

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

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May 21, 2014

Mark Cape
Colorado Mining Enterprises, LLC
5021 NE 23rd Terrace
Lighthouse Point, FL 33064

John W. Hickenlooper
Governor

Mike King
Executive Director

Virginia Brannon
Director

Re: CME Project, NOI No. P-2011-002, Modification No. MD-01, Modification is Adequate for Approval, Additional Financial Warranty Required

Dear Mr. Cape,

On May 21, 2014 the Division found that all technical issues were adequate with Modification MD-01 to your Notice of Intent to Conduct Prospecting. The Notice of Intent is currently bonded by a financial warranty posted in the amount of \$6,377.00. The Division has estimated the additional reclamation costs associated with the additional disturbance under this modification are \$2523.71. The additional reclamation costs exceed the amount of financial warranty (bond) currently posted, and additional bond must be submitted. The U.S. Forest Service office in Monte Vista, Colorado has been provided with a copy of the Division's estimate of reclamation costs.

The reclamation cost estimate for the additional disturbance is enclosed herewith for your information. Please review the costs and notify me promptly if you notice any errors or omissions.

At this time, the single remaining deficiency is the lack of sufficient bond. The Division has estimated the additional reclamation costs to be \$2,523.71, and an additional bond in this amount must be provided before the Notice of Intent can be fully approved. No prospecting activity may commence until the Division has reviewed and accepted the additional bond.

Please contact me if you have any questions: phone 970-247-5193, or email bob.oswald@state.co.us.

Sincerely,

Bob Oswald
Environmental Protection Specialist

Encl: Reclamation cost estimate

Ec: Barbara Coria, DRMS Denver
Russ Means, DRMS Grand Junction
Patrick J. Moran, USFS Monte Vista

(c:\14-05 docs\CME NOI MD-01 fw-appr/rco)

COST SUMMARY WORK

Task description: Cost summary

Site: CME Mineral Prospecting Project

Permit Action: MD-01

Permit/Job#: P2011002

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 5/8/2014

County: Mineral

Filename: P002-000

User: RCO

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
101	Remove debris	DEMOLISH	1	10.00	\$477.60
102	Close and seal one drill hole	BOREHOLE	1	6.00	\$319.59
103	Fill and regrade mud pits	LOADER	1	3.24	\$271.00
104	Fill troughs and trenching on roads	LOADER	1	0.34	\$29.00
105	Recontour pad and sump areas	DOZER	1	11.30	\$938.07
106	Carry topsoil to be respread on disturbed areas	LOADER	1	0.49	\$42.00
107	Spread topsoil on pad and sump areas	DOZER	1	0.58	\$48.44
108	Revegetate disturbed areas	REVEGE	1	4.00	\$0.00
SUBTOTALS:				35.95	\$2,125.70

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02%
Performance bond: 1.05%
Job superintendent: 0.00 hrs
Profit: 10.00%

Total = \$42.94

Total = \$22.32

Total = \$0.00

Total = \$212.57

TOTAL O & P = \$277.83

CONTRACT AMOUNT (direct + O & P) = \$2,403.53

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00%

Total = \$0.00

Reclamation management and/or administration: 5.00%

\$120.18

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$398.01

TOTAL BOND AMOUNT (direct + indirect) = \$2,523.71

Note: These costs comprise only the reclamation of the additional disturbance under MD-01, and are not included in the original NOI costs. Original costs include the equipment mobilization, and are not duplicated in this estimate.

DEMOLITION WORK

Task description: Remove debris

CME Mineral Prospecting
Site: Project

Permit Action:
MD-01

Permit/Job#: P2011002

PROJECT IDENTIFICATION

Task #: 101
Date: 5/8/2014
User: RCO

State: Colorado
County: Mineral

Abbreviation: None
Filename: P002-101

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.60 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Hand load debris	5 cy	Loading and 2 mile haul, no salvage - Hand loading	5.00	CY	\$34.28	\$171.40
Dispose of debris at landfill	5 cy	Dump fees - Lumber, trees, brush	5.00	CY	\$70.00	\$350.00

Job Hours: 10.00

Subtotal
(unadjusted): \$521.40

Total Cost
(adjusted for location): \$477.60

Note: These costs are for the additional debris items associated with disturbance under MD-01, which mainly consist of removal of straw wattles, the trough lumber, and plastic sheeting.

BOREHOLE SEALING WORK

Task description: Close and seal one drill hole

CME Mineral Prospecting
Site: Project

Permit Action:
MD-01

Permit/Job#: P2011002

PROJECT IDENTIFICATION

Task #: 102
Date: 5/8/2014
User: RCO

State: Colorado
County: Mineral

Abbreviation: None
Filename: P002-102

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Close one drill hole	Bentonite abandonment gel	2	595	595.00	LF	\$0.50	\$297.50
Cement seal one drill hole	Portland cement grout - 2 in. (labor, equip, materials)	2	3	3.00	LF	\$7.36	\$22.09

Job Hours: 6.00

Total Cost: \$319.59

Note: Drilling of up to four drill holes is approved under MD-01, but as these costs indicate, there may be only one drill hole open at a time. Interception of groundwater is anticipated, so this task includes complete filling of each bore hole with bentonite abandonment gel (per the requirements of Hard Rock Rule 5.4) followed by capping with cement plug.

