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Moores Pit, Permit No. M-1980-178, Reclamation Costs Update and Notice of Surety Increase (SI-4)

Dear Mr. Moores:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$91,850.61 rounded down to \$91,850.00 this is an increase of \$25,615 over the \$66,235 currently held by the Division. This estimate is based on conditions observed during the May 31, 2018 inspection. Please note that this site has not had an increase since the approval of CN-1 in 2010. ***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Friday, August 10, 2018**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Environmental Protection Specialist

Ec: Wally Erickson, Senior EPS, Grand Junction DRMS
Jennifer Maiolo, BLM Little Snake Field Office

Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: Post inspection update

Site: Moore's Pit

Permit Action: 2018-05

Permit/Job#: M1980178

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 6/8/2018

County: Mesa

Filename: M178-acy

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	reduce 50'H x 350'L highwall	DOZER	1	58.97	\$11,234.00
02a	backfill and sloping in Phase 1	DOZER	1	67.81	\$12,918.00
03a	Replace 6" of fines as growth medium over 18 ac	DOZER	1	50.96	\$9,708.00
04a	Reveg approx. 8 acres with "Type A" seed mix	REVEGE	1	16.00	\$17,479.00
05a	Reveg approx. 10 acres with "Type B" seed mix	REVEGE	1	20.00	\$19,590.00
06a	Initial mobilization of equipment	MOBILIZE	1	6.00	\$3,778.00
07a	Secondary mobilization of equipment	MOBILIZE	1	6.00	\$2,237.00
<u>SUBTOTALS:</u>				225.74	\$76,944

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$1,554.27

Performance bond: 1.05

Total = \$807.91

Job superintendent: 0.00

Total = \$0.00

Profit: 10.00

Total = \$7,694.40

TOTAL O & P = \$10,056.58

CONTRACT AMOUNT (direct + O & P) = \$87,000.58

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00

Total = 500.00

Engineering work and/or contract/bid preparation: 0.00

Total = \$0.00

Reclamation management and/or administration: 5.00

\$4,350.03

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$14,906.61

TOTAL BOND AMOUNT (direct + indirect) = \$91,850.61

TOTAL BOND AMOUNT (Rounded) = \$91,850.00

BULLDOZER WORKTask description: **Reduce 50'H x 350'L highwall**Site: **Moore's Pit** Permit Action: **2018-05** Permit/Job#: **M1980178****PROJECT IDENTIFICATION**

Task #: **01A** State: **Colorado** Abbreviation: **None**
 Date: **6/8/2018** County: **Mesa** Filename: **M178-01a**
 User: **ACY**

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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$190.50**
 Total Fleet Cost/Hour: **\$190.50**

MATERIAL QUANTITIES

Initial Volume: **16,052**
 Swell factor: **1.430**
 Loose volume: **22,954 LCY**

Source of estimated volume: **Max highwal dimensions**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **75 feet**
 Unadjusted hourly production: **1,017.1 LCY/hr**

Materials consistency description: **Compacted fill or embankment 0.9**

Average push gradient: **-10 %**
 Average site altitude: **6,100 feet**

Material weight: **3,300 lbs/LCY**Weight description: **Decomposed rock - 75% Rock, 25% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3827

Adjusted unit production: 389.24 LCY/hr

Adjusted fleet production: **389.24** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.489/LCY

Total job time: **58.97** Hours

Total job cost: **\$11,234**

BULLDOZER WORKTask description: **Backfill and sloping in Phase 1**Site: **Moore's Pit** Permit Action: **2018-05** Permit/Job#: **M1980178****PROJECT IDENTIFICATION**

Task #: **02A** State: **Colorado** Abbreviation: **None**
 Date: **6/8/2018** County: **Mesa** Filename: **M178-02a**
 User: **ACY**

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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$190.50**
 Total Fleet Cost/Hour: **\$190.50**

MATERIAL QUANTITIES

Initial Volume: **18,415**
 Swell factor: **1.215**
 Loose volume: **22,374 LCY**

Source of estimated volume: **CN-1 Cost Estimate**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **100 feet**
 Unadjusted hourly production: **852.6 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **-5 %**
 Average site altitude: **6,100 feet**

Material weight: **3,300 lbs/LCY**Weight description: **Decomposed rock - 75% Rock, 25% Earth****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3870

Adjusted unit production: 329.96 LCY/hr

Adjusted fleet production: **329.96 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.577/LCY

Total job time: **67.81** Hours

Total job cost: **\$12,918**

BULLDOZER WORKTask description: **Replace 6" of fines as growth medium over 18 ac**Site: **Moore's Pit** Permit Action: 2018-05 Permit/Job#: M1980178**PROJECT IDENTIFICATION**

Task #: 03A State: Colorado Abbreviation: None
 Date: 6/8/2018 County: Mesa Filename: M178-03a
 User: ACY

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:	<u>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$40.52</u>	<u>NA</u>

Total unit Cost/Hour: \$190.50
 Total Fleet Cost/Hour: **\$190.50**

MATERIAL QUANTITIES

Initial Volume: 16,000
 Swell factor: 1.000
 Loose volume: **16,000 LCY**

Source of estimated volume: 6" over 18 ac
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
 Unadjusted hourly production: 491.9 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: -5 %
 Average site altitude: 6,100 feet