WHEEL LOADER – LOAD AND CARRY WORKTask description: Fill and regrade mud pitsSite: CME Mineral Prospecting
ProjectPermit Action: MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**

Task #: 103 State: Colorado Abbreviation: None
 Date: 5/8/2014 County: Mineral Filename: P002-103
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 446D
 Attachment 1: ROPS Cab

Horsepower: 101
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$17.31	NA
Operating Cost/Hour:	\$30.37	100
Operator Cost/Hour:	\$35.82	NA
Total Unit Cost/Hour:	\$83.49	
Total Fleet Cost/Hour:	\$83.49	

MATERIAL QUANTITIES

Initial volume: 340 CCY Swell factor: 1.125
 Loose volume: 383 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.475 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	Small target 0.04	0.040	(Cat HB)
Net Cycle Time Adjustment:		0.100	minutes
Adjusted Basic Cycle Time:		0.575	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0
 Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	30	0.00	5.00	5.00	0.0212	(Cat HB)
Return Route:	30	0.00	5.00	5.00	0.0212	(Cat HB)

Total Travel Time: 0.0423 minutes
Total Cycle Time: 0.6173 minutes

Load Bucket Capacity

Rated Capacity: 1.50 LCY (heaped)
Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025
Adjusted Capacity: 1.54 LCY

Job Condition Correction FactorsSite Altitude: 9200 feet

Altitude Adj:	<u>0.95</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.79</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 149.44 LCY/Hour
Adjusted Hourly Unit Production: 117.83 LCY/Hour
Adjusted Hourly Fleet Production: 117.83 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 3.25 Hours
Unit cost: \$0.709 /LCY Total job cost: \$271.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Fill troughs and trenching on roadsSite: CME Mineral Prospecting
ProjectPermit Action: MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**

Task #: 104 State: Colorado Abbreviation: None
 Date: 5/8/2014 County: Mineral Filename: P002-104
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 446D
 Attachment 1: ROPS Cab

Horsepower: 101
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$17.31	NA
Operating Cost/Hour:	\$30.37	100
Operator Cost/Hour:	\$35.82	NA
Total Unit Cost/Hour:	\$83.49	
Total Fleet Cost/Hour:	\$83.49	

MATERIAL QUANTITIES

Initial volume: 35 CCY Swell factor: 1.165
 Loose volume: 41 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.475 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	Small target 0.04	0.040	(Cat HB)
Net Cycle Time Adjustment:		0.100	minutes
Adjusted Basic Cycle Time:		0.575	minutes

Rolling Resistance – Road Conditions

Haul: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0
 Return: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	30	0.00	4.00	4.00	0.0190	(Cat HB)
Return Route:	30	0.00	4.00	4.00	0.0190	(Cat HB)

Total Travel Time: 0.0381 minutes
Total Cycle Time: 0.6131 minutes

Load Bucket Capacity

Rated Capacity: 1.50 LCY (heaped)
Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025
Adjusted Capacity: 1.54 LCY

Job Condition Correction FactorsSite Altitude: 9200 feet

Altitude Adj:	<u>0.95</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.79</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 150.47 LCY/Hour
Adjusted Hourly Unit Production: 118.65 LCY/Hour
Adjusted Hourly Fleet Production: 118.65 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 0.34 Hours
Unit cost: \$0.704 /LCY Total job cost: \$29.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Carry topsoil to be respread on disturbed areasSite: CME Mineral Prospecting
ProjectPermit Action: MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**

Task #: 106 State: Colorado Abbreviation: None
 Date: 5/8/2014 County: Mineral Filename: P002-106
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 446D
 Attachment 1: ROPS Cab

Horsepower: 101
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$17.31	NA
Operating Cost/Hour:	\$30.37	100
Operator Cost/Hour:	\$35.82	NA
Total Unit Cost/Hour:	\$83.49	
Total Fleet Cost/Hour:	\$83.49	

MATERIAL QUANTITIES

Initial volume: 55 CCY Swell factor: 1.125
 Loose volume: 62 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.475 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Inconsistent operation 0.04	0.040	(Cat HB)
Dump Target:	Small target 0.04	0.040	(Cat HB)
Net Cycle Time Adjustment:		0.060	minutes
Adjusted Basic Cycle Time:		0.535	minutes

Rolling Resistance – Road Conditions

Haul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0
 Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	50	0.00	8.00	8.00	0.0476	(Cat HB)
Return Route:	50	0.00	8.00	8.00	0.0476	(Cat HB)