Material weight: 2,400 lbs/LCYWeight description: Sand - Dry, loose**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6383

Adjusted unit production: 313.98 LCY/hr

Adjusted fleet production: **313.98** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.607/LCY

Total job time: **50.96** Hours

Total job cost: **\$9,708**

REVEGETATION WORKTask description: Reveg approx. 8 acres with "Type A" seed mixSite: Moore's PitPermit Action: 2018-05Permit/Job#: M1980178**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 6/8/2018County: MesaFilename: M178-04aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.34	\$68.00
			Total Fertilizer Materials Cost/Acre	\$68.00

Application

Description	Cost /Acre
Push rotary spreader (MEANS 32 01 90.13 0110)	\$181.65
Total Fertilizer Application Cost/Acre	\$181.65

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alfalfa - Common	12.00	57.85	\$30.60
Indian Ricegrass - Paloma	3.00	9.71	\$29.25
Sand Dropseed	0.25	29.84	\$2.71
Sideoats Grama - Butte	0.75	2.46	\$7.25
Hard Fescue - Discovery	5.00	64.85	\$18.55
Galleta	5.00	18.25	\$123.50
Western Wheatgrass - Arriba	7.50	18.94	\$60.60
Needle and Thread	0.25	0.66	\$10.38
Timothy, Alpine - Native	2.00	59.69	\$48.34
Totals Seed Mix	35.75	262.26	\$331.18

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
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$524.74

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$99.32
Weed spray, truck, non-aquatic area, nox. [DMG]	\$71.50
Total Mulch Application Cost/Acre	\$236.84

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: 8 Cost /Acre: \$1,680.70
 Estimated Failure Rate: 30% Cost /Acre*: \$1,680.70
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU
LCHING

Initial Job Cost: **\$13,445.60**
 Reseeding Job Cost: **\$4,033.68**
 Total Job Cost: **\$17,479**
 Job Hours: **16.00**

REVEGETATION WORKTask description: Reveg approx. 10 acres with "Type B" seed mixSite: Moore's PitPermit Action: 2018-05Permit/Job#: M1980178**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 6/8/2018County: MesaFilename: M178-05aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.34	\$68.00
			Total Fertilizer Materials Cost/Acre	\$68.00

Application

Description	Cost / Acre
Push rotary spreader (MEANS 32 01 90.13 0110)	\$181.65
Total Fertilizer Application Cost/Acre	\$181.65

TILLING

Description	Cost / Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Total Tilling Cost/Acre	\$106.29

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost / Acre
Arrowleaf Balsamroot	0.25	0.31	\$17.55
Indian Ricegrass - Paloma	1.00	3.24	\$9.75
Bitterbrush, Antelope	0.12	0.04	\$2.34
Galleta	2.00	7.30	\$49.40
Sage, Fringed	0.06	5.01	\$2.46
Globemallow, Scarlet (or copper)	0.50	5.66	\$67.75
Timothy - Climax	2.00	57.39	\$3.14
Yarrow, Western	0.12	7.30	\$5.02
Totals Seed Mix	6.05	86.25	\$157.41

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
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$524.74

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$99.32
Weed spray, truck, non-aquatic area, nox. [DMG]	\$71.50
Total Mulch Application Cost/Acre	\$236.84

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:	10	Cost /Acre:	\$1,506.93
Estimated Failure Rate:	30%	Cost /Acre*:	\$1,506.93
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, MULCHING		
Initial Job Cost:	\$15,069.30		
Reseeding Job Cost:	\$4,520.79		
Total Job Cost:	\$19,590		
Job Hours:	20.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial mobilization of equipment**Site: **Moores Pit**Permit Action: 2018-05Permit/Job#: M1980178**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 6/8/2018County: MesaFilename: M178-06aUser: ACYAgency 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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

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	\$83.81	\$117.55	1	\$201.36	\$117.55	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$397.95** **\$294.89** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$47.96	1	\$47.96	\$47.96

Subtotals: **\$47.96** **\$47.96**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION, CO	
Total one-way travel distance:	<u>50.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph
Total Non-Roadable Mob/Demob Cost *	\$3,681.58	
** two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$95.92</u>	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.00</u>	<u>1.00</u>
Return Time (Hours):	<u>1.00</u>	<u>1.00</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.00</u>	<u>2.00</u>

JOB TIME AND COST

Total job time: 6.00 Hours

Total job cost: \$3,778

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Secondary mobilization of equipmentSite: Moore's PitPermit Action: 2018-05Permit/Job#: M1980178**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 6/8/2018County: MesaFilename: M178-07aUser: ACYAgency 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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

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
Drill/Broadcast Seeder with Tractor	25.00	\$12.22	\$88.67	1	\$100.89	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$196.59** **\$177.34** **\$500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$47.96	1	\$47.96	\$47.96

Subtotals: **\$47.96** **\$47.96**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION, CO	
Total one-way travel distance:	50.00	miles
Average Travel Speed:	50.00	mph
Total Non-Roadable Mob/Demob Cost *	\$2,141.04	
** two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	\$95.92	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.00	1.00
Return Time (Hours):	1.00	1.00
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.00	2.00

JOB TIME AND COST

Total job time:	6.00	Hours
Total job cost:	\$2,237	