Total Travel Time: 0.0951 minutes
 Total Cycle Time: 0.6301 minutes

Load Bucket Capacity

Rated Capacity: 1.50 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 1.65 LCY

Job Condition Correction FactorsSite Altitude: 9200 feet

		Source
Altitude Adj:	<u>0.95</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.79</u>	multiplier

Unadjusted Hourly Unit Production: 157.12 LCY/Hour
 Adjusted Hourly Unit Production: 123.89 LCY/Hour
 Adjusted Hourly Fleet Production: 123.89 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 0.50 Hours
 Unit cost: \$0.674 /LCY Total job cost: \$42.00

BULLDOZER WORKTask description: Recontour pad and sump areasSite: CME Mineral Prospecting
ProjectPermit Action: MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**

Task #: 105 State: Colorado Abbreviation: None
 Date: 5/8/2014 County: Mineral Filename: P002-105
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D4K LGP - 4P
 Horsepower: 84
 Blade Type: Power Angle Tilt
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$31.48</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>

Total unit Cost/Hour: \$83.00
 Total Fleet Cost/Hour: \$83.00

MATERIAL QUANTITIES

Initial Volume: 842
 Swell factor: 1.165
 Loose volume: 981 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 300.0 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 15 %
 Average site altitude: 9,200 feet

Material weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.100</u>	<u>(CAT HB)</u>

Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2893

Adjusted unit production: 86.79 LCY/hr

Adjusted fleet production: 86.79 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.956/LCY

Total job time: 11.30 Hours

Total job cost: \$938.07

BULLDOZER WORKTask description: Spread topsoil on pad and sump areasSite: CME Mineral Prospecting
ProjectPermit Action: MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**

Task #: 107 State: Colorado Abbreviation: None
 Date: 5/8/2014 County: Mineral Filename: P002-107
 User: RCO

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D4K LGP - 4P
 Horsepower: 84
 Blade Type: Power Angle Tilt
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$31.48</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>

Total unit Cost/Hour: \$83.00
 Total Fleet Cost/Hour: \$83.00

MATERIAL QUANTITIES

Initial Volume: 55
 Swell factor: 1.000
 Loose volume: 55 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 300.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 15 %
 Average site altitude: 9,200 feet

Material weight: 2,550 lbs/LCYWeight description: Earth - Dry packed**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:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3141

Adjusted unit production: 94.23 LCY/hr

Adjusted fleet production: 94.23 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.881/LCY

Total job time: 0.58 Hours

Total job cost: \$48.44

REVEGETATION WORKTask description: Revegetate disturbed areasCME Mineral Prospecting
Site: ProjectPermit Action:
MD-01Permit/Job#: P2011002**PROJECT IDENTIFICATION**Task #: 108State: ColoradoAbbreviation: NoneDate: 5/8/2014County: MineralFilename: P002-108User: RCOAgency 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	\$0.33	\$65.40
			Total Fertilizer Materials Cost/Acre	\$65.40

Application

Description	Cost /Acre
Push rotary spreader (MEANS 32 01 90.13 0110)	\$87.56
	Total Fertilizer Application Cost/Acre
	\$87.56

TILLING

Description	Cost /Acre
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
	Total Tilling Cost/Acre
	\$145.20

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	1.00	3.24	\$7.08
Arizona Fescue - Redondo	1.25	14.35	\$13.79
Blue Grama - Native	1.00	16.32	\$10.35
Canby Bluegrass - Canbar	0.25	5.31	\$2.10
Sand Dropseed	0.15	17.91	\$1.05
Mountain Brome - Bromar	1.50	2.41	\$5.10
Slender Wheatgrass - San Luis	1.25	4.56	\$4.64
Western Wheatgrass - Arriba	1.25	3.16	\$4.60
Needlegrass, Green - Lodorm	1.00	4.16	\$5.39
Penstemon, Rocky Mountain	0.25	3.92	\$8.43
Yarrow, Western	0.10	6.08	\$3.07

Totals Seed Mix	9.00	81.41	\$65.58
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Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	40.00	BALE	\$10.60	\$424.00
Total Mulch Materials Cost/Acre				\$424.00

Application

Description	Cost /Acre
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$86.68

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: 0.25 Cost /Acre: \$1,135.70
 Estimated Failure Rate: 30% Cost /Acre*: \$625.02
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING
 Initial Job Cost: \$283.93
 Reseeding Job Cost: \$46.88
 Total Job Cost: \$330.80
 Job Hours: 4.00

Note: Proposed seeding rates in this MD-01 application are appropriate since they meet the optimal broadcasting amount of 80 pure live seeds per square foot. Seed and fertilizer applications are manual, followed by dragging the seeded areas with an ATV to incorporate the seed. This task also includes weed control treatment and mulching with straw.